Pilot project for the development of a common methodology on reference budgets in Europe

The development of a methodology for comparable reference budgets in Europe - Final report of the pilot project

October 2015

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Pilot project for the development of a common methodology on reference budgets in Europe
(contract no. VC/2013/0554)

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Executive Summary

- This is the final report of the 'Pilot project on developing a common methodology on reference budgets in Europe', financed by the European Commission. Reference budgets are illustrative priced baskets of goods and services, that represent a certain living standard. In this project, the targeted living standard corresponded to the minimum financial resources required for adequate social participation. The project had three main **objectives**. The first was to establish a reference budgets network composed of key experts and representative stakeholders, at national and EU level, to share experiences and expertise on reference budgets. The second objective was to develop a theoretical framework and a common methodology for developing cross-nationally comparable reference budgets in European Member States. The third goal of the project was to develop comparable food baskets for the capital city of a maximum number of Member States and as many as possible other baskets for the capital city of a selection of countries. In the end, a food basket has been developed for 26 EU Member States, and a basket for health care, personal care and housing for eight EU Member States.
- Previously, we have published two other **reports**. The first discusses the state of play of reference budgets practices in Europe, their strengths and weaknesses and establishes a common language to describe reference budgets[1]. The second report identifies quality criteria for assessing and developing reference budgets, reviews existing methods, and describes the proposed methodology for constructing comparable reference budgets in Europe[2]. The report also pays considerable attention to how comparability can be understood in this area, and to the implications of the important limitations to the robustness of fully-specified reference budgets. In this final report we present the theoretical framework, the methodology and the results of the project in detail. In addition, we illustrate how reference budgets can complement already existing social indicators by providing detailed information on the out-of-pocket cost of essential goods and services for households. Finally, we elaborate on areas for improvement, and the way forward for developing comparable and high quality reference budgets at the EU level. The results of the project are further documented in a database[3] which contains for each capital city the cost of the budgets developed in this project, and country reports which document the construction of the food basket in more detail.
- The project succeeded in bringing together a **network** of national experts and EU experts, working together on the development of cross-nationally comparable reference budgets in the EU. In each Member State, a national lead expert put together a team of researchers and liaised with other experts, especially nutritionists. For quite a few country teams, reference budgets were a new field of research. For most of them it proved to be a demanding endeavour to get acquainted with the idea of reference budgets and to develop a national food basket in accordance with the principles, the quality criteria and the methodology

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[1] Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014). *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.

[2] Goedemé, T., Storms, B., Van den Bosch, K. (2015). *Proposal for a method for comparable reference budgets in Europe*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p., , Contract no. VC/2013/0554, Brussels: European Commission, 104p.

[3] The database will be published on the following websites: http://ec.europa.eu/social/main.jsp?catId=1092&intPageId=2312&langId=en; http://referencebudgets.eu.

designed for this project. At the same time, for a few of the more experienced teams, it proved difficult to comply fully with the proposed method when it became clear that the proposed methodology could lead to differences in results compared with the reference budgets they developed previously as part of a national project. For this reason, over the course of the project, two experienced teams withdrew from the project (the Irish and UK teams). However, towards the end of the project nearly all country teams expressed their interest in continuing the network, and the importance of working towards a uniform application of standardised procedures for ensuring comparability and sufficient quality of the budgets across countries. In addition, a network of EU stakeholders and national stakeholders was developed. At the EU level, several meetings with EU stakeholder organisations were organised, in which the participants expressed their strong interest in and support for the project.

- The second objective of the project was to develop a common **theoretical framework** and a methodology that allowed for developing high quality cross-country comparable reference budgets. Adequate social participation was defined as the ability of people to adequately fulfil the various social roles one should be able to take as a member of a particular society. That is, to be able to take relevant social positions in line with the dominant social expectations associated with them. A basic list of social positions was identified starting from the European Convention on Human Rights and the Charter of Fundamental Rights of the European Union. In addition, we built on the Theory of Human Need[4] to identify a core list of needs that should be fulfilled in order to be able to adequately take these social positions. In a second stage, we assessed to what extent the list of social positions and essential needs resonated with the considered views of citizens through the organisation of 75 focus group discussions across 25 Member States. Even though the outcome of focus group discussions cannot be interpreted in a representative way, the results of this consultation suggest that there is sufficient common ground across the EU to start from this theoretical framework to develop comparable reference budgets in Europe.
- The methodology that was designed for this project starts from the following **principles**. Reference budgets are an instrument to build consensus in society about what is an adequate income, rather than a tool which can measure some form of 'already existing consensus'. The reference budgets should show the private (out-of-pocket) minimum costs of adequate baskets of goods and services, so that after tax household incomes can be compared to the budgets to assess adequacy. A mixed-methods approach is used for developing fully-specified reference budgets, that is, reference budgets based on complete and detailed baskets of goods and services, rather than actual aggregate household consumption expenditures. The approach starts from evaluating institutionalised social expectations, and reviewing the relevant scientific literature for assessing what could be an adequate norm for each basket of goods and services. If comparable data are available, these are given preference for measuring the cost of the identified baskets. In addition, focus groups are organised for assessing the general acceptability and completeness of the budgets. Further, the approach starts from the view that through their normative and very detailed character, without adequate data, reference budgets face a challenge of robustness. Therefore, they are essentially illustrative, and certainly not prescriptive. The method should maximise the potential for policy learning and comparability. Comparability was defined as a situation in which at the level of the reference budgets, needs for social participation are fulfilled at a similar level across household types and countries. This is the case if reference budgets differ

[4] Doyal, L., and Gough, I. (1991), A Theory of Human Need, Houndmills: Macmillan, 365p.

because, and only because, of differences in geographical or climatological conditions, in the institutional context, the cultural context or with regard to the availability, quality and price of goods and services. Finally, the method had to be feasible.

- The **methodology** applied in this project consists of six phases. (1) Preparation: the development of multi-disciplinary country teams that are able to cover the necessary expertise for the baskets under study, the development and consultation of a network of stakeholders at the national and EU level, and preparation of a handbook which collects the relevant international evidence and explains detailed instructions as well as tools for a harmonised collection of the results. (2) Orientation: country teams collect the relevant evidence on the local context in terms of actual consumption patterns, institutional context and well-considered views of what is an acceptable standard (through three focus groups). (3) Argumentation: country teams, in consultation with the three focus groups, put together a detailed list of goods and services, as well as a report which explains the motivation of why this list represents the minimum for adequate social participation. (4) Deliberation and pricing: consistency check by the coordinating team while country teams carry out a local price survey for identifying the cost of the basket of goods and services. (5) Arbitration: country teams resolve outstanding issues and develop the final baskets, as well as a country report. (6) Dissemination. This is the generic setup of the method that was applied. Given that the context for each basket of goods and services is different, the method has been refined for each of the baskets developed in this project.
- The development of fully-specified reference budgets can only be done for clearly defined **hypothetical households**. In this project, these were a single person at active age, a single parent with two children and a couple with two children. All households are assumed to live in the capital city of each country under consideration. By assuming that all household members are in good health and have sufficient capacities and access to information to be self-reliant, the reference budgets focus on the minimum resources required for adequate social participation. Arguably, if these conditions do not apply, households will need more resources. The focus on the minimum improves robustness and comparability of the results. For each of these hypothetical households a food basket has been developed (26 EU Member States), a health care basket (8 EU Member States), a personal care basket (8 EU Member States), and a housing basket (10 EU Member States). Together, the various baskets show how the generic methodology can be refined and adapted to very different contexts. The baskets were priced in March – April 2015.
- The context of the **food basket** is characterised by widely diverging eating patterns in Europe, a general lack of comparable data on food consumption and limited common guidelines regarding what constitutes a healthy diet. In addition, the public provision of food is limited. In this context we argued that starting from national food-based dietary guidelines would ensure the highest level of comparability in the sense explained before. Apart from the healthy eating function, the food basket also covers the necessary kitchen equipment, as well as essential goods and services for fulfilling other functions of food (e.g. social functions) and, for those countries with recommendations on physical activity in their national food-based dietary guidelines, the minimum cost for complying with the recommended amount of physical activity. The part of the budget related to healthy eating and kitchen equipment was relatively standardised. However, in response to strong discussions in the consortium regarding the exact role of focus group discussions, the part related to the other functions of food and physical activity was mainly left to the discussions in focus groups. It was possible to

develop a food basket for each capital city which reflects the minimum cost for a healthy diet, taking national food patterns and recommendations into account. Even though cross-national differences in the minimum cost of a healthy diet are wide, they vary much less than net disposable median incomes. Results also show that in some countries, public provision or subsidisation of school lunches can substantially reduce the cost of an adequate diet for children. In contrast, the level of the baskets representing the minimum cost of the other functions of food and physical activity is hard to compare across countries. During the final conference, country teams generally argued in favour of more standardised procedures to improve the quality and comparability of this part of the basket.

- Given its importance for the project, several **sensitivity analyses** were carried out. It turned out that food-based dietary guidelines differ strongly across countries in terms of the minimum recommended amounts in various food categories, their level of detail, timeliness and quality. This means that even though the food baskets (or at least the healthy eating part) are comparable in the sense that they reflect the minimum cost of eating in accordance with national food-based dietary guidelines, they do not necessarily reflect the same level of adequacy across countries. In addition, we assessed the impact of the pricing procedure and evaluated the role of focus groups in the method. The analyses confirm the importance of elaborate coordination, standardised procedures, and committed researchers to maximise robustness and comparability. In addition, the quality and comparability of the food baskets could be strongly improved by working towards more harmonised food-based dietary guidelines that differ cross-nationally only for objective reasons. Furthermore, comparable food consumption data as well as price data would open up the opportunity to pursue a more robust, data-driven approach as is currently used by the U.S. Department of Agriculture for developing adequate food baskets at different price levels.
- The context of the basket for **health care** is characterised by a substantial body of literature regarding the necessities for staying in good health; relatively detailed public guidelines regarding adequate health care; and a strong involvement of the public sector in providing or subsidising essential goods and services. The basket for health care covers what healthy people need at the minimum to stay healthy. The basket has been developed for the capital cities of Austria, Belgium, Greece, Finland, Hungary, Italy, the Netherlands and Spain. The reference budgets show that due to variations in the organisational setup of health care and health insurance, differences in local prices and in the reimbursement practices across countries, there is a lot of variation in the level and composition of the baskets for health care between the eight countries. Differences are especially remarkable with regard to the cost of mandatory insurances, co-payments, and the cost of contraception. The presentation of the health care basket also shows that sometimes further standardisation is necessary to bring the exact reasons for cross-national variations to the surface and to show how generous various welfare states are in providing health care for their citizens. A major challenge and potential added value lies in elaborating the basket further to show also the cost of health care in the case of specific (chronic) diseases or disabilities.
- The domain of **personal care** is characterised by limited scientific evidence, few official guidelines and recommendations, and no public provision. Clearly, in this context it is particularly challenging to develop a basket that represents the essential goods and services for adequate participation that is sufficiently robust and comparable across countries. A personal care basket was developed for the same capital cities that are covered by the basket of health care. Results show that the outcome is sensitive to specific assumptions, such as the number of visits to a hairdresser. In this context, sufficient standardisation is key. The discussion

of the literature and evidence regarding adequate personal care is informative and has educative potential, but the methodology for putting together the baskets requires further refinement to make the endeavour sufficiently robust and cost-effective. The basket could be further improved in two ways: (1) by organizing an in-depth consultation of citizens on this topic (as foreseen in the original methodology, and preferably on a representative basis); (2) by inquiring whether some aspects of this basket would better be covered on the basis of real expenses by households as documented in, for instance, household budget surveys.

- In contrast to food, health care, and personal care, in the area of **housing** comparable data on the quality and price of dwellings are available. In addition, some international and national public guidelines have been developed regarding minimum quality standards. Also, in many countries public authorities play an important role in realising adequate housing, among others through providing social housing. Finally, housing is characterised by strong heterogeneity: most dwellings differ from one another in at least some respect. In this project, a housing basket covering both the cost of (reduced) rent and other housing costs was developed for 10 capital regions, including Athens, Budapest, Brussels, Helsinki, Luxembourg, Madrid, Sofia and Vienna, as well as the Netherlands. Results show the strong variation in housing costs of adequate dwellings across Europe, and the important effect that reduced rent can have on the minimum cost of adequate social participation. Further, the basket shows how a robust and comparable basket can be developed when comparable data of sufficient quality are available. Such a data-driven approach limits room for judgment by individual researchers, increasing the robustness and comparability of the results. Also, it allows for sensitivity analyses and the computation of the statistical reliability of the estimated costs. It is clear that also for other baskets such a data-driven approach would benefit the quality and comparability of the budgets.
- Reference budgets have the potential to generate an important added value to already existing social indicators as a **tool for monitoring the social situation and policy learning**. Illustrative exercises show that the reference budgets are useful for contextualising other social indicators, notably the at-risk-of-poverty indicator. For instance, the budgets help to understand what kind of living standard is feasible at the level of the at-risk-of-poverty threshold, in a very tangible way. First results suggest that the at-risk-of-poverty threshold represents different levels of adequacy across capital cities in Europe. For people living in the capital city of Romania eating in accordance with the national food-based dietary guidelines accounts for over 80 per cent of the at-risk-of-poverty threshold (single person household). In contrast, in a country such as Luxembourg, this amounts to about 10 per cent of the at-risk-of-poverty threshold (single person household). Second, reference budgets have the potential to be used as a benchmark for assessing the adequacy of net incomes, and in particular minimum income schemes. For instance, first results suggest that families (especially those with children) living in the capital city on minimum income schemes in poorer European countries cannot afford a healthy diet in accordance with the national food-based dietary guidelines. Obviously, if other essential needs would be taken into account, minimum income schemes seem not to be fully adequate in quite a few other countries as well. However, and importantly, this also means that the usefulness of complete reference budgets as a benchmark against which the adequacy of minimum incomes can be assessed, differs between countries. At the same time, though, also for those countries where raising minimum incomes to the level of the complete reference budgets would be clearly overly ambitious in the medium term, complete reference budgets could be a useful instrument to (1) show that raising the adequacy of minimum incomes is not only or necessarily about increasing the level of benefits, but can also be achieved by reducing the cost of essential goods and services; (2) help to identify goods and services that

weigh particularly heavily on a budget for adequate social participation, and so may receive priority for policy action; (3) facilitate cross-national learning by showing how other countries reduce the cost of essential goods and services and improve accessibility; (4) help to formulate intermediate benchmarks. In addition, reference budgets can be used for evaluating policy changes over a period of time, or as a tool for ex ante policy impact evaluations. Third, reference budgets can potentially be used as an instrument to identify and better understand social problems. For instance, if combined with other data, the food basket could help to gain more insight into food insecurity and unhealthy eating patterns in Europe. The baskets developed in this project are preliminary. Even though first results show how reference budgets could create an added value for research and informing the policy-making process, additional research is required.

- The reference budgets developed in this project could be improved and extended in many ways. However, we do not recommend to rush into expanding the approach immediately to all EU Member states in an effort to cover all baskets in all countries for a wide range of hypothetical households. We strongly recommend: (1) to focus on the development of policy indicators which indicate the cost of essential goods and services in which public authorities usually play an important role through direct provision or subsidisation; (2) to allow for sufficient time and resources to first refine the methodology before applying it for creating policy indicators in all EU Member States; (3) to stimulate targeted experiments for improving the methodology, especially with regard to the consultation of citizens and the pricing procedure, preferably in collaboration with National Statistical Institutes; (4) to look for synergies with other DGs that may have an interest in aspects of reference budgets research that are also relevant for them, for instance with regard to the lifespan of durables; (5) to carefully consider the possibility of organising a special Eurobarometer survey dedicated to reference budgets, to fill important empirical gaps, and to improve the context information, robustness and comparability of the budgets; (6) to invest some resources in improving the 'infrastructure' of reference budgets research, including the network and the tools that are used for collecting the data in harmonised data files.

1 Introduction

The first article of the Charter of Fundamental Rights of the European Union reads

> "Human dignity is inviolable. It must be respected and protected."

The EU and the EU Member States have committed themselves to enable their populations to lead a life in accordance with human dignity. What, however, is a life in accordance with human dignity? Throughout the project, we have defended the view that it should at least include the capability of adequate social participation, that is, being able to adequately take and make the various social roles one should be able to take as a member of a particular society (cf. Storms, 2012). In the highly monetised economies of Europe, this begs the question how much financial resources households need in order to be able to realise adequate social participation in their society. This is the question with which this report is concerned.

Over the past 30 years, the Council, the European Commission and the European Parliament have emphasised the importance of active inclusion policies and adequate minimum income support for ensuring a decent life to all citizens (e.g. Council of the European Communities, 1992a, 1992b; European Commission, 2008; European Parliament, 2009; European Council, 2010; European Parliament, 2010; European Commission, 2013). Supported by, among others, the European Parliament (2010, 2011) and the European Economic and Social Committee (2013), the European Commission (2013) proposed the development of comparable reference budgets as an instrument to help Member States design efficient and adequate income support and to facilitate the Commission's task of monitoring the adequacy of income support in Europe. Reference budgets are illustrative priced baskets of goods and services that represent a given living standard (cf. Bradshaw, 1993: 1). In contrast to many other social indicators, reference budgets can show the impact of publicly provided goods and services on the living conditions of households. Reference budgets are widely used in Europe, and serve many purposes (Storms et al., 2014). At present, however, reference budgets are largely created independently of one another, using different methods, with the consequence that results are not comparable across countries, with very limited potential for cross-national learning. Only if they are comparable across the EU Member States, reference budgets can be used to assess in which countries income support measures (and incomes in general) are more adequate than in other countries and why this is the case. Only then, it is possible to identify best practices and set up a process of policy learning regarding how different countries succeed in guaranteeing adequate incomes and which policy reforms could lead to a structural improvement of income adequacy.

This is the final report of a pilot project, funded by the European Commission, on developing a common methodology for comparable reference budgets in Europe. The pilot project had three main objectives. The first was to establish a reference budgets network composed of key experts and representative stakeholders, at national and EU level, to share experience and expertise on reference budgets. The second objective was to develop a theoretical framework and a common methodology for developing cross-nationally comparable reference budgets in European Member States. The third goal of the project was to develop comparable food baskets for the capital city of a maximum of Member States and as many as possible other baskets for the capital city of a selection of countries.

In a previous paper (Storms et al., 2014), we described the current use of reference budgets in Europe and documented their advantages and disadvantages. We also detailed some preparatory steps for the development of a common methodology. In a follow-up paper (Goedemé et al., 2015), we developed a common language for

discussing reference budgets, spelled out clear quality criteria for evaluating reference budgets and assessed existing methods for constructing reference budgets. We concluded that the development of comparable fully-specified reference budgets requires a new method, specifically designed for that purpose. In addition, we elaborated at some length on what cross-country comparability means in the context of reference budgets for adequate social participation. Finally, we formulated a concrete proposal for a methodology for comparable reference budgets.

In this final report, we describe the results, lessons learned and way forward. It should be considered a part of a much larger report, including country reports for 25 EU Member States on the developed food baskets, and 'fact sheets' which summarise the results, published by the European Commission. All reports can be downloaded from the website of DG Employment, and the website of the EU Reference Budgets Network[5]. The report is structured as follows. First, in Chapters 2 and 3 we reiterate some aspects of the methodological paper mentioned above. In Chapter 2, we explain the targeted living standard, target population and general assumptions of the approach in more detail, paying particular attention to cross-national comparability. In addition, drawing on international declarations and about 75 focus groups that were organised across the EU, we assess to what extent there is common ground across EU Member States for interpreting what 'adequate social participation' exactly means. In Chapter 3 we explain the broad setup of the methodology that was developed for constructing comparable reference budgets. In addition, we evaluate its implementation, especially with regard to the aforementioned focus groups that were organised in the context of this project. Further evaluations of the methodology are described throughout the report, separately for each basket of essential goods and services.

Chapters 4, 6, 7 and 8 report on the application of the common method to developing a food basket, a basket for health care, personal care and housing respectively. Taken together, the four baskets illustrate well how the general methodology can be applied in different contexts. For each of the baskets, we (1) review the relevant scientific literature for identifying what an adequate basket could look like; (2) identify institutionalised social expectations; (3) refine and adapt the general methodology to the specific basket under consideration; (4) present the first results and carry out some sensitivity checks; (5) formulate methodological conclusions with regard to how the quality of the basket could be improved in the future.

The food basket has been developed for three 'hypothetical household types' living in the capital city of 26 EU Member States. When developing a food basket, it is important to recognise the wide differences in eating patterns and expenditures on food across Europe. Even though there is a significant body of scientific literature on the relation between food and health, the development of a comparable food basket is further challenged by a general lack of comparable data on food consumption patterns and practices, and food prices. However, in most countries it is possible to observe institutionalised social expectations regarding what an adequate diet should consist of. Finally, the domain of food is characterised by very limited public provision. Chapter 4 describes how in this context we have developed a food basket, and the main results of this endeavour. Given the importance of the food basket in this project, we have dedicated separate chapter to the evaluation of its robustness, validity and comparability (Chapter 5).

As is the case for food, also in the domain of health care we can draw on a substantial body of literature regarding the necessities for staying in good health. In addition, also in this case most countries have detailed public guidelines regarding adequate health

[5] See http://ec.Europa.eu/social/main.jsp?catId=1092&intPageId=2312&langId=en; and http://referencebudgets.eu.

care. In contrast to food, the domain of health care is characterised by strong involvement of the public sector in providing or subsidising essential goods and services. In Chapter 6 we report on how we constructed in this context a health care basket that represents what healthy people need at the minimum to stay healthy. The basket has been developed for the capital cities of Austria, Belgium, Greece, Finland, Hungary, Italy, the Netherlands and Spain. In contrast, the domain of personal care is characterised by limited scientific evidence, few official guidelines and recommendations, and no public provision. Clearly, in this context it is particularly challenging to develop a basket that represents the essential goods and services for adequate social participation that does not appear to be overly arbitrary or incidental. In Chapter 7 we report on the development of the personal care basket, for the same capital cities that are covered by the basket of health care.

In contrast to food, health care, and personal care, in the area of housing comparable data on the quality and price of dwellings are available. In addition, some international and national public guidelines have been developed regarding minimum quality standards. Also, even though with strong variations across countries, public authorities play an important role in realising adequate housing, among others through providing social housing. Finally, housing is characterised by strong heterogeneity: most dwellings differ from one another in at least some respect. The housing basket presented in Chapter 8, shows how reference budgets can be developed when high quality comparable data are available. In addition to the capital cities of the countries mentioned before, the housing basket has also been developed for Sofia (BG) and Luxembourg (LU).

In Chapter 9, we bring the baskets together and illustrate how reference budgets can be used as a tool for policy evaluation and policy learning. More in particular, we show how reference budgets can be used for contextualising social indicators; for evaluating the adequacy of minimum income protection; for assessing policy reforms taking into account changes in the accessibility and cost of public services; and for better understanding important social problems, such as food insecurity. We also point to limitations of comparable reference budgets as a tool for policy makers. In many ways, this report is not an end point, but rather a starting point for developing comparable reference budgets of sufficient quality for policy purposes in Europe. This was a pilot project, and we present some 'pilot baskets'. Undoubtedly, in spite of the efforts of many, the quality of quite a few of these baskets can be further improved, as better data become available and more people have found the time to take a close look at them. Therefore, in Chapter 10, we elaborate at some length on areas for improvement, including potential extensions of the reference budgets developed in this project, improvements to the pricing procedure, improvements to (communicating about) lifespan assumptions, improvements in the consultation of citizens, and in the infrastructure for developing high-quality, robust, and comparable reference budgets in Europe. Finally, we conclude with the principal lessons learned in Chapter 11.

Before concluding this introduction, we wish to sincerely thank all partners in this project who have contributed to its success. We are strongly convinced that if further investments are made, reference budgets have the potential to become an important and very informative tool for policy making in Europe, in particular in the area of realising a decent living standard for all. Without a committed network of experts, researchers, citizens and stakeholders, and policy makers willing to make use of it, this would not be possible.

References

Bradshaw, J. (1993), *Budget Standards for the United Kingdom*, Aldershot: Avebury, 249p.

Council of the European Communities (1992a), *Council Recommendation of 24 June 1992 on common criteria concerning sufficient resources and social assistance in social protection systems*, 92/441/EEC, OJ L 245, 26/08/1992, 46-48p.

Council of the European Communities (1992b), *Council Recommendation of 27 July 1992 on the convergence of social protection objectives and policies*, 92/442/EEC, OJ No L 245, 26.8.1992, 49-52p.

European Commission (2013), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Towards Social Investment for Growth and Cohesion – including implementing the European Social Fund 2014-2020*, COM(2013) 83 final, Brussels: European Commission, 23p.

European Commission. (2008), 'Commission Recommendation of 3 October 2008 on the active inclusion of people excluded from the labour market (notified under document number C(2008) 5737)' in *OJ L 307, 18.11.2008,* 2008/867/EC: 11-14.

European Council (2010), *European Council 17 June 2010 Conclusions*, Brussels: European Council, 15p.

European Economic and Social Committee (2013), *Opinion of the European Economic and Social Committee on European minimum income and poverty indicators* SOC/482, Brussels: EESC, 10p.

European Parliament (2009), *European Parliament resolution of 6 May 2009 on the active inclusion of people excluded from the labour market (2008/2335(INI))*, T6-0371/2009, Brussels: European Parliament.

European Parliament (2010), *European Parliament resolution of 20 October 2010 on the role of minimum income in combating poverty and promoting an inclusive society in Europe (2010/2039(INI))*, TA(2010)0375, Brussels: European Parliament.

European Parliament (2011), *Resolution of 15 November 2011 on the European Platform against poverty and social exclusion (2011/2052(INI))*, Strasbourg: European Parliament.

Goedemé, T., Storms, B., and Van den Bosch, K. (2015), *Proposal for a method for comparable reference budgets in Europe*, Pilot project: developing a common methodology on reference budgets in Europe, contract no VC/2013/0554, Brussels: European Commission, 104p.

Storms, B. (2012), Referentiebudgetten voor maatschappelijke participatie [Reference budgets for social participation], PhD thesis, Antwerp: University of Antwerp, 475p.

Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014), *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.

2 Key choices[6]

Tim Goedemé, Bérénice Storms, Karel Van den Bosch, and Tess Penne

When developing reference budgets, essential choices to be made include the targeted living standard, the target population and the hypothetical household situations (model families, or reference households) for which the budgets are developed (Goedemé, Storms, and Van den Bosch, 2015). In this chapter, we first describe the targeted living standard, and subsequently the target population and selected model families.

2.1 The targeted living standard

For this pilot project, we defined the targeted living standard as the minimum financial resources required to participate adequately in society. Adequate social participation is further defined as the ability of people to adequately take and make the various social roles one should be able to take as a member of a particular society (cf. Storms, 2012). Being able to adequately take social roles, means that the material and other needs are fulfilled to take social positions in line with the dominant social expectations associated with them, as embodied by the institutions of the society in which one lives, and in such a way that it does not cause harm to one's possibilities to do so in the future. In addition, adequate social participation implies that people should also be able to contribute to society by having the opportunity to redefine their social roles[7].

There is no standard definition of social participation (e.g. Fudge Schormans, 2014). The definition we propose includes more than 'participating in the life of the community', and is broader than many definitions of social participation (see Levasseur et al., 2010 for a survey of definitions of social participation). The link between social participation and social roles can also be found in definitions of social participation as social engagement or social involvement and more generally in disability studies (e.g. Berkman et al., 2000; Utz et al., 2002; Noreau et al., 2004; Glass et al., 2006; Badley, 2008). In our view, the main advantage of the definition of social participation in terms of social roles, is its facilitating potential for translating an abstract concept of 'adequate social participation' into an illustrative list of goods and services. Furthermore, its broad and encompassing character aligns it better with the targeted living standard that is covered by many reference budgets in Europe (cf. Storms et al., 2014) and with the purposes of reference budgets envisioned by the European Commission. Finally, it is probably more in line with popular meanings of 'being a member of society'.

We would like to highlight briefly several important elements of our definition of the targeted living standard. First, we define social roles as the social expectations attached to a position that someone in society takes (cf. 'scripts for social conduct' as in Biddle, 1986; Platt, 2001)[8]. For the purposes of this project, we focus on social positions defined in broad terms (e.g. being a mother, being an employee, being a citizen,…) which society recognises as those that its members should be able to take

[6] Some paragraphs in this chapter were originally published as part of the methodological paper, see Goedemé, Storms, and Van den Bosch (2015).

[7] We recognise the essential role in society of role making, rather than only role taking, even though we take the redefinition of social roles only into account insofar this is part of the social expectations associated with taking essential social roles. However, it must be stressed that the material preconditions at the household level (that is, the minimum necessary financial resources) are unlikely to differ much for 'role making' and 'role taking'.

[8] Several more accessible texts are available (cf. Marshall, 1998; Giddens, 2001: 28-29; de Swaan, 2007).

or should be given the opportunity to take at the minimum. Importantly, social positions should not be understood as a nearly fixed social status or structural position in the Weberian sense (cf. Scott, 2001). In contrast, we focus on social positions that everyone should be able to take, regardless of their socio-economic status. Our focus on the minimum necessities for adequate role taking does not imply that our definition promotes conformity with dominant patterns of behaviour. Rather, it stresses the importance of having the opportunity to comply with dominant social expectations, and a having real choice to deviate from the norm if one wants to, without being forced to deviate from the norm by lack of adequate financial resources.

Second, we define social expectations more broadly as commonly held expectations regarding what people (are able to) think, have and do, *as embodied by the institutions of a society*. We use the concept of 'institutions' in a dual way (cf. Voss, 2001): (1) institutions as socially constructed rules; and (2) institutions as relatively stable patterns of behaviour and interaction, which are often in close interaction with the latter socially constructed rules. Vrooman (2009) elaborates at some length on the kinds and nature of institutions as socially constructed rules. As emphasised by Vrooman (2009) one can make a distinction between formal rules (including meta-rules, rules for government production, third-party recognition, and formal private contracts), and informal rules (including values, social norms, conventions, and informal contracts) that regulate society. From this it follows that for studying the minimum resources required for adequate social participation, it is essential to study the institutional context in which people live, and how this affects the social expectations with which they are confronted. Therefore, the approach that we have followed in this project, takes the formal institutional context always as the starting point for defining what an adequate minimum is.

Third, we recognise that society is not a fixed social entity. In fact, systems of political authority and cultural expectations may be multi-layered (cf. Mau and Verwiebe, 2010), with some forms of political authority being worldwide, some European, some 'national' and others being rather regional or local. The same is true for dominant cultural expectations which may grow more distinct between local regions, while at the same time some cultural expectations may become European, and even worldwide. Also, societies can be plural, that is, they can be deeply divided along cultural, religious, ethnic or other lines (e.g. Nagata, 2001). In other words, when constructing reference budgets, we pay attention to the *dominant* social expectations that relate to the place where people live, including their worldwide, European, national, regional and local aspects.

Fourth, with regard to the minimum required financial resources, it is important to note that the reference budgets focus on the out-of-pocket payments by private households, net of what should be paid in taxes and social contributions. In other words, we look for the minimum required disposable household income, taking account of subsidised goods and services that are provided free or at reduced prices. For another exercise, it may be useful to convert these net amounts into gross amounts, for instance to assess the adequacy of gross income levels (cf. Gould et al., 2015).

Fifth, it is clear that we focus on the material needs of households, assuming that the political and institutional context is organised such that it respects essential freedoms and is conducive to adequate social participation. Given that in this project we develop reference budgets for EU Member States, with functional democracies and a middle to high level of development, we assume that these 'procedural' or societal preconditions are in place (for a discussion of societal preconditions, see for instance Doyal and Gough, 1991). Clearly, when developing reference budgets it is essential to also assess the accessibility of these crucial institutions. However, the political context and the overall quality of major institutions such as education and health care is not our main focus in this project.

Finally, it is important to make clear that we fully recognise that any targeted living standard unavoidably has a degree of elusiveness, regardless of the exact terms in which one tries to define it. Even if it would be perfectly clear what is meant with adequate social participation and if everyone would understand it in the same way, we do not believe there is one particular threshold that could be identified. However, this does not necessarily preclude the possibility of *estimating* a lower bound on the minimum required financial resources by making very specific assumptions about the characteristics of the model families (see below). Still, we are convinced that having one Euro less or more than this lower bound would not mean a substantial change in one's ability to participate adequately in society. In this sense, social participation and the associated required resources are fundamentally gradual. In our previous report, we have described at some length the implications of this for the options and pitfalls in designing a method for developing cross-country comparable reference budgets (Goedemé, Storms, and Van den Bosch, 2015).

From this discussion of the targeted living standard, it is clear that for developing reference budgets we should identify the formal and informal social expectations with which people are confronted, as well as the cost of essential goods and services. Obviously, many other factors are equally relevant. One of the important merits of the capability approach is its emphasis on the fact that the level of economic resources that individuals need for reaching the same living standard, the life one values, or the same level of social participation, varies by personal characteristics and social circumstances: "What is really important is to take note of the interpersonal and inter-social variations in the relation between income and capabilities" (Sen, 1983: 41). In other words, reference budgets that aim at some level of representativeness and comparability, must address these interpersonal and inter-social (contextual and cross-national) variations. In the sections that follow, we elaborate briefly on how we have done so in this pilot project.

2.2 The importance of individual circumstances: defining the target population and selected hypothetical households

Given that the minimum required financial resources for adequate social participation can be expected to vary with individual circumstances, it is important to specify clearly for which reference population or target population the reference budgets are constructed. In this pilot project, the target population can be defined as children and persons at working age, in good health, without disabilities, and living in an urban environment (the capital city). The capital city was chosen as a point of reference in the European Commission's call for tender for this project. Obviously, the social context and the price level structure of the capital city is not necessarily representative for the entire country in which the capital city is located. However, we are convinced that for the purposes of this pilot project it was a useful starting point for developing a common methodology and showing the strengths and weaknesses of the implemented approach.

For the purpose of developing fully-specified reference budgets, this definition of the target population is still too vague. A specific list of essential goods and services can only be developed with a very concrete household in mind. In line with the call for tender of the European Commission, in this pilot project we developed reference budgets for three different 'model families'[9]:

- A single-person household (male / female)
- A single parent household with two children
- A couple with two children

[9] Model families can also be described as 'hypothetical households' or 'reference households'.

The adults are in working age (about 40 years old). The children are assumed to be a boy in primary education (about 10 years old) and a girl in secondary education (about 14 years old). Furthermore, we make the following assumptions:

- Health: all household members are in good health. The reason for this assumption is not so much that this is the most common health condition (that is debatable), but rather that costs for health care vary enormously depending on the kind and severity of health problems, each having different implications for the needs of the person affected.
- Competences: family members are well-informed persons, having the necessary competences to be self-reliant, make the right decisions with regard to their health and safety, and are able to act economically (know their social rights and how to access public goods and services, are able to compare prices and buy the products with best value for money, can cook economically and healthily with sufficient variation, etc.).
- Government-provided goods and services: we start from actual provision against actual prices, insofar these are accessible for low-income households. The latter condition implies that sometimes judgment needs to be applied, when accessibility is limited by low supply or other factors. An example are regular dental check-ups in a country with a national health service (NHS). Waiting lists for NHS-linked dentists can be very long, but are not necessarily problematic for annual check-ups, as these can be planned well in time. However, for visits in case of dental pain waiting lists can be too long. In this case national experts could include a visit to a private dentist. Similar arguments may apply to public transport, health care and education.

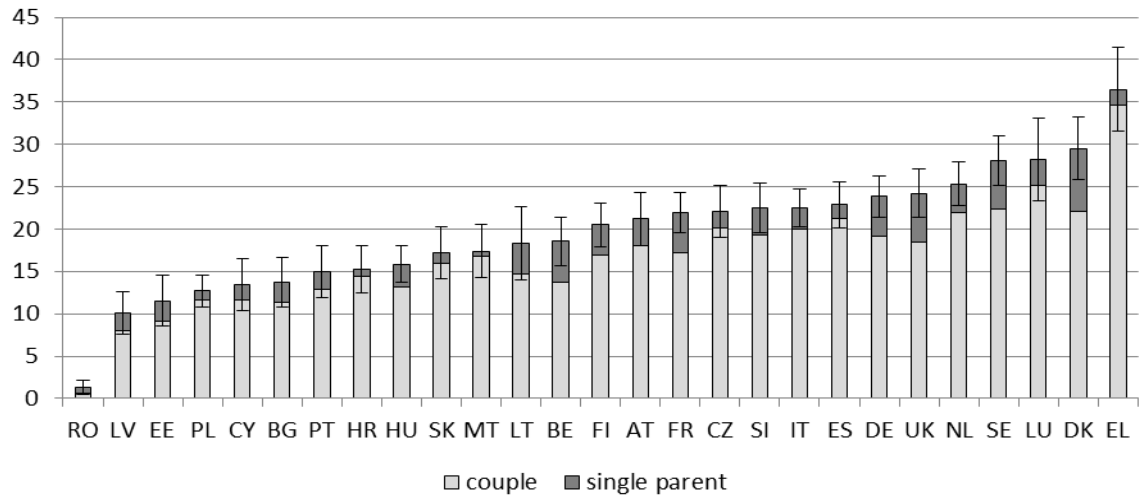
For each family type, and insofar this is relevant for the national context, we developed reference budgets for a range of tenure statuses, including tenants paying at prevailing market prices, tenants paying reduced rent, as well as outright homeowners.

Finally, we developed long-term reference budgets which should give people access to the targeted living standard for an undetermined period of time. In other words, the reference budgets include some room for saving in order to gradually replace durables and to be able to cover one-off or yearly costs. This implies that we assume the model households are an 'on-going concern', that they have access to all goods and services that are included in the reference budgets from the moment they should start living on a budget at the level of the reference budgets. In other words, if a young person without any assets would move out to start a new family, the reference budgets would not suffice for covering the initial cost of buying all necessary durables at once.

From these assumptions, it will be clear that the reference budgets are targeted at the minimum financial resources required to participate adequately in society. We believe these assumptions increase the feasibility and internal validity for identifying the minimum resources required for adequate social participation. However, this comes at a cost of lower external validity. In real-life situations, more resources will usually be needed because people's budgeting capacities are not always optimal, resources are not always spent in the most optimal or economic way, people could be more often confronted with diseases or lack the information we had access to in order to construct economical reference budgets. By making these assumptions, we focus on the minimum below no-one can go (including someone in good health, with good budgeting capacities and who is well-informed) without compromising on her capability to participate adequately in society. At the same time, though, it should be clear that it is of utmost relevance to describe potential consequences of these assumptions for the reference budgets, and to develop in the future reference budgets also on the basis of other assumptions (e.g. in case of specific health problems).

When working with hypothetical households to develop an indicator, representativeness is not the main goal, and cannot be achieved cross-nationally (for a more elaborate discussion in the context of tax-benefit model family simulations, see Van Mechelen et al., 2011). In fact, household structures vary widely across the European Union (e.g. Iacovou and Skew, 2010). As a result, the model families included in this pilot project are chosen as a 'test case' primarily for their simplicity and not because they would represent the most typical situation. As is shown in Figures 1 and 2, the household composition of the model families does nearly nowhere reflect the situation of the majority of the target population. At the same time, it is clear that the 'representativeness' of the household composition varies strongly, and is problematic in the case of Romania. Hence, it is highly recommended to add other model families in the future, such that a wider range of the population is 'covered', in particular in some of the Southern and Eastern EU Member States. An alternative approach would be to select the 'most typical' household composition for every country, but then it would become difficult to compare the minimum cost of adequate social participation cross-nationally, which is the primary focus of the project. At the same time, it should be remembered that household composition is likely to be to some extent dependent on the budget constraints people face (see Iacovou, 2013 for an exploration). Insofar current household composition is not the result of a positive choice, it is relevant to show the cost of living in a household for hypothetical, but not so prevalent, household situations.

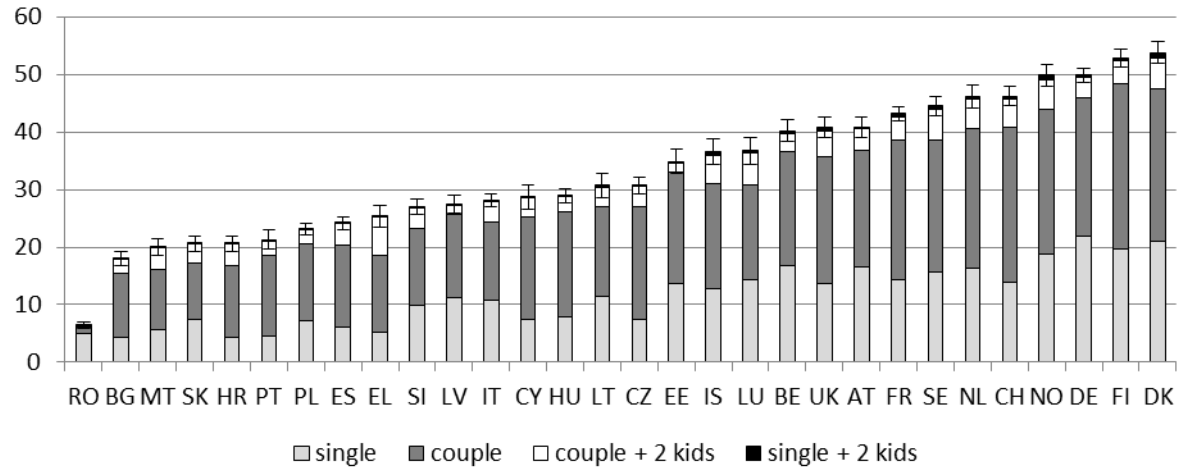
Figure 1: Percentage of children aged between 7 and 16 years old living in a household consisting of a single parent or a couple aged between 30 and 60 years and two children between 7 and 16 years old, 2011.



Note: 95% confidence intervals are shown for the total (living in couple and single parent households) and take as much as possible account of the sample design (see Goedemé, 2013).

Source: EU-SILC 2011 UDB, revision 1, own calculations.

Figure 2: Percentage of the population aged between 30 and 60 years living as a single, in a couple, a single parent with two children aged between 7 and 16 or a couple with two children aged between 7 and 16 years old, 2011.



Note: 95% confidence intervals are shown for the for household types taken together and take as much as possible account of the sample design (see Goedemé, 2013).

Source: EU-SILC 2011 UDB, revision 1, own calculations.

2.3 Bringing the social context in: Cross-national differences and comparability

As mentioned earlier, the minimum resources for adequate social participation do not only depend on individual characteristics and circumstances, but also on the context in which people live. Indeed, one of the main purposes of this pilot project is to identify a methodology which allows for developing reference budgets that are comparable across different contexts. In our previous report (Goedemé, Storms, and Van den Bosch, 2015), we have discussed at some length the requirements of substantive comparability and various approaches for maximising comparability. Here, we reiterate some of the most important points. Reference budgets can be expected to correspond to the same level of adequacy in different contexts if differences between reference budgets fully reflect, and are limited to, those emanating from cross-national variations in: institutional context; climate and geographical conditions; culture; and in the availability, quality and price of goods and services. We briefly elaborate on each of these dimensions, even though we are well aware they overlap to some extent.

i. Institutional differences. This includes both the availability of publicly-provided goods and services, guidelines, and any obligations imposed by the government, but also the way the economy and social life are organised. Examples of the former are typically found in health care, education, childcare, social housing and public transport. Particular attention should be given to their accessibility for low-income households. E.g. if the supply of public childcare is so limited that low-income households cannot expect to have access to it, private forms of childcare should be assumed. Limited supply or limited use should be shown by reference to public figures or survey results. In addition, institutional differences relate to requirements imposed on, or expected from citizens. Examples of obligations imposed by the government are requirements for finding work, e.g. the maximum time or distance for travel to work, or health care, e.g. required vaccinations.

ii. Climate and geographical conditions. First, depending on the climate, clothing requirements may differ. Since all EU countries experience both cold and warm periods, though to different degrees, this will affect the proportion of warm vs. light

clothing. Next, the climate will be particularly important for the costs of heating and related items (e.g. insulation). Further, geographical conditions may affect transportation options. In some countries, cycling may be a realistic option, while in other countries or cities, hills, as well as traffic conditions may preclude this.

iii. Culture. Social expectations regarding the roles that people should be able to play, can be expected to differ in important respects cross-nationally. Also, due to cultural habit, persons and households in different countries may meet the same needs with different culturally determined goods and services.

iv. Availability, quality and price. Cultural preferences, economic development and the purchasing power of populations may all have an impact on the supply of certain goods and services on the market. It goes without saying that also prices vary strongly across countries. What may be the most economical choice in one country, may be not so economical in another. In all countries, though, the most cost efficient choice should guide the selection of goods and services.

One may wonder whether other factors such as cross-country differences in living standards or economic development should be counted in. We think this is not the case. We consider differences in living standards or economic development only relevant as a reason for differences in reference budgets insofar these affect the minimum resources required for adequately taking the social roles one should be able to take, through their impact on relevant differences in institutions, culture, and the availability, quality and price of goods and services. For instance, if average living standards decline as a result of a crisis, this would not automatically or immediately mean that the minimum resources required for adequately taking social roles, or considerations regarding which roles one should be able to take, would change as well. Rather, this is the case only insofar declining living standards modify social expectations regarding social positions, or affect institutions and the availability, quality and price of goods and services. A similar argument can be made regarding cross-country differences in living standards and economic development.

This definition of cross-country comparability implies that for assessing substantive comparability, and for the construction of reference budgets *tout court*, a massive data collection effort is required regarding the four factors outlined above. Insofar these data are not available, we cannot be certain to what degree following the same procedures will result in *substantive* comparability. Therefore, we consider it an important aim of this project to identify the most important data gaps and to propose ways to overcome data shortcomings. Apart from important data gaps, full substantive comparability may prove a hard to reach ideal as a result of what we called the elusiveness of the targeted living standard. It is worth exploring a little the reasons why the targeted standard of living – the minimum financial resources required to participate adequately in society – remains elusive. We have defined adequate social participation as the ability of people to adequately take the various social roles one should be able to take as a member of a particular society. Maybe there is agreement on which roles are essential and general enough to put on this list. For instance, it could include being a citizen, parent, colleague, and neighbour. However, people have to fulfil those roles in various circumstances, and more importantly, subject to various social expectations. Moreover, people can have different views on which kind of performance of those roles meets those expectations adequately. In other words, social expectations regarding what it means to adequately take social roles may not always be fully crystallised, may show important variations between groups and persons in society, and may prove difficult to observe. Finally (or perhaps specifically), the material requirements for fulfilling those roles differ from person to person and from situation to situation. To give a simple example: in some schools there may be an expectation held by parents and children that children celebrate their birthday by inviting some friends to a movie theatre or indoor playground, or alternatively at home, in others that you provide some treat in school, and in still others there is no

such expectation. In turn, the treat can be take-home sweets bought in a shop, or a home-baked cake, or something else.

When constructing reference budgets we try to limit the resulting variation in budgets by specifying the circumstances of persons and households as exactly as reasonably possible, and by assuming specific competences (see the previous section). Implicitly, we attempt to determine some kind of average of minimum adequacy across social expectations about persons in these circumstances and the goods and services required to meet those. Of course, there are many goods and services which are quite clearly needed by nearly everyone: adequate food and heating in the home are some examples. Equally clearly, many goods and services are luxuries, or only necessary in very specific circumstances. But there is also a grey area, where there is uncertainty and possibility for disagreement, especially in relation to the exact number, quality and lifespan of goods and services. This grey area is likely to differ across countries, and makes the task of constructing reference budgets that are substantively comparable across countries more difficult as for the items in the grey area it may prove near to impossible to evaluate whether the items and their quality and quantities included in various countries correspond to the same level of necessity for adequate social participation.

To sum up, we recognise that the exact meaning of substantive cross-country comparability will always remain to some extent ambiguous in a context of substantial cross-country differences in institutions and culture, and vast differences in living standards. Besides, this is a challenge of many social indicators, which is made more explicit in the case of reference budgets as a result of their very concrete character. Yet, indicators aimed at measuring 'adequate social participation', including reference budgets, face an additional challenge of the elusiveness of the targeted living standard, which makes substantive comparability more difficult to assess and achieve. Therefore, a specific method needs to be developed to maximise comparability, provide robustness checks, and allow for sufficient room to develop various options where valid alternatives exist. Also, this stresses the fact that reference budgets are illustrative and should be considered an instrument for consensus-building rather than a tool for measuring some form of consensus in society. As is shown by other studies, when doing so, important policy insights can be derived from reference budgets, in spite of the limitations to their robustness.

2.4 Common ground across EU Member States for defining adequate social participation

It is clear that reference budgets reflecting adequate social participation need to take due account of variations in individual circumstances as well as differences in institutional, physical, cultural and economic contexts. However, there are also important commonalities between people and across EU Member States. Indeed, without such commonalities, any comparison risks to become meaningless. Therefore, in this section we focus on the further operationalisation of how adequate social participation can be understood and measured.

From our definition of adequate social participation, the question follows which social positions should be accessible for all in order to be able to participate adequately in society. In addition, the question arises which needs should be fulfilled in order to be able to adequately take these social positions. It can be expected that for quite a few social positions similar needs should be fulfilled making use of largely the same goods and services. As are result, it is highly impractical to compose baskets of goods and services along the lines of a list of social positions. Therefore, we assessed in more detail the various areas of need that should be fulfilled and delineated on this basis a list of 'baskets' that could be used for deciding which goods and services are essential for living up to the social expectations associated with the list of social positions.

In this respect, it is essential that there is sufficient common ground across EU Member States. This is not only so for practical reasons: if fundamentally different social positions and needs are associated with adequate social participation in different EU Member States, comparability risks to be a hollow term. In this pilot project, we have defined a 'core list' of social positions, and validated commonalities across EU Member States on the basis of two sources: formal social expectations have been assessed in terms of commitments of Member States to international guidelines and regulations; informal social expectations with regard to essential social positions and human needs have subsequently been assessed in three focus group discussions in each of the participating countries. We have opted for the focus group technique as it allows for gaining more insight into the *well-considered* views of citizens, and as it is a research technique that is often employed in reference budgets research across Europe (Storms et al., 2014)[10]. However, it should be clear that the results are not necessarily representative for the views of the population in each country or capital city: a larger random sample would be necessary to assess their representativeness. In what follows we briefly illustrate the approach that we have followed, without claiming completeness. In particular, the discussion of the extent to which international declarations provide fruitful ground for assessing a core list of social positions and human needs that correspond to adequate social participation requires further exploration and discussion by experts in law.

All 28 EU Member States have committed themselves to a number of international conventions, declarations and charters which indicate the social positions, activities, goods and services that should be open to their citizens. Initially, most of these commitments were formulated as 'negative rights', that is, an obligation on the state not to interfere in the exercise of rights. Over the past 40 years or so, these rights have been interpreted more and more as 'positive rights', which imply an obligation on the part of the state to guarantee individuals the effective enjoyment of the rights included in the declarations. The European Court of Human Rights in particular, has incrementally interpreted the European Convention on Human Rights ('the Convention', in short) in positive terms (Akandji-Kombe, 2007). Since the Treaty of Lisbon, into force since December 2009, not only EU Member States are committed to the European Convention, but also the European Union has the obligation to accede to the European Convention on Human Rights (Parliamentary Assembly, 2011). The Treaty of Lisbon also ensured the entry into force of the Charter of Fundamental Rights of the European Union (hereafter 'the Charter'), originally drafted in 2000. Insofar the Charter and the Convention include the same rights, the meaning and scope of those rights would be the same as those laid down by the Convention (Article 52 §3 of the Charter). Therefore, in the context of this project, we built mainly on the European Convention of Human Rights and the Charter to identify a core list of social positions European citizens should be able to take at a minimum. By doing so, the reference budgets will show the out-of-pocket cost for households for effectively exercising some of these rights.

As a starting point, the identification of a core list of social positions one should be able to take, their related activities, needs and goods and services should be such that they allow for a life in human dignity. As is stated by the Charter (Article 1) "Human dignity is inviolable. It must be respected and protected." In addition, institutions or social expectations that imply discrimination on any ground such as sex, race, colour, ethnic or social origin, genetic, features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation should not affect the core list (cf. Articles 20-23 of the Charter). In other words, to give an example, even if dominant informal social expectations would

[10] In the next chapter we report on the methodological details of the focus group discussions.

be such that women would not work, if 'doing paid work' is on the core list, it should be there for both men and women.

That being said, the core list of social positions that can be identified on the basis of the Convention and the Charter, can be summarised as follows:

- Being a child, father, mother, or any other family relative (Article 9, Right to marry and to found a family)
- Being an employee or a self-employed (Article 15, Freedom to choose an occupation and right to engage in work; Article 16, Freedom to conduct a business)
- Being a member of associations of various types, including in particular trade unions (Article 12, Freedom of assembly and of association)
- Being a student (Article 14, Right to education)
- Being an active participant in political elections, and especially a voter (Several articles, e.g. Articles 39 and 40 on the participation in elections)
- Being a citizen, more broadly speaking (Various articles throughout the Charter)

To the core list we added 'being a neighbour' as well as 'being a member of society' more generally. In order to assess whether this core list resonates with the considered views of EU citizens, in 24 EU Member States essential social positions were discussed in three focus groups[11]. In a first step, the purposes of the exercise and the definition of adequate social participation was briefly explained. Subsequently, participants were invited to list all social positions they considered relevant for adequate social participation. In a third step this list was compared with the original core list, and agreement was sought on a final list that would be appropriate for the capital city where the focus groups were organised. Overall, all focus groups expressed agreement with the core list as specified above. One exception was 'being a member of a trade union', especially in these countries where trade union membership is very low. In addition, most focus groups specified refinements of the general positions (e.g. in relation to membership of different types of associations, or family relations). Also, quite a few country teams reported on additions to the core list. Additions that were reported for several countries include being a friend, being a neighbour, being a volunteer, being a consumer, being a caregiver and being a hobbyist.

As mentioned earlier, in order to live up to the social expectations associated with these positions, in many cases similar needs should be fulfilled. Even though international guidelines such as the Charter of Fundamental Rights of the European Union pinpoints to several such needs (e.g. education, and access to health care), we built on more extensive theoretical work in this area, and especially the Theory of Human Need, developed by Doyal and Gough (1991). More specifically, Len Doyal and Ian Gough argue that in order to be able to adequately participate in society, two universal needs should be fulfilled: physical health and autonomy. For the fulfilment of these basic capabilities, they propose a non-exhaustive list of intermediate needs or universal satisfier characteristics which contain those 'inputs' that, according to the best available knowledge, contribute to the realisation of basic capabilities in all countries. We slightly modified their original list to adapt it to the current European context and our purpose of creating reference budgets[12].

[11] Some country teams organised two rather than three focus groups. The countries not covered by this exercise are: Estonia, Ireland, Slovakia and the United Kingdom. More details can be found in the next chapter.

[12] A brief literature review of the relevance of each of these intermediate needs can be found in some of the chapters below, as well as in Goedemé, Storms, Stockman, et al. (2015).

In order to live healthily and act autonomously, people need **a balanced diet**. Food and nutrition play a decisive role in the maintenance of good health and in the prevention of various diseases. Besides healthy food, people also need **suitable clothing**. Clothes serve different purposes in European societies, for instance offering protection against the weather elements and to provide individuals with a certain identity. Like food and clothing, **adequate personal hygiene** and accessible **healthcare** are essential intermediate needs that must be fulfilled if an individual is to participate in society. Proper hygiene serves two important purposes. First and foremost, it contributes to maintaining a good health by combating infectious micro-organisms, both at a personal level and in relation to individuals' environment. Second, personal hygiene serves a psychological and social purpose. Without adequate personal hygiene, there is a danger of social exclusion due to a perceived failure to adhere to the social norm. A next intermediate need that must be met in order for people to be able to live healthy and autonomous lives is that of **adequate housing**. There are three universal criteria that each dwelling must fulfil such that the health of the occupants would not be jeopardised (Doyal, and Gough, 1991: 196-197). First and foremost, the dwelling must offer its occupants security and protection, both against the elements and against bearers of disease. Second, a dwelling must be conducive to a hygienic lifestyle. And third, it must be sufficiently spacious.

While the first five intermediate needs are more relevant for health, the next five refer mainly to autonomy and are more culturally sensitive. In order to be able to act autonomously as adults, individuals must have experienced **security in childhood**. Doyal and Gough (1991: 204-207) outline four more or less universal psycho-social needs that must be fulfilled in order for children and youngsters anywhere in the world to experience adequate security in childhood. According to them, all children need love. They also require new experiences in order to be able to develop cognitively, emotionally and socially. All children need praise, recognition and positive feedback. Finally, all children need a gradual broadening of responsibilities (WHO, 1982). Beside security in childhood, people must be able to maintain **meaningful social relationships**. After all, humans are social creatures and they have a fundamental need for social connectedness. People maintain the most frequent and intense contacts with relatives and friends. It is through daily contacts with relatives, neighbours and friends that individuals are, from their childhood, familiarised with the ideas, values and norms of the culture and society in which they live. People are also social creatures out of need. Even if individuals are adequately supported by qualitatively satisfactory provisions, they are confronted on a daily basis with all kinds of practical problems or issues that can only be resolved if they possess the necessary knowledge and skills or are able to acquire them, or by calling on help from others. Other problems may require emotional or practical support. Although the maintenance of mutual relationships primarily requires cultural capital, people also need some minimal economic resources to meet, see and hear each other. Turning from the social to the cognitive component of personal autonomy, an eighth intermediate need is related to the capability of **lifelong learning**. In modern societies, both employability and active citizenship are dependent upon having adequate social competences for taking part in and making a contribution to economic and social life. A next intermediate need that one has to take account of in order to guarantee people full social participation is the need for **rest and leisure**. Furthermore, in order to lead an autonomous life, people need a basic degree of economic and physical **security**. Finally, people need to be **mobile** to fulfil their various social roles adequately (e.g. to go to work, visit friends, or go shopping). As is true for the other nine intermediate needs, the minimal mobility requirements depend on the individual's living situation (e.g. health, employment) as well as on the structural societal conditions (e.g. availability of public transport).

Of course, such a list of basic needs is not sacrosanct, and could be organised differently, but it has proven to serve usefully our purposes. Also, it should be

stressed that most of the elements covered by this list can also be recognised in other attempts to define the minimum for adequate social participation, a life in accordance with human dignity, a 'flourishing life', or ends of development (cf. Alkire, 2002).

In order to gain some insight into the extent to which this list of intermediate needs would be recognised as essential needs across EU Member states, the list was discussed in the same focus groups as was done for social positions. Again, we found that there was general agreement on the importance of all the needs listed above. Several of these needs elicited immediately stronger discussions at a more concrete level, for instance regarding the type and format of lifelong-learning or the need of a car in the case of mobility. Furthermore, several additions were mentioned in quite a few countries: in nearly all countries, the need of decent work was emphasised, while a smaller number of focus groups also added 'active citizenship' (as a volunteer for social purposes, or in terms of participation in the political process). These are elements that merit more attention in the future.

Overall, the discussions in focus groups across the EU confirm there is quite some common ground with respect to what can be understood under the heading of adequate social participation in terms of essential social positions and needs that should be fulfilled. In addition, the exercise helped to generate a common focus and framing of focus group discussions for further reflecting upon the exact contents of concrete baskets of goods and services, and especially the food basket (see below).

References

Akandji-Kombe, J.-F. (2007), *Positive obligations under the European Convention on Human Rights*, Strasbourg Cedex: Council of Europe, 68p.

Alkire, S. (2002), 'Dimensions of Human Development' in *World Development,* 30(2): 181-205. doi: http://dx.doi.org/10.1016/S0305-750X(01)00109-7.

Badley, E. M. (2008), 'Enhancing the conceptual clarity of the activity and participation components of the International Classification of Functioning, Disability, and Health' in *Social Science & Medicine,* 66(11): 2335-2345. doi: http://dx.doi.org/10.1016/j.socscimed.2008.01.026.

Berkman, L. F., Glass, T., Brissette, I., and Seeman, T. E. (2000), 'From social integration to health: Durkheim in the new millennium' in *Social Science & Medicine,* 51(6): 843-857. doi: http://dx.doi.org/10.1016/S0277-9536(00)00065-4.

Biddle, B. J. (1986), 'Recent Developments in Role Theory' in *Annual Review of Sociology,* 12(1): 67-92. doi: doi:10.1146/annurev.so.12.080186.000435.

de Swaan, A. (2007), *De mensenmaatschappij*, Amsterdam: Bert Bakker, 163p.

Doyal, L., and Gough, I. (1991), *A Theory of Human Need*, Houndmills: Macmillan, 365p.

Fudge Schormans, A. (2014), 'Social Participation', in Michalos, A. (ed.), *Encyclopedia of Quality of Life and Well-Being Research*, Springer Netherlands, pp. 6135-6140.

Giddens, A. (2001), *Sociology (4th edition)*, Cambridge: Polity Press, 750p.

Glass, T. A., De Leon, C. F. M., Bassuk, S. S., and Berkman, L. F. (2006), 'Social Engagement and Depressive Symptoms in Late Life: Longitudinal Findings' in *Journal of Aging and Health,* 18(4): 604-628. doi: 10.1177/0898264306291017.

Goedemé, T. (2013), 'How much confidence can we have in EU-SILC? Complex sample designs and the standard error of the Europe 2020 poverty indicators' in *Social Indicators Research,* 110(1): 89-110. doi: 10.1007/s11205-011-9918-2.

Goedemé, T., Storms, B., Stockman, S., Penne, T., and Van den Bosch, K. (2015), 'Towards Cross-country Comparable Reference Budgets in Europe: First Results

of a Concerted Effort' in *European Journal of Social Security (EJSS),* 17(1): 3-31.
Goedemé, T., Storms, B., and Van den Bosch, K. (2015), *Proposal for a method for comparable reference budgets in Europe*, Pilot project: developing a common methodology on reference budgets in Europe, contract no VC/2013/0554, Brussels: European Commission, 104p.
Gould, E., Cooke, T., Davis, A., and Kimball, W. (2015), *The Economic Policy Institute's 2015 Family Budget Calculator. Technical documentation*, Working Paper No. 299, Washington, D.C.: Economic Policy Institute, 12p.
Iacovou, M. (2013), *The relationship between incomes and living arrangements: variation between countries, over the life course, and over time*, ImPRovE Discussion Paper No. 13/15, Antwerp: Herman Deleeck Centre for Social Policy - University of Antwerp, 29p.
Iacovou, M., and Skew, A. (2010), *Household structure in the EU*, Eurostat Methodologies and Working Papers, Luxembourg: Publications Office of the European Union, 50p.
Levasseur, M., Richard, L., Gauvin, L., and Raymond, É. (2010), 'Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities' in *Social Science & Medicine,* 71(12): 2141-2149. doi: http://dx.doi.org/10.1016/j.socscimed.2010.09.041.
Marshall, G. (ed.) (1998), *A dictionary of sociology*, Oxford: Oxford University Press, 712p.
Mau, S., and Verwiebe, R. (2010), *European Societies. Mapping structure and change*, Bristol: The Policy Press, 440p.
Nagata, J. (2001), 'Plural Societies', in Baltes, N. J. S. B. (ed.), *International Encyclopedia of the Social & Behavioral Sciences*, Oxford: Pergamon, pp. 11513-11516.
Noreau, L., Desrosiers, J., Robichaud, L., Fougeyrollas, P., Rochette, A., and Viscogliosi, C. (2004), 'Measuring social participation: reliability of the LIFE-H in older adults with disabilities' in *Disability and Rehabilitation,* 26(6): 346-352. doi: 10.1080/09638280410001658649.
Parliamentary Assembly (2011), *Resolution 1836 (2011). The impact of the Lisbon Treaty on the Council of Europe*, Strasbourg: Parliamentary Assembly of the Council of Europe.
Platt, G. M. (2001), 'Status and Role, Social Psychology of', in Baltes, N. J. S. B. (ed.), *International Encyclopedia of the Social & Behavioral Sciences*, Oxford: Pergamon, pp. 15090-15095.
Scott, J. (2001), 'Status and Role: Structural Aspects', in Baltes, N. J. S. B. (ed.), *International Encyclopedia of the Social & Behavioral Sciences*, Oxford: Pergamon, pp. 15095-15098.
Sen, A. (1983), 'Poor, Relatively Speaking' in *Oxford Economic Papers,* 35(2): 153-169.
Storms, B. (2012), *Referentiebudgetten voor maatschappelijke participatie [Reference budgets for social participation],*, PhD thesis, Antwerp: University of Antwerp, 475p.
Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014), *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.
Utz, R. L., Carr, D., Nesse, R., and Wortman, C. B. (2002), 'The Effect of Widowhood on Older Adults' Social Participation: An Evaluation of Activity, Disengagement, and Continuity Theories' in *The Gerontologist,* 42(4): 522-533. doi: 10.1093/geront/42.4.522.
Van Mechelen, N., Marchal, S., Goedemé, T., Marx, I., and Cantillon, B. (2011), *The CSB-Minimum Income Protection Indicators dataset (CSB-MIPI)*, CSB Working

Paper Series, CSB WP 11/05, Antwerp: Herman Deleeck Centre for Social Policy, University of Antwerp, 104p.
Voss, T. R. (2001), 'Institutions', in Baltes, N. J. S. B. (ed.), *International Encyclopedia of the Social & Behavioral Sciences*, Oxford: Pergamon, pp. 7561-7566.
Vrooman, C. J. (2009), *Rules of Relief. Institutions of Social Security, and Their Impact*, The Hague: SCP, 542p.
WHO (1982), *Manuals on Child Mental Health and Psychosocial Development*, Geneva: WHO.

3 Methodology[13]

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In this chapter, we describe the method that has been used to construct cross-country comparable reference budgets. The method has been set up to maximise the potential for complying with the purposes set forth in this project. As mentioned earlier, the method that has been proposed in a specific context of: (1) severe limits on time and budget; (2) a 'political' balancing of different views in the consortium about how to proceed with constructing reference budgets; (3) severe data constraints. Indeed, in contrast to, for instance, the U.S., on relatively few aspects that matter for reference budgets, comparable data are available (cf. Gould et al., 2015). The absence of comparable data on such issues as food consumption, prices, and household expenditures in a context of large institutional heterogeneity, puts a severe constraint on the potential for developing and evaluating objective criteria for comparable reference budgets in Europe.

Therefore, we have proposed a more 'manual' (rather than 'algorithmic') method which involves substantial room for scrutiny and judgement by country teams. The strengths and weaknesses of this method are described in more detail in Goedemé et al. (2015). Retaking the methodological chapter of the aforementioned paper, we first set out the underlying principles of our proposal. Next, we describe the proposed approach in some detail. Subsequently, we explain that due to the variation in the nature of goods and services related to different needs (e.g. housing, clothing, food) , as well as the differences in availability of comparative data, the approach has to be refined to take account of the specifics of different baskets of goods and services. Thereafter, we highlight how the approach we propose tries to optimise robustness and cross-country comparability. Finally, we discuss how the approach has been implemented, an in particular the focus groups that have been organised in the context of this project.

3.1 Principles

We aim at Reference Budgets (RBs) that correspond to the minimum financial resources needed to adequately participate in the various EU Member States. Such reference budgets should be suitable for evaluating the adequacy of income support in Europe and help designing efficient and adequate income support throughout Europe. Also, they should facilitate mutual learning and help the identification of best practices in the fight against poverty. Finally, they should be designed such that they are a helpful tool for the implementation and monitoring of the 2008 active inclusion recommendation and the 2013 Social Investment Package. This implies that they should both be comparable across the EU member states, and also reflect the institutional, cultural, economic and physical conditions in each Member State. With cross-country comparability we mean that at the level of the RBs, needs for social participation are satisfied at a similar level. This implies that principles and procedures used in the development of RBs should be the same as much as possible, while being designed such that RBs reflect cross-national differences in factors that have an impact on the minimum required resources for adequate social participation.

Given this general starting point, we have formulated the procedure sketched below in accordance with the following principles:

1. Reference budgets are an **instrument to build consensus** about what should be an adequate minimum income in society. They should reflect the latest state of knowledge about the amount of financial resources that people need at a minimum to

[13] Sections 3.1 to 3.4 of this chapter were first published as part of the methodological paper, see Goedemé et al. (2015).

adequately participate in society. Their potential for generating consensus should be tested in real life discussions and will become apparent from their use by various stakeholders. In order that reference budgets can fulfil their consensus-building role, the inclusion of goods and services that all people in a certain society should be able to have or use, must be well-motivated and grounded in scientific and experientially-based knowledge. Argumentation and transparent documentation are considered key requirements to allow reference budgets to fulfil their consensus-building role.

2. Reference budgets can be constructed for all kinds of targeted living standards. In this project we develop reference budgets that correspond to the **minimum financial resources needed to adequately participate in society**. In order to be credible and politically useful it should be clear that below the level of the RBs, adequate social participation is not possible.

3. What it means to participate adequately in society is a **normative** question. Therefore, reference budgets should not necessarily reflect actual consumption patterns. At the same time, it should be avoided that they are interpreted in a prescriptive way. Reference budgets are *illustrative* priced baskets of goods and services. They can be designed in a way that people can learn how to live economically and healthily, but they should not be used to prescribe behaviour.

4. The focus of the reference budgets is on the private cost for households of a certain basket of goods and services that represent the minimum needed for adequate participation in society. The identification of needs should always refer to a particular societal context (that can be characterised on the basis of the availability and accessibility of public goods and services, its climatological and geographical features and cultural characteristics,…) in which people live. Therefore the priced baskets that represent the reference budget should always refer to the private, **out-of-pocket cost for households** (or the disposable household income) which will – *ceteris paribus* – be lower in societies with a higher level of accessible public goods and services.

5. Reference budgets can only be developed for a limited number of **clearly defined hypothetical households** (or so-called 'model families') to which households in real living situations can be compared. Representing the minimum income needed to adequately participate in society, the members of the model families can be characterised as persons in adequate health, without disabilities, with normal competences and who are well-informed. Adequate health means that persons are able to perform the normal tasks of daily living as required by their social roles without special resources, and also that they do not suffer from health conditions requiring medical treatment or medicines. The reason for this assumption is not so much that this is the most common health condition (this is certainly not the case for many low income families), but rather that health problems vary enormously depending on their kind and severity, each having different implications for the needs of the person affected. The competences of the family members are those of well-informed persons, having the necessary abilities to be self-reliant and to shop and cook economically (i.e. people who know their social rights and how to access public goods and services, are able to compare prices and buy the products with best value for money, etc.). This assumption is motivated by the fact that we are looking for a minimum income. Other characteristics that must be specified in order to guarantee cross-country comparability are the number and ages of the family members, their work or education status, the home tenure status and the kind of housing, and the physical and social environment in which they live (large city, small town, rural). Since many persons do not have the presumed characteristics many (esp. low income) people will need more economic resources to be able to fully participate in society than is indicated by the RB. Therefore, the report accompanying the reference budgets should also clearly describe the real situations in which people live and the extent to which they have access to public goods and services. In future work, it

would be useful to modify some of these assumptions, for instance regarding the health status of one of the model family members.

6. The RBs developed in this project integrate a needs- and a rights-based perspective and combine this with a consensual approach. As a starting point for developing reference budgets, both human needs and human rights are taken into consideration. For the identification of essential human needs for participation, both the philosophical and empirical literature is consulted. Health and autonomy are considered universal needs that need to be fulfilled in order to be able to adequately participate in society. A more concrete elaboration of what adequate social participation means in every country, is an empirical question that we will answer on the basis of **a mixed-method approach**. In order to maximise validity and to ensure responsiveness to policies, the approach makes use of a wide range of information sources, including official guidelines and regulations, scientific literature, survey information, available studies on the availability, cost and accessibility of (publicly-provided) goods and services, expert opinion, and, importantly, original data collection through the organisation of focus group discussions. In this approach, the consultation with citizens is considered key to develop valid and well-motivated reference budgets.
7. The approach we propose aims at optimising the **potential for policy learning**. Therefore, it tries to maximise substantive **comparability** across countries, while taking procedural comparability as a minimum requirement. We explicitly recognise that it is not possible to identify one exact lower bound on the minimum required resources to participate adequately in society due to the elusiveness of the concept of adequate social participation and the lack of data regarding a number of important issues, especially for some countries. Therefore, we will compute for some baskets several options under different assumptions (e.g. regarding tenure status and mobility), reflecting the uncertainties regarding the suitability of some assumptions as well as the great variation in living conditions between people. In this way, the potential for policy-learning is increased through documenting the impact of different living conditions and institutional contexts on the minimum financial resources required for adequate social participation.
8. The previous point also implies that if more evidence based and systematic observation becomes available, **the quality of the arguments and the quality of the reference budgets will improve over time**. In fact, towards the end of the project we will identify the choices made for constructing the reference budgets that would benefit most from more systematic observation. To give just two examples, the quality of RBs would undoubtedly benefit from more systematic information about the lifespans of some goods and about the accessibility of some public services in a wide range of EU Member States.
9. The approach we implement in this project is designed with substantial attention for **feasibility**, such that it can be expanded and updated in the future, while indicating how it can be improved if more resources are available. At the same time, our approach takes into account that many country teams have limited experience with constructing reference budgets, acknowledging that an important goal of this project is capacity building.
10. Finally, the approach and theoretical basis for our proposal are conceived with a view to developing cross-country comparable reference budgets **for European countries**, with functioning democracies and middle to highly developed economies. We do not claim that our approach would be valid or lead to comparable results if it would be applied in very different contexts.

3.2 The approach in a nutshell

The procedure of the mixed-method approach we applied in this project is summarised in Figure 3 below. We proposed a six-phase procedure for constructing cross-country

comparable reference budgets in Europe. The six phases can be summarised under the following headings: (1) preparation; (2) orientation; (3) argumentation; (4) deliberation and pricing; (5) arbitration; and (6) dissemination and discussion. During most of these phases, country teams are leading the process, while in the first and fourth phase the coordinating team of researchers and domain experts is in the driver's seat. In the text that follows, we briefly elaborate on each of these six phases.

3.2.1 Phase 1: Preparation

The first phase consists of three elements: the development of a network of experts & stakeholders; the development of a handbook; and the development of harmonised data files to collect the detailed lists of goods & services, their quantity, quality, price and lifespan. The construction of reference budgets requires a massive amount of data. Therefore, the coordinating team and national research teams are required to liaise with a wide range of international and local experts and researchers to make sure they can rely on the necessary expertise for constructing the reference budgets. In addition, it is crucial to set up a network of international and local stakeholders for which the reference budgets can be of interest. This is important, as reference budgets are an instrument to build a consensus about the requirements and cost of adequate social participation, and to make sure reference budgets are not misused by policy makers. At the same time, reference budgets are complex and should be disseminated correctly. Both these goals are served by involving stakeholders from the start. Given the European character of this project, a stakeholder group was formed at the European level and within each participating country.

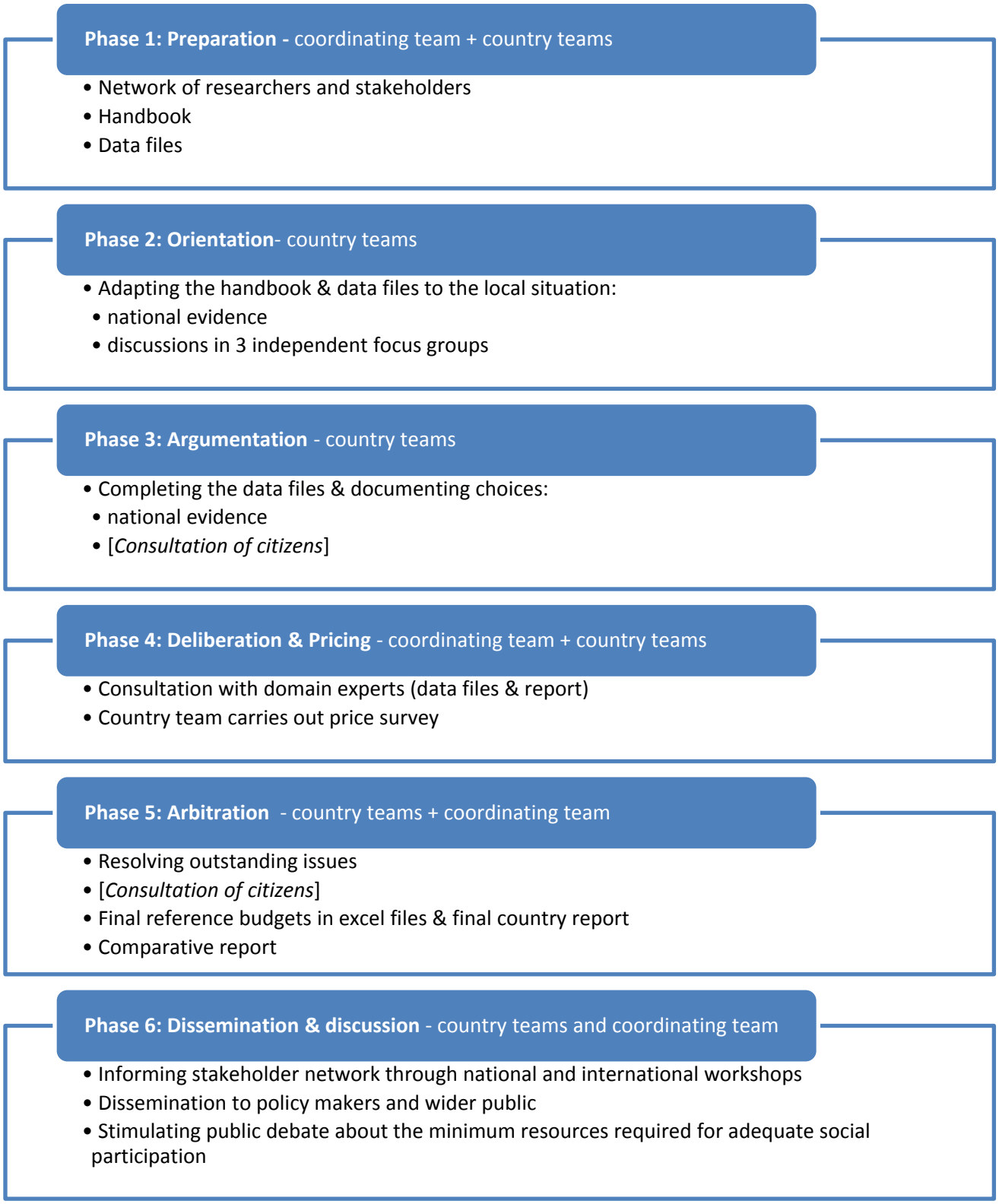
The handbook and the basic data files are the same for all countries, and were adapted to the local context for constructing national reference budgets. The handbook ensures that all RBs refer to the same targeted living standard, brings together the latest state of knowledge on the topics that are relevant for the reference budgets and contains common criteria and procedures for constructing national reference budgets. This includes principles and guidelines which are used for pricing the various baskets which are covered by the RBs. For the baskets covered in this project, this handbook is an integral part of this report.

In addition to the handbook, harmonised excel sheets were prepared to help to construct the RBs in a way that ensures transparency and easy comparisons across countries. The excel sheets are organised along the list of intermediary needs, broken down into more specific categories ('functions')[14]. In addition, excel files with detailed example lists of goods and services of reference budgets that are derived from existing cross-nationally comparable reference budgets were made available to all national partners. These lists are not included as a standard, but rather serve the purpose of making the categories of needs more clear, and help to ensure completeness of the final RBs. In addition, it helps to identify and clarify important variations between countries.

As a result, the output of the first phase includes a handbook, harmonised data files for composing national lists of goods and services and to collect the prices of all the items on the list, and a broad network of international and national experts and stakeholders.

[14] Later, we could also include an appropriate code so that the goods and services collected in the data files can be easily reorganised in line with the COICOP classification (insofar the latter is sufficiently detailed for this purpose), or on the basis of fixed costs, living costs and reservation costs, a classification that is often used for budget counselling and debt advice. The Classification of Individual Consumption by Purpose (COICOP) is an official and widely used classification of goods and services consumed by private households. Organising the excel files on the basis of this classification allows for an easy comparison with household budget survey data and indexation on the basis of product-specific consumer price indices.

Figure 3: Workflow for constructing comparable reference budgets in Europe.



3.2.2 Phase 2: Orientation

During the orientation phase of the process, country teams lay the foundation for developing reference budgets for their country by validating and contextualising the

theoretical framework and by collecting basic information that will give orientation to the development of the reference budgets in all subsequent phases.

The research process in this phase deals in large part with fresh data collection regarding well-informed opinions of citizens through the organisation of three focus group discussions. More in particular, country teams looked for evidence regarding the following questions:

1. Which are the social roles that all people should be able to play?
2. What activities are associated at a minimum with these roles?
3. What needs must be fulfilled in order to be able to adequately play these roles and carry out the activities listed above?
4. What broad categories of goods and services are required to fulfil these needs?
5. To what extent can and should people rely on publicly-provided goods and services for adequately playing these social roles and carrying out the activities listed above (e.g. health care, education, transport,…)? Are there any problems with quality, accessibility and cost (e.g. informal payments) that should be taken into account?
6. To what extent can and for which items should people rely on second hand goods (e.g. clothing, durables,…); as well as informal exchanges of goods and services (e.g. food, child care,…) for adequately playing their social roles?
7. To what extent and for which items can and should people rely on 'production for own consumption' (in particular food) for adequately playing their social roles?
8. For what goods and services can and should people rely on the cheapest options on the market and for what types of goods and services should more choice be possible (e.g., branded products be included in the list of goods and services)? What would be appropriate providers/stores of the various goods and services?

The first four research questions serve two purposes: (1) to validate the theoretical framework and to test its acceptability in the local context; (2) to give flesh and blood to what it means to adequately participate in a particular society. On the basis of international declarations and conventions a minimum list of social roles that people in all EU Member States should be able to take was derived, as discussed in the previous chapter. It may well be that in some countries formal or informal institutions are such that the list should be adapted or expanded. Therefore, country teams were required to check relevant national and regional guidelines and legislation. In addition, the list was validated through discussions in three focus groups. The final (country-specific) list of social roles and related activities helped to specify lists of goods and services and to argue why specific goods and services are required.

As many social roles require similar goods and services (e.g. being a parent and being an employee both require food and clothing), the fieldwork (and the list of goods and services to be identified for the reference budgets) is organised in accordance with a list of needs. As explained in the previous chapter, this list of needs is derived from the Theory of Human Need, developed by Doyal and Gough (1991). The leading idea is that since people are social creatures, they need the means for social participation, or more precisely the means to perform adequately the social roles they have to play, such as being a parent, a citizen or a neighbour. Doyal and Gough (1991) posit that each actor has two universal basic needs: 'physical health' and 'personal autonomy'. At a less abstract level, ten intermediate needs are identified (ranging from adequate nutrition and clothing to safe childhood and significant relationships), which must be satisfied at a minimal level. In this project, we started from a slightly adapted version of Doyal and Gough's list of intermediate needs. As is the case for the list of social roles and related activities, this list of needs and their corresponding broad categories of goods and services was validated and contextualised on the basis of national guidelines and

regulations and the relevant literature, as well as three focus group discussions in all EU Member States.

Questions 5-8 aim at giving more concrete guidance to the construction of reference budgets and at documenting reasons for cross-national differences. All these questions have a factual and normative component. The factual component relates to the extent to which people rely on publicly-provided goods and services, second hand goods, informal exchanges, production for own consumption, the 'cheapest' products on the market and the providers they tend to frequent. Also, it relates to the question to what extent there is a social gradient in the latter consumption patterns. Knowledge about these factual patterns is a requirement in order to make a well-informed normative judgement about what is the minimum needed for adequate social participation. As we know from behavioural economics and social psychology, people tend to be inadequately informed about what others in society do, think or have (cf. Crano, 1983; van der Pligt, 1984; Krueger and Clement, 1997; Monin and Norton, 2003; Thaler and Sunstein, 2009; Wojcieszak and Price, 2009)[15]. Therefore, country teams first need to collect evidence on actual consumption patterns and on opinions related to these consumption patterns, as well as, crucially, on the availability, quality and accessibility of publicly-provided goods and services. Relevant information sources include results from existing surveys, a review of other quantitative and qualitative studies and public guidelines and regulations. In a second step, the normative judgement will be discussed in three independent well-informed discussion groups. Three groups (of about 8 persons each) are not sufficient to make a final, let alone representative, judgement about this, but it will provide guidance regarding what, of the various alternatives to be calculated for the reference budgets, would be the most suitable options for their country / capital city. It is likely that for some of these questions, no evidence is available, so that the focus group discussants are the only source of information.

Ideally, the consultation of citizens is carried out on the basis of a well-informed representative and sufficiently large sample of the relevant population. However, given current practices in reference budgets research, as well as budget and time constraints in this project, this consultation was done in the format of three focus group discussions. These focus groups were composed of persons with different socio-economic backgrounds. Discussions were carried out in the same way in all participating countries, following the same script for organisation, discussion and analysis. Each topic was discussed first in the format of a 'brainstorming session', followed by a discussion of the common list included in the handbook (questions 1-4) or input provided on the basis of the available evidence (questions 5-8). Detailed instructions regarding the recruitment, organisation, interpretation and analysis of the focus group discussions can be found in Annex 1 of this report. The implementation of this part of the research process is discussed in more detail below.

The output of this phase can be summarised as follows:

- Detailed documentation of the national actual situation regarding questions 1-8, which will feed into the country report and serves as a basis for well-informed discussions;
- Insofar discussions of focus groups come to similar conclusions: an adapted and refined list of social roles, activities associated with these roles and refined data files which reflect these adaptations as well as a documentation of the arguments in favour of or against the acceptation of this list;

[15] For a recent accessible illustration, see https://www.ipsos-mori.com/researchpublications/researcharchive/3466/Perceptions-are-not-reality-Things-the-world-gets-wrong.aspx (last consulted November 2014).

- Insofar no agreement within or between focus groups exists: open issues for which baskets of goods and services containing two or more alternative options will be developed;
- Information on the extent to which the international theoretical framework (the needs- and rights-based perspective) is confirmed by people living in all participating Member States, and how it should be adapted to reflect better the state of affairs in various countries.

3.2.3 Phase 3: Argumentation

The focus in this phase is on developing complete lists of goods and services that reflect the minimum that is required for adequate social participation, as well as a careful argumentation for including all items on the list and excluding others. On the basis of the guidance received from the previous round of discussions, national and regional guidelines and regulations, the collection of additional evidence and, where needed, expert opinion[16], country teams drafted a first proposal for national reference budgets (that is, a detailed and complete list of goods and services including their quality, quantity, lifespan and provider). For some baskets, rather detailed well-motivated recommendations are available from the handbook. For a wide range of goods and services no such detailed international guidelines can be given, but examples of other reference budgets helped to translate the lists of activities and guidelines of phase two into concrete sets of goods and services. The input by focus groups on the basis of the previous phase is key.

Of course, sometimes rules of thumb are required and the argumentation will unavoidably be more solid for some items than for others. Therefore, it is essential all 'choices' are transparently documented and motivated. In cases where alternative equally valid options would be suitable, various alternatives should be documented, especially if these relate to the consumption of publicly vs. privately provided goods and services. The list of goods and services was documented in harmonised excel files developed by the coordinating team, and a country report explaining the argumentation for the inclusion of all the goods and services on the list. The latter document also includes, insofar possible, a discussion of the extent to which actual living conditions and consumption patterns differ from those assumed for the list (and the underlying model families).

Given the normative character of the exercise, and to make sure the list of goods and services is complete and acceptable, it should be developed in interaction with the consultation of citizens. Due to budget and time constraints, in this project this consultation will be limited to the discussion of the food basket in the three previously mentioned discussion groups[17]. In a first step, on the basis of national food-based dietary guidelines an adequate food basket that allows for a healthy diet was developed in close

[16] As explained in section 1, in contrast to much of the literature on reference budgets, we think it is important to make a clear distinction between what we would call 'expert knowledge' and 'expert opinion'. 'Expert knowledge' is knowledge generated by systematic observation or experiments, which is replicable and verifiable and not much dependent on personal judgement (e.g. a finding cited in the scientific literature, a sample survey estimate). This is distinct from 'expert opinion' which we define as knowledge generated through specific long-term experience with a certain area, which is to an important extent personal and cannot easily be double-checked or replicated by a third party. Examples are the specific knowledge of social workers, budget counsellors, architects (e.g. in relation to insulation requirements and energy consumption), and many other types of experts. An expert is anyone who has specialised knowledge in specific, well-distinguished domain, based on research, experience, or occupation. An expert need not necessarily have professional or academic qualifications, but it is important that his or her expertise is somehow socially recognised, e.g. by a suitable position in a particular organisation.

[17] The first part of the discussion will revolve around the questions mentioned in the orientation phase, whereas the second part of the discussion will be devoted to the argumentation phase, with a focus on the food basket.

cooperation with a nutritionist. On the basis of this food basket, an illustrative week menu was drafted. The acceptability of this menu in terms of variation, feasibility (e.g. regarding cooking fresh meals) and taste was discussed, as well as the required kitchen equipment. In addition, focus groups discussed other (social) functions of food and suggested the additional requirements for meeting these functions (See Annex 1 of the report for a detailed description of the procedure). On the basis of the results in the three focus groups, the country teams developed a well-motivated complete list of goods and services for the food basket.

The output of this phase can be summarised as follows:

- A first draft of reference budgets for each country, with alternative options shown where relevant. The lists are recorded in a harmonised data file
- A list of arguments regarding the goods and services included in the basket (including their quality, life span, and providers).
- A revised country report with more detailed information on the national situation, that is, a translation of the need-specific handbook chapters to the national situation.

3.2.4 Phase 4: Deliberation & pricing

3.2.4.1 Deliberation

During the fourth phase, the country teams put everything together and sent it to the coordinating team. The domain coordinators (that is, coordinating researchers responsible for specific baskets of goods and services) review the drafted reference budgets, the argumentation, and the evidence on which country teams have drawn for justifying the choices made. Domain coordinators paid particular attention to the following issues:

- The completeness of the documentation and the consistency between the country report and the national data file
- Potential inconsistencies between reference budgets for households with and households without children
- Choices based on opinion, where factual evidence is available
- Inexplicable differences across countries

Domain coordinators checked whether differences between reference budgets can be explained on the basis of clearly documented cross-national differences in institutional, cultural, climatological and physical context, as well as differences in the availability and quality of goods and services. Domain coordinators often asked for clarifications from country teams and pointed to needs of better documentation. On the basis of the questions raised, country teams collected additional evidence, refined the country report and prepared the next phase.

The output of this phase can be summarised as follows:

- A list with choices that are not sufficiently well motivated with suggestions for modifications to make the reference budgets consistent between model families and across countries
- Suggestions for additional evidence

3.2.4.2 Pricing

During the deliberation by the international team of domain coordinators, country teams carried out a price survey for all items on the list of goods and services. This was done in accordance with the principles agreed during phase 2, e.g. regarding the type of shops, the amount of second hand goods, the balance between public and private providers etc.

It is important for the consistency of the RBs, as well as for international comparability, that all goods and services are priced at the same moment in time. The output of this activity is an excel file with a complete list of priced items.

The price survey should adhere to the same principles cross-nationally. However, in some countries more accurate price data exist than in other countries. Detailed instructions of the pricing procedure are discussed in the chapters on the respective baskets (food, health care, personal care and housing).

3.2.5 Phase 5: Arbitration

On the basis of the input provided by the coordinating team, country teams drafted the final version of the reference budgets. As before, where various plausible alternatives existed, these were documented, such that the impact on the final cost of the reference budgets could be estimated. This provides substantial information for policy learning, especially insofar it relates to different costs between public and private providers.

On the basis of the final country reports, the coordinated drafted a comparative report, documented in the chapters that follow.

The output of the final phase can be summarised as follows:

- An excel file with the detailed, final priced list of goods and services included in the reference budgets
- A final country report, explaining the national situation and the choices made for defining the reference budgets, including a clear documentation on matters that led to fierce discussions or where agreement could not be reached
- A comparative report, in which the results of all country reports are brought together.

3.2.6 Phase 6: Dissemination and discussion

An essential final phase of the construction of reference budgets consists in adequately disseminating the results to all relevant stakeholders and stimulating public debate about the minimum resources required for adequate social participation. This should be done through the international and national stakeholder networks set up during the first phase of the process and an active dissemination strategy through relevant media. Such a dissemination process pays particular attention to:

- Explaining the aims of the exercise and the basics of the methodology;
- Explaining the contents of the list and the argumentation regarding its composition;
- Explaining how reference budgets can be used and how they should not be used or interpreted, paying particular attention to the underlying assumptions. In particular, their illustrative character is explained and it is made clear that they should not be interpreted in a prescriptive way;
- Policy conclusions.

Best practices of dissemination and use of reference budgets should be exchanged through the network.

3.3 Variations between baskets

The approach described above can be applied to all relevant baskets of goods and services covered by reference budgets. To some extent the pace of the process can be different for different baskets and for practical reasons not all baskets can be developed simultaneously. Hence, careful planning is key. More importantly, the argumentation phase and the pricing procedure will differ to some extent from one basket to another given that for some needs the nature of essential goods and services, the availability of

public guidelines and regulations as well as comparative high-quality data, the type of providers and the structure of the market is very different than for others. For instance, public guidelines for adequate clothing are largely lacking, there is usually no (or only a limited) public or subsidised provision of garments, and the market of clothing is relatively transparent. This can be contrasted with health care, for which public guidelines are prominent (e.g. regarding required and recommended vaccinations), public provision is usually widely available, and pricing is also transparent, at least in the public sector; and also with housing for which usually some guidelines and some public provision is available, but the market is usually not transparent. This implies that for some baskets, researchers will have to rely more strongly on some information sources and judgement than for other baskets, that for some baskets robustness will be larger than for others, and that, consequently, comparability will most likely be higher for some baskets than for others. In order to maximise comparability, more detailed procedures are developed in the chapters that follow.

It is worth pointing out that because of its specific character, for the housing basket we propose to rely much more strongly on survey data than for the other baskets. The standard approach for constructing a basket is to specify the nature, number and quality of the necessary items in that basket, and then to price those items. However, housing is different from e.g. clothing in that it is very heterogeneous – every dwelling is different from any other in some respect –, local price variations may be quite substantial and the market for housing has low transparency. In other words, the range of housing prices for dwellings with similar minimum quality characteristics is likely to be relatively wide, and the availability of dwellings which adhere to the minimum requirements at the lowest prices may be very limited. These circumstances imply that it is very difficult if not impossible to attach a particular price to a reference dwelling with particular characteristics. Moreover, it is less easy to move house than to change clothing. For those reasons we proposed to estimate the cost of housing from survey data, i.e. EU-SILC (European Union Study of Income and Living Conditions) data; by doing so, minimum quality requirements of housing can become the object of discussion, and illustrative prices of dwellings which comply with these requirements can be estimated. In other words, we estimated for various tenure statuses (renting in the private market, the public market and outright homeownership) the distribution of housing costs for qualitative dwellings of appropriate size and show the housing cost at various points in this distribution. Insofar possible, these estimates take account of regional variations in housing costs, and correct for underestimates in housing costs as a result of the budget constraints that people face. The exact approach that we have followed in this project is described in the chapters that follow.

3.4 Robustness and comparability: checks and balances

In our previous report (Goedemé et al., 2015) we describe at some length the important challenges to cross-country comparability posed by an endeavour to construct fully-specified reference budgets in a large number of countries. Therefore, we consider it useful to highlight how the approach we propose tries to maximise robustness and comparability.

The cross-country comparability of reference budgets is mainly challenged by the elusiveness of the targeted living standard, the lack of robustness in the procedures and data sources to develop fully-specified baskets of goods and services, and a requirement of substantial coordination to ensure procedural comparability and high quality everywhere.

In the proposed approach limits to robustness and clarity of the targeted living standard are addressed by (1) providing a conceptual elaboration of the targeted living standard (see chapter 2); (2) building on a wide range of data sources, which should help to get grip on the elusiveness of the targeted living standard and to strengthen the argumentation regarding the items included in the baskets of goods and services; (3) adhering to rather strict assumptions regarding the characteristics of the model families,

such as their health status, competences and access to information; (4) developing each basket of goods and services starting as much as possible from existing public guidelines, as well as a clear description of the institutional and economic context; (5) by applying a step-wise analytical procedure to develop the baskets of goods and services, starting from the social roles people should be able to play, the social expectations related to these roles, the needs associated with these and the functions goods and services need to fulfil (an important lesson of the ImPRovE project is that by focusing first on needs and functions, the 'grey' area of what can be considered necessary items (and their quantities and qualities) can be reduced); (6) by making sure that all baskets and their related argumentation are checked by an external reviewer with particular expertise in the basket concerned.

Procedural comparability is stimulated by: (1) carrying out the research process in a step-wise, coordinated way: after each phase, country teams are required to communicate the state of affairs in a country report to the coordinating team, which reviews it and sends it back to the country teams; (2) developing detailed procedures for each basket of goods and services; (3) developing tools for collecting data in a harmonised way (harmonised excel files, a script and power point presentation for carrying out the focus group discussions; and (4) building in a phase of deliberation, during which domain coordinators carefully review the applied procedures, contents and argumentation of each basket of goods and services. An international team of domain coordinators takes care of the development of basket-specific procedures and the coordination of the research process.

Undoubtedly, this procedure is no guarantee for robustness and substantive comparability. Nonetheless, we are convinced that the procedures we propose help to optimise robustness and comparability while actively stimulating that RBs reflect the local institutional and economic context. In the following chapters of this report, we evaluate to what extent we succeeded in maximising robustness and comparability, and how the approach should be strengthened in the future.

3.5 The consultation of citizens through focus group discussions: implementation

A large part of the research process was based on the collection and documentation of existing guidelines and regulations as well as existing empirical findings. To this was added the consultation of citizens in 26 EU Member States (the UK and Irish teams decided not to participate in this part of the project), and the collection of prices through an original price survey. Given its importance for the validation of the theoretical framework, and construction of the food basket, we elaborate in this section on how the focus groups discussions were implemented across all participating countries. The implementation and result of the pricing procedure is discussed for each basket separately in the chapters that follow.

In the previous section, the added value of the consultation of citizens throughout the process of constructing reference budgets is emphasised, as this may provide crucial information regarding the completeness, acceptability and validity of reference budgets. For this project, we proposed to consult citizens through focus group discussions, during which participants are given the opportunity to interact with one another in a well-informed manner. In particular, the focus groups should help citizens to express what it means to fulfil essential social roles and related expectations in their specific cultural and local context. Moreover, focus groups can give additional information on the prevailing purchasing patterns and the availability, quality and accessibility of public goods and services in the given country.

In the proposed method, citizens are actively consulted during three phases of the methodology: the orientation phase (phase 2), the argumentation phase (phase 3); and the arbitration phase (phase 5). Due to financial and practical constraints, we proposed to organise three well-structured focus groups in each country. Ideally, such a

consultation is organised during all three aforementioned phases for constructing the reference budgets. This proved not to be feasible for this pilot project. As it is the first time reference budgets are constructed in a comparative framework in the EU, we considered it key to validate the conceptual and theoretical framework in the focus groups. At the same time, without a consultation of citizens too much information is lacking to develop a food basket which also covers the social functions of food. Finally, we considered it essential to test the acceptability of the food basket during group discussions. Therefore, the script we developed for the focus groups covers the main elements of both the orientation and the argumentation phase. In a follow-up project, additional focus groups could be added to strengthen the arbitration phase. The combination of the orientation and argumentation phase in one focus group has resulted in a relatively long and detailed topic list. The final topic list consisted of four parts: an introductory part, a second part with a discussion on the theoretical underpinnings of the reference budgets, a third part in which participants discuss the content of an adequate food basket and a fourth part with a discussion on the prevalence and acceptability of 'purchasing patterns'.

Each focus group was to be heterogeneously composed, involving people from a range of socio-economic backgrounds. All country teams indicated an adequate moderator who implemented the translated topic list. The moderators were accompanied by an assistant who was responsible for the slide show and by a reporter who was asked to take elaborated minutes using an excel sheet set up for this purpose. After each discussion the moderator and reporter were asked to fill out a first debriefing report. In the end the outcomes of the three focus groups were assembled and analyzed by all national partners using a pre-designed template for analysis. The report with the focus group analysis was reviewed by the coordinating team, which resulted in a non-negligible number of clarifications and additions to the report. All focus group reports are available as an annex to the country reports that are provided separately as a complement to this final report of the project.

In this subsection, we provide basic background information regarding the organisation of the focus group discussions. More in particular, we pay attention to the preparation of the script for focus group discussions, the recruitment and composition of the focus groups as well as the course of the discussions.

3.5.1 Preparation of the script and focus group discussions

Acknowledging the value of the focus group method is not to deny its inherent incidental and qualitative character which makes it a rather difficult methodology to apply in a comparable way across countries, and to infer conclusions to the broader population. Building on previous experience from the EU-funded ImPRovE project, we have learnt that the outcome of focus group discussions depends on the specific context and framing which makes it hard to compare the results. Therefore, to maximise comparability across countries, it is essential to carry out the whole process in a harmonised and structured way.

For this purpose, on the basis of a survey of the relevant literature regarding the organisation of focus group discussions (cf. Annex 1.2), the lessons learned in the ImPRovE project, and an evaluation of the strengths and weaknesses of different ways of using focus groups for reference budget research (cf. Goedemé et al., 2015), we spelled out a script for organising and analysing the focus group discussions. This script contains detailed instructions regarding the recruitment, preparation, organisation, content and analysis of the focus group discussions and as well as templates for reporting on the focus group results (cf. Annex 1). In addition, this script contains the necessary practical documents to carry out the focus groups in a harmonised way across countries (including power point presentations and guiding questions for the moderator, information on the reference family, a template of the excel sheet for the reporter and a template for the analysis).

The setup of the script was tested in two focus groups in Antwerp and one in Luxembourg. On this basis, the script was refined. Even though the topic list is rather elaborate, it proved to be workable in case of moderators with substantial experience in organising focus groups on reference budgets. As will become clear below, many country teams reported nonetheless that the script was too dense and lengthy to complete in the foreseen timing. It is important to mention that, even though we have brought together in this project national experts who had previous experience in the field of poverty research and social policy, not all partners were familiar with reference budgets or with conducting focus groups. Several illustrative instruction videos were prepared and Skype meetings were organised to present the approach and discuss the procedures and challenges for organising and analysing the focus group discussions in a harmonised way. In addition, the coordinating team developed a Q&A list with frequently asked questions.

3.5.2 Organisation of focus group discussion by the national partners

3.5.2.1 Recruitment

Technicalities

The first task for the national partners was to translate all the necessary document such as the recruitment questionnaire, topic list, power point presentations and consent forms into their own language. Generally, there were no problems reported related to the translation, even though some partners indicated it was sometimes difficult to find an adequate equivalent in the national language of several central concepts such as 'adequate social participation'. For this reason, several alternative phrasings were provided in the FAQ list.

Further, it was recommended to organise a test focus group to check the feasibility of the timeframe and the more difficult parts of the topic list. However, the majority of countries did not manage to organise this test focus group within the limited timeframe of the project. The national partners who did implement a test group mostly organised the FG in their own city and relied on colleagues, students or personal contacts (including BE, BG, CY, DE, FI, NL, RO).

Regarding the location of the FGs, all country teams organised their discussion groups at a central location in the capital city. Generally, there were no problems to find a room that was reachable for everyone. In many cases, the research group itself or a specialised recruitment company was able to offer a suitable room. In different countries the focus groups were organised after working hours (in the evening or during the weekend) in order not to exclude people with full-time jobs.

In order to guide the FG discussions properly, we recommended three facilitators (moderator, reporter and assistant) from the own research team or externally, trained persons who were well-informed about the research. All countries succeeded in finding a well-suited moderator and reporter, who sometimes switched positions with one another to keep a good focus. In only a few countries the reporter fulfilled also the tasks of the assistant (HU, HR). Although this is presumed to make the task of the reporter more complicated, it was not reported as problematic.

Most national partners organised and conducted the focus groups themselves. In a couple of countries the focus groups were organised, moderated and reported by other persons then the research team (e.g. in Croatia by a market research company IPSOS-PULS, in Belgium by the Centre for social welfare and health in Brussels in collaboration with the Herman Deleeck Centre for Social Policy (University of Antwerp), and in the Netherlands by professional facilitators of a field research bureau). Some of the practical elements of the organisation of focus groups are summarised in the table below.

Table 1: General details of the practical organisation of focus group discussions.

	Location	Period (2015)	Recruitment channel	Organisation	Difficulties	Test FG
AT	Capital	16/03 19/03	/	St. Poelten research team (previous experience: MIS method)	Recruitment difficulties due to intensive previous research (12 FGs) on RBs according to MIS method -> only 2 FGs	/
BE	Capital Room provided by recruitment agency	25/03 28/03 2/04	At the start through NGOs, but eventually Recruitment agency + 6 participants with low SES through organisations	Centre for social welfare and health in Brussels; in collaboration with the Herman Deleeck Centre for Social Policy (University of Antwerp)	Limited response stakeholders -> need to organise professional recruitment	Brussels 13/03 With employees of Centre for social welfare & health in Brussels
BG	Capital Room provided by recruitment agency	11/02 12/02	Recruitment agency: BluePoint	Research team in Varna (previous experience RBs)	/	Varna, 7 participants
CY	Capital	14/01 16/01 19/01	Invitations sent to 35 candidate participants by research team	Research team	/	Yes
CZ	Capital 1st: Charles University 2nd & 3th: building of Committee of Good Will - Olga Havel Foundation	12/02 13/02	/	Research team	No people with low socio-economic profile	/
DE	Capital DGB-house & big family centre	27/02 28/02	Stakeholders, NGOs, trade unions Family centres ->Due to low response also private networks	Research team in Frankfurt	Few participants, problems with recruitment -> short timeframe (also holiday period) + research team not from Berlin	Frankfurt 06/02

	Location	Period (2015)	Recruitment channel	Organisation	Difficulties	Test FG
DK	Capital	3/02 5/02 17/02	- Researchers and people from municipalities, who work with social policy and poverty - Organisations who work with people in poverty	Research team	/	/
EL	Capital conference room in the University of Economics and Business (AUEB)	6/02 7/02	/	Research team (Previous experience ImPRovE)	/	/
ES	Capital Room provided by recruitment agency	6/03 7/03	At the start through NGOs, but eventually with a recruitment agency	Research team (Previous experience ImPRovE)	First problems with recruitment but later very satisfied with company	/
FI	Capital Hotel Arthur	19/01 21/01	Facebook & mailing lists organisations: Parental associations, Welfare, Trade unions, Home economic, Students, Poverty organisations, Single parent association	Research team (Previous experience ImPRovE)	/	Turku-14/01 colleagues & students
FR	Capital meeting room in CRÉDOC	12/02 17/02 19/02	First part by survey department of CRÉDOC Completed by recruitment agency	CRÉDOC (previous experience: MIS method)	Fist insufficient participants -> therefore recruitment completed by specialised company	/

	Location	Period (2015)	Recruitment channel	Organisation	Difficulties	Test FG
HR	Capital premises of IPSOS-PULS	16/02 17/02	Recruitment agency: IPSOS-PULS	Organisation and implementation by IPSOS-PULS, (market research company)	No assistant (tasks completed by reporter)	/
HU	Capital	04/02 05/02 06/02	extended network of TÁRKI's data collection department	Research team (Previous experience ImPRovE)	No assistant (tasks completed by reporter)	/
IT	Hosted by two different associations involved in field/research of poverty & social exclusion Milan: Foundation "Bignaschi" Rome: "Salesiani per il sociale"	13/02 14/02 27/03	Milan: through private contacts Rome: support provided by Italian anti-poverty network (Cilap) which mobilised the associations involved in this network to recruit people for the FG discussion	Research team (Previous experience ImPRovE)	Problems with finding mix of socio-economic backgrounds, overrepresentation of high educated, employed participants (medium SES) in 2 FGs in Milan Only managed to organize 1 FG in the capital city	/
LV	Capital	End Februar y-begin March	/	Research team	Problems with recruitment & drop out	/
LT	Capital city centre Hotel Sarunas (public transport & parking places)	12/02 17/02 3/03	/	Research team	No participants with low socio-economic background; all highly educated	/
LU	Capital	18/11 22/11 2/12	- Direct emails to Statec employees & private and professional networks of the members of the steering committee (snowballing) - Through NGOs working with people in difficult situations.	Research team	Earlier than other countries – use of pre-final templates to assist in testing earlier versions of the script.	/

	Location	Period (2015)	Recruitment channel	Organisation	Difficulties	Test FG
MT	Headquarters of Caritas in Floriana (outside Capital)	4/05 6/05 7/05	Through network of Caritas (support groups, volunteers, colleagues, social workers) and national experts	Research team	/	/
NL	Capital location of field research bureau Veldkamp	21-30/04	Professional recruitment office	Professional facilitators of field research bureau Veldkamp (previous experience RBs NIBUD)	/	Yes 16/04
PL	Capital city central location Warsaw School of Economics (easy reachable)	3/02 4/02 11/02	Various sources: -Warsaw School internal communication channel, -Stakeholders, -persons/ academic practitioners (NGOs working with poor people) -official contacts to four directors of the social assistance centres in Warsaw, -personal contacts institutions, companies, organisations	Research team	Problems with recruitment, esp. males and low educated	/
PT	Capital School of economics & management University of Lisbon	28/02 7/03 14/03	Professional recruitment office	Research team & assistants (previous experience: MIS method)	/	/
RO	Capital University of Bucharest	26/01 27/01	- Stakeholder organisations (esp. the Trade Union of Petrom & the Ado Sah Rom organisation) - Personal networks - FG organizers mobilizing persons familiar with FG discussions	Research team	/	Cluj-Napoca, January at Babeș-Bolyai University

	Location	Period (2015)	Recruitment channel	Organisation	Difficulties	Test FG
SE	Capital	02/02 04/02 09/02	/	Research team	/	/
SI	Institute for Economic Research	End January	Mailing to relevant experts, Centres for Social Work, trade unions and NGOs (Caritas and the Red Cross in particular). Their feed-back was very poor. Snowball effect	Research team	Some FGs with few participants, problems with recruitment & drop outs -> too short timeframe & holiday period	/

Source: country reports.

Recruitment channels

As can be observed from the table above, across countries a variety of recruitment channels were used. Often, diversified sources of recruitment were used (e.g. DE, DK, LU, FI, PL, RO, SI) in order to increase the likelihood of finding sufficient respondents with mixed profiles. The participants were often recruited by sending mails to **intermediate persons or organisations.** A snowball effect could reinforce the success of finding participants. People with higher socio-economic positions were looked for through parental organisations, trade unions, personal and professional networks or social media. Especially for recruiting people with a lower socio-economic status the partners relied on a wide range of actors, including public welfare offices, NGOs or organisations that work with people experiencing poverty (e.g. BE, DE, DK, FI, IT, LU, MT, PL, RO, SI). Part of the project was about the development of a stakeholder network. Country teams received a list of national stakeholder organisations that were supportive of the project and some organisations were very helpful and supported the recruitment successfully. However, experiences across countries are rather mixed regarding the successful recruitment of focus group participants through intermediate organisations.

Alternatively, several countries hired the services of a **professional recruitment office** to contact persons to participate in the focus group discussions. Recruitment offices can save a substantial amount of time for the research teams, and can often rely on a diversified network for recruiting participants, potentially improving the representativeness and quality of the focus groups. A disadvantage of professional recruitment is that it can be quite expensive. It is also very important to communicate clearly the selection criteria and purpose of the research. Country teams who made us of a specialised bureau to recruit their FG participants (e.g. BE, BG, HR, FR, PT, ES, and NL) seem to be rather satisfied with the professional way of recruiting.

Finally, in some other countries, including Hungary, France, and Poland, the recruitment was (partially) carried out by the **communication or survey department of the research institution** of the country team.

In order to facilitate the recruitment process as well as to thank participants for their time and input and to compensate for their travel costs, several country teams provided a **financial incentive** (e.g. BE, ES, HR, PL). Some other country teams provided a non-monetary compensation such as small gifts (e.g. SI: USB keys, pens & gift bags).

Difficulties

The recruitment of participants is a **difficult and energy-consuming task**, especially within the time and budget constraints of this project. Not all national experts did have previous experience in organising FGs and therefore had to develop new strategies for recruiting focus group participants. In addition, some country teams are not located in the capital city, which made the recruitment and organisation of focus group discussions more challenging (e.g. DE, IT). Different recruiting strategies were developed. For instance, the Belgian country team collaborated with a policy research centre located in the Capital city, and both the Belgian and Spanish teams made use of the services of a recruitment office. Finally, some countries reported an issue of bad timing as an obstacle for recruitment, as a result of holiday periods or the prevalence sickness in the country at that time (DE, LV, SI).

Many national partners reported problems of **low response** and lack of motivation among national stakeholders to support the recruitment process. Probably this is also due to the fact that national stakeholders were so far not actively involved in any other activity related to the project. Given the circumstances, it was difficult to organise some stakeholder event during this project. It is recommendable that in a follow-up project some national stakeholder event is programmed more at the start of the project to explain the goals, requirements and potential output.

In some countries, country teams were not successful in recruiting participants **of different socio-economic profiles**. Especially the recruitment of people with a low socio-economic status seemed to be very difficult in some countries (CZ, IT, LT, PL). In Belgium, France and Spain problems with finding participants with the required profile, influenced their decision to outsource (a part of) the recruitment to a specialised company. In Austria they eventually only managed to organise two instead of three FGs, since they had already recruited many candidates to participate in FG discussions for the purposes of another recent RB project.

In general we observe that country teams which could rely on a survey department or external recruitment office could save substantial amounts of time, which could be dedicated to improving the quality of the reference budgets. In addition, such a collaboration helped to ensure a heterogeneous composition of the focus groups, as required by the methodology, and sufficient turn up of contacted participants (cf. below). Therefore, for a future project it would be useful to explore the use of recruitment offices for all countries in more detail, and provide an adequate budget for hiring a recruitment office.

3.5.3 Composition of the focus groups (FGs)

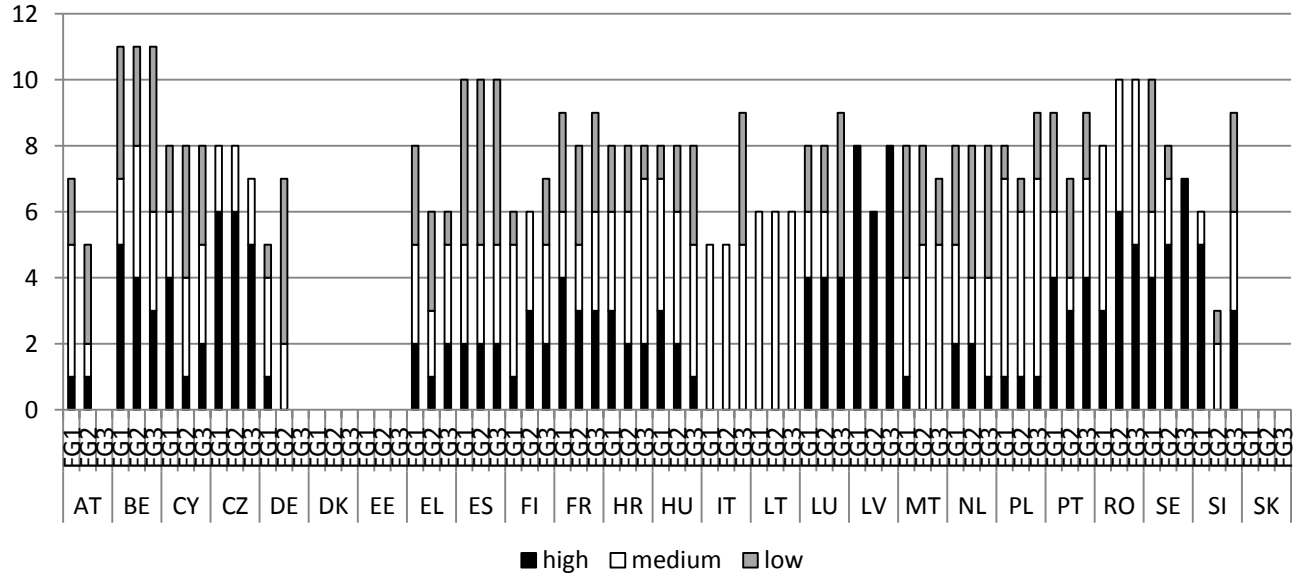
It was advised to recruit 8-10 participants for each FG, to ensure FGs of at least 6 to 8 members. The method of FGs does not allow for nor require representativeness of the population. Nevertheless, the aim was to strive for balanced focus groups composed of men and women, with different employment status and a mix of different socio-economic profiles. The latter was defined by three indicators: activity status, level of education and burden of housing costs as a proxy for income. Information on the indicators was collected through a recruitment questionnaire (cf. Annex 1.1 at the end of the report). Initially, there was no strictly defined formula for assigning respondents to different levels of socio-economic status, so the definition of different levels of socio-economic status may vary to some extent across countries[18]. By striving for a mixed composition of

[18] Some partners asked for more detailed information to assign respondents to different levels of socio-economic status. To them, the following formula was suggested. Respondents are assigned to a low, medium or high socio-economic status (SES) category following the scores on the three variables presented in the table below (see also the questionnaire for recruitment in Annex 1.1 of this report). We proposed to assign respondents to a certain SES category when their scores on at least two variables met the criteria set out below (those scoring different on each variable were assigned a medium SES). (see footnote section next page).

focus groups, to purpose was to collect a variety of opinions to assess the acceptability and completeness of the proposed food basket and the underlying assumptions of the constructed reference budgets in this project. Because of the limited number of focus groups and the broad topic list, the focus groups were not organised for the various reference households separately. The selected participants were at active age (30-50), ensuring a mix of different family situations, with preferably an overrepresentation of adults with children.

Most country teams succeeded in recruiting at least 5 to 6 participants for each focus group. Also, most country teams were able to involve people with different background characteristics. Nonetheless, it is remarkable that in most countries there is rather an underrepresentation of single parents, which can be due to the lack of time and childcare options (during the group discussion) for this type of households. For people without children there were generally more singles than couples participating. In addition, females seem to be generally overrepresented in the focus groups (not in CY, EL, HR, FR). With regard to socio-economic status, in some focus groups there were rather few people participating with a lower socio-economic background (including CZ, FI, HR, IT, LT, LV, PL, RO, SI). In the focus groups organised in the Czech Republic, Latvia, Lithuania and Romania only people with a higher or medium socio-economic background participated in the discussions. Sometimes, last minute cancellations were an important reason for the lack of people with lower education levels (e.g. LV and SI). Country teams who hired a professional recruitment bureau had fewer problems with finding a balanced composition.

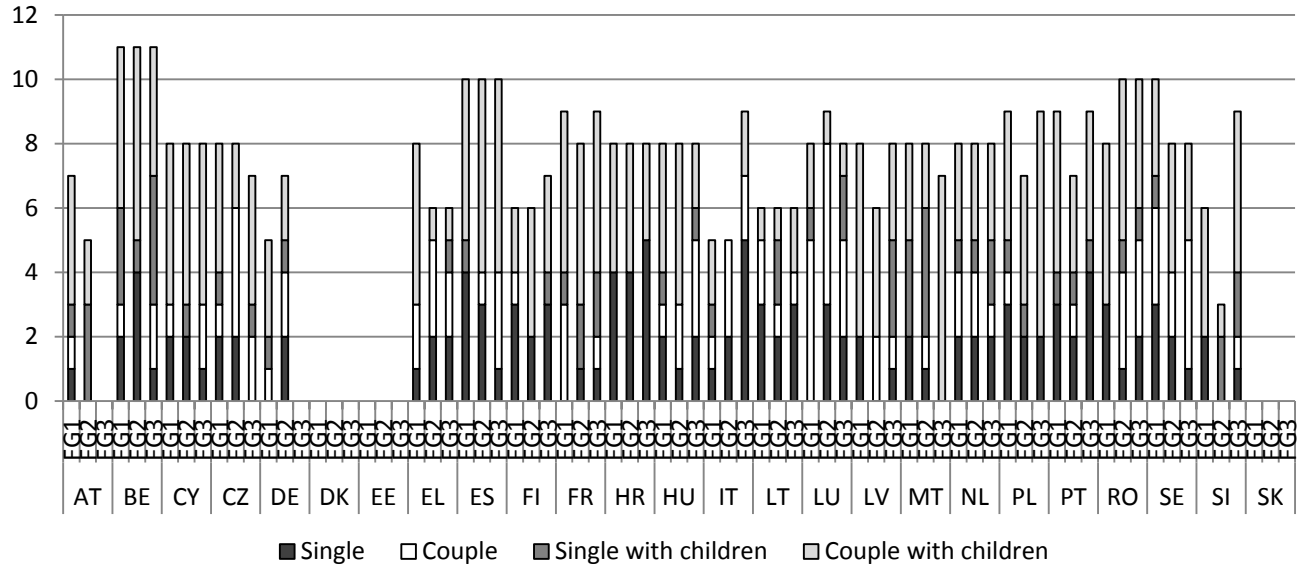
Figure 4: Number of focus group participants by socio-economic status.



Source: Country reports.

SES	Education (question 10)	Employment (question 8+9)	Costs (question 12)
low	< upper secondary	0-99	Heavy burden
medium	Upper secondary	100	Some burden
high	Tertiary	101-200	No burden

Figure 5: Household composition of focus group participants.



Source: Country reports.

Because of the limited number of FGs, it was difficult to make sure ethnic minorities and migrant populations were equally involved, even if they are representing a large share of the population in many capital cities. Therefore, this pilot project aims in the first place at capturing the dominant cultural patterns through FG discussions, acknowledging that more research is necessary to reveal the real cultural variety within cities. A unique case in this regard is Luxembourg, where they have conducted one of their FGs in French with non-Luxembourgish inhabitants.

A last note should be made on the differences between the capital and the rest of the country, which can be often very big. Some of the national partners highlighted that people in the capital are for example more well-educated in comparison with people on the countryside (e.g. LT, PL). This can affect the feasibility of recruiting mixed focus groups. An exceptional case is Malta, where the focus groups have been organised outside the capital (in Floriana) since the capital city is generally inhabited with people with a specific socio-economic profile:

"The focus groups were purposefully not conducted with residents of the capital city Valletta as this is a more administrative locality with few residents whose social profile would not be representative of the general population. One must also note, however, that the sister island Gozo was not represented in the focus groups. This island is much more rural and there would likely be greater tendency for households to consume some foods which were home- or family-grown or reared (e.g. vegetables, fruit, rabbits) or produced (e.g. ġbejniet – sheep's cheeselets)." (Country report MT)

3.5.4 Course of the focus group discussion

3.5.4.1 Duration of the focus group discussion

The average duration of the focus group discussions was estimated at two and a half to three hours. During the test focus groups in Belgium the feasibility of the timing was confirmed, while recognising it was a very strict timeframe. However, many country teams reported problems to adhere to the proposed timeframe. In a few cases the focus group discussions lasted longer (e.g. 3 to 4 hours in BE[19], CZ, LU, PT & NL), but most

[19] In the case of Belgium, it should be noted that the focus groups for testing the script were organised by the coordinating team and were carried out in Dutch, whereas the focus group discussions in Brussels

partners abided by two and a half hours and opted for discussing some parts more superficially (especially the last part on purchasing patterns).

3.5.4.2 General atmosphere and dynamic of the focus group discussion

The atmosphere during most focus groups was reported as positive and most people seemed to be interested in the subject and engaged lively in the discussions. In general, the first part on the theoretical framework was perceived as more abstract and less understandable in the focus groups. The second part on the food basket and the purchasing patterns was more recognizable for the participants and invoked more concrete discussions.

Of course, it also occurred that one or two participants were very quiet or that some participants were rather extravert. This can influence the dynamic of the discussion and could have caused conformism with the most dominant opinions in the group. We should also be aware of the social desirability of some opinions that are expressed during the focus groups, especially with regards to a healthy diet. It is up to experienced moderators to make sure all participants can have their say, and stimulate the formulation of independent opinions during an engaged discussion.

"Most of the participants were very active in the three groups. In the first group only one participant didn't speak much. He was the youngest member of the group, an unemployed man of 30. His difficulty in speaking could be explained by the presence of a very dominant member of the group who spoke more than the others and had a tendency to cut the others off (woman, 37, couple with children, unemployed, background low)." (Country report FR)

Generally, no conflicts are reported and participants in many FGs reached a degree of consensus on the discussion points. Most partners did not report notable patterns of differences between people from different backgrounds. However, sometimes people with a lower as compared to a higher socio-economic status or people with or without children held different viewpoints on certain topics. For example in Greece: *"We noticed that participants with higher socio- economic background consider holidays as essential need for adequate social participation. Participants with lower socio- economic background agreed with this up to a certain point, however, they noted that in some cases holidays and trips can be characterised as luxury services."* (Country report EL)

Taking a public perspective

As has been noticed for previous reference budget discussion groups (e.g. in BE and UK), the focus on a 'public perspective' is not easy: often people have difficulties discussing the appropriateness of a budget for a hypothetical reference household, rather than their own household. Even though it is natural for people to rely on their own experiences and opinions, and these should inform the discussion, they ought to decide upon minimum necessities in general. Also in this case the role of the moderator proved to be key to remind participants regularly to focus on the situation of the reference family. However, several country teams reported that for people with a very precarious socio-economic situation, the focus on reference households appeared to be very difficult as it was too detached from their own living conditions. In less affluent countries such as Bulgaria, Hungary and Romania this difficulty came more often to the surface, for instance in relation to a healthy diet or with regard to holidays. In this case actual consumption patterns seem to overrule the question what everyone in society should be able to have or do at the minimum regardless of their economic situation: even though participants in principle agreed with the fact that something was highly desirable for a decent standard of living, they could hardly imagine that such a standard was feasible in their country.

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were carried out by a collaborating partner in French, who had no previous experience with moderating focus groups for constructing reference budgets.

"A further problem was that most of the participants seemed unable to differentiate between the reference families and their own needs and situation. Therefore we had to clarify this distinction at certain points of the discussion." (Country report HU)

"Participants tended to give examples from their own lives in order to emphasize their arguments, and the moderators needed to prompt them from time to time that the discussion was about the reference families. We might also say that for some of them it was difficult to imagine living to what was perceived as a decent standard. Throughout the discussions, participants were highly focused on the low level of incomes and what people living in Romania usually afford buying. It is important to consider the fact that the risk of poverty and social exclusion in Romania is still almost two times higher than the EU-27 level." (Country report RO)

The focus groups provided interesting insights into the everyday life in the different capital cities and some general cultural differences. However, for the national partners who were never involved in focus group discussions before, it was also a learning process.

Talking about quantities is difficult and does not lead to robust results

Through many FG analyses, we have seen that participants find it rather difficult to reach agreement upon minimal quantities without thinking from a personal point of view. In particular, FG participants showed difficulties in judging the minimally necessary quantities of the different food items in order to stay in a good health. "*The participants found it difficult to interpret and comment the detailed daily quantities and questioned the different gram indications." (LU)* Indeed, people often do not know how many grams they are eating on a daily basis, since the food packages are consumed over an extended period of time. Moreover, the amount of food that people eat in reality depends on many factors such as preferences, daily physical activity, financial constraints, their health situation, family size and individual capacities to prepare and conserve food.

"*Here it should be noted that while the focus groups were lively and interesting and provided rich qualitative information they were not a good instrument for eliciting much quantitative information on perceived food practices."* (Country report LV)

The menu: helpful tool or not?

After developing a food basket, nutritionists in each country also developed an illustrative menu based on the food basket. The illustrative menu did often not prove to be a great support to concretize these quantities, since it provoked even more discussions on preferences, e.g. *"Several people disagreed about what was on the menu for breakfast: "Kids don't want to eat natural yogurts or breakfast cereals which are not sweet." Several people in all the groups thought that breakfast was generally consumed with less ingredients than what was on the healthy menu: 'We have to leave home at 7.30 a.m., we can't get up earlier to eat all that'."* (Country report FR) Participants do not always seem to understand that the menu is actually an illustration of what a healthy menu can look like and which type of menu is feasible with the proposed food basket. In many countries, showing the menu gave rise to much debate about preferences, rather than on needs. This leads us to the question whether showing a daily menu to the FGs is a helpful instrument and whether we should think of another way to guide the discussion. Alternatively, it might be that the purpose of the menu was not entirely clear to all moderators. Paying more attention to the training of moderators and correct framing of the purpose of the menu might also be a solution in that case.

On the other hand, focus group discussions provided very useful information on the cultural, social and institutional context of a particular society and how this affects the minimum needs of people. This reinforces our view that focus groups should primarily be used as a tool for checking the general acceptability and completeness of baskets and to collect arguments regarding the inclusion or exclusion of items on the list of goods and services. In the context a cross-country comparative project it seems advisable to

discuss specific quantities in FGs only when other information sources are completely lacking.

The discussion of kitchen equipment and the social functions of food

In the case of kitchen equipment, participants of focus groups found it easy to add or delete items from the list prepared by the country teams, on the basis of clear arguments. In contrast, no such list was proposed for the 'other functions of food' (see the next chapter). Participants generally had no problem with identifying other important functions of food, and which broad categories of goods and services were essential for fulfilling these functions. However, it was difficult to reach agreement on the exact qualities and quantities of these essential goods and services. During the final conference, a large majority of country teams pleaded in favour of more standardisation in this regard.

3.6 Conclusion

Overall, the input of focus group discussions has been judged positively: an in-depth consultation of citizens is indispensable for constructing acceptable normative fully-specified RBs. At the same time, the recruitment procedure proved to be a burdensome task for many country teams. This was especially the case if the country team was not located in the capital city. Even though potentially more costly, the services of a professional recruitment agency seemed to considerably reduce the burden of ensuring a sufficient number of participants and a heterogeneous composition of focus groups. Given that several partners had little prior experience with organising focus groups, or did not rely on a recruitment agency and encountered limited response from stakeholder organisations, the number of participants and composition of focus groups was not always satisfactory.

With regard to the quality of discussion, the focus group discussions offered valuable information for testing the cross-national acceptability of the underlying theoretical framework and for the construction of the various baskets (in particular the food basket). However, as anticipated, the topic list appeared to be too dense: in future projects there should be room for keeping the orientation and argumentation phases separate to allow for sufficient time for discussing all topics in detail. Even though participants indicated that some parts of the topic list were rather abstract, the discussions provided valuable information for validating the conceptual framework and key choices made in this project. The discussion of the food basket was usually more lively. At the same time, several partners stressed that FGs do poorly in providing useful discussions on exact quantities. In general, partners with more extensive experience in guiding focus group discussions on reference budgets reported less difficulties with framing the discussion and that ensuring participants referred to the hypothetical household situations rather than their own household. It is advisable that in a future project a more extensive training of FG moderators is organised centrally.

Finally, it is important to note that partners found it helpful to rely on a predefined list of functions that the various baskets should fulfil. This was not experienced as overly directive. Rather, a great majority asked for more central coordination and even standardisation in this regard, especially in relation to the social functions of food. It was felt that this would enhance robustness and cross-country comparability.

References

Crano, W. D. (1983), 'Assumed Consensus of Attitudes: The Effect of Vested Interest' in *Personality and Social Psychology Bulletin,* 9(4): 597-608. doi: 10.1177/0146167283094009.

Doyal, L., and Gough, I. (1991), *A Theory of Human Need*, Houndmills: Macmillan, 365p.

Goedemé, T., Storms, B., and Van den Bosch, K. (2015), *Proposal for a method for comparable reference budgets in Europe*, Pilot project: developing a common methodology on reference budgets in Europe, contract no VC/2013/0554, Brussels: European Commission, 104p.

Gould, E., Cooke, T., Davis, A., and Kimball, W. (2015), *The Economic Policy Institute's 2015 Family Budget Calculator. Technical documentation*, Working Paper No. 299, Washington, D.C.: Economic Policy Institute, 12p.

Krueger, J., and Clement, R. W. (1997), 'Estimates of Social Consensus by Majorities and Minorities: The Case for Social Projection' in *Personality and Social Psychology Review,* 1(4): 299-313. doi: 10.1207/s15327957pspr0104_2.

Monin, B., and Norton, M. I. (2003), 'Perceptions of a Fluid Consensus: Uniqueness Bias, False Consensus, False Polarization, and Pluralistic Ignorance in a Water Conservation Crisis' in *Personality and Social Psychology Bulletin,* 29(5): 559-567. doi: 10.1177/0146167203029005001.

Thaler, R. H., and Sunstein, C. R. (2009), *Nudge: Improving Decisions about Health, Wealth, and Happiness*, New York: Penguin Books.

Van der Pligt, J. (1984), 'Attributions, false consensus, and valence: Two field studies' in *Journal of Personality and Social Psychology,* 46(1): 57-68.

Wojcieszak, M., and Price, V. (2009), 'What Underlies the False Consensus Effect? How Personal Opinion and Disagreement Affect Perception of Public Opinion' in *International Journal of Public Opinion Research,* 21(1): 25-46. doi: 10.1093/ijpor/edp001.

4 The food basket

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4.1 Introduction

Food is indispensable for each individual. It is essential for the growth and repair of the human body, food provides the body with new energy and it protects it from diseases. Besides satisfying physical needs, food often also plays an important part in the social, cultural, emotional and religious life of individuals. In this project, we developed food baskets for the capital city of 26 countries[21]. For the construction of adequate cross-nationally comparable food baskets in EU Member States, a distinction was made between the physical and other functions of food. In addition, we paid attention to the cost of kitchen equipment, which is also covered by the food basket.

The purpose of the exercise was to identify the minimum resources necessary for having access to a food basket representing the same level of adequacy across EU Member States. Even if we would restrict ourselves to the health (i.e. physical) function of food, this is a very challenging task. First of all, food availability, food quality, food prices as well as food habits vary strongly across the EU. In addition, food requirements may vary given strong differences in economic, geographical and climatological circumstances that people face. This means that it is unrealistic to propose one single food basket for all EU Member States (capital cities) and assume it represents everywhere the same level of adequacy, at minimum cost. The latter can only be achieved if due account is taken of broad differences in habits regarding the consumption of food, and the local quality, availability and price of food. Second, currently there is no cross-national comparative dataset on food habits or food prices in the EU. In other words, it is impossible to run an optimisation model which matches official or scientific food guidelines with local food habits and food prices (for an illustration for the U.S., see Carlson et al., 2007).

The challenge we faced was to come up with a procedure to develop in this specific context comparable food baskets that would represent the minimum necessary resources for having an adequate diet. In order to take account of cross-national variations in food habits, food availability and quality of food, we have started in each country from national food-based dietary guidelines, assuming that they are attuned to the local context, and that they would represent the same level of adequacy across countries. In collaboration with a nutritionist, these national guidelines were translated into a concrete list of foods, representing an adequate diet. In addition, each country team carried out a small-scale price survey in accordance with common procedures, to estimate the minimum cost of such a food basket. The acceptability and completeness of the food basket and kitchen equipment, as well as of the choice of shops and pricing procedure, was evaluated during three independent focus group discussions with citizens of mixed socio-economic background (cf. Chapter 3). This rather 'manual' procedure, brings in the need for much more judgment both on the part of focus group participants and on the part of researchers and nutritionists, challenging robustness and cross-national comparability. Therefore, in the subsequent chapter, we will evaluate at some length the validity, robustness and cross-national comparability of the approach.

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[20] We are grateful to all country teams for their contribution to this chapter. A list of the members of the various country teams can be found in the annex of this report. More information on each of the national food baskets can be found in the country reports, which can be downloaded from http://ec.europa.eu/social/main.jsp?catId=1092&intPageId=2312&langId=en, and http://referencebudgets.eu.

[21] Of the 28 EU Member States, Ireland and the United Kingdom are not covered.

In this chapter, we first elaborate on the importance of adequate food intake for adequate social participation, the role of the European Union in promoting healthy eating, and actual eating habits in Europe. Second, we explain our approach to developing comparable food baskets in more detail. Third, we present the results, and highlight differences in national food-based dietary guidelines, and in the content, acceptability and cost of the food basket. The chapter ends with a preliminary conclusion. As mentioned earlier, in Chapter 5 we assess in more detail the validity, robustness and comparability of the food baskets presented in this chapter.

4.2 Adequate food intake

4.2.1 The role of food in realising adequate social participation

An important function of food is the adequate intake of nutrients. Nutrients consist of various chemical substances that are necessary for providing the body sufficient energy, for building and maintaining body organs, and for various metabolic processes. As the human body is not able to produce many of the essential nutrients in adequate amounts, people depend on nutrients in their diet.

There is solid evidence of the role of food and nutrition in the prevention of various diseases (Block, Patterson, and Subar, 1992; Holick, 2006; Joint WHO-FAO Expert Consultation on Diet, 2003; Orchard, Pan, Cheek, Ing, and Jackson, 2012; Vartanian, Schwartz, and Brownell, 2007; Williams, 2012). Over time, major risks to health shift from traditional risks like inadequate nutrition or unsafe water and sanitation to modern risks as overweight and obesity. Current estimates show that two thirds of the burden of disease today is attributable to non-communicable diseases (NCDs) that are closely related to diet and physical activity (World Health Organization, 2009). For example, the consumption of foods high in saturated and industrially produced trans fats, salt, and sugar causes 40% of all deaths every year from NCDs, while insufficient physical inactivity causes about 8% of all deaths per year from NCDs (Beaglehole et al., 2011, p. 1439). Especially in the low and middle income countries in Europe, the burden of disease per capita that is attributable to high cholesterol, high blood glucose, high body mass index, high blood pressure, low fruit and vegetable intake and too low physical inactivity is very high, (Pomerleau, Lock, and McKee, 2006; World Health Organization, 2009, p. 18).

Above and beyond the evidence of a positive relation between adequate nutritional intake and the maintenance of good physiological health, there is emerging evidence for an association between dietary intakes of certain nutrients with individual's nEurological and psychological health status (Bamber, Stokes, and Stephen, 2007; De Escobar, Obregón, and Del Rey, 2004; Lakhan and Vieira, 2008; Steptoe, Perkins-Porras, Hilton, Rink, and Cappuccio, 2004).

Besides its nutritional function, the food that we eat serves a number of interrelated other functions. Den Hartog, van Staveren, and Brouwer (2006, pp. 25-29) identify seven functions. Food has an important *gastronomic meaning*. We eat for the pleasure of it, and enjoyment of food is an important part of a healthy relationship with food. The pleasantness of food products and dishes has a psychological and cultural basis and is determined by taste, mouth feel, odor, temperature, appearance and texture. Gastronomy differs from region to region and among socio-economic groups within the same society. Closely connected to this gastronomic function, is the role of food in providing groups or nations a *cultural identity*. This is the reason why people can be rather emotional to their own food and rejecting food for example can sometimes be seen as a rejection of an entire community. Related to its cultural function, there is the *religious function of food*. In many communities the attitude of people towards food has a sacral character and dietary regulations about food are used in religious services (Mintz and Du Bois, 2002). Food can strengthen social relations. In all societies nutritional activities and social life interact. Family boundaries are expressed and reinforced by the day-to-day routines of providing, preparing and consuming food (Beardsworth and Keil,

2002), and the preparation of delicious foods for family members is a token of love and affection (John, 2007). Also dining out represents a broad range of social meanings, prominent among which are the conviviality and sociality (Ashley, Hollows, Jones, and Taylor, 2004). Besides its *social and leisure function*, dining out is sometimes a merely ancillary activity (e.g. food eaten when shopping) or can be seen as a release from normal domestic responsibilities (e.g. food eaten on holidays) (Ashley et al., 2004; Beardsworth and Keil, 2002). Food also plays an important role in *hospitality and communication*. Offering food and drinks to a visitor may put him at ease and may facilitate communication. Sometimes visitors are expected to bring something to eat or drink. Food can also be used as a *means of exchange*. Especially in rural societies, food is used as a means of exchange to get other foods or non-food items. Besides this, food is a means by which people *distinguish* themselves from others (Beardsworth and Keil, 2002; Bourdieu, 1984; Mintz and Du Bois, 2002). All societies have prestige foods that are mainly served for special occasions. Also dining out operates as "a field of distinction, marking boundaries of status through the display of taste" (Warde and Martens, 2000). Finally, food can also be used as an *instrument to exercise power and influence*. People who control the supply of food and the distribution of food in a society can also control society, esp. in times of war or social unrest (Hostetter, 2013). Of course, not all of these functions are relevant for a food basket that should enable people to participate adequately in society. Nonetheless, this list of other functions of food helps to organize the field work and documentation of the food basket.

4.2.2 The role of Europe in promoting healthy eating

On request of the European Commission, the European Food Safety Authority (EFSA) provides the most up-to-date and comprehensive scientific advice to support EU policy makers in their decision-making process in the field of nutrition. Policy makers, such as Member States authorities, may use such scientific advice when making nutrient intake recommendations or when establishing food-based dietary guidelines (FBDG). As nutrients are consumed as foods, nutrient requirements have to be translated into nutrient reference values, which can be used in diet planning and in establishing food-based dietary guidelines to help consumers to meet recommended intakes (European Food Safety Authority, 2010b).

In setting dietary recommendations, EFSA identified five separate steps (2010a:9-10). First of all one has to estimate the physiological requirement and metabolic demand. This is the rate at which a nutrient has to be provided to the body to support metabolism and maintain functions. Some nutrients need to be provided in the diet, and for others metabolism can contribute to their formation and availability to the body. The identification of the amount of a nutrient which must be consumed on a regular basis to maintain health is a second step in setting dietary recommendations[22]. The dietary requirement of a nutrient differs from the physiological requirement depending on a range of factors, such as the efficiency or effectiveness of absorption and utilisation of the nutrient and its bioavailability and respective bio efficacy i.e. the extent to which the nutrient can be formed as a part of metabolic interchange. The magnitude of the dietary requirement varies amongst individuals of similar age, sex and physiological state. This variation has been presumed to approximate a normal distribution which can be characterised by its central tendency (mean), and its distribution (standard deviation). The third step consists in establishing the habitual level of intake of a nutrient which will satisfy the needs of nearly all the members of a population group. EFSA proposes to recommend the following Dietary Reference Values (DRVs): Population Reference Intakes (PRI), Average Requirement (AR), Lower Threshold Intake (LTI), Adequate Intake (AI) and the Reference Intake ranges for macronutrients (RI).

[22] A variety of data and methods can be used in deriving estimates on nutrient requirements. These may vary between in vitro studies, animal studies, human experimental nutrition studies, and epidemiological studies. Which methods and data are most appropriate depends on the criterion or criteria chosen (see:European Food Safety Authority, 2010b: 14-18).

- Population Reference Intakes (PRI): the level of (nutrient) intake that is adequate for virtually all people in a population group. This level of intake has been set as the mean plus two standard deviations of the average requirement. The assumption is that if the intake of all members of the group were at this level, the risk of an inadequate intake for any member of the group would be small (<2.5%).
- Average Requirement (AR): the level of (nutrient) intake that is adequate for half of the people in a population group, given a normal distribution of requirement.
- Lower Threshold Intake (LTI): the level of intake below which, on the basis of current knowledge, almost all individuals will be unable to maintain "metabolic integrity", according to the criterion chosen for each nutrient.
- Adequate Intake (AI): the value estimated when a Population Reference Intake cannot be established because an average requirement cannot be determined. An Adequate Intake is the average observed daily level of intake by a population group (or groups) of apparently healthy people that is assumed to be adequate.
- Reference Intake ranges for macronutrients (RI): the intake range for macronutrients, expressed as % of the energy intake. These apply to ranges of intakes that are adequate for maintaining health and associated with a low risk of selected chronic diseases

In a fourth step, policy makers can formulate *nutrient goals and recommendations* in order to ensure adequate nutrition and health status for their citizens. Those recommendations depend on the health needs, the nutritional status and the known patterns of intake of foods and nutrients in specific populations. Therefore, they differ between countries. At the same time, it is important to note that EFSA has over the past five years continuously been working on updating DRVs[23]. Finally, as people eat food rather than its components, the nutrient goals and recommendations have to be translated in food-based dietary guidelines for healthy eating. The development of *food-based dietary guidelines* consists of the integration of scientific knowledge about nutrients, foods and health in order to identify dietary patterns that facilitate in a specific region or country the achievement of desirable food and nutrient intakes.

In their 'Scientific Opinion on establishing Food-Based Dietary Guidelines', EFSA (2010a: 25-26) explains why it is not feasible to establish detailed and effective food-based dietary guidelines which could be used at the EU level. First of all, the priorities in public health may differ between countries. Although EU Member States identified the same health problems (cardiovascular diseases, overweight/obesity, dyslipidemia, hypertension, type 2 diabetes, osteoporosis and dental caries) as major public health issues, one should not expect similar food-based dietary guidelines in European countries because the priorities of the diseases addressed by food-based dietary guidelines may substantially differ between countries. Also the priorities in selecting principal nutrients may vary, depending on the country-specific nutrient intake levels and on the impact of the related diseases on morbidity and mortality rates and the desirable changes. Thirdly, there are wide disparities in dietary/cultural habits and the availability of food products between European Member States. Although there is little difference in the type of main food groups included in national food-based dietary guidelines, the type of foods within main food groups and the recommended amounts differ substantially (European Food Safety Authority, 2010a: 26). Ultimately, food-based dietary guidelines will fail if the public finds them culturally unacceptable.

EFSA also provides advice on the scientific process of developing FBDG for the diverse European populations (cf. 2010a). To be successful, the process of developing and implementing food-based dietary guidelines should be conducted using a multi-disciplinary approach. The early involvement of stakeholders is recommended to promote the acceptance of the outcome. It is recommended that food-based dietary guidelines

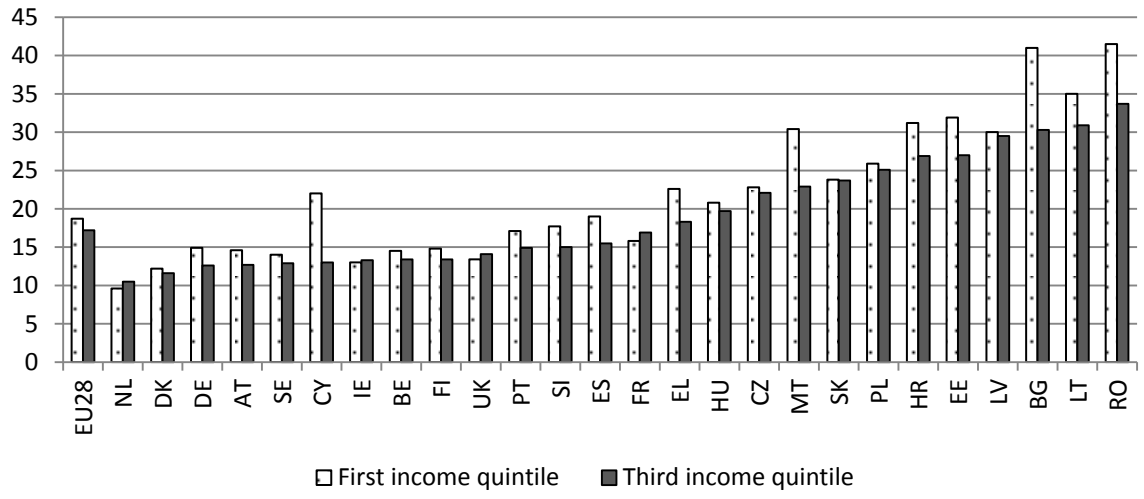
[23] Cf. http://www.efsa.Europa.eu/en/topics/topic/drv (last accessed October 2015).

should be consistent with other public policies that have an impact on food availability and be integrated with other policies related to health promotion. Once established, food-based dietary guidelines should be implemented and their impact monitored and evaluated.

4.2.3 Eating habits in Europe

Eating patterns in Europe vary a lot. Figure 6 shows the average share of spending on food and non-alcoholic beverages in total household expenditures in the first and third income quintiles across Europe. In all EU member states, food has a substantial share in total household expenditures, often the most important after housing. However, there are large variations across countries. In the Netherlands the third income quintile (containing the median income) spends about 10% of its total expenses on food, while in Romania the percentage of food expenses reaches 33%. We also observe that in most countries (except for NL, IE, UK and FR) the first income quintiles spend proportionally more on food than the third income quintiles. In some countries the difference is particularly large (e.g. CY, MT, BG, RO) reaching almost 10 percentage points. The findings support Engel's law who already found in 1857 that poorer households spend proportionally a larger share of their income on food than richer households. Confirmed by later studies comparing expenditure across countries, food expenditure is genuinely the highest in low income countries (Houthakker, 1957; Muhammad et al., 2011). When dividing in food categories, poor countries spend generally more on low-valued staple foods such as cereals, while richer countries spend proportionally more on dairy and meat products (Muhammad et al., 2011).

Figure 6: Percentage of household expenditures spent on food and non-alcoholic beverages, 2010.



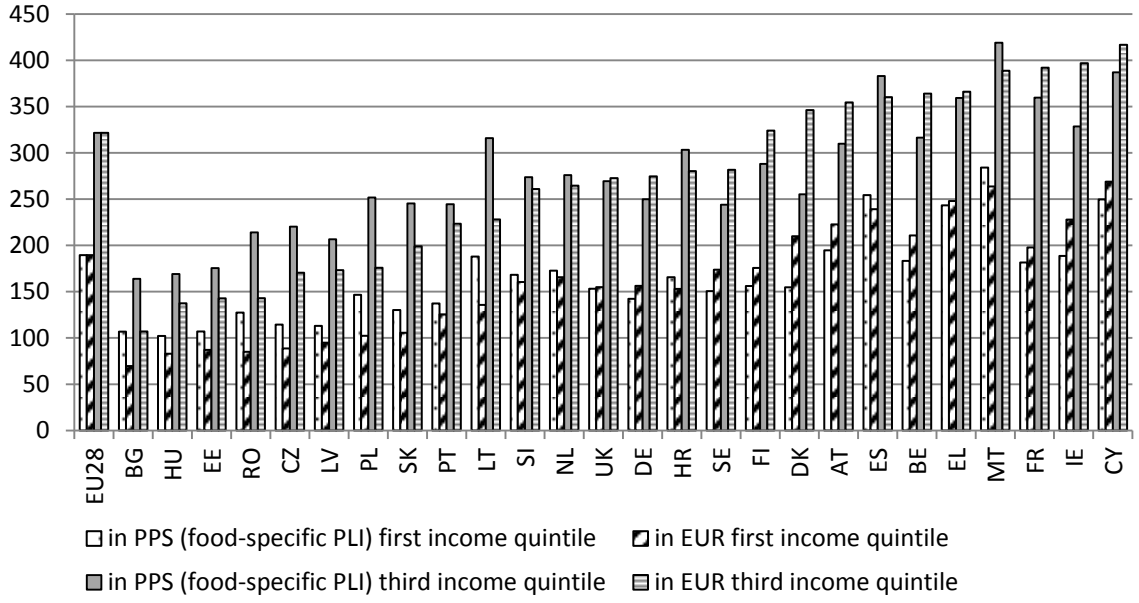
Note: Most recent data available. Data are lacking for Italy and Luxembourg.

Source: Eurostat online database.

Given that people in poorer countries and households lower down the income scale tend to spend relatively more on food, one might believe that in absolute terms differences in spending on food and non-alcoholic beverages are relatively limited. This, however, is not the case. In Europe, on average, households in the third income quintile spend about 70% more on food than households in the first income quintile, *in absolute terms*. Similarly, even though households in the third income quintile in the Netherlands spend only 10 per cent of their expenditures on food, in Euros they spend 85% more than households in the third income quintile in Romania, who spend 34% of their household

expenditures on food. If we take account of price differences of food and non-alcoholic beverages (which were in 2010 43% higher in the Netherlands than in Romania), households in the Netherlands still consume 29% more food and non-alcoholic beverages than households in the third income quintile in Romania. Clearly, food prices differ a lot across the EU, and to some extent the higher food prices are, the more households spend (in EUR or volumes) on food, but the correlation is far from perfect. It is noteworthy that households in the first income quintile in quite a few EU member states seem to spend more on food (in EUR and PPS) than those in the third quintile in countries such as Bulgaria and Estonia. At the same time, one should be careful with these comparisons across countries: (1) the average household size varies somewhat across countries; (2) differences in purchasing power standards (PPS) may reflect more variations in the type of food, rather than the volume of food that is consumed. Further, it is remarkable that Southern European countries are among top spenders on food, even though food prices were in 2010 slightly below the EU average (MT, ES) or moderately above the average (EL, CY). Finally, it appears that there is a positive correlation between the amount spent on food (in PPS) in the third income quintile and average total household expenditures (in PPS), but again there are important exceptions.

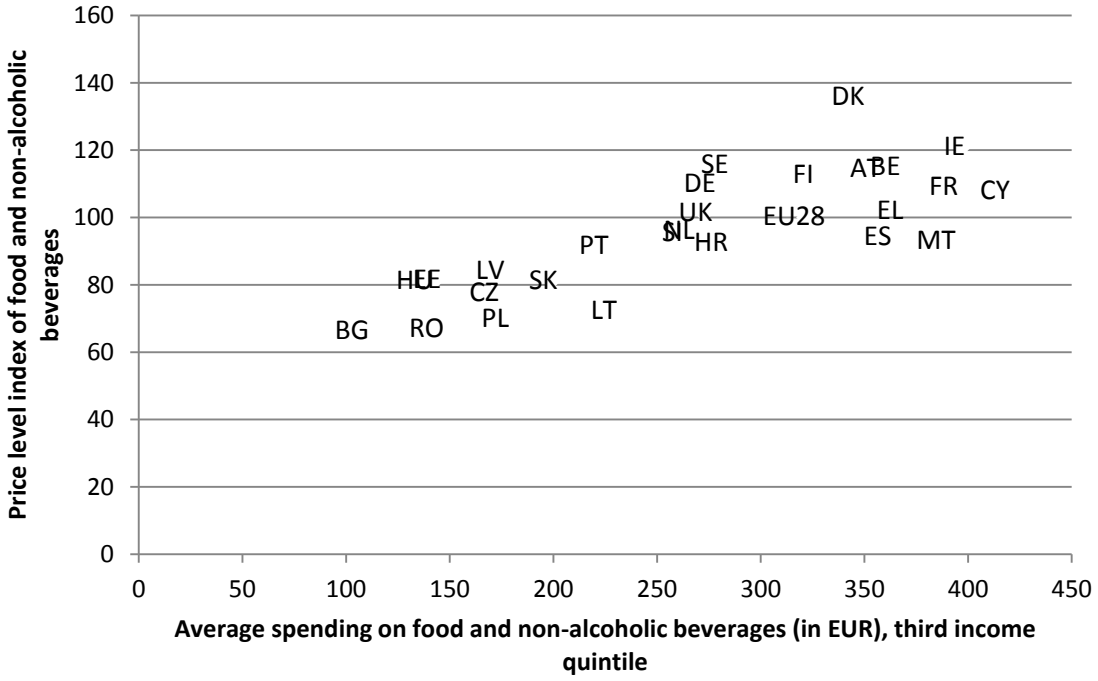
Figure 7: Absolute mean household expenditures on food and non-alcoholic beverages in the first and third income quintile, values in EUR and PPS, 2010.



Note: Most recent data available. Data are lacking for Italy and Luxembourg. Expenditures on food converted to PPS making use of price level indices of this specific category.

Source: Eurostat online database, own calculations.

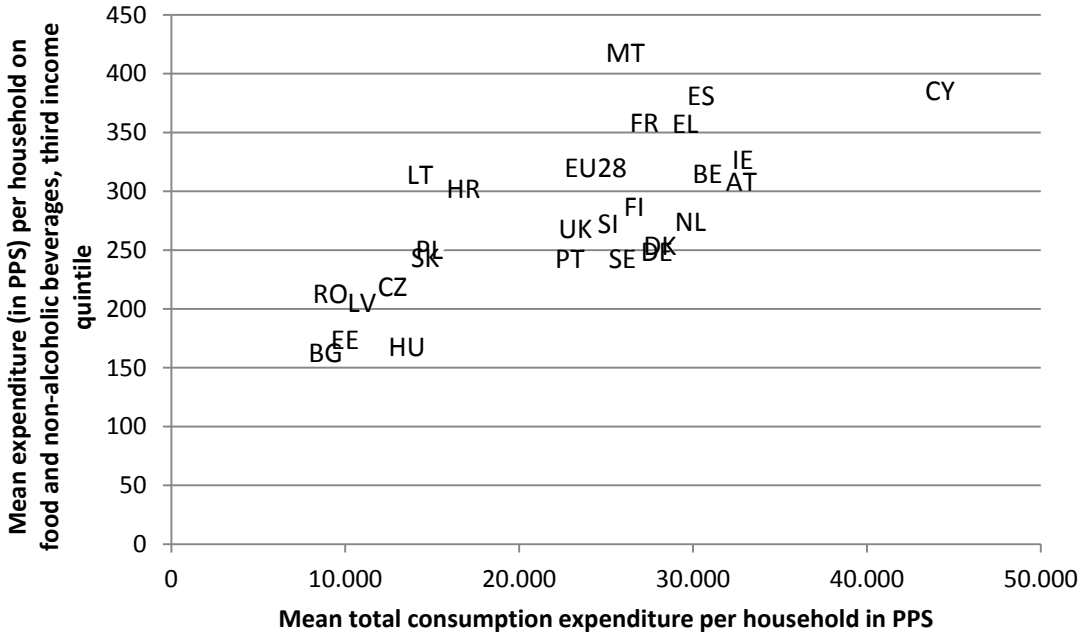
Figure 8: The relation between price levels and spending on food (in EUR) in the third income quintile across Europe, 2010.



Note: Most recent data available. No data available for Italy and Luxembourg.

Source: Eurostat online database, own calculations.

Figure 9: The relation between average living standards (total consumption expenditure per household in PPS) and consumption of food in the third income quintile, 2010.



Note: Most recent data available. Data are lacking for Italy and Luxembourg. Expenditures on food converted to PPS making use of price level indices of this specific category.

Source: Eurostat online database, own calculations.

Not only do people spend very different amounts on food across the EU, there is a large variation in the type of food that people eat across Europe. Information on eating habits can be mainly found in national dietary surveys or alternatively through food supply data. In 2009 the European Food Safety Authority developed guidelines for the collection of national food consumption data in order to evaluate the nutritional status of the population to monitor risks related to the consumption of food (EFSA, 2009). However, until today the collection of dietary data across Europe is hardly comparable because of the differences in dietary assessment methods, sample designs, description of foods, etc. These large differences across countries will affect the results of the surveys, which is why standardisation and harmonisation of food consumption surveys is an important objective of EFSA (Merten et al., 2011).

Within the DAFNE (Data Food Networking) project, survey data on food habits and changing dietary patterns between 1988 and 1999 were harmonised across seven European countries. Based on the mean food availability across countries, they found a general distinction between the North and the South of Europe. Southern European countries show generally a higher consumption of cereals, nuts, fish and seafood, fresh fruit and vegetables, legumes and vegetable oils (mainly olive oil) (Trichopoulou et al., 2002). Looking specifically at fruit and vegetables, the level of consumption is clearly higher in Mediterranean countries (Naska et al., 2000). This so-called traditional Mediterranean diet is known for its beneficial effects on health outcomes, reducing significantly the effects on cancer and cardiovascular diseases and increasing the life expectancy (Trichopoulou et al., 2000; Bosetti et al., 2003; Estruch et al., 2013). On the contrary, in Northern and Central European countries they found a higher availability of vegetable fats, animal lipids and soft drinks (Trichopoulou et al., 2000). Another study that provides comparable data across countries looks at the mean consumption of different food groups in 10 West European countries participating in the EPIC (European Prospective Investigation into Cancer and Nutrition) project based on comparable dietary interviews (Slimani et al., 2002). The conclusions are in line with the South-North distinction of the DAFNE project: Italy and Greece consume more plant foods and less animal products compared with other countries. In Northern European countries, the Netherlands, Germany and the UK, people consume more potatoes, animal products, processed foods and sweets, while they eat generally less legumes and vegetable oils (Slimani et al., 2002). In France and Spain more heterogeneous dietary patterns are found, including both a high consumption of animal products and of plant foods (Slimani et al., 2002). According to the national nutritional surveys, France has indeed an intermediate position between the Northern and Southern eating patterns, in the North of France people consume more butter, pastries and potatoes, while Southern inhabitants prefer more olive oil and vegetables being in line with the Mediterranean diet (Dubuisson et al., 2010).

Individual-level dietary studies in Poland and the Czech Republic show that the eating habits in these countries are generally not meeting the recommendations. The high levels of saturated fats and sugar that are prevalent in overall dietary patterns in Eastern Europe are of great concern and are accompanied with insufficient intake of important vitamins, calcium and magnesium (Boylan et al., 2009). Furthermore, in some Eastern European countries fruits and vegetables are particularly related to seasonal differences, e.g. in Bulgaria the national expert reports very limited consumption during winter and spring. As for Romania, it is important to know that a large share of the population comes from rural areas (44,8% of the population, census 2011) which means also a large share of home-produced foods such as vegetables, fruits, dairy products and meat. Further, the specific continental-climate, with cold winters and warm summers, imply large seasonal differences in food habits, for instance large intake of animal products and meat in winter.

The main trend seems to be a pattern of convergence with increasing similarities in eating habits between European countries (Elsner and Hartmann, 1998; Schmidhuber

and Traill, 2006). Southern and Eastern European countries are moving towards Western European consumption patterns. The traditional Mediterranean diet, originally featured by low consumption levels of animal and dairy products, has shifted more towards the Northern eating habits experiencing a process of Westernisation. This means that they have increased their intake of red meats, sweets an saturated fat, while they lowered for instance the consumption of vegetables and cereals. At the other hand, some Northern European countries improved their diet in the opposite way, consuming less animal products and more plant foods (Garcia-Closas et al., 2005; Balanza et al., 2006; Schmidhuber and Traill, 2006).

Eating habits of EU citizens are generally not in line with existing food guidelines regarding a healthy diet. Different national nutrition surveys conclude that overall eating patterns deviate substantially from the recommended food consumption (e.g. Vandevijvere et al., 2008; Leclercq et al., 2009; Heuer et al., 2015). The consumption of vegetables, fruit and dairy products is often far below the recommendations. In contrast, people consume too much animal products, saturated fat, salt and sweets. In other words energy-dense, nutrient-poor foods such as soft drinks, alcohol and snacks are often popular across the different EU member states.

These patterns of unhealthy eating habits are confirmed in the reports of the different country teams. People tend to eat too much fat, especially saturated fat often represented in animal products such as meat, eggs and dairy products (Schmidhuber and Traill, 2006; WHO, 2014). For instance, the Romanian population consumes 23% of their total food intake in the form of meat products (especially pork and beef) and also dairy products are very popular. In contrast, fish is generally eaten less than recommended (e.g. BG, DE, EL, LT, PL, RO, SI). Also overconsumption of salt is reported as a significant problem in most of EU member states (e.g. exceeding 40% of recommended daily amount in LV). According to the WHO the mean intake of salt per person is in all EU countries higher than the daily recommendation (WHO, 2013). Furthermore, people eat too much sugary products containing 'simple sugars', which is particularly reported as a problem for children and teens who consume, for instance too often soft drinks. Many country teams highlight an overconsumption of soft drinks, for instance in the Czech Republic the consumption of soft drinks increased with 39,3% in the period 2000-2011 and in Luxembourg 34% of girls and 47% of boys aged 15 report drinking soft drinks every day. Also alcoholic beverages are in all countries consumed more than recommended, especially among certain population groups. Europe seems to be the region with the highest levels of alcohol consumption in the world (WHO, 2012).

In contrast to the abundant consumption of fat, salt and sugar, there is an underrepresentation of fruits, vegetables and whole grain products in the daily menu of the average EU citizen (e.g. AT, BG, DE, FR, IT, LT, RO). In a study looking at fruit and vegetable consumption in ten EU countries, more than half of the studied population consumed less than the recommended amounts of vegetables, even in the Southern countries (Naska et al., 2000). For instance, less than a tenth of adult inhabitants of Slovenia are reported to eat the recommended quantity of fruit and vegetables. This results in a lack of carbohydrates, fibre, protein, vitamins and minerals. Finally, also the recommended quantities of physical activity are in most countries not achieved at all (e.g. BE, LU, SI). In 2008, in 18 countries more than 30% of the population aged 15 years and over were insufficiently physically active, with the highest rates in Malta (71% for men and 74% for women) (WHO, 2013).

4.3 The construction of cross-nationally comparable food baskets

For the construction of cross-nationally comparable food baskets in EU Member States we distinguish between two different parts: a budget that should enable people to consume a healthy diet, including the kitchen equipment that is required to prepare, consume, serve and preserve this food, and secondly a budget that also takes into account the other functions of food besides physical health.

The first step for all countries is to develop a basket which includes only the food items needed for the health-related functions. In order to construct cross-country comparable baskets that should enable people to eat a healthy diet, we started from the following assumptions and constraints. First of all, the ingredients should give families access to a healthy, tasty and well-varied meals. The second assumption is that all meals are prepared and eaten at home. In countries where it is very common to eat lunch at school or at work, the national experts are advised to calculate a second budget that includes school or work lunches. However, in first instance, we assume that all food is home-prepared, even though this is not corresponding with real living circumstances. Thirdly, it is assumed that all food is acquired, prepared and consumed in the most economical way possible. This means families are well-informed about prices and are able to shop in the most economic retailers that are accessible with public transport. However, we do not assume that people buy all their ingredients in the cheapest available supermarket, and allow for a certain freedom of choice to shop within a range of cheap retailers. Finally, the food basket should be acceptable for citizens with different background characteristics provided that the healthy aspect is retained.

The procedure that the various country teams followed was structured in five standardised steps or milestones.

- For the first milestone, the national experts provided a clear description of the scientific basis (DRVs) of the national Food-Based Dietary Guidelines, the health needs and the model of health education in their country.
- In the following step, in cooperation with a nutritionist, country teams listed the necessary food amounts for each hypothetical household, based on the national food-based dietary guidelines, in standardised excel files. If a certain amount of physical activity is also recommended in the food-based dietary guidelines, this was also included. Further, the national experts and nutritionists also developed a list of essential kitchen equipment to prepare, consume, serve and preserve healthy menus.
- For the third milestone, three different focus groups were organised in the capital cities (see Chapter 3). Several focus group trainings and guiding documents were organised and developed by the coordinating team to make sure that the focus groups were conducted and analysed in a standardised way (cf. Chapter 3 and Annex 1 of this report). The national partners recruited people with a variety of socio-economic positions. The targeted living standard, the food basket and acceptable purchasing patterns were discussed following a predefined topic list. The results were analysed according to a template of analysis which can be consulted in the country reports[24].
- Next, the food baskets had to be adapted in functions of feasibility and acceptability, based on the arguments put forward during focus group discussions and based on complementary survey information when available. In order to ensure that adaptations were done in a cross-nationally comparable way, a note was provided to partners with detailed information about how the food basket should be adapted in response to the results of the focus group discussions, and how other goods and services should be added to take the other functions of food into account (see Annex 2 of this report).
- The last milestone consisted of estimating the minimum feasible cost of the food basket. Again, several assumptions were made in order to organize this as much as possible in a cross-country comparable way. These assumption were written down in a document describing the pricing procedure into detail (see Annex 3 of this report). First of all, the food budget should represent the minimum resources that people need to get access to all essential food items. Further, people should have a minimum acceptable degree of freedom in the choice of shops and

[24] All reports will be published on the website of the European Commission http://ec.Europa.eu/social/main.jsp?catId=1092&intPageId=2312&langId=en; and the EU Reference Budgets Network: http://referencebudgets.eu.

products. Thirdly, market prices are used, unless other purchasing patterns are common practice, but no sales prices are used. Another important rule is that economies of scale should be built in for the different family types. And finally, regarding the kitchen equipment the national experts should take into account the purchasing patterns that are discussed in focus groups and all countries. The lifespan of kitchen equipment was kept constant across countries, unless there were objective reasons for variations.

All countries priced the food baskets between March and April 2015[25]. For various reasons, prices were collected on the basis of a small-scale price survey, carried out by each country team. For the choice of shops to buy food, the national teams had to choose a few retailers or markets which were suggested by the participants in the focus groups. The retailers had to meet the following criteria: (1) they offer a wide variety of food items of acceptable quality at low prices, (2) the shops are well spread over the city, (3) the shops are well accessible by public transport. Being well spread *over the country* was another criterion that could be taken into account, as this could facilitate the future pricing of reference budgets developed for other regions. Also the choice of shops for kitchen equipment, had to be based on suggestions by the participants of the focus groups, while priority had to be given to accessibility in the capital city and, if possible, also had to be widely spread across the country. Other criteria that could be taken into account when selecting suitable shops were: the presence of an after sales' service and an at-home-delivery service for larger items and the use of a recognised energy label. In principle for all the items of the kitchen equipment the same lifespan is applied across countries. To price the pre-packaged food, the lowest price of suitable products had to be chosen. With regard to fresh food and food categories which contain a large variety of products[26], country teams had to follow a specific predefined pricing procedure, such that a weighted price could be estimated which takes into account the available range of relevant products. For instance, the cost of fresh fruit is based on a weighted average of all fresh fruit available in the shop, taking from each type of fruit the cheapest alternative of sufficient quality (e.g., the cheapest apple, the cheapest pear, etc.). The cheapest products are weighted 5/7, whereas the average weight of the more expensive items is given a weight of 2/7, while discarding the 10% most expensive fruits. This procedure aims to meet the dual objective of identifying the minimum cost to prepare healthy menus that still offer sufficient variation. In the next chapter the impact of this weighted pricing procedure and its difficulties are discussed in more detail.

4.4 Results

The results of developing the food basket are discussed under four different headings. First, we will highlight the differences and commonalities regarding national guidelines for a healthy diet across the EU. Second, we discuss the content of the food basket, which was put together on the basis of national food-based dietary guidelines. Third, we elaborate on the acceptability of this food basket, and its underlying assumptions, based on the discussion in the three focus groups organised in each capital city. Fourth, we elaborate at some length on the cost of the food basket, including kitchen equipment and 'other functions' of food.

4.4.1 Country strategies in promoting healthy eating

Previously, we explained that there are substantive reasons why Europe has no common food-based dietary guidelines. The diversity in the recommended amounts and in the

[25] Exceptions are the food baskets for Luxembourg, Denmark, and Slovakia which were priced respectively in December 2014, July 2015 and October 2015.

[26] The food categories for which a weighted price procedure is suggested are the following: fresh fruit, canned fruit, fruit puree, frozen fruit, dried fruit, fresh vegetables, frozen prepared & unprepared vegetables, canned vegetables, fresh fish, frozen fish, canned fish, lean meat, fat meat, charcuterie, and cheese.

type of food within the main food groups becomes evident when looking at the Food Based Dietary Guidelines (FBDG) of the different countries. However, differences between FBDGs probably also reflect the fact that these FBDGs have been updated at very different moments, implying that the evidence about the effect of nutrition on health that was taken into account in their elaboration has been different.

Interestingly, some countries have established *clusters* which formulate conjunct recommendations. This is the case of the DACH region (Germany, Austria, Switzerland), whose guidelines also influenced the Czech and Slovenian dietary recommendations; or the Nordic Nutrition Recommendations used in Denmark, Finland, Sweden, Iceland and Norway. In the Mediterranean area, there is also a food pyramid along with a specific set of recommendations, but the countries participating in this project did not use it, referring, instead to their own country-specific recommendations.

FBDGs also differ with regard to the group to which they are targeted. Some countries have published FBDGs only for adults, or for children, but not for both. Table 2 provides an overview of the FBDGs available in the 28 EU member countries, along with the year of release and the institution that publishes them. The population they are targeting is specified when necessary.

Table 2: FBDG available in EU Countries.

Country	Year	Institution
AT	2010	Federal Minister for Health advised by National Commission on Nutrition (NEK)
BE	2009	Superior Health Council
BG	2005	Ministry of Health
CY	2009 (6-12y children) 2011 (12-18y adolescents) 2007 (adults) 2012 (elderly)	Nutrition Committee (The Ministry of Health)
CZ	2012	Society for Nutrition
DE	2013	German Nutrition Society
DK	2012	Nordic Council
EE	2006	National Institute for Health Development and the Estonian Society of Nutritional Science
EL	1999	Supreme Scientific Health Council, Ministry of Health
ES	2004(adults) 2006(children)	Spanish Society of Community Nutrition Ministry of Health
FI	2014	Finnish National Nutrition Council
FR	2013	Groupe d'Études des Marchés de Restauration Collective et Nutrition
HR	2002 (general population) 2011 (elderly) 2013	Antonić-Degac Croatian Medical Association Ministry of Health
HU	No FBDG	
IE	2012	Food Safety Authority of Ireland, at the request of the Department of Health and Children
IT	2003	National Research Institute for Food and Nutrition
LT	2010	Health Education and Disease Prevention Centre, Faculty of Medicine of the Vilnius University, Kaunas University of Medicine.
LU	2009	Ministry of Health
LV	2008	Ministry of Welfare
MT	1990	Malta Food and Nutrition Policy, Department of Health (currently under review to be updated)
NL	2006	Health Council
PL	2009	National Food and Nutrition Institute, Ministry of Health
PT	2011	National Program for the Promotion of Healthy Eating

Country	Year	Institution
RO	2006	Romanian Society of Nutrition
SE	2012	Swedish National Food Agency
SI	2005	Ministry of Public Health
	2008	The National Institute of Public Health
SK		
UK	2011	Scientific Advisory Committee on Nutrition, at the request of the Food Standards Agency and the Department of Health

Source: Country reports. Data for SK are lacking.

It is worth mentioning that there are notable differences in the approach used to communicate dietary guidelines. Some (few) countries only have nutritional guidelines – in which recommendations are expressed in terms of nutrients – but no FBDGs (BG, HU), and food-based recommendations also vary widely between countries. Another difference consists in communicating guidelines in terms of portion sizes along with the recommended frequency of consumption, as in the case of the majority of countries (AT, BE, CY, FI, FR, DE, EL, IT, LV, LT (only for adults), LU, PT, RO (only for adults), SI, ES, UK), or indicating only the frequency of consumption of the different food groups, either daily or weekly (HR, CZ, IE, MT, SE). It is worth repeating that according to the WHO, European Region (2003), FBDGs are a much more appropriate nutrition education tool than nutrient-based recommendations, because people eat foods, not isolated nutrients.

Most countries have a graphic presentation of the FBDGs, which is mainly represented by food pyramids (AT, BE, BG, HZ, CY, CZ, FI, EL, LV, LT, LU, PL, RO, SI, ES), although some countries are using a wheel-shaped format (DE, SE), a plate format (FI), or still another format, such as the Hungarian House of the Healthy Nutrition. Italy seems to be one of the few countries without this kind of graphic representation of the FBDGs.

The content of the FBDGs themselves is also different between countries, and some patterns can be identified according to their geographical location, which may be understood as a reflection of cultural background. For example, the dietary recommendation for protein-based foods such as meat or fish is of 1 portion per day (average 100-125g) in western countries such as Belgium, Austria or Germany, while this amount is twice as much in the Eastern and Mediterranean countries.

This geographical pattern can also be observed in the case of fats, with a much higher recommendation in the Mediterranean countries (up to six table spoons of olive oil in Spain, 40g in Italy), probably because of the main source of fat recommended in these countries are olive oil and nuts, which are known for their beneficial effects on health, in comparison with most of the other countries, in which butter and other spreadable fats are the most frequent type of fat.

With regard to fruit and vegetable intake, some countries provide a unique recommendation for fruit and vegetables (IE, SW, DE, SI, LV), while other differentiate both groups (EL, IT, LU, ES, CZ, PO, LT). The amount differs between countries, too: for example, the total amount of fruits and vegetables in Latvia is about 400g, while it is of 600g of vegetables and four portions of fruits in Portugal. It is interesting to note that the Finish FBDGs also include vitamin D pills, which reflects the lack of sunlight –essential for the activation of vitamin D at skin- during the winter months, compared with the southern countries.

In line with the WHO guidelines, the recommendation to restrict salt intake exists in almost every country, either in the form of maximum amounts or the advice to reduce its intake in the qualitative guidelines. Only CZ, LT and PT did not mention salt consumption in their guidelines.

Alcohol is another differential feature in the FBDGs of European countries. The over-consumption of alcohol is related to a wide number of mental and behavioural disorders, other non-communicable diseases as well as injuries, and one of the priorities of the

WHO[27], as well as by the European Commission[28] in terms of Public Health is to reduce the harmful use of alcohol. The way in which the different European countries incorporate this goal into their FBDGs acquires three main forms: first, there are countries that do not mention alcohol consumption in their healthy eating guidelines, probably because they do not consider that alcohol needs to be part of it. This is the case of AT, CZ, DE, EL, IE, LT, LU, RO, SE and SL. Second, other countries such as BG, FI, HU and PL include the advice to reduce or avoid alcoholic beverages consumption. Last, there are countries which include a specific recommendation of a maximum daily or weekly amount within their guidelines, as CY, ES, HR, IT, LV or the UK do; most likely with the intention to take into account their population habits and to focus more on the *harmful use* part of the WHO recommendation.

Physical activity recommendations make up a further differential feature of the different countries' FBDGs. Most of the countries include the promotion of a more active lifestyle as a priority in their Public Health agendas, however, differences arise with regard to the specificity of the advice. In the case of BG, DE, DK, HU and HR, for example, only the recommendation to increase the practice of physical activity is made; whereas almost all the other countries propose a minimum per day or per week, which typically is around 30 minutes for adults and 60 minutes for children. PT and CZ are the two only countries that do not mention physical activity either in their FBDGs or Public Health priorities.

After the review made in this section, it becomes evident that EU countries have developed different tools and strategies to promote better health among their citizens and to diminish the prevalence of non-communicable diseases, especially those related to diet, whose predominance as a health risk is common in all Member States. FBDGs have been posited to be a great asset for nutritional education of the general population, since they can be more easily understood than other sorts of guidelines, such as nutrient recommendations. On the other hand, FBDGs may have some drawbacks: evidently, it is impossible to individualize in terms of amount of physical activity or potential diseases. Instead, FBDGs provide an orientation of the proportions that should exist among the different food groups. Nevertheless, countries have great opportunities to develop more accurate guidelines –and help their citizens to acquire a healthier eating pattern- by including specific recommendations for definite general groups by providing detailed frequency and portion amount recommendations for different age groups and, in some cases, also differentiating by gender.

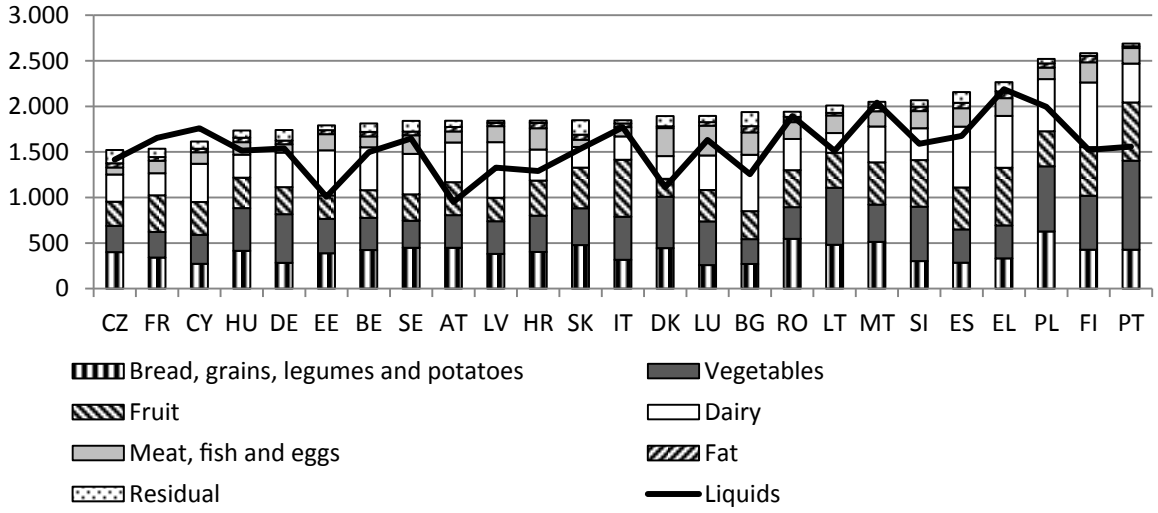
4.4.2 The content of the national Food baskets in terms of food amounts

Given the substantial differences in FBDGs and eating habits across Europe, the content of the food baskets varies a lot. In order to get a feel of these differences, Figure 10 shows the content of the national food baskets for a single woman expressed in daily food amounts (ml or mg) based on the national food based guidelines after discussions in the focus groups.

[27] http://www.Euro.who.int/__data/assets/pdf_file/0008/178163/E96726.pdf.

[28] http://eur-lex.Europa.eu/legal-content/EN/TXT/?uri=CELEX:52006DC0625.

Figure 10: Daily food amounts for a single woman, final food basket, 2015.



Note: Volumes after discussion in focus groups. Liquids are in ml, other food items are in mg.

It is important to bear in mind that comparing food amounts does not necessarily provides information about the healthiness of such baskets, because foods that belong to the same food group may have a different nutritional composition. For example, the food group entitled grains includes foods such as bread, rice, pasta, pulses and potatoes. While nutritionally the latter are considered as exchangeable, the size of the portion (what a person would normally eat in a meal) varies considerably (e.g. 70-100g of rice for an adult compared to 150-250g potatoes). For this reason, the graph above should not be interpreted as a quality indicator of the food baskets or of the dietary guidelines.

The amounts included in the graph refer to the quantity of food as bought in shops, so taking account of the edible portions and typical wastes. Net amounts of fresh fruits, vegetables, potatoes, fish, fatter meat and eggs were increased with a waste percentage of respectively 22%, 28%, 10%, 30%, 20% and 12%. All countries have used the same edible portions, following guidelines that have originally been developed for Belgium (Hoge Gezondheidsraad, 2005). An exception is Portugal, where –slightly different- national criteria were applied.

The amounts of liquids included range from 1289ml in LV to 2604ml in MT. Differences can be explained in part by the differences in the national recommendations, but also by the inclusion or not of wine and beer, in addition to water, and by the amounts of coffee and tea contained in the different baskets. In Spain, for example, coffee, tea, wine and beer account for almost an additional litre, which is added to a recommended 1.5l.

With regard to starches, there are variations from 259g (LU) to 628g (PL), with the average amount for the 26 countries being around 450g. As mentioned above, these figures must be taken cautiously as differences in the kind of foods included can substantially modify the total amount of the group. For example, in the case of LU, 500g of potatoes were included weekly, whereas in PL this amounts to 2100g.

With regard to the amount of vegetables, most countries include between 300-400g daily. Only two countries fall below this range (BG, FR), and five are placed above (DE, FI, LT, PL, PT). Differences in the FBDGs, expert knowledge of the nutritionist and cultural reasons (i.e. inclusion of vegetarian meals), are the reasons behind this variation. The same is true for the amount of fruit included, most commonly about 300-400g, although five countries included less than this quantity (CZ, DE, EE, LV, SI) and five baskets include more than 500g of fruit daily (EL, FI, IT, PT, SI).

The amount of dairy products varies widely between countries. On average, about 430g is included. The lowest amount can be found in Latvia (215g) and the highest in Finland (710g). Also in this case these large differences result from variations in FBDGs. Something similar occurs with the group of meat, fish and eggs, in which variations fluctuate between less than 100g per day (CZ, DE), to 339g per day (LU). Most food baskets include about 170g of meat, fish and eggs. These differences reflect guidelines and cultural differences in the composition of the meals. Whereas countries with the highest amounts normally have a portion of these foods in two of their main meals, countries with smaller amounts only include them in one of them, mostly dinner.

Variations in the composition of the fat group are also relevant. Not only in terms of amounts, but also in terms of the type of fat included. In addition to the geographical pattern discussed earlier by which Mediterranean countries such as EL or ES have the highest amounts of fat, especially of olive oil, and the inclusion of nuts, there are some other countries with high amounts of fat in their baskets, in the form of butter or other types of fat (BG, EE, FI). Quantities included in the national baskets vary from 20g to 72g, with an average amount 46g of fat products being included.

The residual group is the food group with highest variations, with amounts included ranging from 25g to 155g. These differences are likely to be a consequence of the lack of guidelines with regard to these kind of products (how much chocolate, flour, mayonnaise… should we include?). It is common for all the countries to have included some salt, sugar and spices, but also sauces, sweets and dressings are included, especially for children, be it with strong variations across countries. As stressed earlier, these differences in food amounts across countries do not necessarily imply differences in food adequacy. Therefore, in the next chapter, we briefly discuss the differences between the food baskets of a selection of countries in terms of their nutritional value.

4.4.3 Acceptability of the food basket by focus groups

In order to check the acceptability, feasibility, and completeness of the food basket, consultations with citizens were organised during three focus group (FG) discussions in each country. The FG participants discussed successively the content of the basket for a healthy diet, the list of kitchen equipment and the other functions of food. Furthermore, the citizens also provided information on the purchasing patterns that are predominant and socially acceptable in order to support choices that had to be made for the pricing procedure (choice of shops and products).

4.4.3.1 The basket for a healthy diet

First of all the FG participants took an overall look at the content of the basket for healthy food. In order to make the discussion more tangible, the nutritionists constructed an illustrative weekly menu for a healthy diet that was presented in the different FGs. This weekly menu illustrated how the food basket could be used to cook a variety of tasty meals. This enabled the moderator to illustrate the rather abstract basket with an example of a home-cooked menu that was revised by the participants taking into account the national and cultural context.

We can conclude that the content of the expert-based baskets for a healthy diet was generally accepted within the FGs across all countries. The participants acknowledged the importance of a healthy diet and were mostly of the opinion that the different items enable households to cook healthy and well varied meals. In most cases the FG members seemed to trust the expertise of nutritionists and national food guidelines. *"Yes it was accepted, although the participants found it difficult to judge a food basket which is presented in terms of average amounts consumed per week. The fact that this food*

basket was composed according to the guidelines of the Netherlands Nutrition Centre created trust regarding the healthiness and variation contained in the menu." (NL)[29]

Of course, there were also some critical remarks. In some FGs the participants had the feeling that the amounts were insufficient, while in other countries the FGs argued that the quantities could be reduced. "*Most people, with a few exceptions, felt the 7-day menu had sufficient food in terms of quantity and variety. A few people felt that quantities of certain foods needed to be increased, perhaps reflecting the trend of large portion sizes and an attitude of demanding value for money." (MT)* In other words, the participants showed difficulties in judging and reaching agreement on the minimally necessary quantities of the different food items in order to stay in a good health. "*The participants found it difficult to interpret and comment the detailed daily quantities and questioned the different gram indications." (LU)* Indeed, people often do not know how many grams they are eating on a daily basis, since the food packages are consumed over a bigger period of time. Moreover, the amount of food that people eat in reality depends on many factors such as preferences, daily physical activity, financial constraints, health situation, family size and individual capacities to prepare and conserve food.

"From what they could see, they thought that the quantities provided were not enough. The slides showing quantities were difficult to relate to and to discuss in further detail, while the slide formulated in the form of a weekly menu was more descriptive and thus produced more discussion. It was not possible to judge how quantities should be modified." (LV)

The illustrative menu did often not prove to be a great support to concretize these quantities, since it provoked even more discussions on preferences, e.g. *"Several people disagreed about what was on the menu for breakfast: "Kids don't want to eat natural yogurts or breakfast cereals which are not sweet." Several people in all the groups thought that breakfast was generally consumed with less ingredients than what was on the healthy menu: "We have to leave home at 7.30 a.m., we can't get up earlier to eat all that."(FR)* Participants did not always seem to understand that the menu was not to say how people should eat, but that the budget should allow people to eat healthily when they want to. As highlighted in Chapter 3, this leads us to the question whether showing a daily menu to the FGs is a helpful instrument, or whether it is a matter of better training of focus group moderators.

However, besides the rather difficult discussions on quantities, often FG participants gave some useful suggestions to replace items or to add more convenient or common products that were important to cook well-varied, tasty and healthy food in their social and cultural context. These remarks are mainly covering the 'Rest' group such as the inclusion of more fresh herbs, another kind of baking soda or sauces, more coffee, to include or exclude alcohol or to replace the sweets with some more typical cultural pastries (e.g. typical bakery in Romania, Pork in Poland and Croatia, more local vegetables and fruit in Lithuania, more potatoes in Hungary, dried fruit & nuts in Latvia, alternative cereals such as couscous in Belgium & Malta, fresh herbs & millet in Czech Republic, bottled water in Luxembourg, glass of wine in France & Italy).

An important remark that was mentioned in most countries refers to the fact that the food basket represents a rather ideal, healthy way of eating which deviates from real consumption patterns. Some FGs argue that the illustrative menus are too idealistic and that people should be able to eat also 'unhealthy foods' or drink a glass of alcohol once in a while. According to the participants these are not necessarily contributing to a bad health if they are consumed moderately. Especially for children various FGs brought to the fore that it would be very difficult to present them strictly healthy food.

[29] This quote and others are taken from the country reports prepared by country teams. The country code indicates from which report the quote is taken.

"Sweets and savoury snacks, although partly included, were seen as missing by some of the participants; as well as more "child friendly" food. There was also a debate around alcohol and the fact that it is "common to drink a glass of wine, at least on Sunday" and "many Austrians have beer or wine already with their lunches" (AT)

Finally, some FG members also questioned the healthy aspect and noticed that there are many opinions on what is regarded as 'healthy' food. In a few countries (AT, BE, DK, EL, FI, LU, PL, RO, SE) the FGs perceived the menu as too traditional with insufficient room for alternative food options. For example in Belgium and Bulgaria there were participants saying that too much milk is not always healthy for adults and that there should be more alternative options. In other countries, the FG discussions brought up issues such as the possibility to eat vegetarian food or to take into account the ecological aspects of food, as these alternative consumption patterns can sometimes be more expensive. *"Most participants believed that it is not necessary to eat fish and meat each day. Some vegetarian alternatives should be included in the basket. The groups argued that the meat quantities could be reduced, while making sure that the meat and fish is of high quality." (LU)*

Given that some of these critiques and suggestions revolved around the menu rather than the particular food basket, the food baskets did not need to be adapted as they could easily be used to compose a different menu. Other suggestions implied changes to the food basket. Insofar these suggestions did not undermine the ability of the food basket to foresee in a healthy diet, they have been taken on board when revising the food basket after the FG discussions. All in all, though, the content of the food baskets was generally accepted across all countries.

4.4.3.2 A review of the assumptions of the food basket

In order to estimate the minimum budget that should enable people to have a healthy diet, we had to make two important assumptions. The first one is the assumption that people have the capacities and time to cook healthy meals on a daily basis. Second, we assumed that people are able to shop economically which means that they are well-informed about prices and that the cheapest retailers are reachable and accessible for all households.

These assumptions were critically reviewed in FGs and the people reflected on their feasibility taking into account real household situations. It is remarkable that across all countries the participants reveal how these assumptions are not always realistic. Especially the assumption to prepare home-cooked healthy meals every day was seen as a difficult requirement for most people. The arguments brought to the fore were mostly about the lack of time and energy. People argued that preparing healthy food on a daily basis requires a lot of time, planning and organizing capacities, especially when people are working full time or when they have children.

"Many participants mentioned that home cooking (healthy, tasty and well-varied) is not feasible for all people in the society due to lack of free time. Most people are working for many hours during a day and there is no time for cooking. Four participants mentioned that daily home cooking and economical shopping is not feasible for families with children (married or not) due to many family obligations. Several participants mentioned that nowadays being a parent is a difficult role and that free time for most parents is minimal." (CY)

"The majority of participants agreed that in Romania employees work more than eight hours each day, and that leaves them little time to cook dinner at home and prepare lunch for the next day, which then they could take for work. They concluded that eating mostly home cooked meals is possible only for families with a stay at home parent/partner or for those who receive support from other members of their family, like their grandparents." (RO)

Nevertheless, the FG members mostly agree that home-cooked meals are important, and some argue that a good kitchen equipment (freezer, microwave,…) or helping family members can make it more feasible to cook on a regular basis. The participants who had a more positive view on eating self-prepared meals everyday emphasised that families can cook meals for two-three days and conserve left-overs in the freezer (EL, LT, PL, SE). *"Most of the respondents accepted the assumption that all meals are cooked at home, but with the assumption that some of the meals (hot suppers) are prepared for two-three days." (PL)* In some countries (BG, RO) participants said it is more feasible when you have family members who can help to cook fresh meals. *"Some of the participants who don't have time to cook succeeded to enjoy home cooking if there is a grandmother who helps them with the cooking. Regarding the frequency, participants mentioned that they cook predominantly during the weekend." (BG)*

In various countries (AT, CZ EE, HR, LV, FI, SE, SI) the FGs revealed that it is not realistic to prepare meals twice a day, but that eating lunch at the school canteen or at work would make this more feasible for families, especially when they have children. The FG of Luxembourg have summed up the different advantages for eating lunch in the canteen at schools or at work:

"(1) Going to the canteen is a social activity: it allows children and adults alike to maintain relations with colleagues and friends; (2) (School) canteens cook according to national guidelines of healthy food, therefore eating at the canteen allows children (and adults) to have at least one healthy meal during the day; (3) If both parents are working full time, it is impossible for them to provide lunch for their children; (4) Canteen food is not necessarily more expensive than cooking at home; (5) if children eat at the canteen, this takes off some stress from parents, as they do not need to cook a hot meal at night. Overall, there was also agreement among participants that it is still common in Luxembourg's society to eat a hot meal at lunch and not in the evening" (LU)

Moreover, the FG members in these specific countries were emphasizing that it is very common to eat lunch at school or at work, which means people would have a chance be socially excluded if they would bring (always) their own home-prepared lunch. *"Lunches during working days are warm but not cooked at home - for kids at school, for parents at the canteen or daily menu in the restaurant. "we don´t cook home for lunch, in the evening only sometimes, we eat in the canteen at work, we cook 3x warm meal for evening and lunch for weekend: lunch at work or at school is a standard" (CZ)*

In some countries, the school lunches are of good quality and can be even cheaper than self-prepared lunches (see below). But in other countries the prices are higher or the provided food is not evaluated as healthy and of good quality. Moreover, for many countries lunches at the canteen are only offered in primary schools. *"Several participants in Berlin mentioned that the school meals are of poor quality and therefore children choose alternatives like buying snacks as replacement. It was considered as important for participation that children should have the possibility (and the money) to buy food." (DE)*

Also the assumption that people should be able to shop economically invokes many discussion within the FGs. Again it is perceived as very difficult when people are working full time which leaves them with little free time to do their groceries. Many participants across different countries (CY, EL, FI, RO, HR, HU) argue that it is more feasible to reach the cheapest big supermarkets and to buy foods in bigger amounts (which is often cheaper) when families possess a car. However, not all FG members agreed and some people defended the fact that it was also possible to shop economically by means of public transport. In some countries (DE, EL, HR) it was also highlighted that price and discount information on the internet and online shopping can be very useful in this regard.

"In the City of Zagreb, people usually get leaflets with special offers and all price information from a large number of stores. Also, information is available from websites. So a large number of people buys goods and services in the shop which has some special offer for the required good/service and where it could be bought at a lower price. Participants agreed that not everyone has the capacity to shop economically. It requires time and usually a car. They noticed that walking, using a bicycle, taking the bus or tram, etc. can be a problem when buying large amounts of goods, which is normal for the average reference family. Buying in small local shops is more expensive." (HR)

4.4.3.3 Adaptations of the healthy food basket

As has been made clear, the food baskets for a healthy diet were generally accepted within the FGs. Even though many suggestions for adaptation were formulated, it proved more difficult to reach consensus upon how exactly the food baskets should be changed. Also, time was sometimes insufficient for a thorough discussion within the FGs, so that country teams did not have many well-grounded arguments to make adjustments. The most useful remarks coming from FGs did not relate to the amounts of foods, but rather concerning the type of items necessary to cook well-varied and tasty food. In most cases these adjustments helped to bring the rather 'ideal' food basket closer to reality. These suggestions were always reviewed by the nutritionists to make sure they are not impeding a healthy diet. When the suggestions were coming back across all FGs and the nutritionist agreed with it, adaptations were made. If the predominant critical voices concerned foods that are not healthy but nevertheless important to fulfil other functions necessary to participate adequately within society, they were taken into account in the part 'other functions of food'. All in all, in all countries the FG discussions resulted in limited adjustments to the healthy food part.

4.4.3.4 Kitchen equipment

In addition to food, the food basket also covers the necessary kitchen equipment for storing, preparing, serving, consuming and preserving food. Although partners were asked to develop a draft list of kitchen equipment in close collaboration with the nutritionist, most national partners used the Belgian example list as a starting point and made some adaptations according to their national context. Subsequently, these lists were shown in the different FGs. Due to time limitations, the task of FGs was not to discuss every item on the list in detail, but rather to check whether the list was complete and acceptable. In general, the FG members across countries accepted the list of kitchen equipment but suggested to include or exclude some items in order to make the list more adequate and suitable within their cultural context. The FGs generally had no remarks on the quantities and the lifespans of the items.

In comparison with the part of the food basket for a healthy diet, the FGs provided more arguments that were used to adapt the list of kitchen equipment. In most countries the national teams included or excluded several items based on FG information.

In some cases the FGs suggested adaptations referring to cultural arguments, for example to include a sealer in Bulgaria: *"A sealer was proposed to be added because as a tradition in Bulgaria many households (especially those with relatives in small towns and villages) prepare their own canned food. In that case people are confident that the food is well preserved and the quality is good." (BG)* Or to exclude egg cups and a micro wave in Italy since these are no part of the commonly used equipment of Italian households: *"…To exclude eggcups because in Italy the consumption of eggs is typical in egg-based dishes similar to omelet, the so called "frittata" and the microwave because it not so commonly used in Italy." (IT)*

Most discussions and adaptations were made in relation to the practicality of electric devices such as a micro wave, a coffee machine, a toaster, mixer or a dish washer. In some FGs the participants argued that these are essential items that enable to manage

the household taking into account time pressure, especially for working parents. For example in several countries (DE, EL, FI, FR, PT, SE, SI) the country teams added a dishwasher for families with children (In SE even for all family types) based on FG arguments, while in other countries they did not see this as a minimal need especially not since older children can help doing the dishes. But also within countries and within FGs there was a lot of disagreement on the need for a dishwasher or other electric devices for adequate social participation. Hence, we do not know whether these difference between countries are due to cultural or other national differences or if they are rather a result of the problems of robustness of the FG method.

"FG2 and FG3 discussed the presence of the dishwasher, but decided to keep it on the list for the reference family, arguing that it saves time (very important for adults in the reference family) and that considering the lifespan it is not much more expensive than washing by hand. Participants in FG argued that a dish washer would be excluded in a household with fewer members." (PT)

"Participants in all three groups discussed whether a micro-wave oven, an electric kettle and an electric coffee machine are items that are needed at the minimum. E.g. Some participants thought that a microwave oven was not necessary, and could be considered a luxury item. But most participants objected however that for working adults, the microwave oven is very handy, as well as for parents with children. It also helps those people who have fewer skills to cook healthy meals all the time. In each group those participants who advocated for a microwave and a kettle were strongest in numbers." (LU)

Even though a procedure was set up to decide on how to adapt the list of kitchen equipment in response to the results of the FG discussions, it is clear that this remains a matter of judgement on the part of the country team. Some adjustments based on FG discussions may not always be equally well-grounded and rather arbitrary. It is clear that we need more and other information sources to make sure differences between countries are understandable. For instance, informing the choice of including or excluding certain items on the list by the degree to which households actually make use of these items, would help to increase cross-country robustness and comparability.

4.4.3.5 Purchasing food and kitchen equipment

At the end, the FG participants discussed the predominant purchasing patterns that they considered acceptable and feasible for people living in the capital city or in the country in general. Doing this, the national teams were able to collect information on the choice of shops and products that had to be included in the price survey. The FG participants discussed to what extent, in the context of a budget for adequate social participation, people should rely on the private market, home production, public provision or informal exchange in order to get access to food and kitchen equipment.

Participants in the focus groups across all EU members states reported to generally rely on the private market to get access to food. However, in a few countries (BG, CZ, ES, LT, LV) the FG participants indicated that families sometimes produce fresh foods in their garden and some people can rely on family members who are farmers at the country side. *"Having parents or relatives living at the countryside leads to habits to buy food from local farmers, or to get them from relatives for free. Many families still have orchards and grow vegetables, spices for their own consumption." (LT)* However, FG members in all capital cities reported that these are rather marginal practices and that not all households have access to these kinds of production. Therefore, they agreed that it should not be taken into account when constructing a budget that represents a minimum for adequate social participation for people living in the capital city.

During the FGs, the participating citizens in different EU member states argued that supermarkets such as Lidl are the most common places to buy food. According to most FG members supermarkets are the best option since they are usually accessible and offer a wide range of products for a wide range of prices. Also discounter supermarkets and hypermarkets are mentioned, but in some cases (BG, FR, LU, PT, SI) the FG members report problems of accessibility since these are not always well spread across the country nor reachable with public transport. This is why various FG participants across countries (BG, CY, EL, FI, FR, HR, HU, LU, LV, RO, SE) share the opinion that a car offers more opportunities to shop economically. However, people also mention that home delivery services or online shopping could be an alternative option when people do not possess a car.

In the majority of the countries the FG participants argued that it is not feasible for families with a strict time schedule to buy their products in many different retailers. Many respondents expressed the view that it is more practical to shop in one supermarket nearby, where they can buy most of their ingredients at low prices. However, in half of the countries (BE, BG, CZ, EL, ES, FR, IT, LT, LU, MT, PL, PT, RO) the FG participants pointed additionally at local shops or the open market as a complementary option besides supermarkets, especially to get fresh products such as fruit, vegetables, fish and meat. The main reason to defend this was the consumers' trust in the quality of fresh products at the market or in specialized shops. Another reason can be their accessibility as an additional option to the big supermarkets who are not always located in everyone's neighbourhood.

"Typically, the focus group participants stated that they do one bulk monthly shopping at big supermarkets around the time they receive their monthly salary. They added, however, that the use of convenience corner shops for their daily shopping was very common – given that such shops were close to home, handy for last minute things and open from early morning to quite late at night (given that other shops typically close at 7pm)." (MT)

Regarding the type of products that reflect a minimum for adequate social participation, FG participants in all countries emphasize the importance of a good balance between quality and price. In various countries the people in FGs expressed the opinion that it was acceptable to rely on low price products, since own-brand products are not necessarily of bad quality. However, the FG participants often disagreed on the reliability of own-brand products since for some products a higher price is necessary in order to receive a better quality. FGs across all EU member states emphasized that there should be the possibility to make an informed trade-off between price and quality. Some FG participants (MT, SE) referred to seasonal fruit & vegetables as a possibility to buy cheaper food without compromising the quality.

"All participants agreed that it is not defendable that people should always rely on low priced products when thinking about a minimum budget that enables adequate participation. Quality of the product is also very important. Depending on the type of goods, people should be able to choose and make a trade-off between price and quality." (HR)

Moreover, the people in FGs also feel that consumers should have a certain degree of freedom of choice during shopping. When people can only buy the lowest priced products, their ability to choose between a variety of items is very limited. Another concern that was voiced is that it requires a lot of time and energy to compare all different prices and shops in the pursuit of the cheapest product. As was mentioned above, some FGs brought to the fore that this assumption is not realistic for all types of households in all situations.

"Participants agreed that looking for the cheapest product is only possible for people with sufficient time (e.g. people on parental leave, unemployed people or pensioners). It was also mentioned that [it] *can be very frustrating always feeling forced to look for the cheapest product." (AT)*

Furthermore, the national moderators asked to the FGs whether it is socially acceptable to bargain and to take for some products a lower price than the price displayed in shops or on the market. According to the FG information, it seems that in all different EU member states bargaining about prices is not a common practice, especially not during daily shopping in ordinary supermarkets and big shops. However, in the majority of the countries (AT, BE, BG, CY, EL, FR, FI, HR, IT, LT, LV, MT, PL, PT, RO, SI) the FG participants revealed that bargaining could be a prevalent practice at the open market, in some local shops or on the internet. But often participants noticed that it is rather an old-fashioned tradition that is fading away. And even though bargaining is occurring in certain situations, it could not be expected that all households are able to bargain successfully. As a result, in none of the countries it was agreed to take bargaining into account for the pricing procedure.

Publicly provided food

For the fulfilment of certain intermediate needs, people rely on publicly provided services instead of the private market. Generally, this does not apply to the food basket, since most families across Europe are not relying on public services to get access to food or kitchen equipment. Nevertheless, the FG participants revealed some areas where public provision of food can be important as well. For instance, in many countries the state organizes specific food support for people in vulnerable situations. But because of the eligibility criteria and processes of stigmatization, most people are not relying on this kind of social support and acquire food through the private market instead.

"Participants extensively discussed and in the same time criticized the absence of state intervention to support families in difficult situations. They could only identify one state developed programme for children in school, consisting of offering all children in kindergartens and schools (from kindergarten until the 8th grade) a bread roll and milk every day, free of charge. Besides this, they mentioned another programme informally called "EU food packages" (Operational Programme Support for Disadvantaged Persons for the period 2014-2020), but they agreed that it are specific low income categories of people who receive this support. They acknowledged the existence of such programmes, but they added that they are mostly implemented by NGOs, whereas this should be to a greater extent state's responsibility." (RO)

Another kind of publicly provided services related to food is the subsidization of school lunches. In some countries (BE, FR, LV, PT, SI) the FG members noticed that primary and sometimes secondary schools offer food, which is often provided at a lower price for low income families. However, since these school lunches are not accessible for everyone or not always cheaper than home-prepared food, country teams did not take this into account for the calculation of the food basket. In contrast, in a couple of countries (EE, FI, SE), the publicly subsidised school lunches are offered for free or at very low prices and at good quality for all pupils (not means-tested). Consequently, these countries have calculated a separate food budget for families with children taking into account school lunches.

4.4.3.6 Physical activity

The budget for physical activity was not directly discussed in the FGs, since it was not constituting a part of the standardised topic list. However, in some countries physical activity recommendations are an integral part of FBDGs. Hence, in some countries the people in FGs have also reflected on the minimum budget needed for physical activity.

The national partners who discussed this in their FGs, report that people mostly felt this was essential to include in a minimum budget for adequate social participation. Physical

activity was considered important not only to maintain a good health but also to maintain social relations. Especially for children, but also for adults, being able to practice sports with other people or to be a member of a sporting club is seen as indispensable for adequate social participation. However, the FG participants in some countries in East and South Europe reveal problems with affordability and accessibility of publicly provided sporting facilities such as swimming pools and sporting clubs. Because of these financial barriers, people with low socio economic positions are often not participating in paid sport activities. It would be useful to investigate how this is related to problems regarding overweight and diabetes.

During the final conference of the pilot project, many country teams were strongly in favour of more standardisation for collecting information on the requirements and minimum cost for realising sufficient physical activity as part of the reference budgets.

4.4.3.7 The other functions of food

Food is not only needed in order to maintain a good health, it also fulfils other functions that are important to participate adequately in society. Since there are no guidelines and limited expert information on the concrete fulfilment of these other functions of food, the national partners needed to rely on other information sources such as survey data and focus group discussions. Therefore, the FGs were particularly important to assess the other functions that food has in one's society and to construct a minimum budget that enables people to fulfil these functions.

First of all, the people in FGs were asked to brainstorm which functions of food besides health they felt were essential to participate adequately in society. Afterwards, a predefined list was shown to check whether the before mentioned functions matched with this list or if some functions were forgotten or not seen as necessary in a particular society. The following list was shown in all FGs:

- Gastronomic meaning (pleasure)
- Emotional function
- Religious function
- Social function
- The role of food in the creation of hospitality
- Leisure function
- The role of food in communication
- Food as a means of exchange

It is remarkable that in FGs across all countries these other functions of food are considered an essential part of cultural and social life. Not all functions were seen as equally important and some were rephrased in various countries, but in general the FG members accepted the above mentioned list and even added more functions of food that they assessed as essential.

First it was recognised that food should not always serve a particular function, but can also be important in its own right: food for pleasure, allowing people to enjoy its taste and esthetical aspects. This **gastronomic function** of food was accepted in all countries and in some countries (FI, SE, IT) it is stressed as an important function by the FG members. *"In the case of gastronomical reason for food, participants said that sometimes people should be able to eat food just for the pleasure of it. Gastronomical reason was closely related to the self-rewarding nature of food. That sometimes it should be possible to reward oneself for something." (FI)*

On the contrary, in a couple of cases (BG, RO) the FG participants thought the gastronomic function was not very important. *"Participants agreed that the gastronomic aspect (food for pleasure) is less important, while the cultural and religious functions are very important. They believed the cultural function is important because it has to do with tradition and identity, with the food Romanian people created and usually eat. Their examples were sarmale (stuffed cabbage), mici (minced meat rolls), Topoloveni marmalade, pickles, caraway soup and țuică (plum brandy)." (RO)*

In some countries (BE, CZ, FI, LT, LV, PL) the people in FGs pointed to another related function, namely food as a **hobby**. Examples include people with hobbies such as cooking or growing their own food in the garden.

Closely related to the experience of food as pleasure, the **emotional function** of food is everywhere considered essential. In various countries the FG members mention food as a way to comfort or reward oneself, to make oneself feel safe and happy. "*While most participants associated the emotional function of food with negative feelings (coping with grief and stress, solace), others thought that food can be a way of expressing positive emotions (relaxing, joy). Cake and ice cream were mentioned as examples of the latter." (NL)*

In some cases food can fulfil a **religious function**. This is not in all countries evaluated as equally important. In Austria the FG participants mentioned that for some religious minorities, which are not dominant but nevertheless represent an important group of people, it should be possible to consume specific food according to their religious rules. *"The religious function of food was mentioned especially in light of Jewish or Muslim people and there was agreement that people should be able to afford food not only for religious festivities but also with regards to certain rules (such as "halal" or "kosher"); Participants agreed that on special occasions (Christmas, carnival etc.) people should be able to consume some of the traditional foods and drinks related, such as e.g. mulled wine at a Christmas market."(AT)* For many people in Europe religion has become less important, but when it comes to religious celebrations such as Christmas and Easter, most FGs do emphasize the need to celebrate this with special or traditional food and drinks.

In contrast, FG members across countries emphasised the **cultural and traditional function**, which is broader than religion and often seen as an indispensable function of food. "*The main reason beneath the functions stressed is the cultural characteristics of the Portuguese society (for the role played by food for human relations and the Portuguese habits to have visits) and the need to keep the cultural identity and traditions." (PT)* In countries were religion plays a minor role, some traditions such as religious celebrations are still kept alive but the FG participants argue this is a matter of cultural instead of religious reasons. When rephrased in this way, we can conclude that food plays an essential role for the preservation of cultural traditions and identity in nearly all countries.

"All groups insisted on the traditional function of food. "Traditions are part of culture, of one's identity". Participants agreed that although we often eat certain types of food during special times (i.e. Christmas, Easter), people in Sweden generally seem to hold on to these traditions for cultural rather than religious reasons. The religious function of food was quite discussed in the focus groups, who considered the reference family as having secular views. "The reference family in Sweden would not be religious, but still, they eat the same food at some point of the year, but this has more to do with tradition than religion"." (SE)

Related to celebrations and cultural traditions, we also distinguished the **social function** of food. In all countries the FG members highlighted this social function often as being the most important one besides health. Eating and drinking is seen as an essential part of many social activities and gatherings with family and friends in all different cultural contexts. The people in FGs emphasize the importance of cooking and dining together but also of eating out in order to maintain social relations and to socialize. It is often stressed that food can be a means to show care and respect and creates a feeling of belonging. *"Participants associate food not only with good health but also as a part of their social life, e.g. meeting friends and relatives, enjoying spare time with friends and children. It was mentioned that visiting restaurants to dine together with friends and family members is not the only possibility. Sometimes visiting each other for special occasions is also a possibility to socialize." (BG)*

Further, food is also used as a means in the creation of **hospitality**. Across all EU member states, FGs stress this is a very important function but it is mostly seen as a part of the social function. People should be able to offer visitors something to drink or eat, in order to show appreciation and respect. In one of the Hungarian FGs some people even said that *"…the social recognition of women is partly based on the food they serve for guests." (HU)*

In some FGs (DE, DK, ES, HR, HU, LU, LV, RO) the participants also argued that food is an important part of work life in order to maintain **relations with colleagues**. *"At the bigger work places it is important for the social environment and for social relations that the colleagues eat together" (DK).* Lunches at work or having a drink with colleagues is in many countries a common practice and an essential aspect of being accepted at the work place. Moreover it facilitates communication and networking with colleagues.

Also, the **leisure function** of food is widely accepted and recognised. FG participants emphasize the role of being able to take away food or of going to a restaurant once in a while to relax and have fun with friends and relatives. Particularly on holidays or day trips the possibility to enjoy eating and drinking without the need to go shopping and cooking can be an essential part of an anti-stress, holiday feeling. Some FG members said that it is acceptable to bring home-prepared food on day trips, but that there also should be the possibility to grant oneself an extra. *"Most of the participants consider it acceptable to prepare basic food at home, take it with them and buy something extra like ice-cream, popcorn. When attending public events (soccer games, sport events) buying something to drink/eat is normal." (DE)*

We also pointed to the function of food as a means of **communication** understood in a broad sense. This idea was generally accepted by FGs in all countries. Closely related to the social function, food often represents feelings of affection and appreciation. It is often used a gift for friends or relatives or a reward in case of educational reasons. When visiting people, it is a common practice in many countries to bring something to drink or to eat to show respect and politeness. *"The symbolic value of food to show care and affection, to show appreciation, to celebrate and to create a pleasurable environment, also emerged during all three focus group discussions, irrespective of the household composition. 'It offers a sense of belonging to a group' (…) Also donating food as a gift is not uncommon, whether to show appreciation or as a strategy to help because of life circumstances (time, skills etc.)." (MT)*

Also interesting is that in various countries (BE, El, PL, FI, SE, DK, HU, LV) the FGs brought up the **educational function** of food, which was not on the predefined list, but can be also seen as a kind of communication towards children. In a few countries the FG participants thought of it as a way to reward children, but mostly the participants really saw it as an essential educative process. For instance, cooking together with children, teaching them what is unhealthy food, passing on traditions, offering them new kinds of food and tastes, explore new cultures with them, but also teaching them how to behave in restaurants and eat in public spaces.

"*The participants also mentioned that food has an educational function. With this, they meant that children should be able to taste different kinds of foods from different cultures. For example, it was pointed out that it is important that people know what sushi is what it tastes like. With just eating the "normal" food on a daily basis, children may experience not belonging if they have not had the chan*[c]*e to try food from different cultures. Besides trying new foods, people mentioned going to the restaurant as an educational thing. Participants said that going to a restaurant educates children how to "behave" in a public place (like having to wait for the food, sitting still etc.)" (FI)*

Moreover, in some countries (FR, LV, MT, PT) this was not only mentioned for children, but also for adults as a way to get to know new cultures, tastes and to explore new experiences.

Furthermore, FGs brought up that food can play on important role in communicating someone's **identity or life style**. Food can be a part of a cultural, ethnic or national

identity (e.g. the Swedish, Bulgarian or Portuguese identity), but also an expression of a subculture, a trend or a specific persuasion such as vegan food (LV). In the Czech Republic people in FGs said to have noticed a trend to eat more healthy and locally produced food. "*Food as a life style, healthy food - local food - local place of production, ethnic food. There is a trend of local food with friends, buy locally produced food and invite friends" (CZ)* Besides, according to some FGs in a few countries (DK, HU, LT, PL, SE) food can be an integral part of one's social status. They say that the social status defines also partly what, how and where people eat and what they present to their guests. *"Participants discussed the idea of food as a way to show one's social status, one's belonging to a certain class in society. What you eat relates you to a predefined socio-economic group or category" (SE)*

Finally, food **as a means of exchange** was the last function defined in the predefined list. However, this turned out to be the only function that was rejected or at least contested by FGs in nearly all countries. In many countries food as exchange was rather seen as an old-fashioned or rural tradition that has no place in city life. In a few countries the FG members emphasised it was indeed an important practice on the country side: "*Trading food is important. When parents or relatives live in the countryside, it's common to buy vegetables, meat, and eggs from farmers, or get them from relatives for free."(LT)*

Food as exchange was recognised in some countries as a familial practice when leftovers are offered to family members or when grandmothers bring fresh home-made food to their children. But according to FG members this is rather about doing each other a favour as a gift instead of exchanging food. *"They did understand that this could be a food function for the rural areas in Greece but they could not really agree with that for the case of Athens. Although, some of them said that this exchange could be between relatives. For example, if a mother prepares a meal for her children, she can offer a piece of that to her mother or sister and the opposite. A man's example was about grandmothers who can prepare homemade cookies and they can give some to their son or to their grandchildren." (EL)*

However, in a few countries, the people in FGs observed new forms of exchange in their society, particularly through online social networks and specific exchange websites that go often further than food exchange.

"*Respondents claimed that in the old times / some years ago, people, especially neighbours used to exchange products they did not have at particular time at home (e.g. a cup of sugar needed for a cake, flour e.g.), but nowadays, when everything is available and shops are open 7 days a week, this custom vanished. There is still a custom of giving the home made meals by parents to their adult children, but usually it is gift, not an exchange. The first group had a quite long discussion on modern dimension of food exchange – one of the women respondent mentioned "Wymiennik" (Wymiennik.org which means "Exchanger") it is an on-line social network exchange system in which people are able to exchange items and services for different items and services, it functions in Warsaw. A few of the respondents in this group knew/heard this, but for most of them it was new but intriguing and interesting." (PL)*

Moreover, some FG members in Greece and France have pointed out that food van serve also as a form of **social contribution** (EL, FR). For instance, subsidised food for schools or associations or food donations as an aspect of charity. *"Food could be a kind of social contribution when it is provided by soup kitchens. A FG member mentioned that nowadays, in Greece there are many people who offer their help for preparing food for homeless persons." (EL)* At the other hand, according to FGs in some other countries, food is also an important part of the national and local **economy**. Therefore, they argue that people should be able to choose to eat particular foods in order to contribute to local productivity (BE, CZ). "*Economic (committed consumption): to contribute to economic growth in some regions, some people decide to help local farmers or enterprises" (BE)*

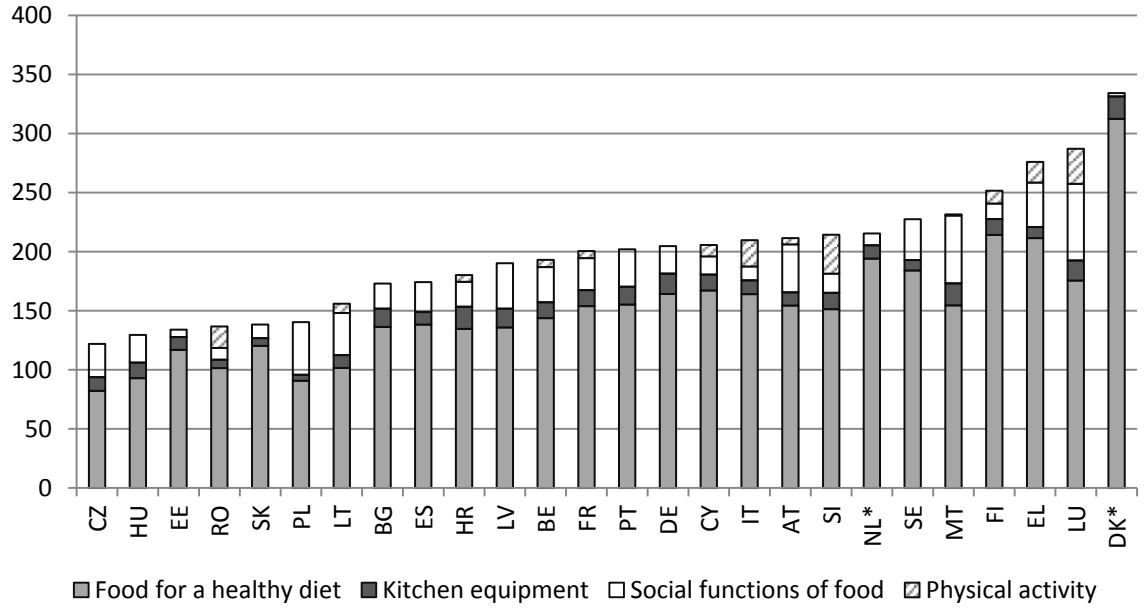
The translation of the other functions of food into goods and services

After discussing the other functions of food, the moderator asked the FG participants what kind of foods and activities would be needed at the minimum to fulfil these functions and how often people should be able to eat or do this. For instance if people agreed that the reference family should be able to take away food or eat out once in a while, they were asked which would be a minimal acceptable frequency in their society. This appeared to be a very difficult part to reach agreement on between FG members. In line with the discussion on quantities for the healthy food basket, people in FGs had generally a difficult time in assessing what people exactly need at the minimum to fulfil the different functions of food. They often relied on personal experiences and gave limited substantive arguments to the country teams for the construction of the budget. In addition, in quite a few FGs too little time could be dedicated to this part of the discussion. It also appeared that the procedure for the discussion of this part of the topic list was not carried out uniformly across countries and that country teams relied on a wide range of sources for estimating this part of the budget.

4.4.4 The minimum cost of a healthy diet

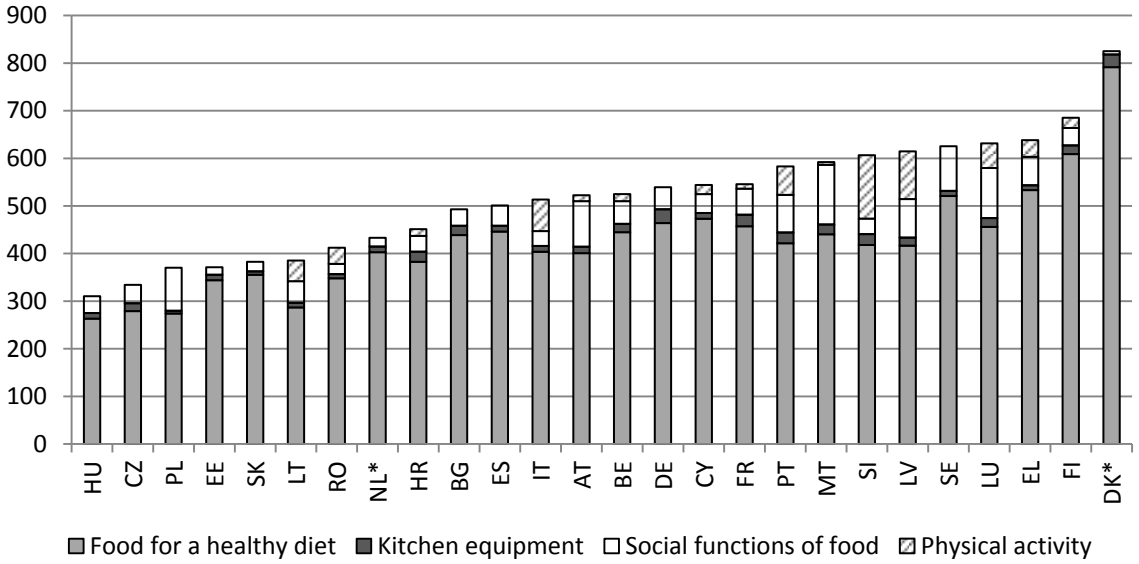
In this section, we present the first results of the priced food baskets. As we will argue in the next chapter, these results should be interpreted with some caution. Even though we are strongly convinced that the main trends are properly reflected by the budgets, further improvements are certainly possible. In addition, not all country teams implemented exactly the same procedure, notably in Denmark and the Netherlands. We received the results for Slovakia very late, which means that these data have not been checked by the coordinating team as thoroughly as for the other countries. Finally, we would like to stress that the baskets have been developed, discussed in focus groups and priced for the **capital city** of each country. The exchange rates that we used for converting all amounts to the Euro can be found in Annex 1 of this chapter.

Figure 11: Total food basket for a single woman, Euro per month, 2015.



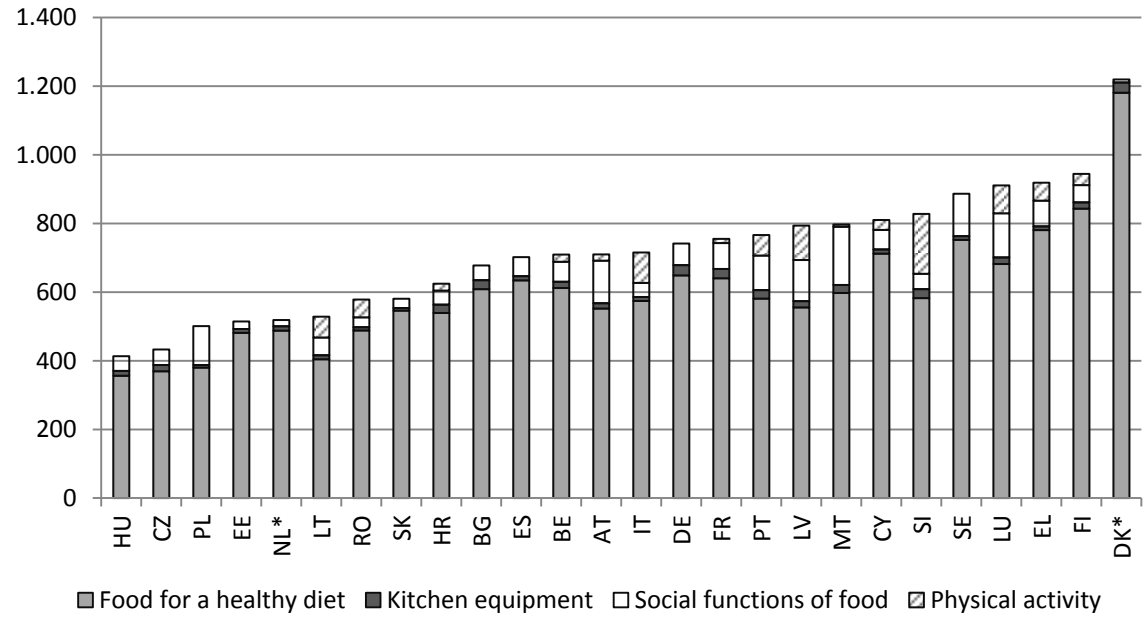
Note: Procedures for DK and NL are not fully comparable. Results refer to the capital city of each country.

Figure 12. Total food baskets for a single woman with two children (a boy of 10 years old, and a girl of 14 years old), Euro per month[30], 2015.



Note: Procedures for DK and NL are not fully comparable. Results refer to the capital city of each country.

Figure 13: Total food baskets for a couple with two children (a boy of 10 years old, and a girl of 14 years old), Euro per month[31], 2015.



Note: Procedures for DK and NL are not fully comparable. Results refer to the capital city of each country.

The graphs above show the total baskets of food respectively for a single woman, a single parent with two children and for a couple with two children. The children are assumed to be a boy of 10 years old and girl of about 14 years old. The baskets have been priced during the spring of 2015. The food budgets are subdivided in a budget for

[30] See table in annex for exchange rates.

[31] See table in annex for exchange rates.

food for a healthy diet, a budget for kitchen equipment, a budget for physical activity and a budget for the abovementioned other functions of food.

As has been explained earlier, what is defined as a healthy diet is based as much as possible on national dietary guidelines. In each country, a nutritionist translated these recommended quantities and qualities into concrete food items and an illustrative weekly menu, which was checked by citizens in FGs and adapted to the cultural context if necessary. The food basket also includes the minimum necessary kitchen equipment for storing, preparing, serving, eating and conserving food. Furthermore, when recommendations for physical activity are included in the national food guidelines, country teams included this in their food baskets. Some national experts argued that money is not necessary in order to practice physical activity, while others constructed a considerable budget for it which mostly contains the price of swimming in a public pool or a season pass or membership of a sporting club. The national teams relied on a variety of information sources such as survey data and FG discussions to define the type of activity and the required minimal frequencies. Finally, the budget for the other functions of food mostly covers take away food and eating out once in a while, to invite people at home, a small budget for celebration meals and for food on holidays and day trips. Also the latter part of the budget was informed by a range of information sources, including the discussions in FGs.

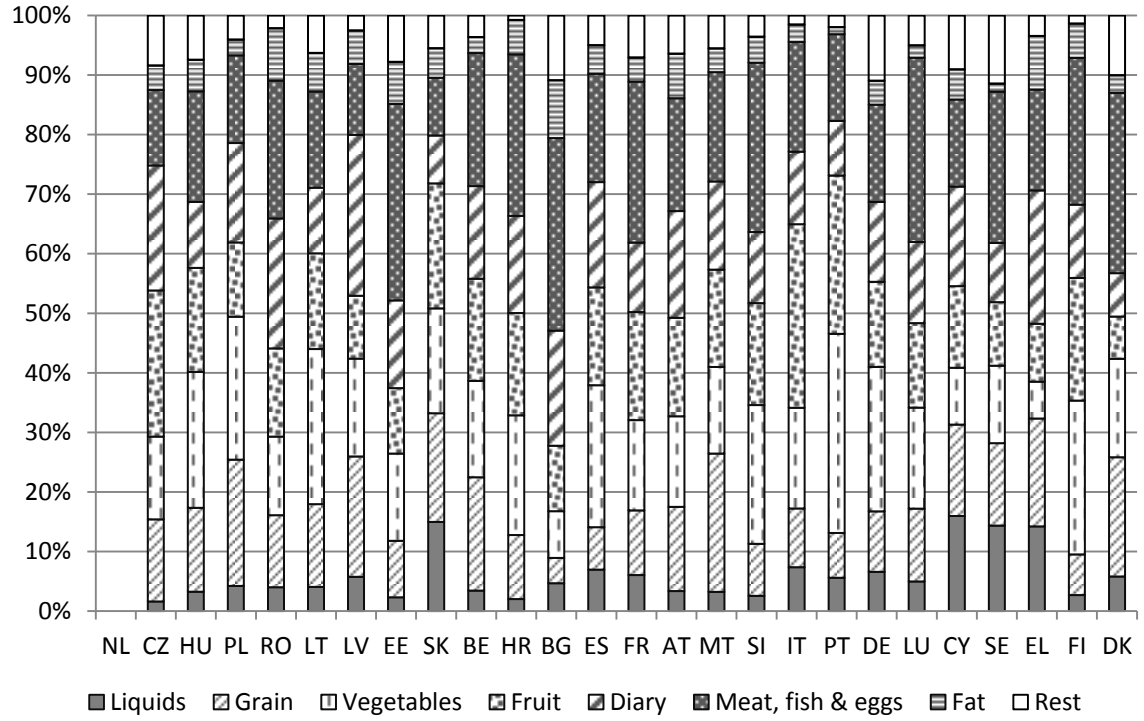
We can see in the graphs above that the budget that should enable people to eat a healthy diet constitutes the largest part of the total food basket. On the contrary, the budget for kitchen equipment accounts for a relatively small share in the total budget of a single person household and even smaller share in the budget of a couple with two children. This can be explained by the fact that the necessary equipment only needs to be bought once within a long period of time, which decreases the monthly price. The budget that represents a minimum for physical activity and the budget for the other functions of food are generally bigger than the budget for kitchen equipment. Also in the latter case the budgets constitute a bigger part of the total budget of a single woman than of the total budget of a couple with two children.

When we compare the total food baskets, we see great variations between EU member states. The highest food budget can be found in Finland, while the cost of the basket is the lowest in the Czech Republic (in EUR). The budgets for healthy food and kitchen equipment vary less between countries in comparison with the budgets for physical activity and social functions of food. In what follows, we will try to give some first plausible explanations for these differences between countries.

4.4.4.1 Differences in the baskets for a healthy diet

When we only look at the budget for healthy eating, we observe substantial variations between countries with the highest budget for Denmark (312 EUR) and the lowest for Czech Republic (82 EUR). This substantial variation between countries is mainly the result of a combination of differences in dietary guidelines on the one hand and price differences on the other hand. As we have seen, the FGs discussions did not result in many adaptations of this part of the food basket, which means they are not the main reason for the differences between countries.

Figure 14: The share of various food groups in the budget for a healthy diet for a single woman, 2015.



Note: Data are lacking for the Netherlands. Procedures for DK are not fully comparable. Results refer to the capital city of each country. Countries ordered by the total cost of the basket in EUR.

The graph above provides an image of the budget for a single woman subdivided in different food groups. There are substantial differences in the share of the different food groups in the total budget. For instance, the extensive use of tap water in Belgium (Brussels) results in a relatively low share of liquids in the total budget. In contrast, in a country such as Greece (Athens) the share of liquids and grain is relatively high while the share of the budget for meat, fish and eggs is relatively low in comparison with other countries. This is partially due to differences in price, but also to differences in the national dietary guidelines which recommend different amounts across countries (see above). In the subsequent chapter, we will elaborate in more detail on the extent to which price differences and differences in quantities can explain the differences across countries.

4.4.4.2 Differences in the lists of kitchen equipment

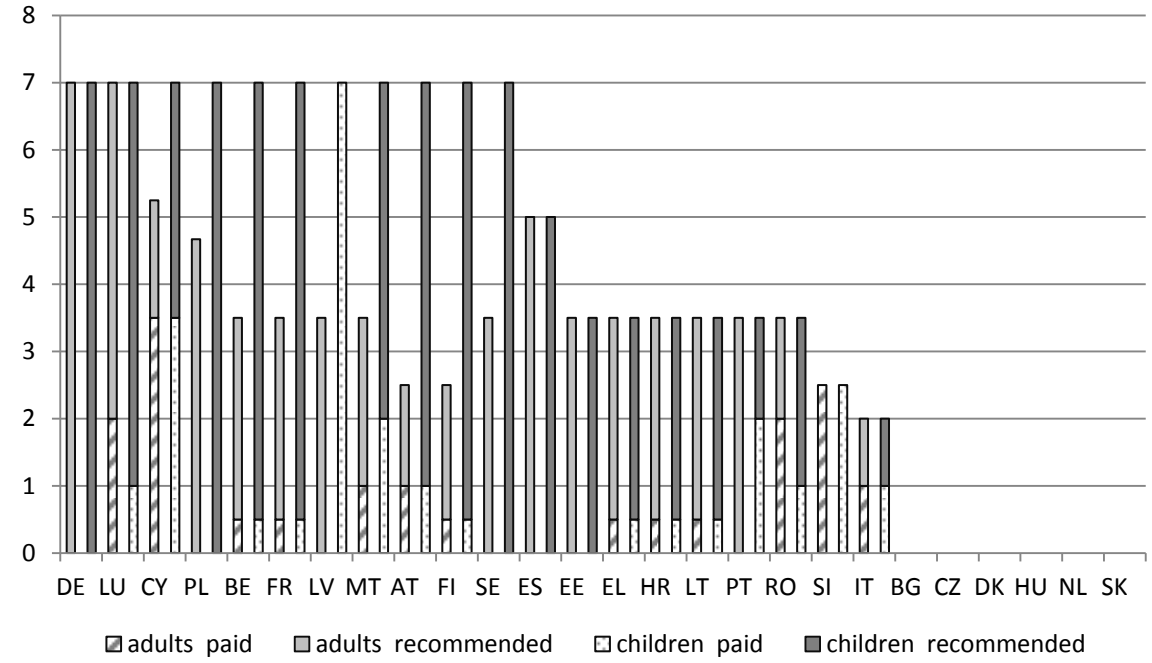
The budget for kitchen equipment constitutes only a small part of the total budget, with relatively small differences in the absolute cost across countries. The highest budgets for a single woman can be found in Denmark, Malta and Croatia (about 19 Euro a month) and the lowest in Poland (about 5 Euro a month). These differences are to an important extent due to price differences in the cost of kitchen equipment. Nonetheless, also differences in the content of the basket play a role. In some countries, the discussions in focus groups resulted in some minor adjustments, while in other countries the national experts included a lot more items based on FG arguments. Especially the more expensive electric devices that are included such as a washing machine, a toaster or a mixer, determine a part of the differences between countries. To some extent, these differences may reflect genuine differences across countries in terms of what is considered acceptable for a minimum basket, whereas part of the variation may be the result of the lack of robustness of focus group discussions. Nonetheless, we can conclude that the main differences across countries in the budget of kitchen equipment are due to differences in prices.

4.4.4.3 Differences in physical activity

In contrast to the budget for kitchen equipment, the budget for physical activity varies strongly across countries (capital cities). For a single woman, the budget is equal to zero for about 13 capital cities, whereas it amounts to about 30 Euro a month in Slovenia and Luxembourg. Obviously, one of the reasons for this strong variation is that in this project physical activity was only included in case that there were some recommendations in the national food-based dietary guidelines. As the graph below shows (Figure 15), the number of hours of physical activity per week recommended in the FBDGs varies substantially across countries. In some countries there are no recommendations on physical activity (e.g. BG, CZ, HU), whereas at the other extreme there are quite a few countries that recommend in their FBDGs at least one hour of physical activity a day (AT, BE, CY, DE, FI, FR, LU, LV, MT, PL), often varying between children and adults.

Country teams had to translate these recommendations into a budget on the basis of the discussions in focus groups. Especially, focus groups were asked to reach agreement on the extent to which the basket should cover paid physical activity. In some countries (DE, ES, EE, PL, SE) the national guidelines emphasize the importance of weekly regular activity but only included exercise as jogging or cycling which does not require a substantial budget. In other countries (AT, LV, PT, RO, SI) the recommended hours a week were translated into a rather expensive monthly pass or membership to participate in sport classes or a sport club, mostly insisted on by FG participants. In most cases, however, country teams (BE, CY, EL, FI, FR, HR, IT, LT, LU) opted for an entrance ticket that allows people to go swimming in public pools, ranging from once in two weeks to twice a week or a monthly subscription. As was stressed by the country teams during the final conference, it is clear that a more standardised procedure is required in order to arrive at meaningful cross-national comparisons. Even though this is common practice for some reference budgets (Storms et al., 2014; Goedemé et al., 2015), leaving the decision about which paid physical activity to include entirely or mainly to focus groups does not lead to sufficiently robust results. Nonetheless, this exercise learns that the price for publicly provided sport facilities can vary a lot between member states. In Malta, fitness and sport activities are heavily subsidised by the state for adults and children which results in a lower budget. In contrast, in some countries such as Greece, Italy and Romania the high prices could prevent people with low income from going to public swimming pools or participating in gym exercise. However, in order to have a complete picture of the cost of paid physical activity across Europe, a more standardised survey of prices would be necessary.

Figure 15: Weekly hours paid physical activity as part of recommended hours per week in FBDGs, 2015.



Note: For BG, CZ and HU physical activity is not included in the food-based dietary guidelines. For DK, NL and SK this information is lacking.

4.4.4.4 The other functions of food

Also in the case of the 'other functions of food', the FGs played a major role in defining the content of the basket. Also in this case, large differences can be found across countries. For a single woman, the budget for other functions of food ranges from 65 Euro in Luxembourg to six Euro in Estonia[32]. The structure of this part of the basket in most countries follows an example basket that was provided by the Belgian team. The budget for 'other functions of food' usually covers the following items:

1) A budget for take away & eating out

Most countries have calculated an average price of the most common low budget restaurants and take away restaurants. The frequency is varying from 3 to 12 times a year, based on opinions of people in FGs which is sometimes complemented with survey data.

2) Invite people at home

Based on FG information the country teams defined which snacks and drinks are commonly offered to guests in their culture, keeping in mind that it should constitute a minimum for social participation. In some countries the FGs also argued that it should also be possible to invite people for dinner once in a while, which is in some cases taken into account. All countries also included a budget for extra chairs and dinnerware.

[32] The budget is even lower in Denmark, but as mentioned before, the methodology applied in Denmark is not fully comparable.

3) Food for holidays & day trips

Most countries have assessed a minimum of a yearly domestic holiday of five days in order to participate adequately in society. Since it is more difficult to shop and cook on economic prices on a holiday, we calculated 50% of a daily food budget & the possibility to go out for dinner once. Secondly, the national experts also calculated a budget that allows for a picnic or a snack and a drinks on one or two yearly day trip(s).

4) Food for celebrations & birthdays

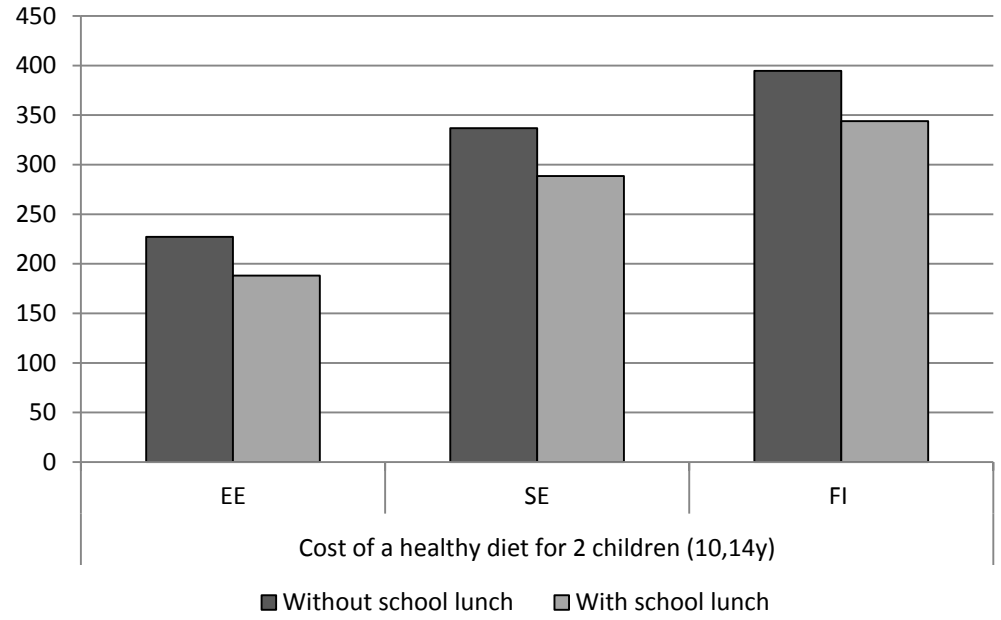
In order to calculate a budget that enables people to prepare meals for special celebrations, most national teams have calculated a double daily food budget for each feast that is commonly celebrated in their cultural context. This goes from 4 to 9 celebrations depending on the number of family members, since these also include birthday parties.

In spite of these commonalities, there are large differences in the content of this part of the basket across countries. Most country teams relied on the information coming from the focus group discussions. However, time often proved insufficient to discuss this part of the basket in sufficient depth, and suggestions varied strongly within and between countries. For some capital cities, country teams could make use of contextual information to help deciding on the appropriate items and quantities, for instance by make use of survey information regarding the frequency of holidays or inviting friends at home. However, as this information is not available for all countries, in a comparative format, it was not possible to design standardised procedures for constructing this part of the basket. Due to this lack of standardisation, the budgets for other functions of food are not cross-country comparable and the results should be interpreted cautiously.

4.4.4.5 Publicly provided school lunches

In general, public provision of food, or food received through charity (e.g. food banks), is not considered acceptable by focus groups for a minimum basket for adequate social participation. However, there is a notable exception of subsidised lunches provided through school canteens. The country teams of Finland, Sweden and Estonia have calculated a separate food budget for families with children taking into account publicly provided school lunches, as these are considered to be of adequate quality and are very common in these countries. In each of the three countries the cost of a lunch provided at the canteen in primary and secondary schools is cheaper than when prepared at home, and results in a substantial reduction of the cost of a healthy diet.

Figure 16: The effect of publicly provided school lunches on the budget for a healthy diet for two children (10y, 14y) in a single parent family in EE, FI and SE, Euro per month, 2015.



Note: Results refer to the capital city of each country.

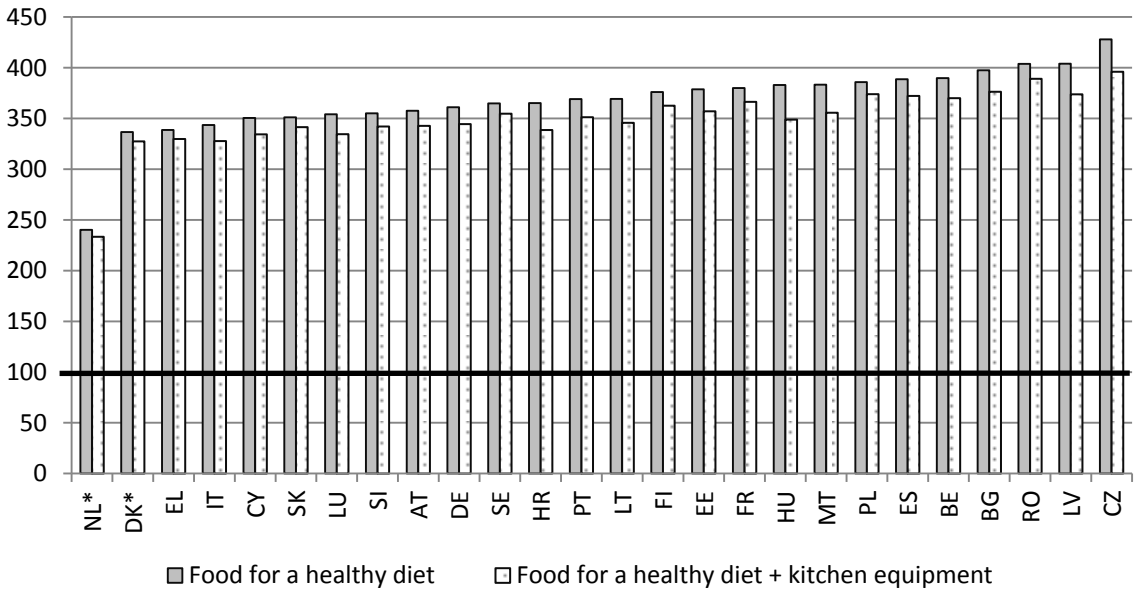
The above graph shows that the monthly budget for families with children decreases with more or less 50 Euros in Finland and Sweden when the children eat lunch at school. In Estonia families need around 30 Euros less per month to be able to eat a healthy diet. This shows the immediate impact of accessible, qualitative & affordable publicly provided school lunches on the necessary expenses of families. For single parent families with two children, this amounts to a reduction in the cost of a healthy diet of approximately 10 per cent. Obviously, the reduction in the relative cost of a healthy diet for children (without their parents) is even larger, approximating a reduction in the cost of 17 per cent. This shows how even in the area of food, governments can have a substantial impact on the minimum cost for adequate social participation.

4.4.4.6 The cost of additional family members in the different countries

Finally, it is worth assessing the extent to which there are economies of scale at play in the food basket. Given that the food basket is focused on the minimum cost of adequate food, we would expect that economies of scale would be very limited, and mainly relate to kitchen equipment, which is to a large extent a fixed cost, independently of the number of household members. The graph below shows the healthy food budget with and without kitchen equipment (without physical activity or the other functions of food) for a couple with two children as a percentage of the budget for a single (average healthy food budget for a man and a woman). This illustrates the extra cost to ensure a healthy diet for additional family members in the different EU member states. In most countries, couples with two children need 3.5 to 4 times more than a single to eat healthily. In other words, there are generally few economies of scale regarding the minimum that families need to eat healthy meals (cooked at home). For kitchen equipment we can see that larger households can benefit from some economies of scale. More research is required to find out exactly what causes the differences in economies of scale across countries. For instance, in some countries FBDGs are for certain food categories more generous for children than for adults and the rule of thumb of taking the minimum recommended amounts for women in case the guidelines vary between minima and maxima, results for some countries in higher food amounts for children than for adult

women. Also, in some countries the possibility to buy food in larger quantities may explain the economies of scale. Finally, this graph shows there are reasons to believe that in the Netherlands the cost of a healthy diet for children is severely underestimated and that the economies of scale more generally are probably overestimated. Still, as mentioned earlier, this should be a subject for further research.

Figure 17: The cost of a healthy diet of a couple with two children as a percentage of the cost of a healthy diet for a single person household, 2015.



Note: In this graph, the cost of a single person household corresponds to the average of the budget for a single male and a single female. Procedures for DK and NL are not fully comparable. Results refer to the capital city of each country.

4.5 Conclusion

With the construction of the food basket, we have shown how the general methodology presented in Chapter 3 can be refined and applied in the context of food. In the case of the food basket, usually official guidelines and recommendations are available that represent scientific information regarding the minimum required for adequate health and that take account of eating habits and the state of health of the population and, as a corollary, represent adequate food intake for social participation. These offer substantial foothold for developing a concrete basket of foods. However, (comparative) data regarding food consumption patterns and food prices are generally lacking, or not available for research, implying that judgment by nutritionists, researchers and participants in (non-representative) focus groups play an important role. Insofar FBDGs were available, sufficient standardisation could be applied to make sure that food baskets in all countries comply with the institutionalised dominant social expectations regarding what constitutes a healthy diet. In other words, it was possible to develop a food basket for each country which reflects the minimum cost for a healthy diet, taking national food patterns and recommendations into account. For kitchen equipment, physical activity and other functions of food this was generally much less, or not the case. In the case of kitchen equipment we foresaw a standardised procedure on the basis of an example list which had to be adapted to the local context, with help of the focus groups. This procedure seemed to work relatively well, except for some electrical devices. No standardised procedure was foreseen for operationalising the budget related to physical activity and the other functions of food, except that this should be done as much as

possible on the basis of agreement in focus groups. Insofar time allowed for discussion, agreement was not always possible, or unstable across the three focus groups. In general, during the final conference of the pilot project country teams recommended that a more standardised procedure should be put in place in order to arrive at meaningful results that can help cross-national benchmarking and learning.

Food baskets were constructed for the capital city in 26 countries, including all EU Member States except Ireland and the United Kingdom. In Denmark and the Netherlands, the procedure that was applied was not fully comparable, while the data for Slovakia arrived too late for a thorough check by the coordinating team. Nonetheless, the figures show that even though cross-national differences in the minimum cost of a healthy diet are wide, they vary much less than net disposable median incomes. Results also show that in some countries, public provision or subsidisation of school lunches can substantially reduce the cost of an adequate diet for children.

We are convinced the part of the food baskets which relates to having a healthy diet is comparable across countries in the sense that it reflects dominant institutionalised expectations regarding what constitutes a healthy diet. The question is how robust this is, and whether it also accurately reflects the same level of adequacy across countries, given the large differences in the timeliness, content and quality of the food-based dietary guidelines across countries, and the fact that the baskets were priced on the basis of a small-scale price survey carried out by the various country teams. These are questions to which we return in the subsequent chapter.

References

Ashley, B., Hollows, J., Jones, S., & Taylor, B. (2004). *Food and cultural studies*: Routledge.

Balanza, R., García-Lorda, P., Pérez-Rodrigo, C., Aranceta, J., Bonet, M. B., and Salas-Salvadó, J. (2006), 'Trends in food availability determined by the Food and Agriculture Organization's food balance sheets in Mediterranean Europe in comparison with other European areas ' in *Public Health Nutrition,* 10(2): 168–176. doi: 10.1017/S1368980007246592.

Bamber, D., Stokes, C., & Stephen, A. (2007). The role of diet in the prevention and management of adolescent depression. *Nutrition Bulletin, 32*(s1), 90-99.

Beaglehole, R., Bonita, R., Horton, R., Adams, C., Alleyne, G., Asaria, P., . . . Casswell, S. (2011). Priority actions for the non-communicable disease crisis. *The Lancet, 377*(9775), 1438-1447.

Beardsworth, A., & Keil, T. (2002). *Sociology on the menu: An invitation to the study of food and society*: Routledge.

Block, G., Patterson, B., & Subar, A. (1992). Fruit, vegetables, and cancer prevention - a review of the epidemiologic evidence. *Nutrition and Cancer-an International Journal, 18*(1), 1-29.

Bosetti, C., Gallus, S., Trichopoulou, A., Talamini, R., Franceschi, S., Negri, E., and La Vecchia, C. (2003), 'Influence of the Mediterranean diet on the risk of cancers of the upper aerodigestive tract' in *Cancer Epidemiology Biomarkers & Prevention,* 12(10): 1091-1094.

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*: Harvard University Press.

Boylan, S., Welch, A., Pikhart, H., Malyutina, S., Pajak, A. K., R., Bragina, O., . . . Bobak, M. (2009), 'Dietary habits in three Central and Eastern European countries: the HAPIEE study' in *BMC Public Health,* 9(1): 439.

Carlson, A., Lino, M., and Fungwe, T. (2007), *The low-cost, moderate-cost, and liberal food plans, 2007*, CNPP-20, Washington, D.C.: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 42p.

COM (207) 279 Final. White paper on a strategy for Europe on nutrition, overweight and obesity-related health issues., DG Sanco, SEC (2007) 706, 707 C.F.R. (2007).

Daar, A. S., Singer, P. A., Persad, D. L., Pramming, S. K., Matthews, D. R., Beaglehole, R., . . . Ganguly, N. (2007). Grand challenges in chronic non-communicable diseases. *Nature, 450*(7169), 494-496.

De Escobar, G. M., Obregón, M. J., & Del Rey, F. E. (2004). Role of thyroid hormone during early brain development. *European Journal of Endocrinology, 151*(Suppl 3), U25-U37.

den Hartog, A. P., van Staveren, W. A., & Brouwer, I. D. (2006). *Food habits and consumption in developing countries: manual for social surveys*: Wageningen Academic Pub.European Food Safety Authority. (2010a). Scientific Opinion on establishing Food-Based Dietary Guidelines. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA). *EFSA Journal, 8*(3), 1460.

Dubuisson, C., Lioret, S., Touvier, M., Dufour, A., Calamassi-Tran, G., Volatier, J.-L., and Lafay, L. (2010), 'Trends in food and nutritional intakes of French adults from 1999 to 2007: results from the INCA surveys' in *British Journal of Nutrition,* 103(07): 1035–1048. doi: 10.1017/S0007114509992625.

EFSA. (2009), 'General principles for the collection of national food consumption data in the view of a pan-European dietary survey ' in *EFSA Journal,* 27(12): 1435-1486.

Elsner, K., and Hartmann, M. (1998), *Convergence of food consumption patterns between Eastern and Western Europe*, Discussion paper, No. 13: Institute of Agricultural Development in Central and Eastern Europe, 46pp.

Estruch, R., Ros, E., Salas-Salvadó, J., Covas, M. I., Corella, D., Arós, F., . . . Martínez-González, M. A. (2013), 'Primary prevention of cardiovascular disease with a Mediterranean diet' in *New England Journal of Medicin,* 368(14): 1279.

European Food Safety Authority. (2010a), 'Scientific Opinion on establishing Food-Based Dietary Guidelines. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA).' in *EFSA Journal,* 8(3): 1460.

European Food Safety Authority. (2010b), 'Scientific Opinion on principles for deriving and applying Dietary Reference Values. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA)' in *EFSA Journal,* 8(3): 1458.

European Food Safety Authority. (2010b). Scientific Opinion on principles for deriving and applying Dietary Reference Values. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA). *EFSA Journal, 8*(3), 1458.

Gabbi, S., & Alemanno, A. (2014). *Foundations of EU Food Law and Policy-Ten Years of* European Food Safety Authority: Ashgate Publishing.

Garcia-Closas, R., Berenguer, A., and González, C. A. (2005), 'Changes in food supply in Mediterranean countries from 1961 to 2001 ' in *Public Health Nutrition,* 9(1): 53-60. doi: 10.1079/PHN2005757.

Goedemé, Storms & Van den Bosch (2015). *Pilot project for the development of a common methodology on reference budgets in Europe. Proposal for a method for comparable reference budgets in Europe*. Brussels: European Commission.

Griffiths, J., Vladu, C., & George, E. (2013). Monitoring the EU platform on diet, physical activity and health. Special report on the EU platform on diet, physical activity and health (reference period 2006-2012).

Heuer, T., Krems, C., Moon, K., Brombach, C., and Hoffmann, I. (2015), 'Food consumption of adults in Germany: results of the German National Nutrition Survey II based on diet history interviews' in *British Journal of Nutrition,* 113(10): 1603-1614.

Hoge Gezondheidsraad. (2005). Maten en gewichten: handleiding voor een gestandaardiseerde kwantificering van voedingsmiddelen.[Measures and weights: manual for standardized quantification of foods.]. Brussels, Belgium: Belgische Hoge Gezondheidsraad.

Holick, M. F. (2006). High prevalence of vitamin D inadequacy and implications for health. *Mayo Clinic Proceedings, 81*(3), 353-373.

Hostetter, J. (2013). Punishment and Food. In P. B. In Thompson & D. M. Kaplan (Eds.), *Encyclopedia of Food and Agricultural Ethics*: Springer.

Houthakker, H. S. (1957), 'An international comparison of household expenditure patterns, commemorating the centenary of Engel's law' in *Econometrica, Journal of the Econometric Society,* 25(4): 532-551.

John. (2007). *Essentials of Nutrition and Dietetics for Nursing*: BI Publications Pvt Ltd.

Joint WHO-FAO Expert Consultation on Diet, N., and the Prevention of Chronic Diseases. (2003). Diet, nutrition, and the prevention of chronic diseases: Report of a WHO-FAO Expert Consultation. Geneva: World Health Organization.

Lakhan, S. E., & Vieira, K. F. (2008). Nutritional therapies for mental disorders. *Nutr J, 7*(2), 1-8.

Leclercq, C., Arcella, D., Piccinelli, R., Sette, S., Le Donne, C., and Turrini, A. (2009), 'The Italian National Food Consumption Survey INRAN-SCAI 2005–06: main results in terms of food consumption' in *Public health nutrition,* 12(12): 2504-2532.

Merten, C., Ferrari, P., Bakker, M., Boss, A., Hearty, A., Leclercq, C., . . . Volatier, J.-L. e. a. (2011), 'Methodological characteristics of the national dietary surveys carried out in the European Union as included in the EFSA Comprehensive European food consumption database' in *Food Additives and Contaminants,* 28(8): 975-995.

Mintz, S. W., & Du Bois, C. M. (2002). The anthropology of food and eating. *Annual review of anthropology*, 99-119.

Muhammad, A., Seale, J. L., Meade, B., and Regmi, A. (2011), *International evidence on food consumption patterns: An update using 2005 international comparisan program data*, US: Department of Agriculture, 53pp.

Naska, A., Vasdekis, V. G. S., Trichopoulou, A., Friel, S., Leonhäuser, I. U., Moreiras, O., . . . Zajkás, G. (2000), 'Fruit and vegetable availability among ten European countries: how does it compare with the 'five-a-day' recommendation?' in *British jounral of nutrition,* 84(4): 549-556.

Orchard, T. S., Pan, X., Cheek, F., Ing, S. W., & Jackson, R. D. (2012). A systematic review of omega-3 fatty acids and osteoporosis. *British Journal of Nutrition, 107*, S253-S260. doi: 10.1017/s0007114512001638

Pomerleau, J., Lock, K., & McKee, M. (2006). The burden of cardiovascular disease and cancer attributable to low fruit and vegetable intake in the European Union: differences between old and new Member States. Public health nutrition, 9(05), 575-583.

Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods (2006).

Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004 (2011).

Regulation of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, 178/2002 C.F.R. (2002).

Saunders, P., Chalmers, J., McHugh, M., Murray, C., Bittman, M., & Bradburry, B. (1998). Development of indicative budget standards for Australia (No. Research Paper No. 74). Sydney: Social Policy Research Centre, University of New South Wales.

Schmidhuber, J., and Traill, W. B. (2006), 'The changing structure of diets in the European Union in relation to healthy eating guidelines' in *Public Health Nutrition,* 9(5): 584–595. doi: 10.1079/PHN2005844.

Slimani, N., Fahey, M., Welch, A., Wirfalt, E., Stripp, C., Bergstrom, E., . . . Riboli, E. (2002), 'Diversity of dietary patterns observed in the European

Prospective Investigation into Cancer and Nutrition (EPIC) project' in *Public Health Nutrition,* 5(6B): 1311-1328. doi: 10.1079/PHN2002407.
Steptoe, A., Perkins-Porras, L., Hilton, S., Rink, E., & Cappuccio, F. P. (2004). Quality of life and self-rated health in relation to changes in fruit and vegetable intake and in plasma vitamins C and E in a randomised trial of behavioural and nutritional education counselling. *British journal of nutrition, 92*(01), 177-184.
Storms, Stockman, Penne, Van den Bosch, Goedemé (2014). *Pilot project for the development of a common methodology on reference budgets in Europe. Script for orientation focus groups: recruitment, discussion and analysis.* Brussels: European Commission.
Stuckler, D., Basu, S., & McKee, M. (2010). Drivers of inequality in Millennium Development Goal progress: a statistical analysis. *PLoS medicine, 7*(3), e1000241.
Suhrcke, M., Nugent, R. A., Stuckler, D., & Rocco, L. (2010). Chronic disease: an economic perspective. London: Oxford Health Alliance, 2006.
Trichopoulou, A., Lagiou, P., Kuper, H., and Trichopoulos, D. (2000), 'Cancer and Mediterranean dietary traditions' in *Cancer Epidemiology Biomarkers & Prevention,* 9(9): 869-873.
Trichopoulou, A., Naska, A., and Costacou, T. (2002), 'Disparities in food habits across Europe' in *Proceedings of the Nutrition Society,* 61(4): 553-558.
Vandevijvere, S., De Vriese, S., Huybrechts, I., Moreau, M., Temme, E., De Henauw, S., . . . Van Oyen, H. (2008), 'The gap between food-based dietary guidelines and usual food consumption in Belgium, 2004' in *Public Health nutrition,* 12(3): 423-431. doi: 10.1017/S1368980008002164.
Vartanian, L. R., Schwartz, M. B., & Brownell, K. D. (2007). Effects of soft drink consumption on nutrition and health: A systematic review and meta-analysis. *American Journal of Public Health, 97*(4), 667-675. doi: 10.2105/ajph.2005.083782
Warde, A., & Martens, L. (2000). *Eating out: Social differentiation, consumption and pleasure*: Cambridge University Press.
WHO (2012), *European action plan to reduce the harmful use of alcohol 2012-2020*, Copenhagen, Denmark: World Health Organization, 75p.p.
WHO (2013), *Country profiles on nutrition, physical activity and obesity in the 28 European Union Member States of the WHO European Region. Methodology and summary*, Copenhagen, Denmark, 18p.
WHO (2014), *European Food and Nutrition Action Plan 2015–2020*, Copenhagen, Denmark: WHO regional office for Europe, 24p.
Williams, P. G. (2012). Evaluation of the evidence between consumption of refined grains and health outcomes. *Nutrition Reviews, 70*(2), 80-99. doi: 10.1111/j.1753-4887.2011.00452.x
Wittchen, H.-U., Jacobi, F., Rehm, J., Gustavsson, A., Svensson, M., Jönsson, B., . . . Faravelli, C. (2011). The size and burden of mental disorders and other disorders of the brain in Europe 2010. *European NEuropsychopharmacology, 21*(9), 655-679.
World Health Organisation. (2003). *Investing in mental health.* Geneva: World Health Organisation.
World health organisation. (2005). *Preventing Chronic diseases. A Vital Investment.* Geneva: World Health Organisation.
World Health Organization, European Region (2003), Food based dietary guidelines in the WHO European Region. Copenhagen: WHO, Europe, http://www.Euro.who.int/Document/E79832.pdf.
World Health Organization. (2009). *Global health risks: mortality and burden of disease attributable to selected major risks*: World Health Organization.

Annex 1: Exchange Rates

Table 3: Exchange rates used to convert the food budgets expressed in their national currency to Euro.

	Exchange rates EUR/national currency	
BG	1 EURO	1,96 BGN
CZ	1 EURO	27,10 CZK
DK	1 EURO	7,46 DKK
HR	1 EURO	7,65 HRK
HU	1 EURO	308 HUF
PL	1 EURO	4,13 PLN
RO	1 EURO	4,43 RON
SE	1 EURO	9,30 SEK

5 The food basket analysed in more detail

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In the previous chapter, we argued that the part of the food basket relating to healthy eating is comparable across countries in the sense that it represents the minimum cost of having a diet in accordance with national food-based dietary guidelines (FBDGs). We argued that in a context of a lack of comparable data on eating habits, and substantial variations in the availability, quality and price of food and in eating patterns, FBDGs were an appropriate tool for identifying dominant institutionalised social expectations regarding a healthy diet, taking account of the local context. However, it became clear that the timeliness, quality, level of detail and extent to which up to date scientific insights are taken into account vary widely across countries. It was striking that FBDGs recommend very different amounts of various foods in different countries, reflecting differences in priorities in health policy and in cultural eating patterns as well as, potentially, the fact that the timeliness and quality of the FBDGs is not the same across countries. Furthermore, even with rather detailed FBDGs, there always remains some room for interpretation by nutritionists. As a result, we concluded that even though the food baskets can be considered comparable in the sense mentioned before, they do not necessarily represent the same level of adequacy across countries, and they face a challenge of robustness.

Therefore, in this chapter we aim at assessing in more detail the validity, robustness, and comparability of the food basket. Doing so will provide more insight into how the procedures for developing comparable food baskets could be strengthened. More in particular, in the first section we assess to what extent differences in the level of the food baskets are due to variations in the quantity of foods that they contain, and to what extent they are the result of price differences across countries. In addition, this exercise allows us to develop an alternative set of price level indices of 'food for a healthy diet' across the EU, which we compare with the official price level indices for average consumption patterns published by Eurostat. Given the strongly varying content of the food basket, the question arises whether the baskets represent the same nutritional value. Even though nutritional value is not necessarily the ultimate criterion for assessing whether the food baskets represent the same level of adequacy, they may offer an important benchmark. Therefore, in the subsequent section we present an analysis of the nutritional value of the food basket for a selection of countries. In the third section, we turn to the pricing procedure. More in particular, we carry out a sensitivity analysis by making use of an alternative weighting mechanism for estimating the average cost per unit of different food groups.

In the fourth section, we slightly change topic, and inquire into the role of focus groups in constructing comparable food baskets. The method that is applied in this pilot project puts emphasis on the importance of consulting citizens, through the organisation of focus group discussions. In some projects, the role of these focus groups is more extensive than what was the case in this project. Evidently, giving a different role to focus groups may affect the outcome of the approach. Therefore, in the fourth section we elaborate further on the role of focus groups in constructing reference budgets, and report on a comparison of the food basket for France developed in this project, with a food basket for France developed in another project. This sheds further light on the strengths and weaknesses of making use of focus group discussions for developing (comparable) reference budgets. Finally, in section five, we conclude and propose several recommendations for improving the quality, robustness, and comparability of the food baskets in the future. For doing so, we also draw on the U.S. experience in constructing official food baskets that directly inform policy.

5.1 Understanding differences across countries: quantity vs. price

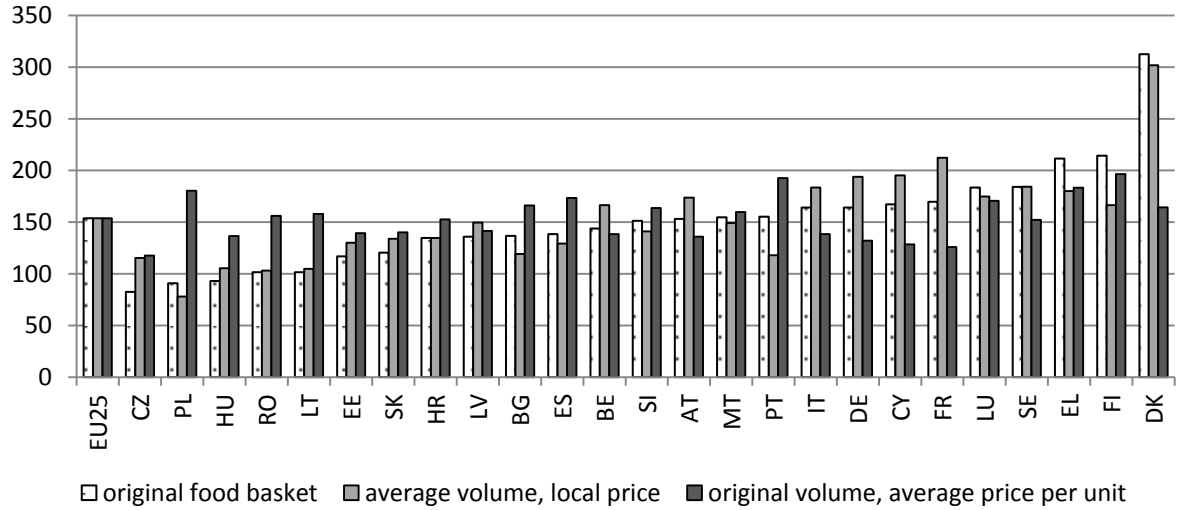
The differences we observe in the level of the food basket may be caused both by price differences, and differences in content of the basket. To some extent, we expect that the differences in volumes between food categories take substitution effects into account. However, as mentioned in the previous chapter, FBDGs seem to differ also for other reasons, and do not necessarily reflect the same level of adequacy. Therefore, in this section we have a closer look at the quantities used for estimating the level of the food basket, as well as the prices that have been collected. In order to gain some insight into the extent to which differences in prices or differences in volumes can explain the variation across countries, we have set up a relatively simple 'shift share' exercise. First, we have calculated for eight food categories the unweighted average volume across 25 food baskets (healthy eating part) of a single woman[33]. The food categories are liquids; bread, grains, legumes and potatoes; vegetables; fruit; dairy; meat, fish and eggs; fat; residual. Subsequently, we have computed for each of these categories the average price per unit (kg or litre), first by country and subsequently the unweighted average of the 25 baskets. In a third step, we recalculate the original food basket for each country by making use of the average volumes per food category calculated in the first step, while making use of the local price per unit calculated the second step. Finally, we recalculated the original food baskets by making use of the original volumes per food category, but EU average unit prices calculated in the second step. The result of this exercise is shown in the graph below.

In quite a few countries, the food basket would be considerably lower if average volumes per food category would apply. This is especially the case for Bulgaria, Poland, Greece, and in particular Portugal, Spain and Finland. In contrast, quite a few baskets have lower than average quantities (or at least for those food categories with a relatively high unit price). If average quantities would apply, the food basket would be at least 15 per cent higher in the case of the capital city of the Czech Republic, France, Germany, Cyprus and Belgium.

Differences in quantity across food basket may be more of concern for cross-national comparability than differences in price levels. At the same time, it is clear that if in all capital cities average unit prices would apply, cross-national differences in the level of the food baskets would be much lower (the coefficient of variation would halve). If average unit prices per food category would apply, the food basket for the capital city of Denmark, Cyprus and France would be at least 20 per cent below its current level. In contrast, the food basket for the capital city of Romania, Lithuania, and Poland would be more than 50 per cent higher.

[33] The Netherlands is excluded from this part of the exercise due to a lack of comparable data.

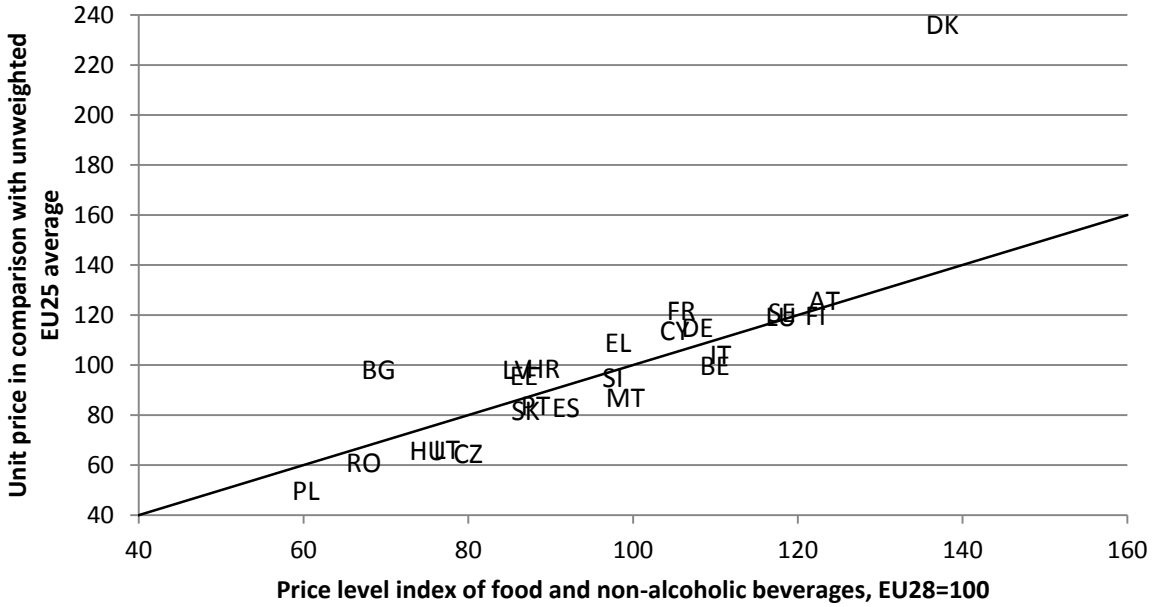
Figure 18: The food basket (healthy eating only) for a single woman, keeping quantities, respectively price per unit constant, Euro per month, 2015.



Note: Data for the Netherlands are missing. Results apply to the capital city of each country.

Given this strong effect of the variation in unit prices across countries, it is interesting to compare the price levels with the official price level index for food and non-alcoholic beverages published by Eurostat. However, one should not jump too easily to conclusions. First, country variations in the average price per unit of each food category should partly be ascribed to differences in the selection of products. For example in countries where alcoholic beverages are included in the national food based guidelines, the average price per litre of liquids will be higher than for countries where this is not the case. The same is true for countries where nuts where included as an important source of unsaturated fat. Second, and most importantly, the price level index published by Eurostat applies to average consumption expenditures. As we have seen in the previous chapter, even though cross-national variation partially reflects cultural differences in eating patterns, the composition of the food basket (related to healthy eating), differs substantially from actual consumption patterns. Most people do not have a healthy diet. Third, for the calculation of the food basket, we have carried out a specific price survey in the capital city (not a national survey), and we focus on the cheapest products on the market (see also below). For all these reasons, one should not expect a perfect correlation between the unit prices identified in this project, and the price level index as published by Eurostat. Nonetheless, large deviations could point to cases that would require further evaluation. The graph below shows that there is indeed a very strong correlation between the official price levels published by Eurostat, and those identified through the price surveys carried out by each country team (Pearson correlation coefficient of 0.82). Some baskets reveal a somewhat higher unit price than what could be expected on the basis of the official price level index, whereas other baskets are somewhat below the identity curve. In contrast, the unit price of the basket for the capital city of Denmark and Bulgaria seem to be relatively high, and warrant further investigation.

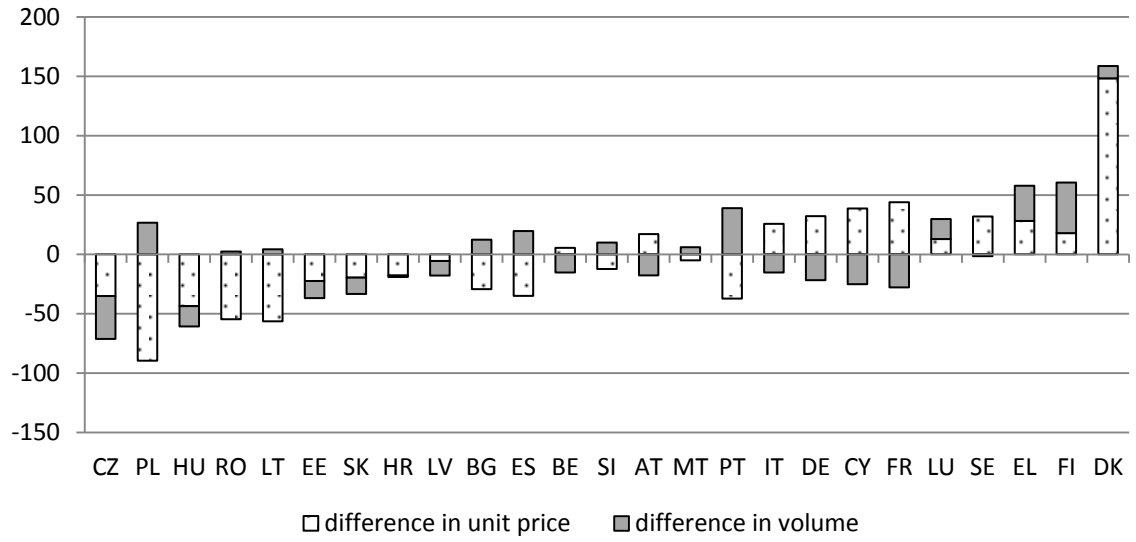
Figure 19: Scatterplot of the average price per kg in the food basket (healthy eating part) of a single woman in relation to the EU average, and the price level index for food and non-alcoholic beverages (2014) published by Eurostat.



Note: Axes start at 40. Data for the Netherlands are missing. The straight line is the identity curve. Results apply to the capital city of each country. Price level index of food and non-alcoholic beverages downloaded from Eurostat website. The food baskets are developed for the capital city of each country.

It is clear that price levels matter a great deal for estimating the cost of a healthy diet across Europe. At the same time, also the differences in volumes included in the food baskets show important variations. In the graph below, we carry out a simple decomposition to show to what extent the difference in the level of the food basket of each country in comparison with the average of all food baskets is the result of the difference in unit prices, or the difference in volumes of each food category. The graph below shows for each food basket of a single woman (ordered by level of the original basket) to what extent the difference with an average food basket is due to differences in volumes of food categories, and to what extent it is due to differences in unit price per food category. In many cases, unit prices and volumes have an opposite effect. However, in the case of the food baskets for the capital cities of the Czech Republic, Hungary, Estonia and Slovakia, both volumes and unit prices are below the average, explaining their relatively low levels. In contrast, in Greece, Finland, and especially Denmark, above average unit prices and volumes reinforce one another, leading to relatively high budgets for a healthy diet. Taking all food baskets together, it appears that unit prices explain twice as much of the cross-national variation in budgets for a healthy diet as differences in quantities do. This finding emphasises the point that accurate price surveys are key to reliable reference budgets.

Figure 20: A decomposition of the difference between each food basket for a healthy diet and the average food basket (all 25 food baskets taken together) for a single woman, 2015.



Note: Data for the Netherlands are missing. Results apply to the capital city of each country.

5.2 Does the food basket in all countries represent the same nutritional value?

To have an idea of the nutritional value of the various food baskets, a first nutritional check within the scope of the project was carried out. Food baskets (only healthy part) from 4 countries of 4 different European regions were chosen (Belgium, Sweden, Spain and Romania). The nutritional value in terms of macronutrients (carbohydrates, fats, proteins), water and fibres was calculated for each basket using the Belgian Nutritional Database (Nubel), and – if available in English – the national nutritional database. For food items not available in the Belgian nutritional database, a similar product was chosen, using additional information on, for instance, ingredients and recipes. In addition, the food baskets were compared with the EFSA nutritional guidelines. The table below provides an overview of the nutritional values of the different food baskets.

Table 4: The nutritional value of the Belgian, Swedish, Spanish and Romanian food basket compared, 2015.

	EFSA	WOMAN					MAN				
		Belgium**	Sweden	Sweden**	Romania**	Spain**	Belgium**	Sweden	Sweden**	Romania**	Spain**
Energy (kcal) (women- man) (30-39 years)	2000-2600	1904.7	2247.7	2126.4	2311.7	2164.9	2559.7	2619.2	2619.1	3094.5	2817.5
Protein (E%)	10-15	16.1	17.5	18.3	17.7	14.5	15.6	17.8	17.8	19.0	15.0
Fat (E%)	20-35	27.8	23.6	27.2	31.3	38.1	25.6	25.4	29.4	29.6	34.7
Carbohydrates (E%)	46-60	55.2	52.0	51.1	49.4	44.5	58.1	50.3	49.0	50.0	45.9
Fibres (g)	25.0	31.2	37.4	37.8	34.1	33.5	42.7	33.3	35.6	48.3	48.5
Water (ml)		2700.0	2825.3	2818.7	1168.6	2691.6	2832.9	2767.2	2754.2	1614.3	3248.0
Alcohol (E%)		0.0	3.1	3.8	0.9	3.5	0.0	2.0	4.4	1.0	5.3

Note: The nutritional value of Baskets indicated with ** is calculated by making use of the Belgian Nutritional Database.

In general, the energy percentages of the carbohydrates and fats fall within the EFSA guidelines for the four calculated food baskets, while the energy percentages for proteins for the four calculated food baskets were in general higher than the EFSA guidelines. The amount of fibres is in line with the EFSA guidelines for all the calculated baskets. The greatest differences between the 4 calculated food baskets can be found in the amount of provided energy (kcal) and in the amount of alcohol.

The results of this first nutritional check are in line with previous results. Food baskets of different European member states were constructed using a strict procedure, but the starting points of the different member states were very different when looking at the different steps in making up guidelines (in terms of nutrients and/or foods) (see Chapter 4):

- the timing of the last food consumption survey was very different in different member states, resulting in different identification of nutrients of public health importance (and thus nutritional goals) and consumption patterns;
- the quality of the national guidelines was very different in different member states, both in terms of target group as in terms of nutritional guidelines;
- the translation of nutritional guidelines into "minimal" national healthy food basket was sometimes different in different member states.

Even though the food baskets are broadly acceptable from a nutritional point of view, for an 'outsider', this nutritional analysis raises the question whether the baskets really represent the same level of adequacy of nutritional intake, and whether comparability would be served by developing food-based dietary guidelines in a more uniform way across countries. We come back to this point in the final section of this chapter.

5.3 The importance of the pricing procedure

In this project we applied a specific pricing procedure to estimate the minimum cost of an adequate food basket, while allowing for an acceptable minimum of choice. The procedure consisted of selecting a limited number of shops for carrying out a one-off, small-scale price survey. The choice of shops was based on specific criteria, and on the suggestions of focus group participants. Also, focus groups had their say with regard to the type of products to be included, and whether it was acceptable to focus for each product on the cheapest product available in the shops. In order to avoid too much volatility, sales were ignored. As we will discuss in the final chapter, with better data, it

would be preferable (and feasible), to take discounts into account when pricing the basket. For fresh products, country teams were asked to list the price of all products available in the selected shop, and to calculate a weighted average. In this section, we will critically assess this procedure in terms of validity, robustness and comparability. In what follows, we briefly discuss the choice of shops, the selection of specific products, and the impact of the weighting mechanism on the total price of the food basket. In a final subsection we enumerate the most important pitfalls of the pricing procedure. In Chapter 10 of this report we elaborate in more detail on how the pricing procedure could be improved in the future.

5.3.1 Choice of shops

As explained above, the coordinating team has developed several common standards to guide the selection of shops for carrying out the price survey. All country teams were advised to price their products in shops that meet the following criteria:

- a wide variety of food/kitchen equipment of acceptable quality at low prices
- being well-spread over the city/country, and
- being well-accessible by public transport.

Besides these criteria, the national experts took into account the arguments and suggestions put forward by focus groups and results of survey data providing information on common national purchasing patterns, and potentially also information on the quality-price balance of shops in the capital city. The complete list of retailers that were chosen in the different EU Member States to price items of food and kitchen equipment are listed in a table in the Annex to this Chapter (Annex 1). In addition, this table provides information on the argumentation and information sources used for selecting the most suitable shops for carrying out the price survey.

In some cases retailers for food and kitchen equipment are partly overlapping; people tend to buy their kitchen equipment in the same store as their food. As for the choice of shops, IKEA is the most frequently mentioned retailer for kitchen equipment, while for food Lidl turns out to be the most popular supermarket. These retailers are not only well-spread over the country, but are international chains across Europe. This may be beneficial for cross-national transparency, but at the same time questions may arise regarding the local and national representativeness of these shops. The arguments given for choosing particular shops - besides the common criteria outlined above - are that the shops offer a transparent pricing policy, that there is a possibility for home-delivery and that an e-shop exists for purchasing online. This information is mostly gathered through focus group opinions, survey data and web shops. However, in most countries representative data on actual purchasing patterns of citizens is lacking. Therefore, it is not possible to evaluate the extent to which the choice of the shop(s) is in line with how people get access to adequate food in daily life.

Since we cannot assume that all people have access to one single supermarket, people should be given the possibility to purchase the same basket in a range of similar retailers. When the products were priced in one single retailer with prices far below all its competitors, the total food budget was multiplied by a certain percentage allowing for variability in shops (increase with 10% in AT, BE, DK, FR, LU, LV, with 7% in IT and with 5% in MT and HU). For instance, in Belgium all products are priced in the well-spread chain *Colruyt*, but the total budget is increased with 10% since the prices of *Colruyt* are generally 10% below its direct competitors. By doing so, we make sure people have the freedom to choose between a range of low cost retailers taking into account accessibility.

5.3.2 The choice of products

As explained before, all country teams received clear instructions regarding how to price their list of goods developed in collaboration with a nutritionist. After the choice of a suitable shop, they had to choose between a wide range of products to assess the final

price. The food products were divided in eight main categories, which were adopted by all countries:

- Liquids
- Grains
- Vegetables
- Fruit
- Dairy
- Meat, fish and eggs
- Fat
- Residual

The number and type of foods within these specific categories vary between countries, depending on the dietary guidelines and the choices of the nutritionist. However, the pricing procedure was standardised as much as possible. The general rule for most products within the categories liquids, grains, dairy, fat and residuals was to choose the product with the lowest price, except when this was found unacceptable by people in focus groups. Hence, the eventual price depends on the choice of shop(s) or market for carrying out the price survey, the accuracy of the (online) price information in the shop, the precision of the price comparison by the researcher, the availability of a wide assortment of products and the time period of the price survey. For vegetables, fruit, meat, fish and cheese, all country teams had to follow a standardised weighted pricing procedure to allow for sufficient variation in the prepared meals, which we will analyse in the next subsection.

5.3.3 The impact of the weighted pricing procedure for fresh and non-pre-packaged products

For vegetables, fruit, meat, fish and cheese, the following procedure was applied. In the shop(s) selected for the price survey, the cheapest (acceptable) price per unit (kg) had to be listed for all items that were available of each food category (see figure 21 below to know the kind of categories for which this procedure was applied). For instance, in the case of fruit, country teams had to list the price of the cheapest pears, apples, oranges, bananas, etc. Below this level, no distinction was made (e.g. different types / brands of apples such as Jonagold, Pink Lady, Granny Smith, … all belonged to the subcategory of apples, and the cheapest (acceptable) alternative of these was included in the price survey). Subsequently, the 10% most expensive items were discarded, and for the remaining items the following formula was used for calculating a weighted price per unit for each of the food categories:

> 5/7*(average price of the x cheapest products) + 2/7*(average price of the other products)
>
> Whereas:
>
> x = 7 for fruit, x = 14 for vegetables, and x = 5 for meat, fish and cheese

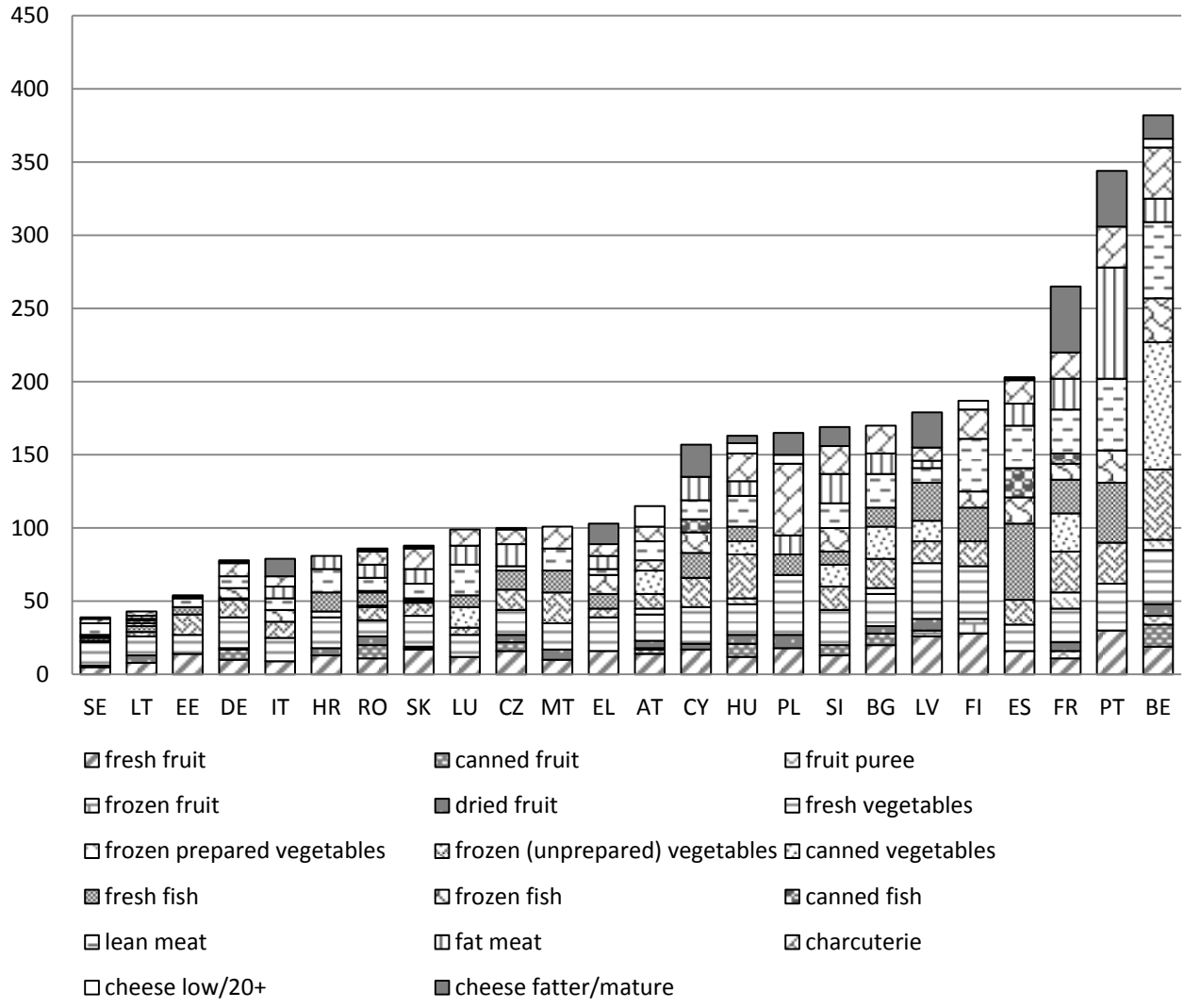
In case the number of available items in the shop was lower than x, an average price of all items, except for the 10% most expensive was calculated.

The idea of this weighting procedure is that the hypothetical household should be able to eat on average 5 days a week a cheap meal and two days a week a somewhat more expensive dish. In other words, this procedure aims to meet the dual objective of identifying the minimum cost to prepare healthy menus while still allowing for sufficient variation (and room for autonomy).

When comparing the results of the weighted pricing procedure between countries, we observe a large variation despite the standardised method. This is mainly due to the number of low-price products that are listed to calculate a weighted average in each food category. Although the instruction was to list the lowest price of all available items in a

specific category, we do not know for sure whether this was implemented in all countries in the same way. The graph below shows the difference between member states in the number of low-priced items for each category in order to apply the weighted pricing procedure. We can observe a large variation across countries, ranging between 39 priced products in Sweden up to 382 products in Belgium. The country team of Sweden defended the limited variation of products by opting only for seasonal products that are generally consumed by Swedish people around that time of the year, while excluding all expensive items. Indeed, this is a valuable argument, but implies a different interpretation affecting the pricing procedure.

Figure 21: The number of products listed in the price survey by category used in the weighted pricing procedure.



Note: For the Netherlands and Denmark, a different pricing procedure has been used. In the Netherlands the food basket is priced by using scanner data gathered by the Statistics Office Netherlands. Average prices are calculated for the food items with the highest turn-over, hereby excluding high priced products (see also Chapter 10). In Denmark food baskets are based on average prices in one shop.

Of course, the choice of a weighting pricing procedure has implications for the resulting budgets. The advantage is that we make sure households can prepare well-varied meals without being restricted to the cheapest option at all times. But it implies detailed and clear instructions that should be followed in the same way in each country. The graph

above may be the combined product of the range of products available in the selected shops, and the extent to which country teams have succeeded in listing all relevant products in the price survey.

In order to understand the impact of the weighting procedure on the total budgets and on the variations across countries, we have calculated a budget without the weighted price of fresh products. Instead of a weighted average, we took simply the average of the cheapest x products (x= 14 for vegetables, x=7 for fruits, x=5 for meat, fish and cheese). The result is a more restricted low cost budget that does not take into account the more expensive food items within a certain category. The two graphs below illustrate the impact on the total food baskets for a single woman and a couple with two children respectively. The white bars show for each country the 'low cost' budgets and the upper grey parts illustrate the increase when the weighted pricing procedure for fresh products is applied.

Figure 22: The impact of the weighted pricing procedure on the total food basket (healthy part) for a single woman, Euro per month, 2015.

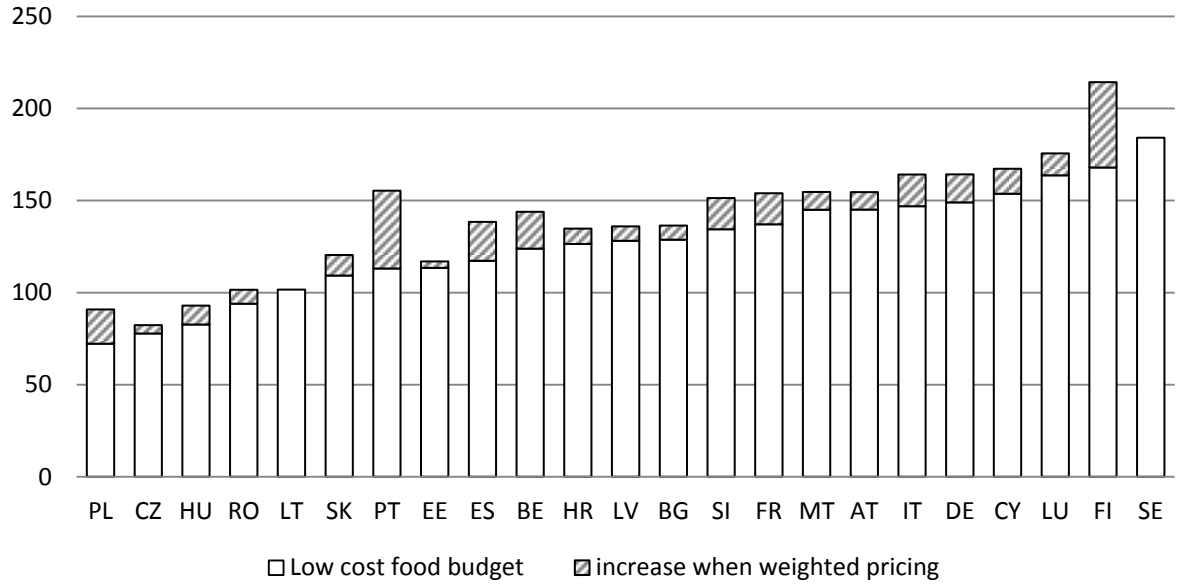
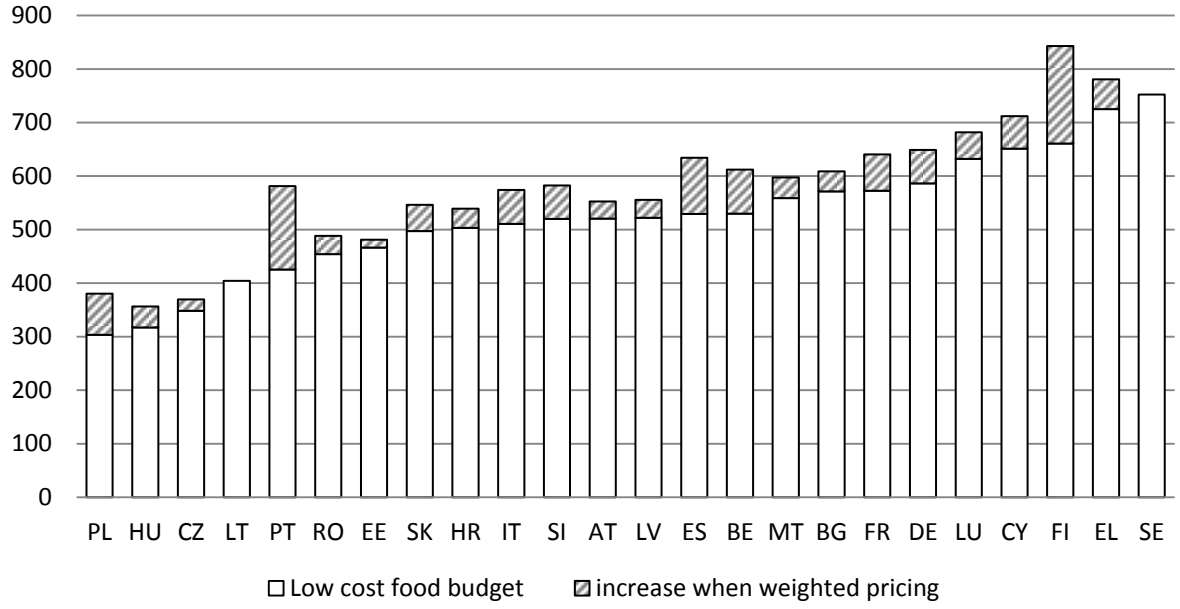


Figure 23: The impact of the weighted pricing procedure on the total food basket for a couple with two children, Euro per month, 2015.



The two graphs above show that for most countries the level of the budget decreases when the weighted pricing procedure is abandoned, especially for countries who listed a large number of products to weight their minimal prices such as Belgium, Portugal, Spain, France and Finland. For Sweden and Lithuania no changes occur since their list of products was too limited to weight prices in a similar way as was done in the other countries. We can also see that the overall hierarchy between countries changes somewhat when this other pricing procedure is adopted. For instance, Poland has now the lowest food budget and the budgets of Portugal, Spain, and Finland shifted more to the left, a couple of steps lower than their previous position. These budgets without weighted prices are more strictly referring to minimal prices and therefore reflect better a cross-nationally comparable low benchmark for adequate food intake. However, it should be checked if this benchmark still allows families to cook tasty and well-varied homemade menus.

5.3.4 Pitfalls of the pricing procedure

Pricing is crucial and small variations can make a considerable difference. The choice of shops and products is in principle based on the same framework across countries, but compliance with the general procedure varied. Importantly, due to strong differences in data availability and quality regarding purchasing patterns and prices, as well as the structure of the food market, full comparability is difficult to achieve even in case of full compliance. Some national experts have indicated that the procedure was too detailed and time-consuming forcing them to make decisions that were not always well-informed. The choice for a weighted pricing procedure for a wide range of products may be controversial. There is some divergence in opinions to what degree reference budgets should comprise only the cheapest products – i.e. the absolute minimum- , or that it should be allowed to have some freedom of choice in choosing items from retailers. The above exercise showed that the level of total budgets can diminish substantially when simply the average of the lowest price products is taken, while the impact is not uniform across capital cities. Nonetheless, the hierarchy between countries remains more or less the same. The weighted pricing procedure has been a deliberate choice of the coordinating team, in line with the definition of adequate social participation and the importance of consumers' autonomy that follows from the theoretical framework. In addition, it is unlikely that households can stick to a healthy diet if does not allow for sufficient variation. In contrast, it may be advisable to reconsider the decision to

disregard discounts when carrying out the price survey, especially if a larger sample of products, priced in a wider range of shops and markets could be included in the survey.

The timing of the pricing period (in this case March-April 2015) also has an impact on the price outcomes, particularly that of seasonal items, such as the fresh fruits and fresh vegetables. As the German country team pointed out: "The surprising high rates of vegetables and of the rest might have different reasons. According to the food recommendations vegetables are integrated in the weekly menu by high amounts. They were priced in the month of March which is typical for a high price level because of seasonal low offers." This is a general pitfall of a one-off price survey, but especially food may be subject to substantial seasonal variation, both in terms of availability and in terms of the price of foods. Making use of price data which capture this seasonal volatility would improve robustness, as well as comparability given that seasonal variation in prices and availability of foods does not follow exactly the same 'calendar' in all countries.

Additionally, the availability of recent data and literature on real purchasing patterns is rather limited and sometimes non-existent. We are strongly convinced that more extensive information and research on up-to-date purchasing and consumption patterns of citizens, in particular on households at the bottom of the income distribution, could substantially improve the design of an appropriate pricing procedure. The same is true for collecting information on seasonal variations, and the extent to which consumers can benefit from discounts. Another important issue is the lifespan of durables in the basket for kitchen equipment. Sometimes buying cheaper products may end up being expensive in the end, due to short durability. Again, representative information on lifespans of durables would considerably help to make well-informed choices regarding the selection of products and estimation of their monthly price.

To conclude, an adequate, robust pricing procedure is key to construct robust and comparable reference budgets. We are convinced that the pricing procedure applied in this pilot project has offered a fruitful starting point, not least because it allows for carrying out sensitivity checks. The procedure was explicitly designed to balance standardisation, sensitivity to the local context, cross-national variations in purchasing patterns and considerations of acceptability, while balancing autonomy and the focus on estimating a minimum cost. At the same time, it is clear that the procedure is open for improvement, and in need of further research for assessing its appropriateness. This should encompass both a study of purchasing patterns, seasonal (and regional) variations in availability and price of foods, and the collection of better price data. Also, this pilot study has made clear, even more strongly than we anticipated that a representative, clear and standardised pricing procedure is of uttermost important for constructing cross-nationally comparable reference budgets. In Chapter 10 we come back to how the pricing procedure and assumptions with regard to lifespans of durables could be further improved. In particular, we will argue in favour of exploring collaborations with national statistical offices so that one can make use of official price survey data, and the collection of cash register data.

5.4 The role of focus groups and standardisation

During the first months of the project, there was much debate about the recommended approach to develop comparable reference budgets in Europe. In particular, there was discussion about the extent to which the starting point of the composition of baskets of goods and services should be discussions in focus groups, or a review of available evidence and input by researchers (the route taken in this project). Especially the teams from the UK and Ireland were in favour of applying an approach which was based primarily on the consultation of focus groups, in line with the approach they currently use in their country for developing national reference budgets. More in particular, both teams develop reference budgets that start from discussions in focus groups, which are then checked by experts (e.g. a nutritionist), and subsequently agreed on by a new round of

discussion groups[34]. In contrast, for reasons of validity[35], efficiency, robustness and comparability, the approach taken in this project starts from input by food-based dietary guidelines and a nutritionist, which is subsequently discussed in focus groups, an approach that was already practiced by other teams in the project (for a review see Storms et al., 2014; Goedemé et al., 2015). In other words, given the generally strong limitations to the robustness of reference budgets, the difference in methodology for constructing a food basket may be a matter of nuance rather than a matter of strongly opposite views. Nonetheless, given that this difference in point of view was sufficiently important for the British and Irish country teams to leave the project, we believe it is relevant to identify somewhat more clearly the differences between the two approaches and their respective strengths and weaknesses in the context of developing cross-country comparable reference budgets. Therefore, we first highlight the results of a comparison of the results of both approaches which have been implemented recently in France.

5.4.1 Lessons from the French experience

In order to get some further insight into the differences between the two approaches, our French partner in the project, Isa Aldeghi from CRÉDOC, compared the outcome of the exercise of this pilot project with the results of the ONPES-CRÉDOC-IRES project on reference budgets that was completed last year (Alberola et al., 2014). The results of this comparison should not be interpreted as a final answer to the question about how each approach may lead to different results: first of all, the timing of the two projects was different, as well as the targeted cities and, to a minor extent, the targeted living standard. Furthermore, given the limited sample size and non-random character of the composition of focus groups in both projects, results may vary simply due to lack of robustness. As argued elsewhere, we expect that the approach taken in this project is more robust, as the starting point consists of the food-based dietary guidelines (which are a constant factor), rather than the input of focus groups, and the fact that more weight is put on the health function of food. Nonetheless, with a different nutritionist, the food basket might differ somewhat. Finally, the pricing survey was carried out at different points in time and the selected products, as well as the weighting procedure were also different (adding to the problem of sampling variance of the priced foods). Still, we believe that the comparison is useful. Here we present some of the most striking outcomes, the complete report can be found in the Annex of this chapter (Annex 2).

[34] A more detailed description of the methodology can be found in our previous report (Goedemé et al., 2015) and in Collins et al. (2012) and Bradshaw et al. (2008).

[35] As explained in Chapter 2, in our view adequate social participation relates in important respects to dominant, institutionalised, social expectations, of which food-based dietary guidelines are an important example.

Table 5: The budgets for food and for kitchen equipment in France according to the two methodologies on reference budgets, monthly amounts in Euros, 2014 and March 2015.

	Single person(*)	*Couple without children*	*Couple with 2 children*
Usual meals			
ONPES (usual meals without alcohol)	185 €	347 €	543 €
European methodology (**)	165 €	328 €	632 €
European methodology/ ONPES methodology (in %)	89%	95%	116%
Kitchen equipment			
ONPES	23€	30 €	32 €
European methodology	14 €	14 €	27 €
European methodology/ ONPES methodology (in %)	61%	47%	83%

Note: (*) The budgets for single people come from the average budgets of single men and single women
(**) As the budget for alcohol is not included in the ONPES budget for usual meals, the budget for wine on ordinary weeks is withdrawn too from the figures concerning the European methodology.

Source: ONPES and CRÉDOC IRES reports on reference budgets 2012-2014 (plus specific CRÉDOC calculations) and Food basket pilot project in Europe– France: CRÉDOC 2015

First of all, it should be noted that even though there are some apparent differences, broadly speaking the cost of the food basket is relatively similar in both projects. Even though the relative differences for kitchen equipment are larger (especially for single person households and couples), in comparison with the total cost of the food basket the differences are not very large. Nonetheless, it is striking that the approach taken in this project has resulted in a cheaper list of kitchen equipment. Another point worth mentioning is that the ONPES-CRÉDOC-IRES reference budgets seemingly assume large economies of scale for food. This contrasts sharply with the 'healthy food basket' of the current project, which strictly follows the French dietary guidelines and does not result in any economies of scale at the level of the minimum cost of having a healthy diet. In other words, the food basket appears to be relatively generous for single persons and couples without children, as compared to the budget for couples with children[36]. For kitchen equipment, the budget in this project is clearly more restrictive than the budget resulting from the ONPES-CRÉDOC-IRES project, even though in both cases focus groups indicated to agree on the list of items. It is not very clear though, whether this is due to the methodology (starting from a restrictive minimum list may lead to people accepting a more restrictive list in the end), or due to lack of robustness of the consultation of focus groups (and thus some 'random' variation). It would be valuable to know to what extent the observed patterns for these two projects are primarily due to differences in methodology and would be replicated in other countries.

[36] This may not only be a result of the higher weight given to focus groups, but may also be due to the fact that in the ONPES-CREDOC-IRES project the focus groups were mainly organised by household type (that is, singles were discussing the food basket of singles, couples with children those for their own household type, etc.).

Table 6: The budgets for alcohol and physical exercises in France according to the two methodologies on reference budgets, monthly amounts in Euros, 2014 and March 2015.

	Single person(*)	*Couple without children*	*Couple with 2 children*
Alcohol			
ONPES CRÉDOC IRES methodology	21 €	44 €	32 €
European methodology	5 €	10 €	10 €
European methodology/ ONPES methodology (in %)	24%	23%	31%
Physical exercise			
ONPES CRÉDOC IRES methodology	21 €	42 €	74 €
European methodology	6 €	12 €	12 €
European methodology/ ONPES methodology (in %)	29%	29%	17%

Note: (*) The budgets for single people come from the average budgets of single men and single women
(**) As the budget for alcohol is not included in the ONPES budget for usual meals, the budget for wine on ordinary weeks is withdrawn too from the figures concerning the European methodology.

Source: ONPES and CRÉDOC IRES reports on reference budgets 2012-2014 (plus specific CRÉDOC calculations) and Food basket pilot project in Europe– France: CRÉDOC 2015

If we look in addition to some more 'controversial' elements of reference budgets, a pattern can be observed. It is important to stress that for alcohol consumption, and physical activity, discussions in the focus groups were the primary basis of evidence in the two projects. Apparently, the approach taken in this project has resulted in a more restrictive budget also in these cases. For instance, the budget for alcohol consumption for couples without children amounts to over 10 per cent of the amount of the cost of the food basket in the ONPES-CRÉDOC-IRES project, whereas it represents about 3 per cent of the food basket in this project. However, it remains difficult to establish with great certainty the exact reason for this pattern. It could be a difference in the targeted living standard and framing of the discussions in focus groups, a difference in living patterns in Paris as compared to the smaller-towns involved in the ONPES-CRÉDOC-IRES project, or again some random differences in the composition of focus groups. In addition, the budget for alcohol for couples is in the ONPES-CRÉDOC-IRES project more than twice as high as the budget for singles (even though the difference remains small), and far less than twice as high for the couple with 2 children. In our view, this may potentially point to a deficiency of an approach in which budgets are to an important degree constructed by focus groups organised by household type, at least if the purpose is to develop a benchmark for evaluating the adequacy of incomes. For instance, it is difficult to see why minimum incomes should allow for more alcohol consumption for couples with children than for couples without children. If the purpose is different, for instance to illustrate differences in living patterns, this is not necessarily a deficiency insofar this result points to a genuine difference in living patterns between couples with, and couples without children. However, otherwise, if the focus is on the minimum it seems recommendable to tease out such inconsistencies if these are not supported by other evidence, as is done by the approach taken in this project.

In sum, the overall food budget developed in both projects is broadly at a similar level, which is a reassuring finding, given the differences in setup and methodology. Except for specific items, the differences in the methodologies seem to be more a matter of nuance. At the same time, it appears that in this project the budget is more restrictive, probably due to a different targeted living standard and framing of the focus group discussions. In addition, by focusing on several specific purposes such as providing a benchmark for the

adequacy of incomes, the approach taken in this project has put more emphasis on consistency of budgets across household types, unless there were objective reasons to assume economies of scale and differences in minimum needs across household types.

5.4.2 Some further considerations with regard to the role of focus groups

As stressed in Chapter 3, consulting citizens is an essential part of any valid methodology for constructing fully-specified reference budgets. This is not only because judgment is a crucial element of normative reference budgets, but also because in many cases empirical data on actual consumption patterns and considerations of acceptability and adequacy are lacking. Currently, focus group discussions are the most popular format of consulting citizens when developing reference budgets. The advantages are that focus groups may allow for sufficient time to explain and frame purpose of the exercise, the targeted living standard, and the requirement that participants take a public perspective: they need to reflect upon what is adequate for a hypothetical household in general (and not for their own household). Furthermore, the interactions between participants help to clarify the arguments put forward, and the robustness of the opinions expressed by participants. In addition, the focus group approach lends itself to informing participants on essential elements or living patterns in their society, such that the opinions that are expressed during the discussions are well-informed. Importantly, its participative character may boost support for the resulting reference budgets. Finally, the organisation of a limited number of focus groups is a relatively cheap alternative to a representative (random) household survey.

However, even though focus groups are participative, involving citizens from various backgrounds, does not mean they are representative. Usually only a small number of citizens is consulted (amounting to about thirty in this project, and usually less than hundred per household type in other projects). Having such small sampling sizes probably leads to substantial sampling variance in the opinions expressed. Even though one may expect that if the focus is on the arguments put forward in the discussion, it may be expected that substantial sampling variance remains with regard to the consensus reached as this is highly contingent on the specific group dynamics. Furthermore, participants in focus groups are typically not selected randomly from a complete sampling frame. In other words, bias in the composition of groups can be expected. To be clear, focus group researchers often introduce bias in the composition of focus groups on purpose, to make sure all relevant voices are heard. However, this leads to the question whose opinion is represented really. As is stressed in handbooks of qualitative research (E.g. Neuman, 2011), the outcome of focus groups can hardly be interpreted as 'the citizen's view'. Therefore, in this project we focused more on the kind of arguments put forward, and the general acceptability of the food basket, rather than asking focus group participants to agree on certain quantities. Also, it is worth mentioning that organising and running focus groups is an important cost for constructing reference budgets. In a (almost) purely focus-group based approach, focus groups make thousands of decisions about the quality, quantity, price range and providers of the goods and services to be included in the reference budgets, in a matter of a few hours. Sometimes this results in rather futile discussions. For instance, the Austrian country team reported that they encountered lengthy discussions with regard to how many rolls of toilet paper should be covered by the reference budgets. For this and other reasons, we believe it is more important to focus the discussion on the broad setup of the exercise, the broad acceptability of the baskets and the underlying assumptions, and the big choices that matter a lot to the final outcome of the reference budgets.

From this project, it was clear that standardisation helped to have a focused discussion. For instance, with regard to kitchen equipment the discussions in the groups started from a list which was adapted by each country team to the local situation. Focus groups could rather easily have a structured discussion about this list, and put forward sensible arguments for discarding some items from the list, and adding other items. In contrast, no such suggestion was made with regard to the social functions of food. In this case, participants of focus groups could rather easily recognise and agree on the social (and

other) functions of food, and explain why these were important for adequate social participation. Similarly, they could rather easily discuss and agree on the kind of products and services that were essential for realising these functions. However, it proved to be much more difficult to efficiently discuss and agree on the exact choice of items to be included, and with which amounts.

In the context of a comparative endeavour, and the construction of long-term policy indicators more broadly, a sufficient degree standardisation is a prerequisite, even though focus groups remain an essential tool for contextualising and informing the development of reference budgets. For evaluating policies over a longer period of time, and informing policy makers about the results of changed policies, reference budgets need to be consistent, and only change if there are objective reasons for change, which can include changed social expectations regarding the possession of certain commodities or objective changes in their availability or accessibility. . Therefore, for those items for which it is not clear if they represent an essential commodity for all households of the target population, e.g. the possession of a car, we believe that it would be better to present a budget with and without. When good data are available, on the basis of representative and substantially large samples, an alternative option may be considered, which consists in including or excluding a car for instance on the ground that the majority of the working age population (or employers) says it is essential for reaching work, or on the basis of a survey which makes use of well-considered views, which enquires into the more general necessity of a car for households.

A similar concern applies to the case of comparisons across countries. Due to their non-representativeness, and small sample size, differences in focus group outcomes cannot necessarily be interpreted as genuine differences between countries in terms of social expectations, institutional or economic context. Other data are required to support such conclusions. It is difficult to see that European policy makers would accept that their minimum income schemes are considered less adequate merely on the ground that in one country a car would be included, but not in another (to take this example), without objective reasons for doing so. If however, we have some reasonable rule of thumb which says that if a large majority of people or employers indicate the necessity of a car, or if over 80% of the population possesses a car, the cost of a car is included in the reference budgets, we are convinced that this would be much more persuasive (and more valid) for researchers, policy makers and the citizens alike. Similarly, in the context of the food basket, we are strongly convinced it is more valid to start from publicly endorsed food-based dietary guidelines for identifying relevant differences across countries, rather than from the opinions expressed in a limited number of focus groups. We come back to improving the procedure for consulting citizens in Chapter 10 of this report.

5.5 Conclusion and recommendations

The procedure we set up for developing and pricing the food basket (at least the healthy eating part), has been conceived to optimise the balance between the following objectives:

- It should allow for a healthy diet;
- It should be the most economical option possible, while allowing some room for choice;
- It should be acceptable, tasty and feasible for the wider public, that is, it should be in line with local food habits.

Ideally, we would have a single standard across the European Union, and an algorithm for adapting this European standard to local differences in food habits, the availability of foods and food prices, and the nutritional value of foods on the local market, differences in average length, weight and physical activity of the population, as well as differences in geographical and climatological conditions. However, as argued before, EFSA has

stressed that it is not feasible in this context to develop a European standard in terms of food-based dietary guidelines (rather than a standard for nutritional intake). In this context, we have tried to optimise the aforementioned objectives by starting from national food-based dietary guidelines, and carrying out a specific price survey which focused on the cheapest products on the market, while allowing some room for choice. National food-based dietary guidelines are developed to inform the population about the requirements of a healthy diet, while taking account of the local context in terms of food habits and the availability of foods on the local market, as well as any other local factors that are relevant for variations in the requirements of an adequate food intake. We concluded that even though the cost of the food baskets reflects the cost of eating in accordance with national food-based dietary guidelines, questions remain regarding the extent to which the baskets really represent the same level of adequacy of food intake across European countries.

As discussed previously, the quality, timeliness, and level of detail of national food-based dietary guidelines differ in important ways across countries. Furthermore, when comparing the recommendations of national food-based dietary guidelines, cross-national differences seem to be caused by many factors, and are not only the result of differences in food habits across countries, or the availability, price and nutritional value of foods on the local market, or any other substantive reason that would be justifiable in the context of a food basket for adequate social participation. In contrast, national food-based dietary guidelines seem to have been developed to some extent idiosyncratically (without reference to a common European standard such as the EFSA recommendations), and with national priorities in mind. For instance, some countries recommend several glasses of wine a day, whereas others recommend to consume no alcoholic drinks at all. To give another example, without significant differences in contextual or biological factors, one would expect that the recommendation of higher food intake of one category would to some extent be compensated by a lower food intake for other categories. However, in a country such as Greece, a higher food intake of both fruits, vegetables and meat is recommended than what we find for many Western and Northern European countries.

For these reasons, it seems highly recommendable that an effort is set up, in collaboration with nutritional and food specialists of all EU Member States and in close collaboration with the European Food Safety Authority (EFSA), to develop food-based dietary guidelines at the EU level. In the USA, common food-based dietary guidelines are specified, in spite of important regional differences in food habits, climatological and geographical conditions as well as food availability and price. Therefore, it should be possible to agree on common set of food-based dietary guidelines, at least at the level of food categories (e.g. fruits, vegetables, …), while allowing for between-country variations in quantities of more specific foods within these broader categories (the food plans in the US are developed on the basis of 58 food categories (Carlson et al., 2007))[37]. Alternatively, a strategy could be developed which starts from one single set of food-based dietary guidelines, while agreeing on the factors that justify variations by country as well as a procedure regarding the adaptation of the European guidelines to national circumstances.

The second major challenge for fully comparative and robust food baskets is concerned with the food price survey. For this pilot project, each country team carried out its own price survey in one or more shops selected on the basis of general quality criteria (cf. supra). Arguably, stakes are high that such a one-off price survey in one or several shops is subject to considerable sampling error and bias. For reasons of feasibility and lack of access, official price surveys could not be used for pricing the items in this project. For future projects, it should be assessed to what extent it is feasible to rely on official price

[37] During a meeting with representatives of the Center for Nutrition Policy and Promotion (US Department of Agriculture, 8 September 2015), American nutritionists claimed that food habits vary widely in the US, yet common food-based dietary guidelines, even at the most detailed level, are common to all states.

survey data, or at least, how the quality of the price survey as carried out in this project could be improved in a feasible way. It is recommended to assess the opportunities for a better price collection in close collaboration with national statistical offices (cf. Chapter 10).

If one assumes that across Europe differences in requirements for adequate nutritional intake do not vary substantially at the level of nutrients and broad food categories, an alternative strategy for developing very detailed harmonised food-based dietary guidelines may be envisaged. As mentioned earlier, the healthy eating part of the food basket should reflect adequate food intake, at the lowest possible cost (while allowing for some degree of freedom of choice), and be as close as possible to existing food habits in order to be feasible and acceptable. In the USA, so-called thrifty, low-cost, moderate-cost and liberal food plans are developed by the U.S. Department of Agriculture (e.g. Carlson et al., 2007). Rather than 'manually' aligning dietary guidelines with prices selected in shops and with existing food consumption habits, a data-intensive approach is used in conjunction with a mathematical optimisation model. More precisely, data from a food-consumption survey are converted into purchasable quantities and their nutritional value. In addition, data from an extensive price survey (using cash register data) are used to calculate the average price of purchasable foods, taking into account the volume of purchases of the particular items. Subsequently, nutritional and food-based guidelines are used as constraints in a model which optimises the food basket for 15 age-gender groups such that a food basket is constructed which reflects the lowest cost (at average prices) of eating a healthy diet in accordance with food-based dietary guidelines, while taking into account the varying food consumption habits of the population. Such an approach has several advantages:

- Room for interpretation by country teams or individual nutritionists of how to translate food-based dietary guidelines into a concrete food basket, which also optimises the cost is restricted to a minimum;
- There is a clear, uniform procedure for aligning nutritional and food-based guidelines with national food consumption habits, driven by local food habits as well as the availability and cost of foods on the local market.
- It would suffice to have rather general nutritional and food-based dietary guidelines at the EU level, given that local variations in average food consumption patterns could automatically be taken into account.

However, apart from the availability of detailed price data, such an approach requires that comparable food consumption surveys would be carried out across Europe. Even though methodological guidelines have been developed in this area (Brussaard et al., 2002; EFSA, 2009, 2014), so far they have not been implemented uniformly in all EU Member States (Heuer et al., 2015). In addition, it would be necessary to have detailed information for converting consumed and purchasable foods into nutrients. Currently, in the U.S. this is done on a uniform basis, without allowing room for differences across States[38]. The availability and quality of similar conversion tables for EU Member States should be assessed, as well as the suitability of using one set of conversion tables for all Member States, rather than national-specific tables, which might vary in level of detail and quality. As we will show in Chapter 9, first results of this pilot project indicate that the cost of a healthy diet is not or hardly affordable for a substantial part of the population in several member states. Food insecurity still is an issue in Europe (Riches, G. and Silvasti, T., 2014). Therefore, we believe it is important to get the figures right and have well-founded estimate of the cost of a healthy diet across EU Member States. The procedure used for developing food baskets in the U.S. should be adapted and

[38] Members of the Center for Nutrition Policy and Promotion pointed out that it is more important to know the quantities of a certain dish (say, a pizza) is consumed, rather than the exact contents of that dish (say, with one type of cheese on it or another).

refined to the European context. Nonetheless, it seems to be a reliable, robust, convincing and professional approach to estimating the cost of a healthy diet. Therefore, we are strongly convinced that it is recommendable to carry out a pilot study to evaluate the requirements, feasibility and appropriateness of implementing an adapted version of the U.S. low-cost food plan (Carlson et al., 2007) to a selection of European countries in the context of developing comparable food budgets in Europe.

References

Alberola, E., Aldeghi, I., Concialdi, P., and Math, A. (2014), *Budgets de référence ONPES*, Paris: CRÉDOC-IRES, 166p.

Bradshaw, J., Middleton, S., Davis, A., Oldfield, N., Smith, N., Cusworth, L., and Williams, J. (2008), *A minimum income standard for Britain; What people think*, York: Joseph Rowntree Foundation - Loughborouh University, 57p.

Brussaard, J. H., Löwik, M. R., Steingrímsdóttir, L., Møller, A., Kearney, J., De Henauw, S., and Becker, W. (2002), 'A European food consumption survey method-conclusions and recommendations' in *European Journal of Clinical Nutrition,* 56(Suppl 2): S89-S94.

Carlson, A., Lino, M., and Fungwe, T. (2007), *The low-cost, moderate-cost, and liberal food plans, 2007*, CNPP-20, Washington, D.C.: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 42p.

Collins, M. L., Mac Mahon, B., Weld, G., and Thornton, R. (2012), *A minimum income standard for Ireland. A consensual budget standards study examining household types across the lifecycle*, Dublin: Policy Institute.

EFSA. (2009), 'General principles for the collection of national food consumption data in the view of a pan-European dietary survey' in *EFSA Journal,* 7(12): 1-51. doi: 10.2903/j.efsa.2009.1435.

EFSA. (2014), 'Guidance on the EU Menu methodology' in *EFSA Journal,* 12(12): 1-77. doi: 10.2903/j.efsa.2014.3944.

Goedemé, T., Storms, B., and Van den Bosch, K. (2015), *Proposal for a method for comparable reference budgets in Europe*, Pilot project: developing a common methodology on reference budgets in Europe, contract no VC/2013/0554, Brussels: European Commission, 104p.

Heuer, T., Krems, C., Moon, K., Brombach, C., and Hoffmann, I. (2015), 'Food consumption of adults in Germany: results of the German National Nutrition Survey II based on diet history interviews' in *British Journal of Nutrition,* 113(10): 1603-1614. doi: 10.1017/S0007114515000744.

Neuman, W. L. (2011). Social research methods: qualitative and quantitative approaches (7 ed.). Boston, MA: Pearson.

Riches, G., Silvasti, T. (2014). First world hunger revisited: food charity or the right to food? (2nd ed.). New York: Palgrave Macimillan.

Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014), *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.

Annex 1: The choice of shops.

Table 7. The choice of shops to price food and kitchen equipment.

	Category	Shop(s)	Remarks	Information source
AT	Food	Hofer, Billa		
	Kitchen equipment	IKEA, Saturn, Bipa, Hofer, Spar		
BE	Food	Colruyt - prices * 10%	- broad range of products - 10% cheaper than competitors - transparent purchasing policy - good basic quality - All prices + 10% in order to allow freedom of choice and reachability	- Price barometer for comparison - Online price information - FGs
	Kitchen equipment	IKEA Vandenborre	- wide-spread, easy accessible - e-shop, prices online - home-delivery - transparent warranty system - acceptable quality at low prices & yearly (or longer) guarantee - wide-spread market for electronic durables	- Mentioned by FGs - Online price information
BG	Food	Kaufland, Lidl, T Market, Metro	- well accessible shops that offer food products of acceptable quality - Well spread	- Mentioned by FGs
	Kitchen equipment	Technomarket, Technopolis, Kaufland, Zora, Praktiker Videnov Carrefour, Supermag, Como, Endi Market, Jysk, Zadomo.bg, barmagazin.bg, Megahome, technika.bg, PerfectPro	- Most popular chains - Well accessible - Widely spread - After sale service and at-home delivery - Cheapest store for furniture	- Mentioned by FGs - Mentioned by FGs

	Category	Shop(s)	Remarks	Information source
CY	Food	Metro supermarket	- average prices compared with competitors	- Ministry of Energy, Commerce, Industry and Tourism of the Republic of Cyprus - Price information: online + general manager Metro - FGs
	Kitchen equipment	IKEA, Athienitis, Loannidis, Metro, Carrefour	- Meet common criteria - online information	
CZ	Food	Tesco	- Most common shop	- FGs
	Kitchen equipment	IKEA Tesco, Gastrozone, Colruyt, MALL, Locklock, Tescoma, Electroworld	- Most common shop	- FGs
DE	Food	REWE, Aldi and Lidl	- Meet common criteria - REWE: good quality for reasonable price (e.g. for meat)	- FGs - survey data - No price comparison - Online information
	Kitchen equipment	IKEA, Rossman, Obi & Amazon, Quelle, Saturn (white goods)	- Meet common criteria - online information	- Mentioned by FGs
DK	Food	Facta	- One of the cheapest	
	Kitchen equipment	Ikea	- quality products - among the cheapest	
EE	Food	Rimi,	- Well spread	
	Kitchen equipment	Jysk, Ramp, Tuhat1, Maksimarket, Koduekstra, Rimi	- well-known - well accessible - located near food shops	- independent journalist comparisons
EL	Food	Sklavenitis EYDAP	- Good quality - Relatively low prices - Widespread & large variety	- In supermarket - Mentioned by FGs
	Kitchen equipment	IKEA Media Markt Sklavenitis	- Cheapest for electrical devices - Widespread & large variety	- FGs

	Category	Shop(s)	Remarks	Information source
ES	Food	Mercadona	- wide spread - prices 10% above competitors (comparison OCU) - reachable, often located in city centre	- Study of the Spanish Consumers' Association (OCU, 2012)
	Kitchen equipment	Mercadona stores, IKEA, Carrefour + Amazon.es (2nd hand)	- Meet common criteria - online information	- Mentioned by FGs
FI	Food	Prisma	- biggest share of all grocery shops - great variety of products at reasonable price - well spread and reachable with public transport	- no good survey data - online price information - FGs
	Kitchen equipment	IKEA, Prisma Gigantti (bigger appliances)	- Meet common criteria - Well spread & home delivery	- Online price information - Previous RBs - FGs
FR	Food	Carrefour Local Bakery	- Reachable by public transport - Second cheapest - +10%	- Biggest French consumers' association "Que Choisir" - Professional magazine on business, "Linéaire"
	Kitchen equipment	Carrefour IKEA Darty	- If product was available - For furniture - Electrical - policy to refund difference when product can be found cheaper elsewhere	- FGs - FGs - FGs
HR	Food	Konzum Local bakery, Open Market, Fish Market, Butcher	- Largest retail market - Variety & widespread - Easy accessible	- FGs
	Kitchen equipment	IKEA Harvey Norman Konzum	- On basis of availability - Good quality - Electronical devices - Easy accessible	

	Category	Shop(s)	Remarks	Information source
HU	Food	Lidl, Market, Tesco	- On basis of the distribution and number of supermarkets and the price level the food prices - Market for fresh vegetables, fruits and meat	-FGs
	Kitchen equipment	IKEA, Vandenborre, Lidl, Media Markt		
IT	Food	Lidl Open Market	- Quality and economic cost balance	- Suggested by FGs - Survey of Altroconsumo (an Italian association of consumers) - Suggested by FGs
	Kitchen equipment	IKEA Mercatone Uno Lidl	- Electrical devices	- Suggested by FGs - Online website
LT	Food	Maxima	- Largest retailer - Widespread	- Mckenzie (2010) - Surveys, 2014 evaluation: Pocienė, A. 2014. Ar Lidl sudrums ramų prekybininkų užutekį/ Will Lidl disturb a quiet traders creek, Weekly Journal „Veidas“, 28 November 2014, No.46, p. 18-25.
	Kitchen equipment	IKEA Senukai Maxima	- Cheapest - Largest	- Visit of shops - Website - No online purchases (Davidavičienė, Tolvaišas 2011; Žaptorius 2011)

	Category	Shop(s)	Remarks	Information source
LU	Food	- CPI - Auchan, Cactus and Delhaize	- Most prices are selected from the CPI data base (price of cheapest item) - Where items were missing in the CPI, they were selected using online shopping websites	
	Kitchen equipment	Ikea, Hifi International, Auchan, Cactus, Bintz, Batiself, Cora		
LV	Food	Rimi	- Reasonable pricing	- Suggested by FGs & research team
	Kitchen equipment	Jysk, Rimi, Elkor Gemos Rito www.220.lv	- Inexpensive - Large retailer in electronical devices. - Accessible - Pricier products, but higher quality	- FGs & research team
MT	Food	PAVI, Local green grocer, Local fish vendor, Snow White, Local veg vendor	- Delivery service & online shopping - Convenient location - One-stop shop - 5% added	- In person or online - Mentioned by FGs or shops that often send advertisements
	Kitchen equipment	Top Choise, Homemate, PAVI, JSM Ltd,		- Online or personal contact - Mail catalogues - FGs
NL	Food	Scanner data gathered by the Statistics Office Netherlands.	Average prices for the food items with the highest turn-over, excluding high priced products.	
	Kitchen equipment	Derived from price data of the Statistics Office (first quartile prices) If prices not available: HEMA and Blokker		

	Category	Shop(s)	Remarks	Information source
PL	Food	Biedronka, Lidl	- Offers a wide variety of food products of acceptable quality at low prices, - Being well-spread over the city, - Being well-accessible by public transport	- Available survey data (CBOS & Euromonitor International) - FGs
	Kitchen equipment	IKEA, RTV EURO AGD, Lidl, Gaspol, Ceneo.pl	- Offers a wide variety of food products of acceptable quality at low prices, - Being well-spread over the city, - Being well-accessible by public transport,	
PT	Food	Continente	- Acceptable quality - Accessible by public transport - Well-spread	- In the supermarket and online webshop - DECO (the Portuguese Association for Consumer Protection)
	Kitchen equipment	Continente, Worten Ikea	- Furniture here since it is accessible	- Online information suggested by FGs
RO	Food	Kaufland Lidl Carrefour Open market + small shop for meat	- most powerful retailer, first choice in urban areas - variety and good quality - good prices - efficient and good service - high quality German products especially in bakery - online shopping - supermarket meals - diversity of wine - qualitative fresh vegetables, fish,…	- GFK study 2013 - The Retail Meter quantitative and qualitative study in 2104 - FG information
	Kitchen equipment	Kaufland Altex IKEA	- idem food - Best price-quality ratio - instalment plans (popular) - very popular in capital - online shop	- Best Buy Award Survey 2013/2014 conducted by ICERITAS

	Category	Shop(s)	Remarks	Information source
SE	Food	ICA Kvantum supermarkets	- large share on market - reachable by public transport - wide variety of products at moderate prices	- "ICA Sverige," 2015 - Online price information FGs
	Kitchen equipment	IKEA Media market	- online information	- El-kretsen: lifespans of electronic goods - Online price information
SI	Food	Hofer Lidl Mercator	- Better than Lidl and widely spread - Biological food cheaper - More choice & good quality - Favourable price-to-quality ratio - Lowest price for many articles	- FGs recommendations
	Kitchen equipment	Lesnina, Merkur, Mercator, Hofer	- Favourable price-to-quality ratio	- FGs recommendations
SK	Food			
	Kitchen equipment			

Annex 2: Reference budgets: comparing the French ONPES CRÉDOC-IRES programme and the European Pilot project

Isa Aldegh (CRÉDOC)

Introduction

The aim of this short report is to compare the methodology and outcomes of two experiences on reference budgets. One is the CRÉDOC IRES reference budgets research, launched by ONPES, and developed between 2012 and 2014 in France. The other one is the Pilot Project for the development of a common methodology on reference budgets in Europe, conducted by the University of Antwerp from 2013 to 2015, at the request of the European Commission.

In France, between 2012 and 2014, the French National Observatory on Poverty and Social Exclusion (*Observatoire national de la pauvreté et de l'exclusion sociale* – ONPES) launched a research programme to develop reference budgets in France for different types of households. Two French Research Centres – IRES and CRÉDOC –

worked together to develop those reference budgets. IRES was in charge of a first step of studying the different international previous experiences of reference budgets and brought its support on several methodological issues. CRÉDOC organised and moderated the 31 focus groups. At some stages, experts (on nutrition, health, housing and transports in particular) were associated to the research. CRÉDOC was in charge of analysing the outcomes of the groups and of the pricing. Two reports presenting the methodology, the results and the outcomes were published in March 2015[39].

The choice of the steering committee for this first French programme on The ONPES reference budgets methodology was to follow in its main lines the British Minimum Income Standard research developed by the Joseph Rowntree Foundation and renewed regularly by the Centre for Research in Social Policy in the University of Loughborough[40]

In January 2015, CRÉDOC joined the European team creating Food Baskets in the 28 European Union countries, following strictly the methodology developed by the Centre for Social Policy, University of Antwerp. The University of Antwerp is in charge of the Pilot project for the development of a common methodology on reference budgets in Europe, which is an orientation of the European authorities.

Methodologies

The first part of the comparison in the methodologies applied for each programme (the European Pilot Methodology and the French ONPES CRÉDOC IRES reference budgets) focuses on the common points between the two programmes.

The second part stresses the differences.

Common points in the two methodologies

The French ONPES CRÉDOC IRES reference budgets cover all the needs of the households (food, housing, transport, housing equipment, hygiene, leisure, social life, clothes…). The French participation on the European Pilot Methodology was limited to investigating needs in relation with eating (healthy food, food for other purposes and kitchen equipment for cooking, storing and serving food). This is why in this note comparing the two programmes we mainly focus on food and kitchen equipment.

Here are the main common points in the two programmes:

- **A combination of citizens' points of view and expert knowledge**

Both programmes use a combination of citizens' points of view and experts' knowledge about what is needed as a minimum to live adequately in society. The citizens' points of view are collected by the way of focus groups moderated by members of the research teams.

- **Discussing a basket of goods and services for reference households**

In the focus groups a reference household is presented to the participants. They are asked to discuss not about their personal needs but about what would be the minimum needs of a theoretical reference family living in the same area as the participants, to live

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[39] Elodie ALBEROLA, Isa ALDEGHI, Pierre CONCIALDI, Antoine MATH. *Budgets de référence ONPES*, CRÉDOC – IRES, 2014. http://www.credoc.fr/pdf/Sou/Budgets_de_Reference.pdf.

ONPES *Les budgets de référence : une méthode d'évaluation des besoins - Pour une participation effective à la vie sociale - Rapport 2014-2015*. ONPES. 2015.
http://www.onpes.gouv.fr/IMG/pdf/WEB_Rapport_2014_2015.pdf.

[40] J. BRADSHAW and al. *A minimum income standard for Britain. What people think*. Loughborough University – Joseph Rowntree Foundation, 2008.

Abigail Davis, Donald Hirsch, and Matt Padley. *A minimum income standard for the UK in 2014*. Joseph Rowntree Foundation. 2014.
http://www.jrf.org.uk/publications/minimum-income-standard-2014.

an adequate life in the society. The discussion is not about how much money is needed but about the establishment of a basket of goods and services necessary to fulfil those needs. The participants discuss the purchase patterns during the focus group. The research teams use this information to transform the list of goods and services into a budget.

- **A variety of social backgrounds in the focus groups**

In the past, several national researches on reference budgets in Europe chose to include only people in poverty in the focus groups. On the contrary, the French ONPES CRÉDOC IRES reference budgets as well as the European Pilot Methodology chose to mix the groups on the criteria of the socio-economic backgrounds. In both cases, the aim is to represent as much as possible the variety of social positions existing in the society by mixing unemployed people with people at work and by associating in the same focus groups persons of different level of diploma.

- **Reaching a consensus, or explaining the disagreements**

The moderator's task is to make the participants of the focus groups debate until they reach a consensus. If it is not possible to reach this goal, the moderator asks the participants to explain the reasons why they disagree.

Differences in the two methodologies

- **The capital cities in the European programme, middle-size towns outside the Paris area in the French ONPES CRÉDOC IRES programme**

While the European reference budget planned to do the focus groups in the capital cities, in the case of the French ONPES CRÉDOC IRES programme, all the focus groups were held in two middle-size towns outside of the Paris region, Tours and Dijon.

- **A higher number of steps in the French ONPES CRÉDOC IRES programme**

Following the British Minimum Income Standard methodology, there are 4 different types of focus groups in the French ONPES CRÉDOC IRES programme: orientation groups, task groups, check back groups and final negotiation groups. Between 2012 and 2014 in France, 31 different focus groups were involved in the research.

- Orientation groups: At the beginning of the programme, those focus groups debate on the concept of minimum essential to find a definition which could be used in further steps of the research and define the case study vignettes which will be used in further focus groups. The final definition is decided by the steering committee, as a compromise between what was said in the orientation groups and what the experts on poverty consider as being the minimum need for not being excluded.
- Task groups: After this stage, other groups negotiate a detailed basket of goods and services for each reference household. The detailed basket may be slightly modified or completed just after this step by experts on transport, health expenses, housing, food, and so on. The research team carry out a first pricing and list the points of disagreements.
- Check back groups: Those focus groups discuss the lists of goods and services suggested by the previous groups (the task groups). They negotiate points where no consensus arouse from the task groups, and debate the final budgets.
- Final negotiation groups: After another step where experts, members of the steering committee and the research team work on the material produced by the focus groups, final focus groups discuss the final budgets and negotiate when disagreements remain.

In the 2015 French application of the European Pilot Methodology in 2015, which focuses on food basket and kitchen equipment, only three focus groups were held. The three groups shared the same composition and the same contents.

- **Some groups dedicated to retired adults, others to active adults in the French ONPES CRÉDOC IRES programme. No retired adults in the European Pilot Methodology**

The focus groups in the European Pilot project discussed of the needs of households whose adults are of working age. All the participants of the groups are adults between 30 and 50.

In the French ONPES CRÉDOC IRES reference budgets programme, some groups include only people of retirement age. They discuss the needs of reference households whose adults are supposed to be 70. Other groups, including only people of working age, discuss the needs of reference households whose adults are either 35 or 40.

- **A more participative approach in the French ONPES CRÉDOC IRES reference budgets, a more normative approach in the European Pilot Methodology**

The balance between experts and citizens and the timing of their participation are different in the two programmes. The experts come first in the European Pilot Methodology, while participants come first in the French ONPES CRÉDOC IRES reference budgets. In both cases, experts are also consulted after the focus groups.

In the French ONPES CRÉDOC IRES programme, the focus is very much on citizens. The precise definition of the reference household, the surname and age of each reference person is decided by the first discussion groups. There is no suggestion on menus given to the participants of the task groups, they are asked to create their own weekly menu for the reference household. Similarly, focus groups are asked to develop a list of items of equipment for the kitchen without any suggestion from the research team or the moderator. The approach is mainly participative. The first elements come from the task groups. The experts intervene later. In the case of creating a food budget, the expert role is strong. Here is more precisely the technique followed in the ONPES CRÉDOC IRES reference budgets:

- Each task group agrees by consensus on a weekly typical menu for each reference person. There are 15 different reference persons (such as a 7 year old boy, a 70 year old man living in couple, a single woman of working age…). Generally speaking, the focus groups have difficulties in giving precise quantities of each ingredient.
- The Consumption Department in CREDOC takes those 15 menus for individuals and transforms them into a list of ingredients (a food basket). The quantities are calculated per person. When the food basket of a household containing several members is created later on, the family food basket is the sum of several individual food baskets.
- To transform this list of ingredients into quantities, a first step is to use the 2010 CRÉDOC survey, CCAF (*Comportements et Consommations Alimentaires en France* – Food behavior and consumption in France). The participants fill in a logbook on food consumption for 7 days in a row. The CCAF survey provides the median quantity of each ingredient for each portion for 7 profiles: men of 60 and over, women of 60 and over, men from 18 to 59, women from 18 to 59, teenagers from 15 to 17, children from 11 to 14, children from 3 to 10[41].

[41] The sample size of the CCAF survey – 2,100 persons of 20 and more, 1,440 children and teenagers from 3 to 19, did not make it possible to calculate the quantities for the 15 types of reference persons. For instance, the quantity consumed by women of working age for the individual portion of the ingredients mentioned in the baskets are the same, whether the women are alone, in couple with no children, single mothers or in couples with children. The ingredients and the number of portions eaten every week differ for each of these groups of women, as they come from specific food baskets developed differently. For each sub-population, the median quantity of each ingredient is calculated without taking

- Those "pilot baskets" are then treated by the "Quantitative Nutrition Team from Marseilles" ("*Nutrition Quantitative de Marseille"*) to check that they are balanced nutritionally[42]. The 15 food baskets with the median quantity coming from the CCAF survey are modelised to check that they respect at least 77% of the national recommended dietary allowance (*Apports Nutritionnels Conseillés*[43]) and some of the PNNS[44] recommendations. The PNNS recommendations which are part of the model are:
  - Dairy product (milk and yogurt) > 250g/day
  - Cheese < 60 g/day
  - Fruit and vegetables > 400g/day
  - 100g/day < meat, eggs, fish < 200g/day
- 15 grams of colza oil and 5 g of sunflower a day are added if they are not already included.

  The model takes in consideration nutriments. It was sometimes necessary to reduce some quantities (meat in particular) to stay in the recommendations, and to add or increase the quantities of some ingredients not to lack of some nutriments (such as vitamin D, iron, fiber, zinc…).
- The research team from CRÉDOC verifies that the changes coming from the modelisation step are not too far away from what the task groups suggested before changing the food baskets.
- The main changes on the food baskets are discussed by the check back groups so that the final food basket is agreed by the focus groups.

In the European Pilot project for the development of a methodology for reference budgets, the part of the focus groups dedicated to food basket discussions starts with a reminder of the PNNS (National Programme on Nutrition and Health) guidelines. Then a weekly healthy menu and a list of food ingredients with the weekly quantities already written by an expert in nutrition are presented to the groups. Those menus and list of ingredients respect the PNNS. Participants are asked to react on those elements, and to discuss the relevance and the feasibility of the menus. The main focus of the discussion was the quantity and variety of ingredients in the food basket, as well as the content of the kitchen equipment. They can approve some of those elements. They can also discuss the quantities, remove or add dishes in the menus or ingredients. The French application of the European methodology shows a general acceptance of the healthy menu. Groups are confronted to a healthy norm, which in the case of France is widely known through intensive advertisement campaigns from public authorities such as PNNS, the National Nutrition and Health Programme (*Programme national nutrition santé*), and this norm is generally accepted. It does not mean that the French population as a whole follows the official recommendation. The same phenomenon was observed about the list of items for the kitchen equipment. Except on a few details, the list was not disputed by the focus groups. The European Pilot project is a more normative approach.

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into consideration the top 5% and the bottom 5% of the quantities of each portion. Younger children's' food baskets come from another methodology.

[42] This research team is part of the Research Centre on Nutrition, Obesity and Risks of thrombosis (*Nutrition, obésité et risques trombotiques*) from INRA, INSERM and Aix-Marseilles University.

[43] Ambroise MARTIN (coord.). *Apports nutritionnels conseillés pour la population française*, 3rd edition, Ed. TEC&DOC, Paris. December 2000.

[44] PNNS: National Nutrition and Health Programme (*Programme national nutrition santé* -)

- **Heterogeneity in the family profiles in the European Pilot Methodology, homogeneity in in the French ONPES CRÉDOC IRES programme**

In the European Pilot project for developing a methodology for reference budgets, focus groups include different family profiles. Most of the debate is on the needs of a reference family which consists of a father of 40, a mother of 40, a girl of 14 and a son of 10. Then they are asked if the needs would be different for a household consisting of a single parent with children, or a couple with no children, or a single person. This implies that in the focus groups people can discuss the needs of households with a family profile different from their own.

In the French ONPES CRÉDOC IRES reference budgets, focus groups consisted of participants sharing the same family profiles (single persons, single mother families, couples with no children, couples with children, and adults –living in couple or not- with children of specific ages discussing the needs of children). Participants in the focus groups only discuss the basket of goods and services of a reference household with the same family pattern as their own. There were separate task groups, there were different groups according to the gender of adults (a task group of men living alone, a task group of women living alone, a task group of men living alone, a task group of single mothers, and so on). In the check back groups, the number of groups was smaller because discussion groups included men and women: there was a check back group with men and women living alone, a check back group for men and women living in couple without children, and so on.

Comparing the results of the two methodologies

The pricing was done in 2014 for the ONPES CRÉDOC IRES reference budgets, and in march 2015 for the Pilot Project for the development of a common methodology on reference budgets in Europe.

It is possible to compare the results of the two programmes for some family profiles, bearing in mind the differences in methodology. In particular, the European project took place in the capital city while the French ONPES CRÉDOC IRES was held in two middle-size towns outside the Capital region. The ages of the children in the French ONPES CRÉDOC IRES for households comprising a mother, a father and two children are between 11-14 for the boy and 15-17 for the girl. It is slightly different from the European Pilot Project where the children are 10 and 14 in the reference family. The portions are smaller for a ten year old than for the 11-14 year old children, and for a 14 year old person and a 15 to 17 year old teenager. In the French guidelines given to the general public, there is no difference for children under 18 according to gender. As explained in the report about France, the guidelines are voluntarily vague about quantities to avoid rejection from the non-specialist public. We found the quantities in a reference book aimed at institutional catering professionals whose recommendations take into account numerous nutritional studies and the PNNS[45]. For children and teenagers, there are no differences according to gender in this book, as in a school canteen it does not seem feasible to offer different portions to the pupils according to their gender.

It is possible to compare the reference budgets of single people by calculating a mean budget between single men and single women, even if their budgets were made separately in the French ONPES CRÉDOC IRES programme. To limit the number of reference households presented in the publications of results from the ONPES CRÉDOC IRES programme, this was done in the reports.

[45] GEM RCN stands for *Groupe d'Études des Marchés de Restauration Collective et Nutrition* (Study Group of the Markets of Institutional Catering and Nutrition). Their publication is*: Recommandation Nutrition*, Version 1.3 – August 2013.
http://www.economie.gouv.fr/files/directions_services/daj/marches_publics/oeap/gem/nutrition/nutrition.pdf.

In the ONPES CRÉDOC IRES programme the single parent family has two children, one is a boy under 3, the other one is a girl of 3 to 10 years old. In the European pilot programme the children are 10 and 14. The food budget is really very different for a child under 3 and a child of 14, this is why it is not relevant to compare the budget for a single parent family in the two programmes.

So the results can be compared for three types of households, single persons, couples without children and couples with two children. In the French ONPES CRÉDOC IRES programme, the figures are related to adults of working age and not to those who are retired. As already explained, the adults in the other programme are all of working age.

- **A comparison on usual meals and kitchen equipment**

To compare the food budget, a first comparison can be made between the healthy food basket produced with the European pilot project methodology for France and the French ONPES CRÉDOC IRES budget for usual meals. This comparison is done without the cost of alcohol, meals for celebrations and extra cost of inviting friends and family home. The reader must keep in mind all the differences in the methodologies which are listed above. A major one is certainly the one concerning the age group of children, those in the European methodology are younger (and have smaller portions) than those in the ONPES CRÉDOC IRES methodology.

To compare the kitchen equipment, several items which were supposed to be stored or settled in the kitchen in the ONPES CRÉDOC IRES methodology and which were not mentioned in the European methodology as they had no direct link with food were removed from the budget. This is the case for those items: washing machine, washing powder, clothes rack, vacuum cleaner, iron.

The next table shows the budgets for usual meals and kitchen equipment in the reference budgets according to the methodology used.

Table 8: The budgets for food and for kitchen equipment in France according to the two methodologies on reference budgets, Monthly amounts in Euros, 2014 and March 2015.

	Single person(*)	*Couple without children*	*Couple with 2 children*
Usual meals			
ONPES (usual meals without alcohol)	185 €	347 €	543 €
European methodology (**)	165 €	328 €	632 €
European methodology/ ONPES methodology (in %)	89%	95%	116%
Kitchen equipment			
ONPES	23€	30 €	32 €
European methodology	14 €	14 €	27 €
European methodology/ ONPES methodology (in %)	61%	47%	83%

Note: (*) The budgets for single people come from the average budgets of single men and single women
(**) As the budget for alcohol is not included in the ONPES budget for usual meals, the budget for wine on ordinary weeks is withdrawn too from the figures concerning the European methodology.

Source: ONPES and CRÉDOC IRES reports on reference budgets 2012-2014 (plus specific CRÉDOC calculations) and Food basket pilot project in Europe– France: CRÉDOC 2015

Concerning the budget for buying food for usual meals, the results of the two methodologies are rather close. Compared to the ONPES CR|DOC IRES methodology, the European methodology gives a budget which is 11% inferior for single people, 5% inferior for couples of working age without children to the comparable budget calculated

with the ONPES CRÉDOC IRES method, and which is 16% higher for couples of working age with two children. The closeness in the figures comes from the strong relation between the food basket and the national dietary recommendations. In the ONPES CRÉDOC IRES method, the nutritionist expert was consulted after a first step of asking focus groups to create menus. In the European method, the expert was the one who created the menus and the quantities of ingredients, and the focus groups reacted later. But in both cases quantities were largely dictated by national guidelines on health.

Concerning kitchen equipment, the budget is much more restricted in the European methodology where a basic list was suggested to the participants of the focus groups, who did very little suggestions to alter this list, than in the ONPES CRÉDOC IRES methodology where participants are asked to think of what is needed at the minimum in the kitchen of the reference household to be able to participate adequately to the society.

- **A comparison on other parts of the food budgets**

It seems difficult to compare the cost of the meals which are not usual according to the two methodologies. Indeed, the ways the question was raised were different in the two methodologies. The time spent mentioning outings, meals in restaurants or invitations with friends was much longer in the ONPES CRÉDOC IRES methodology. Furthermore, some of the expenses for eating out are not in the general food budget in the French methodology but are mixed with other expenses such as those connected to social life. In these categories are included the cost of holidays or day trips or having a drink with friends in a café, and it is not easy to make the difference between the different elements of costs. For instance the cost of holidays include renting a place, eating ice creams or buying souvenirs, **the agreement with the discussion group was researched on a general budget including all the extra expenses which would not have happened on an ordinary week at home**. This is why we think it is not relevant to compare the results of extraordinary meals in the two methodologies, the way to calculate the budget being quite different.

It is more feasible to compare other elements of the food baskets, such as the cost of alcohol. This does not include the cost of alcohol on unusual occasions.

In the ONPES CRÉDOC IRES methodology, there was no suggestion by the moderators on the presence or quantity of alcohol drank by adults. Focus groups mentioned wine on a rather regular basis. As the quantity proposed by the group was not over the limit fixed by the PNNS[46] (a maximum of 3 glasses of wine a day for a male adult, two glasses for a female), the quantities suggested by the groups were kept. What was suggested by the focus groups was wine for adults.

In the case of the European methodology, no alcohol was suggested in the list of ingredients or the model of menu made by the nutritionist and debated by the focus groups. Some participants of the focus groups suggested wine from time to time for adults on a normal week. Nobody said the minimum to be part of the society was to drink absolutely no alcohol, and those in favour of wine on a daily basis as a minimum for the adults of the reference family represented a small minority. This is why the alcohol budget in the European methodology only represents from one quarter to one third of the same budget in the ONPES CRÉDOC IRES methodology.

Concerning physical exercises, this question was the object of in-depth debates during the whole day spent on elaborating the reference budgets by the task groups. The compromise found, which was adopted by the check-up group, consisted of a sport licence (150 Euros for adults, 100 Euros for children from 3 to 10) and the cost of the equipment (100 Euros a year for adults, 40 for children from 3 to 10). The costs suggested by the focus groups in Paris were less high; they mentioned the possibility of

[46] In its main guidelines, PNNS does NOT recommend any quantity of alcohol. Some messages mention alcohol and recommend not going over the limit of the equivalent of two to three glasses of wine a day for adults, and NO alcohol for pregnant women.

doing free activities such as going running or playing in parks and going to the municipal swimming pool once a fortnight, but not being a member of a sports club as the minimum for the reference family.

Table 9: The budgets for alcohol and physical exercises in France according to the two methodologies on reference budgets , Monthly amounts in Euros, 2014 and March 2015.

	Single person(*)	*Couple without children*	*Couple with 2 children*
Alcohol			
ONPES CRÉDOC IRES methodology	21 €	44 €	32 €
European methodology	5 €	10 €	10 €
European methodology/ ONPES methodology (in %)	24%	23%	31%
Physical exercise			
ONPES CRÉDOC IRES methodology	21 €	42 €	74 €
European methodology	6 €	12 €	12 €
European methodology/ ONPES methodology (in %)	29%	29%	17%

Conclusion

It is difficult to know exactly what part of the differences between the results produced with the two methodologies comes from the fact that one experience was conducted in the Capital and the other one in middle size French towns.

Other differences may come directly from the specificity of each methodology. The reference to health recommendations is higher in the European methodology; In the ONPES CRÉDOC IRES methodology the approach is more participative, the time for debating with the citizens much longer and even if some experts intervene the last word is always to the focus groups.

The press conference organised by ONPES was held in March 2015. It is too early after the release of the results to know what use the French society will do with this research. The National Council for fighting poverty and social exclusion (*Conseil National des politiques de Lutte contre la pauvreté et l'Exclusion sociale* – CNLE) already used the ONPES report to rethink the social policies in general and tackle the issue of the way of life of households living on minimum income benefits, those social allowances being much under the level of Reference Budgets.

Applying the methodology created by the Antwerp University research team did not raise any particular difficulties. CRÉDOC could rely on its experience of moderating focus groups in general and reference budget discussion groups in particular, as well as its competences in nutrition and food consumption behaviour to take charge of the project in France.

References

Alberola, E., Aldeghi, I., Concialdi, P., and math, A. (2014). *Budgets de référence ONPES*, CRÉDOC – IRES. http://www.credoc.fr/pdf/Sou/Budgets_de_Reference.pdf

ONPES *Les budgets de référence : une méthode d'évaluation des besoins - Pour une participation effective à la vie sociale - Rapport 2014-2015*. ONPES. 2015. http://www.onpes.gouv.fr/IMG/pdf/WEB_Rapport_2014_2015.pdf

Bradshaw, J. and al. (2008). *A minimum income standard for Britain. What people think*. Loughborough University – Joseph Rowntree Foundation.

Davis, A., Hirsch, D., and Padley, M. (2014). *A minimum income standard for the UK in 2014*. Joseph Rowntree Foundation. http://www.jrf.org.uk/publications/minimum-income-standard-2014

6 The health care basket

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6.1 Introduction

As emphasised earlier, health is an important facilitator of adequate social participation. According to the World Health Organization (World Health Organisation, 1946), health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". In the health care basket, we focus on the physical aspect, and more specifically on the health care needed for a healthy person to ensure a good physical health, with other aspects of health being covered in other baskets. It must be stressed that health care is only one of the many determinants of a good physical health. Physical health, and health more generally, is determined by a wide range of factors, such as the social and economic living circumstances, food, stress, good social relations and social support (Commission on Social Determinants of Health, 2008; Wilkinson and Marmot, 2003). Therefore, one should keep in mind that other baskets than the health care basket, such as the Meaningful social relations basket, the Security in Childhood basket and the Food basket, also greatly contribute to the health of people.

In this chapter, we explain how comparable baskets of health care were constructed in this project. Baskets of health care were developed for eight capital cities: Amsterdam, Athens, Budapest, Brussels, Helsinki, Madrid, Rome, Vienna. The country teams that contributed to this chapter are described in Annex 4 of this report. The chapter is structured as follows. In paragraph 6.2 we look at the health care policies of the European Union, which try to build on commonly shared values regarding health care. In section 6.3, we briefly discuss a set of assumptions that guided the development of the health care basket, and point to their limitations. In section 6.4, we explain the construction of cross-country comparable healthcare baskets and present the content of the actual baskets of the different countries. Finally sections 6.5 describes the results. Conclusions are in the final section.

6.2 European health policies

The European Social Charter states that all European citizens have the right to "enjoy the highest possible standard of health attainable". This is reflected in measures to promote health, and in health care provision in case of sickness (Council of Europe, 1996).

As defined in the European Treaty, Member States have the main responsibility for health policy and provision of healthcare to European citizens. Union action can complement national policies and should strengthen cooperation and coordination between member states in order to ensure (Art 168) 'A high level of human health protection in the definition and implementation of all Union policies and activities' (European Commission, 2010). In its White Paper, the European Commission sets out a coherent framework to give direction to Community activities in health. Recognizing that the health systems of the European Union are a central part of Europe's high level of social protection, and contribute to social cohesion and social justice as well as to sustainable development, the European Commission adopted four fundamental principles for EU action on health (Commission of the European Communities, 2007, pp. 2-7).

First, referring to the European Charter of Fundamental Rights (1996) and to other international declarations[48], the EU's health policy should be grounded in shared

[47] We are grateful to all country teams for their contribution to this chapter, and to Bart Meuwese for his contribution to the health care basket for the Netherlands. A list of the members of the various country teams can be found in the annex of this report.

overarching health values of universality, access to good quality care, equity and solidarity (European Council, 2006), while taking citizens' and patients' rights as a key starting point. This includes participation in and influence of citizens on decision-making. Health policy should be based on the best scientific evidence and should lead to the reduction of health inequities in Europe.

Second, the Commission recognises the links between health and economic prosperity. Therefore, healthcare spending should be accompanied by investment in prevention, protecting and improving the population's overall physical and mental health.

Third, health protection should be integrated into all policy areas and it is necessary that these areas will cooperate in order to develop a strong community health policy.

Fourth, the EU's voice in global health should be strengthened. As health problems and solutions reach across national and EU-wide borders in our globalised world, a greater cooperation with international organisations is needed.

In spite of this common European framework, there are large variations in the practical ways these values and principles are realised in the European Member States. Most European countries have achieved (near-) universal coverage of health care for a core set of services, but the range of services covered and the degree of cost sharing applied to those services vary greatly across countries. These variations are linked to a country's economic development and history, and more recently to the financial stability of the health care systems in a period of economic crisis, as well as to differences in (the changing nature of) population needs (OECD, 2012).

6.3 Assumptions for the health care basket

Defining the content of a health care basket is complicated, both because of the enormous variation across persons with regard to their health status and health problems, and as a result of the institutional differences in health care between countries. In order to make the construction of a health care basket feasible in this pilot project, we start from the following three assumptions:

First, we assume that all members of the hypothetical households are generally in good health, that none of the family members has special health problems or disabilities and that all families live in healthy socio-economic circumstances. As this is surely not the case for every citizen and as health risks are particularly higher for persons with low household incomes (Commission on Social Determinants of Health, 2008; Mackenbach, 2006; Mackenbach et al., 2005; Wilkinson and Marmot, 2003; Willems, 2005) the estimated minimum cost of healthcare will be underestimated for many, especially poor European citizens. However, for various reasons it is very difficult to calculate the financial implications of being ill or disabled for the health budget and for other budgets as food, clothing, mobility, and leisure. First, the number of and variation in disorders is extremely large. Second, the associated costs can vary greatly according to the nature and the severity of the disease or disability, the duration, the potential complications, the treating physician and the social and physical characteristics of the patient. Hence, as a starting point in this pilot project the only feasible way to define the necessary health care costs for all European citizens is to calculate in a first step the financial costs of staying in good health for healthy people. It is important to stress that, when using these budgets in a policy context (whether evaluating the level of minimum incomes, or in making decisions on the individual level) for every country the necessary medical and non-medical costs for disabled or (chronically) ill people to attain the highest possible health standard should be added to this normative budget for health care. Therefore, for future projects, it is highly recommended to develop health care baskets for several

[48]Including the UN Universal Declaration of Human Rights, the UN International Covenant on Economic, Social and Cultural Rights and the European Convention on Human Rights in Biomedicine.

specific diseases or disabilities so as to better document how different health care systems cover health care costs.

Second, this basket only covers costs directly related to health care. In other words, other costs (such as transportation or getting sufficient information) are to be covered by other baskets. In addition, we assume that persons are well-informed about how to use health care safely and effectively. The reason for this second assumption is that, as indicated by the Andersen behavioural model of health services use (Andersen, 1995), or Grossman's health capital model (Grossman, 1972), actual health care use is not only determined by objective health care needs (or the capacity for an individual to benefit from health care use), but also by a host of other factors. These include predisposing characteristics that influence the tendency of an individual to use medical services, resources that enable the individual to obtain them, the health care system, the value of the health improvements... From a normative point of view, the fact that two individuals with the same health care needs (e.g. as assessed by a doctor) have different patterns of health care use, implies under- or overconsumption of health care. Within a reference budget that is normative, both are to be avoided: individuals must have access to health care if they need it in order to restore their health, but the basket should not include health care consumption beyond that point. If there are clear problems as regards the extent to which individuals are well-informed about effective health care use, it is advisable that this is documented in the country report.

Third, regarding the accessibility of health care, we start from actual provision against actual prices, insofar this is accessible for low-income households. The latter condition implies that sometimes judgment needs to be applied, when accessibility is limited by low supply or other factors. An example is the regular dental check-up in a country with a national health service (NHS). Waiting lists for NHS-linked dentists can be very long, but are not necessarily problematic for annual check-ups, as these can be planned well in time. However, for visits in case of dental pain waiting lists can be too long. In this case national experts could include a visit to a private dentist. Similarly, in some countries accessibility of the health care system may be dependent on informal payments. If this is the case, this should be clearly documented, and taken into account. In sum, the health care basket should cover the direct cost for private households to access adequate health care. More specifically, the following costs are to be covered: insurance costs that are not directly deducted from earnings; additional official fees for accessing health care; informal payments (insofar applicable).

In sum, as a starting point, in this pilot project we calculate the income that healthy, well-informed[49] and competent people need at the minimum to stay healthy.

6.4 The construction of cross-country comparable health care baskets

Member states have the main responsibility for health policy and provision of health care. Therefore, when developing European health care budgets, we start from national institutional settings, recommendations and guidelines. These are supplemented with European guidelines and scientific evidence where necessary. We start from the current situation. As the epidemiology of diseases and the scientific understanding of the best way to prevent or treat diseases is constantly evolving, we want to stress that the content of the health care budget may change over time.

[49] Unfortunately, we know that not all citizens can make healthy choices because they are not able to take control of the factors which determine their health. Therefore, national and regional health action programmes should always be adapted to the needs of the most vulnerable groups in society. For realising adequate social participation, when making use of the reference budgets in practice, one must add to this normative health budgets the necessary medical and other costs that vulnerable people have to make in their country in order to attain a good health. Organisations in health promotion should take an active part in the encouragement of sensible medical consumption at all policy levels. Particular attention should be paid to vulnerable socio-economic groups.

Even in favourable health conditions, people will have spells of illness and will look for some kind of medical aid. For the health care budget, we start – inasmuch possible – from *objective health care needs* of generally healthy people. Chronic diseases correspond less well to the profile of diseases that an average healthy person is likely to develop. Therefore we restrict ourselves to acute and less severe diseases. We point out that research has shown that, apart from painkillers and some very specific medical aids, very little resources are required for day-to-day healthcare.

We make a distinction between five 'functions' that the health care basket should fulfil:

- care for everyday diseases,
- care for injuries,
- disease prevention,
- contraception, and
- ensuring access to the health care system.

Because some medication and dressings needed for the self-care for different diseases are mentioned under several of these functions, these are grouped together under the heading of a 'family medicine chest' so as to avoid repetition.

In the following sections we develop a rationale for the composition of the health care basket in relation to each of the five aforementioned functions, and build on the available literature for indicating the type and amount of various products or services that can be taken into account in the same way across European countries. When developing a health care basket at the national level, the proposed rationale is carefully adapted to the local context, e.g. in consultation with a national health specialist. Adaptations are done in line with national recommendations (e.g. for screenings and vaccinations) and in accordance with evidence of different circumstances or habits (e.g. less sunscreen lotion because of local weather conditions). The recommendations are summarised in Table 11. For more complete descriptions, we refer to Annex 1.

6.4.1 Care for every day diseases

Some acute disorders like fever, upper respiratory infection, diarrhoea, upset stomach and headache occur frequently. They are an important impetus for visiting a pharmacist or a general practitioner (GP). These disorders also often result in work absenteeism.

To determine a health care basket for such relatively trivial diseases and disorders is a difficult exercise. First, there is a lack of epidemiological data on these kinds of diseases. National or regional counts of acute diseases are usually limited to priority diseases such as influenza and tuberculosis, which require a strict follow-up. Second, even if there would be sufficient data on the incidence of acute diseases, it would be a difficult task to normatively determine to what extent these diseases require medical care. Acute respiratory infection, diarrhoea, upset stomach, headache and fever for example, should certainly not always be treated by a doctor. In other words, epidemiological data that would serve our purposes should be very specific, showing, for example, the average risk for a healthy person to run a fever for more than two days, or the probability that an average sick person develops more than 38.5 ° C fever in a year. Third, taking actual health care use as a benchmark for the creation of a normative health care budget is also a questionable choice, given the fact that, as was explained before, actual health care use is determined by many more factors than objective health needs only (cf. Andersen, 1995). In this regard, several studies indicate over-consumption of medical care. Some European governments implement campaigns to limit the use of drugs and medical care and to stimulate self-care for trauma or innocent clinical syndromes (Cardol, Schellevis, Spreeuwenberg, and van de Lisdonk, 2005; Little et al., 2001).

In the absence of conclusive data we try to use as much as possible specific recommendations for some common everyday diseases. The list in the table below (Table 10) is a selection of frequently occurring everyday complaints and symptoms.

For most of these diseases, a visit to the doctor is necessary only if the problem persists for an untypically long time, if it is accompanied by special symptoms, or when it is required to justify absence from work. In some of the more severe cases medical intervention is needed. Further, even with good information to people and parents on responsible self-care, one should not expect that the described symptoms are always clear and that people never have any doubts. This means that there is a certain need for individual counselling as well.

According to Cochrane reviews (Fitzgerald, Mori, Lakhanpaul, and Tullus, 2012; Zalmanovici Trestioreanu, Green, Paul, Yaphe, and Leibovici, 2010) and official guidelines in a number of countries (e.g. Bapcoc, 2012), an antibiotic treatment is advisable in case of acute urinary infection in non-pregnant women and children. However, since urinary tract infections can be easily prevented (Larson, Van Ree, and De Smet, 1999), we assume that persons who are generally in good health and have adequate personal care are not confronted with urinary infections. For the other conditions, antibiotics are generally not needed (S. M. Smith, Fahey, Smucny, and Becker, 2014; Spinks, Glasziou, and Del Mar, 2013; Venekamp, Sanders, Glasziou, Del Mar, and Rovers, 2013), and should therefore not be used to prevent resistance. To relieve symptoms of pain and fever, medicines like ibuprofen or paracetamol usually suffice. A clinical thermometer can be provided as temperature measurement is important for monitoring a disease. In case of diarrhoea an oral rehydration solution might be added to the basket in case of dehydration and a loperamide-containing product (such as Imodium) as comfort drug for adults because of the unpleasant and social implications (Belgisch Centrum voor Farmaceutische Informatie, 2006; Van Winckel, Chevalier, De Loof, Van lierde, and Petrovic, 2011). For the treatment of lice an anti-lice lotion, a lice comb and a conditioner for applying the wet comb method may be provided (Vlaams Agentschap Zorg en gezondheid, 2012). Further, a tick remover might be added to the basket (Vlaams Agentschap Zorg en Gezondheid, 2008). In countries where insects are common, an insect repellent can be added to the budget.

In sum, medical consumption for every day diseases can be divided into costs associated with the consultation of a doctor, (limited) costs associated with medical treatment and costs associated with self-care (family chest).

Table 10: Everyday diseases and recommended medical care use.

Condition	Adults		Children (primary, secondary school)	
	Doctor consultation needed?	Treatment /medication	Doctor consultation needed?	Treatment /medication
Fever	38,5°C for more than three days, or in case of severe complications	Paracetamol, Ibuprofen	39,5°C or more	Paracetamol, Ibuprofen
Acute cough	When accompanied by special symptoms	Not needed	When accompanied by special symptoms	Not needed
Influenza		Ibuprofen; vaccination for risk groups		Ibuprofen
Acute sore throat		Antibiotic in some cases for risk groups		
Acute rhinosinusitis		Not needed		Not needed
Acute earache			Advisable	Ibuprofen

Condition	Adults		Children (primary, secondary school)	
	Doctor consultation needed?	Treatment /medication	Doctor consultation needed?	Treatment /medication
Gastroenteritis	If symptoms persist for 36+ hours	Oral rehydratation solution Loperamide	If symptoms persist for 36+ hours	Oral rehydratation solution
Urinary infection in non-pregnant women	If it occurs, but normally it can be easily prevented	3 days treatment with nitrofurantoïne	yes	3 days treatment with nitrofurantoïne
Headache	If it persists, or unusually serious	Ibuprofen	If it persists, or unusually serious	
Tiredness	If it persists, or unusually serious		If it persists, or unusually serious	
Toothache	Preventive consultation		Preventive consultation	
Lice				Insecticide; lice comb
Tick bite	Not needed	Tick remover Disinfection of wound with alcohol	Not needed	Tick remover Disinfection of wound with alcohol
Dental caries	Dentist	Filling	Dentist	Filling
Insect bite	If complicated		If complicated	

Source: Bapcoc (2012), De Sutter A., F. Gordts, S. Van Lierde (2005), Fitzgerald A, Mori R, Lakhanpaul M, Tullus K (2012), Van Winckel M, Chevalier P, De Loof G, Van Lierde S, Petrovic M. (2011), Vlaams Agentschap Zorg en Gezondheid 2008, 2012), Zalmanovici Trestioreanu A, Green H, Paul M, Yaphe J, Leibovici L. (2010).

6.4.2 Care for injuries

Accidents and violence are major causes of morbidity and mortality in the world and their prevention is a major concern for public health. Annually, more than 60 million people receive medical treatment for an injury, of which an estimated 7 million are admitted to a hospital (European Commission, 2012c). Home accidents and accidents during leisure time are the leading cause of fatal injuries and injuries leading to disability in Europe. More than 255,000 Europeans die each year as a result of an injury. Injury is, after cardiovascular disease, cancer and respiratory disease, the fourth most common cause of death. For children, adolescents and young adults, accidents and injuries are even the leading cause of death (Bauer and Steiner, 2009). Home, leisure accidents are the most important category within the unintentional fatal injuries. Over the period 2008-2010, traffic accidents accounted for 25.4% of cases, work place accidents for 3.3%, school accidents for 0.8%, sports accidents for 4.7% and the remainder two thirds of fatalities was attributed to the category of 'home and leisure' accidents. More than 40% of the home and leisure accidents occur 'at home' (Eurosafe, 2013).

Again, it is almost impossible to give an accurate estimation of all the injury costs because of the great variety in contextual determinants. It is obvious, though, that prevention plays an important role. A lot of discomfort can be prevented by small domestic adaptations, such as storing dangerous products in a safe place and reordering of furniture. These adaptations usually do not involve additional costs. Further, sprains represent about a third of the reported trauma and are more common in adults between 15 and 54 years. A frequent type of sprain is the ankle distortion. If one follows the Ottawa guidelines, no radiological investigation is needed in 85% of the ankle distortions.

Bandaging with tape or brace is preferable to plaster cast immobilisation and surgery as treatment. Ankle sprains can be perfectly treated by a GP without expensive investigation and treatment. Medical treatment with oral or topical agents (antiphlogistics - NSAIDs) serves little purpose (Wyffels, De Naeyer, and Van Royen, 2001). Nonetheless, it should be recognised that some institutional setups can be conducive to more costs for health care users than others.

In general, medical consumption as a result of injuries can be divided into costs associated with the consultation of a doctor, the costs of an admission to a hospital and/or the medical treatment and costs associated with self-care (home pharmacy). However, in this pilot project we proposed not to budget the inpatient costs, because those costs are very difficult to estimate due to the diversity of possible trauma and associated treatment costs. Furthermore, the incidence of severe injuries is too low to include in a basic reference budget[50]. Finally, it may be useful to provide for a booklet with first aid and resuscitation guidelines.

To conclude, we restricted the costs of home and leisure accidents in private situations to the consultation fee of the physician and materials in the family chest. Since no clear information on incidence figures are available, we arbitrarily assume for all countries one incident that necessitates a consultation every 10 years for adults and children in secondary school and one every five years for each child in primary school. In the family chest, we include waterproof non-sterile anti-allergic sticking plasters, sterile, individually packed plasters, steri-strips to close small wounds, bandages for sprain-like injuries, an elastic bandage, bandage clips and a cold pack. We include an ointment for minor burns and an antiseptic. We also include a pair of stainless tweezers and a pair of stainless scissors.

6.4.3 Disease prevention

6.4.3.1 Vaccination

Infectious diseases threaten the health of citizens. Vaccination is one of the most cost-effective public health measures to protect citizens against infectious diseases (Ehreth, 2003). The widespread implementation of vaccination has led to the (near) eradication of smallpox (Fenner, Henderson, Arita, Jezek, and Ladnyi, 1988) and polio (World Health Organisation, 2014). National health authorities and European Institutions share the responsibility for preventing the transmission of emerging pathogens and the resurgence of others, as well as for enhancing the rapid and coordinated response to these threats. The national health authorities are responsible for organising and implementing national immunisation programmes. The European Centre for Disease Prevention and Control (ECDC) issues 'guidance documents' for each of the vaccinations, but the actual recommendation and implementation is a responsibility of the member states. Immunisation programmes contain, among others, vaccines against priority vaccine preventable diseases (for example measles, mumps, rubella, diphtheria, tetanus, polio, Haemophilic influenza b, hepatitis B), immunisation against the human Papilloma virus and immunisation against seasonal flu for risk groups. In the national health care baskets, the cost for households of the vaccinations that are officially recommended by the relevant public authorities are taken into account.

6.4.3.2 Screening

Systematic screenings are a second important way to protect populations from major chronic diseases. In 2003 the European Council published recommendations to European Member States for the implementation of organised screening programmes (European council, 2003). Recommendations referred to: women aged 25 to 64 for the screening of

[50]The average rate of hospital admissions due to injuries in the EU-25 is about 1.500 per 100.000 residents, varying from 450 in Malta to 3.090 in Austria- which reflects also differences in the organisation and the accessibility of the national health care systems (Zimmerman and Bauer, 2006)

cervical pre-cancer lesions at three or five year intervals; women aged 50 to 69 for breast cancer screening at two or three year intervals; and men and women aged 50 to 74 for the screening of colorectal cancer at one or two year intervals. Randomised controlled trials are under way to establish whether screening for prostate cancer or lung cancer in high-risk subjects may lead to important health benefits, especially in relation to a reduction in mortality. The results of those trials should be awaited before any decision is made for implementing lung or prostate cancer screening in a European recommendation (European Commission, 2012a). Concerning melanoma, which is at least to a certain degree preventable and curable when recognised at an early stage, the availability of facilities for detecting such early cases and national approaches to educate the public on the dangers of sunbathing vary widely within relatively short distances in Europe (European Commission, 2012b). As is the case for vaccinations, in each country the health care basket covers the cost of those screenings that are officially recommended by public authorities.

6.4.3.3 Preventive dental examinations

Oral health is a determinant factor for the quality of life. The craniofacial complex allows us to speak, smile, kiss, touch, taste, chew and swallow. It provides protection against microbial infections and environmental threats. Oral diseases are causing millions of school and work hours to be lost each year. Moreover the psychological impact of these diseases can significantly diminish the quality of life (Petersen, 2003).

In many countries in Europe regular preventive check-ups at the dentist are recommended. The frequency with which patients should attend a dentist has been subject of on-going international debates for decades. Recommendations regarding the optimal recall interval vary between countries, but 6-monthly dental check-ups have been traditionally advocated by dental practitioners in many developed countries. Scientific evidence on the optimal frequency for dental check-ups is however lacking (Riley, Worthington, Clarkson, and Beirne, 2013). Therefore, also in this case the health care basket covers the cost of a check-up at an interval which is recommended by public authorities in the country for which the basket is constructed.

6.4.3.4 Vitamin D

Vitamin D is synthesised in the skin as vitamin D3 (cholecalciferol) or is obtained from dietary sources or supplements as vitamin D3 or vitamin D2 (ergocalciferol). Vitamins D3 and D2 are metabolised in the liver to 25-hydroxyvitamin D and in the kidneys to biologically active 1.25-dihydroxyvitamin D (calcitriol), which functions as a steroid-like hormone (Bjelakovic, Gluud, et al., 2014b). Major causes of vitamin D deficiency include insufficient exposure to sunlight, decreased dietary intake, skin pigmentation, obesity and advanced age.

Overt vitamin D deficiency in children leads to rickets. Further, there is increasing evidence that sub-clinical vitamin D deficiency may also affect bone mineralisation (Winzenberg, Powell, Shaw, and Jones, 2010). Vitamin D deficiency in adults precipitates or exacerbates osteopenia and osteoporosis and induces osteomalacia. Vitamin D insuffiency is related to increased risk of malignant, cardiovascular, autoimmune and infectious diseases (Bjelakovic, Gluud, et al., 2014b).

In several countries national guidelines recommend vitamin D supplementation for children and / or adults. However, it should be noted that the usefulness of vitamin D supplementation is still a matter of debate. Available high-quality systematic reviews and meta-analyses suggest:

(1) For children (Winzenberg et al., 2010):

a. That in general in healthy children vitamin D supplementation does not improve bone density;

b. That vitamin D supplements may improve bone density in children who have low levels of vitamin D, but this evidence is uncertain;

c. That there is no precise information about side effects and complications but the available evidence suggests that vitamin D supplements are well tolerated.

(2) For adults (Bjelakovic, Gluud, et al., 2014b; Bjelakovic, Gluud, Nikolova, Whitfield, Wetterslev, et al., 2014; Reid, Bolland, and Grey, 2014):

a. That vitamin D may decrease mortality in elderly people not dependent on help or institutional care (Bjelakovic, Gluud, Nikolova, Whitfield, Wetterslev, et al., 2014);

b. That there is no firm evidence that vitamin D supplementation decreases or increases cancer occurrence in predominantly elderly community – dwelling women (Bjelakovic, Gluud, et al., 2014a);

c. That continuing widespread use of vitamin D for osteoporosis prevention in community-dwelling adults without specific risk factors for vitamin D deficiency seems to be inappropriate (Reid et al., 2014).

To summarise, these systematic reviews and meta-analyses do not give evidence that vitamin supplements are worthwhile for healthy individuals. As is the case for the other parts of the basket, vitamin supplements are only included if this is explicitly recommended by public authorities.

6.4.3.5 Other preventive measures

Disease prevention can include more than what is recommended above. In general, this includes the necessities such as a healthy lifestyle (e.g. as regards food, physical activity, adequate clothing, …) and a healthy living environment (e.g. no moisture in the house). The cost of healthy food will be covered in the food basket, whereas the cost of physical activity will (also) be covered by the leisure basket. Similarly, as mentioned earlier, also other factors facilitate a good health, such as rest and leisure, taking part in social activities, security, adequate housing etc. These will to an important extent be covered in the respective baskets. In addition, adequate personal hygiene and body care help to prevent diseases. The costs of personal care are also covered by another basket.

Several other preventive measures may be taken that are not covered by other baskets. These include:

Sunglasses: Scientific evidence on how well sunglasses protect against ultraviolet radiation is scarce. However, because sunglasses are widely used in different countries, they can be included in the budget. Sun protection cream: Sunscreens have a protective impact on skin cancer (Gimotty and Glanz, 2011; Green et al., 1999; Green, Williams, Logan, and Strutton, 2011; Thompson, Jolley, and Marks, 1993). In a sunny environment, the application of sunscreens (in combination with other measures such as protective clothing and seeking the shade) is therefore recommended by many health authorities (especially for high risk individuals). There is no scientific evidence regarding the amounts to use and the timing for reapplication. For the health care basket we proposed to include a sun lotion with a protection factor of at least 15 for all family members: 250 ml per year for adults and 500 ml per year for children in primary and secondary school. As the protective effect of sun lotion decreases after several months, we take into account that any surplus amount has to be thrown away after 1 year.

6.4.4 Contraception

The health care budget also includes the costs associated with contraception. The importance of using contraceptives for deciding freely whether, when and how often one desires to have children and to protect oneself against sexually transmitted infections (STIs) is clear. Nowadays, contraceptives are regarded as essential in the field of

reproductive health. Moreover, over the past decades, international and national human rights law has established and expanded standards for sexual and reproductive health, including family planning (Cottingham, Germain, and Hunt, 2012; Center for reproductive rights and UNFPA, 2010).

The opportunity of family planning is particularly important for young people for whom a pregnancy is usually not planned. This point is crucial if we know that sexual activity begins on average between the ages of 15 and 19 years, with men starting younger than women (Wellings et al., 2006), and that young people have relatively unstable relations in sometimes quick succession (Peremans, 2006). But adults usually have more than one sexual relationship, too. Moreover, abortion ratios (abortion/pregnancy) by age show two patterns. On the one hand, we observe a U shape, in which the ratio declines after the teenage years, generally reaches its lowest point among women aged 20-24 or 25-29, and then rises to its highest level among women 40 and older. This U-shape is found in most countries, including Canada, Cuba, Denmark or England and Wales, Hungary, Norway and the US. In countries such as Bulgaria, the Czech and Slovak Republic, Kazakhstan, Kyrgyzstan Turkey, Romania or Uzbekistan on the other hand a monotonic increase with age, in which the ratio is lowest among teenagers and rises steadily with age is displayed (Bankole, Susheela, and Haas, 1999). In Europe, every ninth termination of pregnancy (14.1%) was performed among women younger than 20 years; every fifth termination was performed in women aged 35 years or more.

The use of contraceptives not only allows people to enjoy a satisfying sexual life, but also guarantees them a safe sex life. In Europe, the incidence rates of sexually transmitted infections (STIs) across countries appears to be very heterogeneous. For some STIs trends are not clear, partly because of differences in reporting systems and reporting behaviour. For HIV, the available data suggest a continuing HIV transmission in most EU countries (European Centre for Disease Prevention and Control, 2011, 2012). In 2010, more than 27000 HIV-diagnoses were reported by 28 EU and EEA/EFTA countries (European Centre for Disease Prevention and Control, 2012).

Therefore, a secure, steady and reliable supply of contraceptive commodities in the EU is important. Unfortunately, there exists no perfect, more or less universally accepted contraceptive. Women's needs, concerns, expectations and experiences in using contraceptives are very diverse (Gray, Smit, Manzini, and Beksinka, 2006). When including contraceptives in the personal care basket, consideration has to be given to the existing cultural differences and to the changing nature of contraceptive choices over the period of a woman's reproductive life.

According to the WHO, the male latex condom is the single, most efficient available technology to reduce the sexual transmission of HIV and other STIs. Therefore "condoms must be readily available, either free or at low cost, and promoted in ways that help overcome social and personal obstacles to their use" (Unaids, UNFPA, and WHO, 2009). Given this position statement, condoms are included in the budget for adult men, adult women and for adolescents (children in secondary school). The question of how many condoms we should provide is difficult to answer, since information on the frequency of sexual intercourse is not accurately available. We rather arbitrarily propose to include 30 condoms per year for each single adult.

Further, consistent with the requirement of autonomy for adequate social participation, as well as a human rights and Essential Medicines approach, commitment to expanding contraceptive choice is pervasive in the international literature (Gray et al., 2006). Although a review on whether increasing choice has a direct impact on contraceptive outcomes did not result in finding many high quality studies, there is no evidence to the contrary. The existing evidence indeed tends to support the contention that increased choice is associated with increased uptake, lower pregnancy rates and fewer STIs. Also, women that are given a choice use and continue to use their chosen contraceptives to a greater degree than those denied this choice (Gray et al., 2006). Therefore, each national health care budget contains sufficient money to buy a variety of frequently used contraceptive commodities.

6.4.5 Putting it all together: a proposal for a family medicine chest

Even though several principles and findings of relevance for a health care budget can be found in the literature, when it comes to putting together a concrete set of items, the guidance offered by the literature is limited. Therefore, we took a concrete list of items which is within the boundaries of what is justifiable on the basis of the aforementioned more general findings. This list was carefully evaluated by country teams, adapted to the local situation and priced. If more concrete national recommendations were available, they became the primary source for composing the family medicine chest, unless these recommendations clearly contradict the latest stage of the literature.

The previous paragraphs demonstrated that self-care for everyday diseases and the injuries is an acceptable practice in a normative health care budget. In the family chest we collect the non-prescription drugs, bandages and other material necessary for this purpose.

For the symptomatic treatment of pain and fever, we include Nurofen (Ibuprofen) in the budget for both adults and children. Arbitrarily, we took 10 tablets per person per year. Further, we include 1 thermometer with a lifespan of 5 years for every family.

For diarrhoea, we include an oral rehydration solution (ORS) for both adults and children and Imodium (Loperamide) for adults. For ORS we take 5 bags per person per year (as the leaflet advises approximately one bag per hour as long as there is dehydration, which is usually between 4 and 6 hours). Arbitrarily we also propose approximately 5 tablets Loperamide per adult per year.

For the treatment of lice for children in primary school we include a lice comb (1 per family with children in primary school per 10 years), 1 bottle of conditioner per 6 years (the so-called wet-comb method for the removal of lice makes use of conditioner) and 1 bottle of anti-lice lotion per 6 years.

For tick bites we include 1 tick remover per family per 5 years. Insect repellents and insect bite medication are included, if common in the country under consideration.

As even healthy persons regularly have a common cold, we include paper handkerchiefs in the budget. A healthy person only needs 1 handkerchief per day. If we count 3 times 5 days that the person has a cold and needs more handkerchiefs (10 per day) then we have a total amount of 350 days x 1 handkerchief per day for the healthy days PLUS 15 days * 10 handkerchiefs per day for the days the person has a cold, which gives a total of 500 handkerchiefs per person per year.

For small injuries and small wounds we include waterproof anti-allergic sticking plasters (not sterile). For adults and children in secondary school we take (arbitrarily) 10 sticking plasters per person per year. For children in primary school we take (arbitrarily) 20 sticking plasters per year. Further, we include sterile, individually packed plasters for both adults and children. For adults and children in secondary school we take 2 sticking plasters per person per year. For children in primary school we take 4 sticking plasters per person per year.

Further, we include steri-strips to close small wounds. Arbitrarily we take 1 box of 5 to 10 steri-strips per family per year. We also include a pair of stainless tweezers per 15 years per family and a pair of stainless scissors per 15 years per family. 1 antiseptic per family per year is also included in the budget.

For sprain-like injuries, we take 2 bandages per person per year as well as 1 elastic bandage per family per year. We include a box (5 to 10 pieces) of bandage clips per family per 10 years. 1 cold pack per family per 10 years is also foreseen.

For minor burns we include an ointment: 1 tube per 3 years per family.

Given the arbitrary nature of the choice of quantities[51], all country teams started from exactly the same quantities, unless there were objective indications that other quantities were more appropriate.

6.4.6 The content and pricing of national health care baskets

All national teams had to stick as closely as possible to the proposed basket in the previous paragraph. Deviations were only allowed if national guidelines and recommendations and requirements regarding health and health care, especially in relation to disease prevention are different. In consultation with a health expert, further deviations could be proposed if there was a clear justification. Table 11 shows the deviations from the previous specifications in the different countries.

The pricing of the health care basket was done in accordance with current (2015) regulations, and formal and informal rules of the various countries. For the consistency of the RBs, as well as for international comparability, all goods and services are priced at the same moment in time. As can be seen in Table 12, in all countries, pricing was done between May and July 2015.

In order for the price survey to be done in accordance with the same principles cross-nationally, the following rules were followed (and are summarised in Table 12):

- Medication was priced at the lowest prices in accessible shops. Prices were allowed to be collected online if e-shopping is a common practice for buying medicines or if no big differences exist with the prices of (a sample of) medicines bought in shops. Delivery costs or administration costs were only taken into account if they cannot be avoided (e.g. by choosing for delivery at collection point). If bargaining or informal practices are customary practices, this was taken account. This additional information is noted in the remarks column of Table 12 but as can be seen has not been applied.
- The costs of the consumption of the health care service (e.g. a general practitioner or a dentist) are limited to the patient cost (so after deduction of reimbursements). In case under the table payments or supplements (balanced billing) have be paid for getting access to qualitative health care, it is included in the prices if the practice is widespread and the inclusion can be justified. Again these possible additions have not been applied.
- The cost of compulsory and non-compulsory but highly recommended health insurances were calculated in accordance with the formal rules for the various household types. If the latter are directly deducted 'at source' from benefits, wages and self-employment income, the price was not included in the budget. For accessing the health care system, in some countries households need to pay a member's fee of sickness funds or similar entities. The latter costs were included in the budget. If a range of sickness funds are available, the average cost of those sickness fund fees that are acceptable for a minimum budget was calculated for the different hypothetical households.

[51] As we explain elsewhere in this report, leaving the choice to focus groups does not make this choice less arbitrary, and would undermine cross-country comparability.

Table 11: Guidelines content health care basket and country deviations.

		Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
Care every day disease	Adult woman	2 GP consultations per year + 1 home visit per year	✓	✓	✓	✓	all home visits replaced by GP consultation after office hours	✓	✓	✓
	Adult Man	Idem woman	✓	✓	✓	✓		✓	✓	✓
	Child boy	3 GP consultations per year + 2 home visit per year + 1 antibiotic	✓	✓	✓	✓		✓	✓	No antibiotic
	Child girl	1 GP consultations per year + 1 home visit per year	✓	✓	✓	✓		✓	✓	✓
Care injuries	Adult woman	1 GP consultations per 10 years	✓	✓	✓	✓	✓	✓	✓	✓
	Adult Man	Idem woman	✓	✓	✓	✓	✓	✓	✓	✓
	Child boy	1 GP consultations per 5 years	✓	✓	✓	✓	✓	✓	✓	✓
	Child girl	1 GP consultations per 10 year	✓	✓	✓	✓	✓	✓	✓	✓
Vaccinations and screening	Adult woman	Diphtheria-tetanus vaccine per 10 years + cervical cancer screening per 3 years	No vaccination and screening per 5 years	✓	✓	No vaccination	screening per 5 years	✓	✓	+ general yearly screening + tick-borne encephalitis vaccine per 5 years
	Adult Man	Diphtheria-tetanus vaccine per 10 years	No vaccination	✓	✓	No vaccination	✓	✓	✓	+ tick-borne encephalitis vaccine per 5 years + general yearly screening

		Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
	Child boy	Vaccine measles mumps rubella per 6 years + Vaccine poliomyelitis - diphteria - tetanus – pertussis per 6 years + Consult school physician per 3 years	Only Vaccine poliomyelitis - diphteria - tetanus – pertussis per 6 years + consult GP per 6 years	✓	✓	✓	No vaccinations + yearly screening	Only Meningococcus C vaccination /6 years + GP consult per 6 years	✓	Only (HPV + tick-borne encephalitis vaccine +2 consultations) per 5 year + yearly screening
	Child girl	HPV Vaccine 2 doses per 6 years + Vaccine poliomyelitis - diphteria - tetanus – pertussis per 6 years + Consult school physician per 2 years	Only HPV Vaccine 2 doses per 6 years + 2 GP consultations per 6 years	✓	✓	✓	Consult school physician per 1,5 years + yearly screening	✓	✓	tick-borne encephalitis vaccine per 5 years + Vaccine poliomyelitis - diphteria - tetanus – pertussis per 10 years + 3 consultations per 10 years+ + yearly screening
Dental examinations	Adult woman	2 dental examinations per year	Only 1 per year	✓	✓	Only 1 per year	Only 1 per year	Only 1 per year	✓	✓
	Adult Man	Idem woman	Idem woman	✓	✓	Idem woman	Idem woman	Idem woman	✓	✓
	Child boy	Idem woman	Idem woman	✓	✓	Idem woman	Idem woman	Idem woman	✓	✓
	Child girl	Idem woman	Idem woman	✓	✓	Idem woman	Idem woman	Idem woman	✓	✓
Contraceptive	Adult woman	30 condoms per year + most expensive of pill or Mirena spiral	✓	✓	✓	✓	✓	✓	Mirena spiral no alternative	Mirena spiral no alternative

		Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
	Adult Man	30 condoms per year	✓	✓	✓	✓	✓	✓	✓	✓
	Child boy	/	✓	✓	✓	✓	✓	✓	✓	✓
	Child girl	30 condoms per year + most expensive of pill or implanon	✓	Implanon no alternative	✓	Implanon no alternative	✓	Implanon no alternative	Implanon no alternative	Implanon no alternative
Sun care and vitamin D	Adult woman	Sunglasses per 3 years + 250 ml sun lotion per year	✓	✓	✓	+ 600 pills vitamin D	✓	✓	✓	500 ml sun lotion per year
	Adult Man	Idem women	✓	✓	✓	Idem women	✓	✓	✓	Idem woman
	Child boy	Sun glasses per 3 years + 500 ml sun lotion per year	✓	✓	✓	+ 600 pills vitamin D	+ 365 pills vitamin D	✓	✓	✓
	Child girl	Idem boy	✓	✓	✓	Idem boy	Idem boy	✓	✓	✓
Family medicine chest	Thermometer (1 per family per 5 years), pain/fever medication for 10 days for adults and children, medication for diarrhea adults (5 tablets per year), Oral rehydration solution for diarrhea children (1 box per 2 years), lice comb (1 pet family per 10 years, anti-lice lotion (1 per child < 12 per 6 years), conditioner(1 per child <12per 6 years), tick remover (1 per family per 5 years), waterproof anti-allergic plasters (10 per person > 12 years and 20 per person < 12 years per		✓	No oral rehydration for children and no conditioner	✓	No oral rehydration for children	+insect bite medication and repellent	+insect bite medication and repellent but no sticking plasters	no sticking plasters	✓

	Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
	year), sticking plasters (1 per person > 12 years and 2 per person < 12 years per year), sterile compresses (2 per person > 12 years and 4 per person < 12 years per year), steri-strips to close small wounds (1 box per family per year), pair of stainless steel tweezers and scissors (1 per 15 years per family), antiseptic (1 per year per family), bandages '2 per person per year), elastic bandages (1 per family per year), safety pins and bandage clips (1 per family per 10 years), coldpack (1 per family per 10 years), ointment for minor burns (1tube per family per 3 years), paper handkerchiefs (500 per person per year)								
Insurance	compulsory and non-compulsory but highly recommended health insurances If not deducted 'at source'	Basic and minimum additional insurance	Not relevant	Membership fee mutuality + additional hospital insurance	Not relevant	Not relevant	Not relevant	Not relevant	e-health insurance card

Table 12: Pricing information.

City	Pricing month	Shop choice criterion	Shop names	Product choice	Remarks
Amsterdam	July 2015		Albert Heyn, bol.com, Kruidvat, newpharma.nl	Cheapest	
Athens	June 2015	Cheapest and reliable	H&M, pharmacy, Sklavenitis, wearhouse.gr	Cheapest and reliable	Consult dentist in private sector
Brussels	May 2015	Cheapest	Colruyt, farmaline.be, H&M	Cheapest and reliable	
Budapest	June 2015	Selection on basis of FG	Drogerie Markt, házipatika.com, H&M, Rossmann		
Helsinki	May 2015	Cheapest	Clas Ohlson, H&M, Prisma, Yliopiston Apteekki	Cheapest	
Madrid	May 2015	Shop of food basket	H&M, Mercadona, local pharmacy	Cheapest	
Rome	June 2015	Selection on basis of FG	Acqua e sapone, H&M, local pharmacy	Lowest average price	price dental consultation = estimate of 2009
Vienna	July 2015		DM, local pharmacy		

6.5 Results

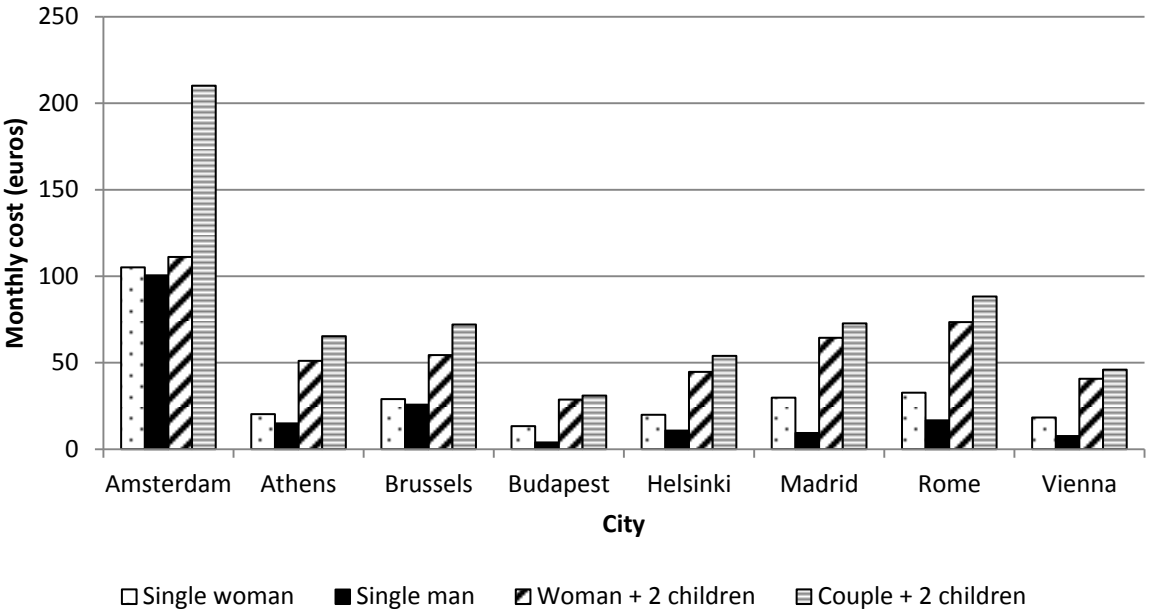
Figure 24 gives an overview of the monthly costs in Euros[52] per country and per family type for the health care basket. It is immediately clear that costs are moderate in comparison with the food basket, and also vary substantially.

Comparing *capital cities*, one notes that costs for all family types are lowest in Budapest, Hungary: on a monthly basis, they amount to €4.0 for a single man, €13.3 for a single women, €28.6 for a single women with two children and €31.0 for a couple with two children. At the other end of the extreme we have Amsterdam, the Netherlands, with monthly costs varying from €100.6 for a single man to €210.1 for a couple with two children. The costs in the Netherlands are really extremely high: according to family type, costs are between 1.5 and 3.9 times the cost of the second highest country – Belgium for a single man and Italy for all other family types. An explanation follows when we look at the composition of the basket later on. In addition to Hungary, also Finland and Austria have rather limited reference budgets for health care.

[52] For Hungary, an exchange rate of 1 Hungarian forint = 0,0032165 Euro was used to convert local prices into Euros.

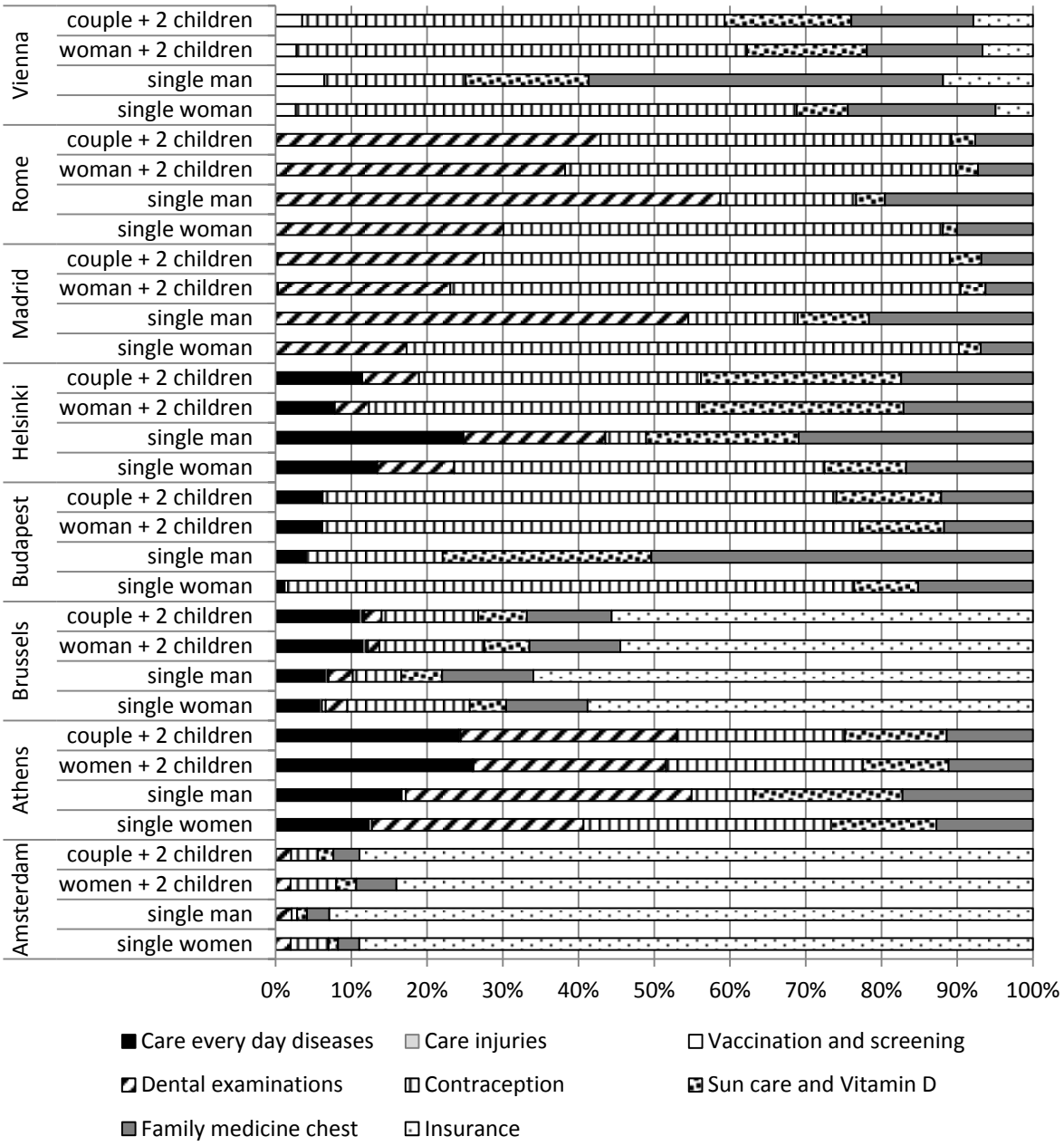
Comparing *family types,* we see that in all countries a single man has lowest costs and a couple with two children highest. But relative differences vary a lot. The costs of a single women, for example, are 1.04 times the costs of a single man in the Netherlands, but 3.3 times in Hungary. The costs of a couple with two children are about 2 times the costs of a single man in the Netherlands, but about 7.7 times in Hungary and Spain.

Figure 24: Health care basket: monthly cost in Euros per country per family type.



Note: For Budapest, the exchange rate we used is 310.9 forint to the Euro.
The reasons for all these differences become more clear when we look at the content of the basket in the different countries. Figure 25 shows the share of the various categories in the total cost of the basket, for all countries and family types.

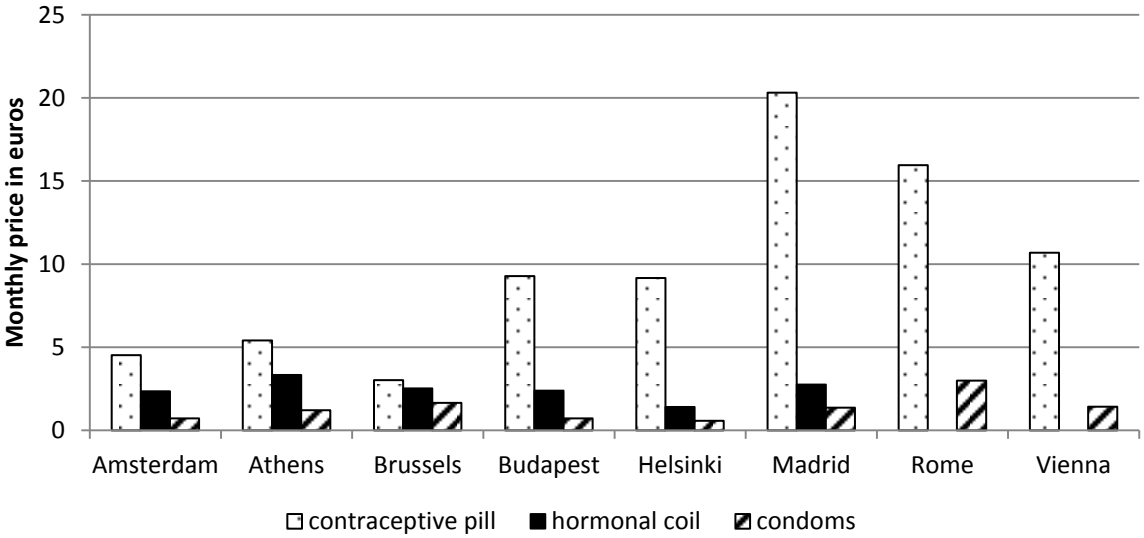
Figure 25: Health care basket: content as share in total per country and family type.



Over all countries and family types *contraception* takes on average the largest part of the budget (35%). This large share reflects the conviction that each basket should contain sufficient money to buy a variety of frequently used contraceptive commodities. Hence the decision to include both condoms (30 per adult and secondary schoolchild) and the pill (for women and secondary school girls) in the basket. As a result, family types with women and female teenagers generate higher costs. There are also large differences between countries, since monthly pill costs vary a lot. It appears that not differences in reimbursement of the pill, but rather the pill price differences and product availability explains the variation. Figure 26 shows the monthly cost for the different contraception methods for women. The pill is the most expensive contraceptive with a monthly cost varying from €3 in Belgium to €20.3 in Spain; condoms are the least expensive with a monthly price varying from €0.6 in Finland to €3 in Italy. Restricting contraception to condoms only would have had a large impact on the budgets and would have decreased

the differences between countries and family types. However, such a choice would substantially limit the autonomy of persons, especially women. In Greece however, mostly only condoms are used in practice (Tountas, Dimitrakaki, Antoniou, Boulamatsisd, Creatsas, 2004; Donadiki et al., 2013).

Figure 26: Monthly price different contraception methods women.



Note: For Budapest, the exchange rate we used is 310.9 forint to the Euro.

Obviously, the average high share of contraception in the total cost of the health care basket conceals substantial differences across family types and capital cities. Contraception has a much more modest share in the basket for single males as well as in the baskets for Amsterdam and Brussels, which are dominated by health insurance costs (see below).

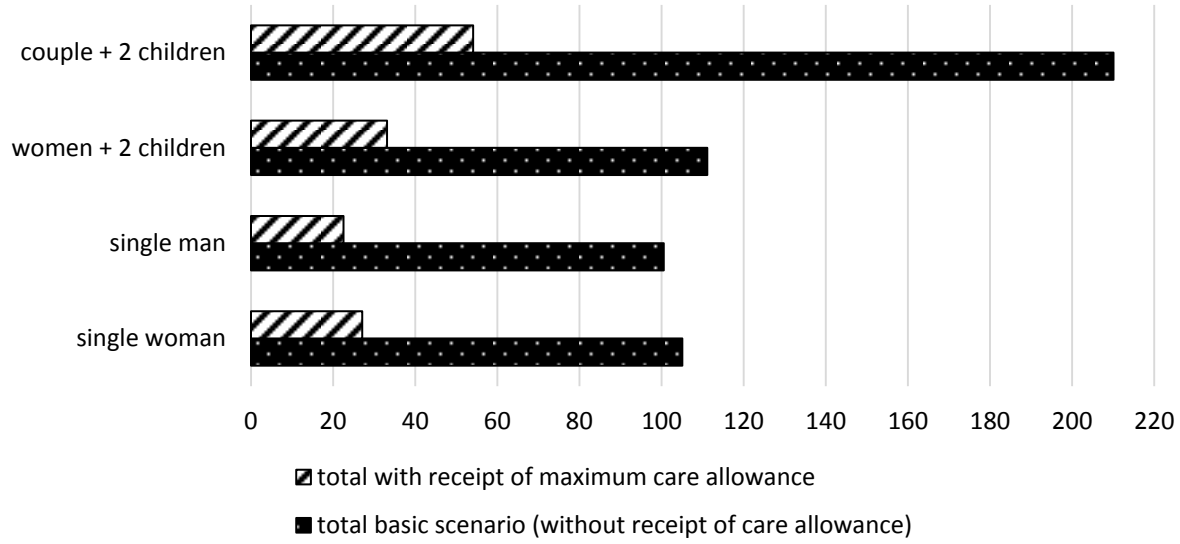
On average, the second largest share of the budget is for *health insurance*. It is immediately clear that there is a huge difference between the countries. Health insurance costs are only present in Austria, Belgium and the Netherlands and constitute between 84% and 93% of the costs of the health care basket in the latter country. Costs of health insurance makes the Netherlands a high-cost outlier for the overall budget. Differences in the organisation of their health insurance system is the underlying reason. In the Netherlands, primary and curative care are organised through mandatory private insurance whereas longer term care is organised through social insurance. So for their primary and curative care, Dutch citizens have to pay health care premiums to private health insurers – it is not immediately paid out of taxes or wage contributions as in all other countries. These premiums are thus part of the health care basket, which as a rule shows the out-of-pocket cost after taxes and social contributions[53]. Premiums are per adult and are flat (not risk rated) but vary between insurers and according to the deductible taken. For the basket we calculated the average health care premiums for the basic insurance with the mandatory minimum deductible and the premiums for minimal additional insurance of the four largest insurers. It is important to note that the health care premium of the basic health care package can be compensated by a 'care allowance' for low income households. Allowances vary mainly in function of the total household income and marital status (living with partner or not). Also, the total assets of the household must be lower than a certain threshold. An example: a one-person household with an annual income lower than €19,000, and fulfilling the other requirements, receives a €78 monthly allowance in 2015, for a two-person household the allowance

[53] There are other possibilities. This choice makes sure that the resulting budgets can be compared to net disposable income, for instance at the level of the net minimum wage.

equals €149 per month. Because care allowances vary and are not unconditional, we did not include them in the basic scenario. Figure 27 shows the impact if we take the maximum care allowance for the lowest income groups into account. The impact is large; the results for the Netherlands are now much more in line with these of the other countries.

Health insurance costs are also substantial in Belgium. The health insurance costs included in the basket consist of a small flat membership fee that has to be paid by citizens to the mutuality of their choice (on top of wage contributions) and a hospital insurance (together €17 for an adult). The share of insurance in the total budget varies between 54% and 66% of the total budget, depending on family type. On the other hand, vulnerable families are protected as they are entitled to increased reimbursements (and thus reduced co-payments). This was not taken into account, since entitlements are conditional on family income. Moreover since co-payments constitute a very limited share of the cost of the health care basket of our healthy families, taking the reduced co-payments into account would have had very limited impact. Finally, in Austria the share varies between 5% and 12% and consists of the cost of the electronic health insurance card (€0.9 per person).

Figure 27: Monthly price (in Euros) in the Netherlands per family type according to receipt of maximum care allowance.



The top three in magnitude of shares is completed with preventive *dental examinations.* Costs differ between countries for two reasons. First, through differences in insurance cover. Dental examinations are free for all in Hungary and Austria and free for children in the Netherlands, Belgium and Finland whereas in Greece, Italy and Spain everyone pays a co-payment. Second, there are some differences in recommended frequency of examinations. Greece, Belgium and Italy recommend 2 dental examinations per year, whereas in the other countries only one examination was accepted. The impact of this difference is shown in Figure 28.

In comparison with the other items, differences in the cost of the *family medicine chest* between countries are less pronounced; the items in the family medicine chest are typically not reimbursed in all countries and have less price variation. Monthly costs for single adults vary from €2.4 in Hungary to €5.3 in Finland; for a couple with two children from €3.75 in Hungary to €9.4 in Finland.

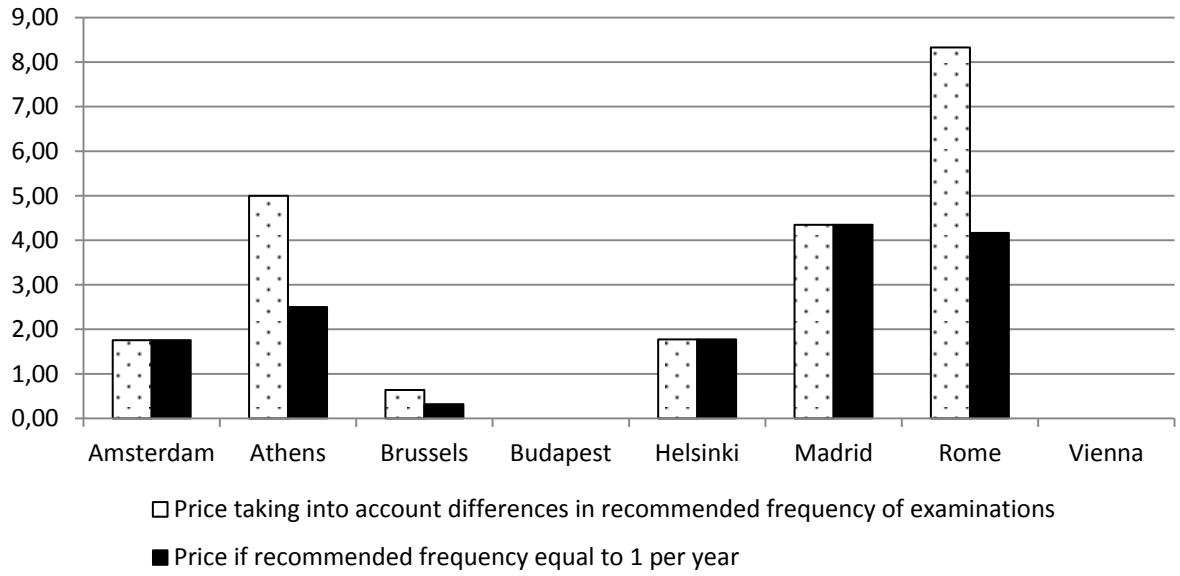
Although all countries accepted *sunglasses* and the same amount of *sun lotion*, costs still differ relatively much between countries: per adult women, costs per month vary

between €0.53 in Hungary and €2.82 in Greece. If costs of *vitamin D* are added, the overall average share in total costs amounts to 10%.

Further costs of *care for everyday diseases* are absent in Austria, Italy, Spain and the Netherlands (except for a small co-payment for the antibiotic). In the other countries, citizens have to pay a co-payment for GP home visits and/or for GP consultations. Shares in those countries vary between 1.2% and 24.8%.

Finally, shares of preventive costs of *vaccination and screening* and costs of *care for injuries* are negligible in all countries. Screening and vaccination is free or almost free in all countries. Only in Austria costs for vaccination are a little higher, because a price for the vaccine has to be paid. Costs for injuries are really small because of the assumption of infrequent occurrence of minor injuries and the exclusion of major injuries, as well as the partial or full reimbursement of costs related to these factors.

Figure 28: Monthly price (in Euros) of preventive dental examinations for an adult, 2015.



Note: For Budapest, the exchange rate we used is 310.9 forint to the Euro.

6.6 Conclusion

In this chapter, cross-country comparable budgets for health care are developed, representing a minimum budget needed for having access to adequate health care by healthy people without severe medical problems, who live in healthy socio-economic circumstances and are well-informed about the effective use of health care. Accordingly, only a minimum on basic medicinal facilities is included so that people are able to consult a doctor when needed or to apply basic first aid to themselves and other family members. We merely calculated the cost of staying in a good health for already healthy people. The budget is not at all a good reflection of the costs of the ill or disabled, neither for the cost of individuals who lack the knowledge and expertise to control their own health.

Due to differences in the organisational setup of health care and health insurance, differences in local prices and differences in the reimbursement practices of the different countries, there is a lot of variation in the level and composition of the reference budgets for health care between the eight countries. A marked difference in the organisational setup of health insurance relates to the Netherlands. In the Netherlands, adult citizens have to pay health insurance premiums to private insurance companies out of their disposable income. Hence a much higher reference budget for health care is needed in the Netherlands. Price differences are most important to explain differences in the

reference budget for contraception. High costs of the pill in Greece, Italy and Spain greatly increases the budget shares of contraception in those countries. In practice, pill use however is very uncommon in Greece. Finally, differences in reimbursement practices are important to explain differences in the references budgets for dental examinations and everyday diseases.

With the construction of this basket we have shown how the general method for comparable reference budgets can be applied in a context of important institutional differences in the public provision and subsidisation of essential goods and services across countries, and a substantial body of scientific evidence as well as official guidelines and recommendations regarding the necessities for adequate health care. The presentation of the health care basket also shows that sometimes further standardisation is necessary to bring the exact reasons for cross-national variations to the surface and to show how generous various welfare states are in providing health care for their citizens. A major challenge lies in elaborating the basket further to show also the cost of health care in case of specific (chronic) diseases or disabilities.

References

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*(36), 1–10. PubMed CrossRef ChemPort.

Bankole, A., Susheela, S., & Haas, T. (1999). Characteristics of Women Who Obtain Induced Abortion: A Worldwide Review. *International Family Planning Perspectives, 25*(2), 68-77.

Bapcoc. (2012). Belgische gids voor anti-infectieuze behandeling in de ambulante praktijk, editie 2012. www.health.belgium.be/antibiotics.

Bauer, R., & Steiner, M. (2009). Injuries in the European union: statistics summary 2005-2007. Vienna: Eurosafe.

Belgisch Centrum voor Farmaceutische Informatie. (2006). Gecommentarieerd geneesmiddelenrepertorium. from http://www.bcfi.be/GGR/Index.cfm?ggrWelk=/nIndex/GGR/Merk/MP_M.cfm

Bjelakovic, G., Gluud, L. L., Nikolova, D., Whitfield, K., Krstic, G., Wetterslev, J., & Gluud, C. (2014b). Vitamin D supplementation for prevention of cancer in adults. *Cochrane Database of Systematic Reviews*(6). doi: 10.1002/14651858.CD007469.pub2

Bjelakovic, G., Gluud, L. L., Nikolova, D., Whitfield, K., Wetterslev, J., Simonetti, R. G., . . . Gluud, C. (2014). Vitamin D supplementation for prevention of mortality in adults. *Cochrane Database of Systematic Reviews*(1). doi: 10.1002/14651858.CD007470.pub3

Bruijnzeels, M., Foets, M., Van der Woods, J., Van den Heuvel, W., & Prince, A. (1998). Everyday symptoms in childhood: occurrence and general practitioner consultation rates. *Britisch Journal of General Practice, 48*, 880-884.

Cardol, M., Schellevis, F. G., Spreeuwenberg, P., & van de Lisdonk, E. H. (2005). Changes in patients' attitudes towards the management of minor aliments. *British Journal of General Practice, 7*(516-521).

Center for repruductive rights, and UNFPA (2010), The right to contraceptive information and services for women and adolescents, Briefing Paper, New York: Center for reproductive rights & UNFPA.

Coenen, S., Van Royen, P., Van Poeck, K., Michels, J., Dieleman, P., Lemoyne, S., & Denekens, J. (2002). Aanbeveling voor goede medische praktijkvoering. Acute Hoest. *Huisarts Nu*(31), 54-57.

Commission of the European Communities. (2007). *White paper. Together for Health: A Strategic Approach for the EU 2008-2013*. Brussels.

Commission on Social Determinants of Health. (2008). *Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health*. Geneva: World Health Organization.

Cottingham, J., Germain, A., & Hunt, P. (2012). Use of human rights to meet the unmet need for familyplannin. *The Lancet, 380*(9837), 172-180.

Council of Europe (1996), *European Social Charter (Revised)*, Strasbourg: Council of Europe.

Donadiki, E., Jimenez-Garcıa, R., Velonakis,E., Hernandez-Barrera, V., Sourtzi, P., Lopez de Andres, A., Jimenez-Trujillo, I., Gallardo Pino, C., Carrasco-Garrido, P. (2013) Factors Related to Contraceptive Methods among Female Higher Education Students in Greece. *Journal of Pediatric and Adolescent Gynecology*, 26 (6), 334–339.

Ehreth, J. (2003). The global value of vaccination. *Vaccine, 21*(7-8), 596-600.

European Centre for Disease Prevention and Control. (2011). *Annual Epidemiological Report* Retrieved from http://ecdc.Europa.eu/en/publications/Publications/1111_SUR_Annual_Epidemiological_Report_on_Communicable_Diseases_in_Europe.pdf#page=66

European Centre for Disease Prevention and Control. (2012). HIV testing: Know, treat, prevent. Retrieved 27th july, 2012, from http://www.ecdc.Europa.eu/en/healthtopics/spotlight/spotlight_aids/Pages/index.aspx

European Commission. (2010). Consolidated version of the Treaty on the Functioning of the European Union. *Official Journal of the European Union, 53*(30 March 2010), 1-201.

European Commission. (2012a). Health in Europe. Information and data interface. from https://webgate.ec.Europa.eu/sanco/heidi/index.php/Heidi/Healthcare/European_public_health

European Commission. (2012b). HEIDI Wiki. Major and chronic diseases. Dermatological diseases. from https://webgate.ec.Europa.eu/sanco/heidi/index.php/Heidi/Major_and_chronic_diseases/Dermatological_diseases#Skin_cancers

European Commission. (2012c). Heidi Wikki. Health in Europe: Information and Data Interference. European Injury Database. Retrieved July 30, 2012, from https://webgate.ec.Europa.eu/sanco/heidi/index.php/Heidi/Lifestyle/Injuries/European_Injury_Database

European council. (2003). Council recommendation of 2 December 2003 on cancer screening.

European Council (2006). Council Conclusions on Common Values and Principles in European Union Health Systems (2006/C146/01).

Eurosafe. (2013). Injuries in the European Union. Report on injury statistics 2008-2010. Amsterdam.

Fenner, F., Henderson, D. A., Arita, I., Jezek, Z., & Ladnyi, I. E. (1988). Smallpox and its eradication. Geneva: World Health Organization.

Fitzgerald, A., Mori, R., Lakhanpaul, M., & Tullus, K. (2012). Antibiotics for treating lower urinary tract infection in children (Review). *Cochrane Database of Systematic Reviews*(8). doi: 10.1002/14651858.CD006857.pub2#sthash.AQzkkHGQ.dpuf

Fradin, M. S., & Day, J. F. (2002). Comparative efficacy of insect repellents against mosquito bites. *New England Journal of Medicine, 347*(1), 13-18. doi: 10.1056/NEJMoa011699

Gimotty, P. A., & Glanz, K. (2011). Sunscreen and melanoma: what is the evidence? Editorial. *Journal of Clinical Oncology, 29*, 249-253.

Grabe, M., Bishop, M. C., Bjerklund-Johansen, T. E., Botto, H., Çek, M., Lobel, B., . . . Wagenlehner, F. (2009). Urological infections: European Association of Urology.

Gray, A. L., Smit, J., Manzini, N., & Beksinka, M. (2006). *Systematic Review of Contraceptive Medicines: "Does Choice Make a. Difference?"* R. H. H. R. U. University of the Witwatersrand (Ed.)

Green, A. C., Williams, G., Neale, R., Hart, V., Leslie, D., Parsons, P., . . . Russell, A. (1999). Daily sunscreen application and betacarotene supplementation in prevention of basal-cell and squamou-cell carcinomas of the skin: a randomised controlled trial. *Lancet, 354*, 723-729.

Green, A. C., Williams, G. M., Logan, V., & Strutton, G. M. (2011). Reduced melanoma after regular sunscreen use: Randomized trial follow-up. *Journal of Clinical Oncology, 29*, 257-263.

Grossman, M. (1972). On the concept of health capital and the demand for health. *Journal of Political Economy, 80*(2), 223-255. doi: 10.1086/259880

Larson, D. E., Van Ree, J. W., & De Smet, R. (1999). *Gezin en gezondheid.* Zeewolde: Uitgeverij Cambium BV.

Little, P., Somerville, J., Williamson, I., Warner, G., Moore, M., Wiles, R., . . . Peveler, R. (2001). Psychosocial, lifestyle, and health status variables in predicting high attendance among adults. *Britisch Journal af General Practice*(12), 987-994.

Mackenbach, J. (2006). *Health inequalities: Europe in profile*. London.

Mackenbach, J., Martikainen, P., Looman, C., Dalstra, J., Kunst, A., Lahelma, E., & members of the SEdHA working group. (2005). The shape of the relationship between income and self-assessed health: an international study. *International Journal of Epidemiology*(34), 286–293.

Management of simple insect bites: where's the evidence? . (2012). *Drug and therapeutics bulletin*(50), 45-48.

Minardin, D., d'Anzeo, G., Cantoro, D., Conti, A., & Muzzonigro, G. (2011). Urinary tract infections in women: etiology and treatment options. *International Journal of General Medicine, 4*, 333–343.

OECD. (2012). Health at a Glance. Europe 2012 *Health at a Glance: Europe*.

Peremans, L. (2006). *Contraceptive consultation in general practice: A study on quality and performance*. Antwerp: University of Antwerp.

Petersen, P. E. (2003). The world oral health report 2003: continous improvement of oral health in the 21st century. The approach of the WHO Global oral Health program. http://www.pfcac.org/documents/Oral_Health.pdf

Reid, I. R., Bolland, M. J., & Grey, A. (2014). Effects of vitamin D supplements on bone mineral density: a systematic review and meta-analysis. *Lancet, 383*(9912), 146-155. doi: 10.1016/s0140-6736(13)61647-5

Riley, P., Worthington, H. V., Clarkson, J. E., & Beirne, P. V. (2013). Recall intervals for oral health in primary care patients. *Cochrane Database of Systematic Reviews*. doi: 10.1002/14651858.CD004346.pub4

Smith, R., & Takkinen, J. (2006). Lyme borreliosis: Europe-wide coordinated surveillance and action needed? *Euro Surveillance, 11*(6), E060629.060625.

Smith, S. M., Fahey, T., Smucny, J., & Becker, L. A. (2014). Antibiotics for acute bronchitis. *Cochrane Database of Systematic Reviews*(3), 60. doi: 10.1002/14651858.CD000245.pub3

Spinks, A., Glasziou, P. P., & Del Mar, C. B. (2013). Antibiotics for sore throat. *Cochrane Database of Systematic Reviews*(11), 75. doi: 10.1002/14651858.CD000023.pub4

Thompson, S. C., Jolley, D., & Marks, R. (1993). Reduction of solar keratoses by regular sunscreen use. *New England Journal of Medicine, 329*, 1147-1151.

Tountas, Y., Dimitrakaki, C., Antoniou, A., Boulamatsisd, D., Creatsas G., (2004) Attitudes and behavior towards contraception among Greek women during reproductive age: a country-wide survey. *Eur J Obstet Gynecol Reprod Biol*, 116, 190-195.

Unaids, UNFPA, & WHO. (2009). *Position statement on condoms and HIV protection* Retrieved from http://www.who.int/hiv/pub/condoms/20090318_position_condoms.pdf

UNFPA. Reproductive Health. Protecting reproductive rights. Retrieved july, 27th, 2012, from http://www.unfpa.org/rh/rights.htm

Van Winckel, M., Chevalier, P., De Loof, G., VAn lierde, S., & Petrovic, M. (2011). Aanbeveling acute gastro-enteritis. *Huisarts Nu, 40*, S118-S136.

Venekamp, R. P., Sanders, S., Glasziou, P. P., Del Mar, C. B., & Rovers, M. M. (2013). Antibiotics for acute otitis media in children. *Cochrane Database of Systematic Reviews*(1), 72. doi: 10.1002/14651858.CD000219.pub3

Vlaams Agentschap Zorg en Gezondheid. (2008). Teken, wat je zeker moet weten. from http://www.zorg-en-gezondheid.be/teken.aspx

Vlaams Agentschap Zorg en gezondheid. (2012). Luizen te lijf. Wat elke mama en papa moet weten over luizen., from http://www.zorg-en-gezondheid.be/luizen/

Wellings, K., Collumbien, M., Slaymaker, E., Singh, S., Hodges, Z., Patel, D., & Bajos, N. (2006). Sexualbehaviour in context: a global perspective. *The Lancet, 368*(9458), 1706-1728.

Wilkinson, R., & Marmot, M. (Eds.). (2003). *The solid facts: social determinants of health* (2nd ed.). Copenhagen: Centre for Urban Health, WHO.

Willems, S. (2005). *The socio-economic gradient in health: a never ending story? A descriptive and explorative study in Belgium.* UGENT, Gent.

Winzenberg, T. M., Powell, S., Shaw, K. A., & Jones, G. (2010). Vitamin D supplementation for improving bone mineral density in children. *Cochrane Database of Systematic Reviews*(10). doi: 10.1002/14651858.CD006944.pub2

World Health Organisation. (1946). *Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no.2, p. 100) and entered into force on 7 April 1948*.

World Health Organisation. (2014). Poliomyelitis Fact Sheet 114. Retrieved from website: http://www.who.int/mediacentre/factsheets/fs114/en/

Wyffels, P., De Naeyer, P., & Van Royen, P. (2001). Aanbeveling voor goede medische praktijkvoering: Enkeldistortie. *Huisarts Nu*(29), 382-393.

Zalmanovici Trestioreanu, A., Green, H., Paul, M., Yaphe, J., & Leibovici, L. (2010). Antimicrobial agents for treating uncomplicated urinary tract infection in women (Review). *Cochrane Database of Systematic Reviews*(10).

Annex 1: Everyday Infectious Diseases: common complaints and recommendations

Acute cough

A cough is the most common complaint in general practice. About one in ten patients go to the doctor for a cough. In three out of four cases respiratory infections are diagnosed. Usually an uncomplicated respiratory infection is at the origin of the cough. In most cases of acute cough, there is no need for a visit to the GP. Only in case of following symptoms, people should go to a doctor: dyspnea (severe breathlessness), respiratory distress (pulse greater than 125 per minute, respiratory rate of more than 30 per minute), hypoxia (central cyanosis) or coughing up blood.
It is scientifically well established that antibiotics, even in the case of possible bacterial respiratory infections, usually do not shorten, or only minimally so, the duration of symptoms. For other medications such as cough syrups, mucolytics, medicines that dilute mucus, β2-antagonists and antihistamines there is little scientific evidence about their efficacy, too (Coenen et al., 2002). For all these reasons we advise not to include cough syrup in the health basket, despite its popularity in some countries (among the general population and in the prescribing behavior of GPs). Since this choice is contrary to cultural expectations and traditions it will be useful to inform patients and to emphasize that the effectiveness of cough medication is not granted. On the contrary, most of these drugs have serious side effects.

Acute earache

An earache is a frequent cause for visiting a GP, especially for children (Bruijnzeels, Foets, Van der Woods, Van den Heuvel, and Prince, 1998). For a middle ear infection (and therefore not a trauma, or damage caused by a foreign body), it is advisable to consult a doctor. Ear infections are painful and fairly easy to treat. The advantages of the easy treatment outweigh the expected pain (Larson et al., 1999).

For children older than 6 months it is recommended to prescribe a symptomatic (fever-analgesic) treatment and to follow the evolution of the earache for three days. Oral (by mouth) administration gives a faster analgesic effect than rectal administration. The analgesic effect of ear drop susinglidocaine has not been demonstrated. Antibiotics are generally not needed. It is difficult to balance the small benefits against the small harms of antibiotics in children with acute otitis media. However, for most children with mild disease, an expectant observational approach seems justified (Venekamp et al., 2013).

Acute rhinosinusitis

'Rhinosinusitis' is an inflammation of the nose and sinus mucosa. This inflammation may or may not be accompanied by secretions in the sinuses. Depending on the time course

of the complaints we distinguish acute, chronic and recurrent rhinosinusitis. An acute rhinosinusitis heals spontaneously after between one to three weeks; for only 10% of patients the complaints persist. Given the self-solving situation in 90% of cases and given the limited usefulness of antibiotics or other drugs (vasoconstrictors, antihistamines, mucolytics, NSAIDs, etc.), no medicines are provided in the health basket. Some household remedies like hot vapors, tea, rinsing with salt water (for children) may bring slight relief.

Acute sore throat

Acute sore throat is a common complaint in general practice. About 30% is streptococci determined: this group falls into one-third carriers and two-thirds active streptococcal infections. In 100 patients with acute sore throat, more than 20% qualify for an antibiotic (usually for high-risk patients: impaired immunity, rheumatism etcetera). There are no valid studies to the use of local antiseptic and/or analgesics underpinnings. In an average healthy situation, an acute sore throat requires no treatment. Analgesics are already included in the budget.

Dental caries

Dental caries, otherwise known as tooth decay, is one of the most prevalent chronic diseases worldwide. To avoid pain and discomfort in patients, carious teeth should be repaired promptly in order to keep fillings small and maintain natural teeth as much as possible. In order to keep the risk of dental caries or other dental diseases as low as possible, the health basket should contain preventive visits to the dentist on a regular base.

Fever

Fever is one of the most common symptoms, especially in children. Usually the fever is caused by an infection. Complications of fever rarely occur although one should stay alert, especially in the case of young children, because of the risk of dehydration. Cooling and sufficient drinking are always the right approaches in case of fever. In some situations, for the sake of convenience or because of social reasons, one can intervene with an antipyretic. To feel warm does not necessarily mean that one has a fever. Temperature measurement is thus important for monitoring a disease. Therefore, a clinical thermometer should be included, as well as an antipyretic.

The dosage of antipyretics like paracetamol and ibuprofen should always be kept within bounds. An overdose may have dangerous consequences. It is always advisable to read the information leaflet of the manufacturer in the case of self-use.

For the treatment of fever, one should not always visit a physician. For children older than 3 months, a medical consultation is needed when the temperature reaches 39.5 °C or more. Adults best go to the doctor if a fever of 38.5 °C holds on for three days or more. If the fever is accompanied by severe headache, neck stiffness, severe swelling of the throat, convulsions or confusion, one should visit a doctor (Larson et al., 1999).

Gastroenteritis

This widespread and very unpleasant condition is also called stomach flu or stomach bug. Typical symptoms are: nausea or vomiting, diarrhoea, abdominal cramps and bloating, eventually accompanied by a slight fever. When an adult has a gastroenteritis, it usually does not last for longer than 36 hours. Only when the symptoms persist for longer than 36 hours should one visit the family doctor (Larson et al., 1999). Treatment is aimed essentially at the prevention or correction of dehydration. One needs to drink more than normal to offset moisture loss (300 ml per loose stools), and eat guided by hunger without adjustment of diet. In case of dehydration, oral rehydration solution. Because of the unpleasant and social implications it a loperamide-containing product such as immodium can be used as a comfort drug in adults, but not in children (Belgisch Centrum voor Farmaceutische Informatie, 2006).

Headache

A headache is usually harmless and a momentary discomfort. Headaches can occur quickly and mostly disappear quickly. One can intervene symptomatically with ibuprofen. In rare cases, a headache can indicate more serious medical problems (e.g. meningitis, cerebral or subarachnoid hemorrhage, etc.). The severity may usually be recognised by the severity of the (other) complaints. Therefore it is best to go to the doctor if the headache persists or if the degree of pain is significantly different from previous experiences (Larson et al., 1999). There may be symptomatic intervention with ibuprofen, which is already provided in the medicine chest.

Influenza

Flu differs from a heavy cold. The most common symptoms are: fever, headache, muscle pain, drowsiness, and gastrointestinal problems. The cold virus settles in the nose, causing a local infection. The flu virus infects the lower airways (trachea, bronchi, ...) and can lead to dangerous complications, especially in elderly or debilitated patients. With a real flu the patient feels usually very weak and tired. The main complications mostly affect the bronchial tubes. Such complications include pneumonia, the exacerbation of a chronic lung disease or bronchiolitis in young children. Flu may also cause numerous reactions in the human immune system which lay at the origin of other complications such as heart failure, convulsions or nEurological disorders.

Once the disease manifests itself very little can be done. A possible treatment of influenza is treatment of the symptoms (e.g. pain with ibuprofen) and waiting until the illness is over. The fever lasts on average three days, but the cough and drowsiness may take one to two weeks. The prevention of influenza by means of vaccination is the best strategy for risk groups.

Insect bites

An insect's saliva, once injected into its victim, contains a number of substances which can cause a variety of responses. In most cases, the reactions remain mild and local. In exceptional cases there are allergic reactions (such as anaphylactic shock) and infections.

Insect bites can be prevented by wearing appropriate clothes, by insect screens or by insect repellents. In general, repellents containing DEET (diethyl toluamide) are most effective (Fradin and Day, 2002). Insect repellents that are to be evaporated are to be avoided as these can contain harmful substances.

Scientific evidence on the effectiveness of insect bites treatments (such as oral antihistamines, corticosteroids and painkillers) is lacking ("Management of simple insect bites: where's the evidence? ," 2012). Therefore, approaches are generally based on expert opinion and clinical experience. A visit to the doctor is only necessary in case of complications.

Lice

As is true for other infectious diseases, the early detection of lice is essential to prevent epidemics and to prevent lice from becoming resistant. For the drug treatment of head lice, there are three locally applicable insecticides on the market: malathion, permethrin and the combination preparation bioalletrine / piperonylbutoxide. The single application of these agents usually kills the lice and nits. For preventing resistance and for optimal efficacy it is best to repeat the treatment after one week. A second treatment should take place only after one week, because after that period new lice can have emerged out of the nits that were not killed the first time.

Moreover, next to a drug treatment it is advised to comb the hair with a lice comb for 14 days. For the 'wet comb method' conditioner is put on the hair before combing. Combing should be combined with hygienic measures as the cleaning (> 60 ° C) of hats, caps, stuffed animals, bedding, etc. Repellants or preventive lotions have no proven effect.

Tick bite

The incidence of tick bites and Lyme disease are increasing in many European countries, including Belgium (R. Smith and Takkinen, 2006). Ticks can be conveniently and accurately removed with a tick remover.

Tiredness

For tiredness the same principles as outlined for the headache apply. If symptoms persist or intensify in nature, there is a possibility of a more serious problem and this can best be checked in a consultation with the doctor.

Toothache

The most common dental problems can be avoided by proper oral care (cf. infra), and regular dental visits. That is why we only provide one dentist consultation every five years for curative purposes, such as for treating cavities.

Urinary infection

Given the shorter urethra of women, this infectious disease is more common for women than for men and its prevalence increases with advancing age. When one respects the dietary guidelines (drinking enough water) and if one complies with the hygienic guidelines, the problem is usually easily avoided (Larson et al., 1999). In uncomplicated cases, medical treatment of urinary infection in non-pregnant women and children is not always considered necessary, although recent guidelines propose the use of short-term antibiotics and thus necessitate the consultation of a physician (Bapcoc, 2012; Fitzgerald et al., 2012). Pregnant women, men, young children, elderly and special patient groups (the elderly, those with underlying diseases and the immunocompromised) better consult a GP (Grabe et al., 2009; Minardin, d'Anzeo, Cantoro, Conti, and Muzzonigro, 2011).

7 The basket of personal care

Eva Lefevere, Diana De Graeve, François Diepstraeten, Bérénice Storms, Karel Van den Bosch, and Tim Goedemé[54]

7.1 Introduction

Like food and clothing, adequate personal hygiene is one of the essential intermediate needs that must be fulfilled to adequately participate in society.

Proper hygiene serves two important purposes. First and foremost, it contributes to maintaining a good health by combating infectious microorganisms, both at a personal level and in relation to an individual's environment. Second, personal hygiene serves a psychological and social purpose. Personal hygiene instils a sense of self-value, self-respect and it is often a requirement for being respected by others. Having clean and well-groomed hair, being able to use soap, maintaining a proper oral hygiene and shaving are examples of behaviours that are socially expected in the context of day-to-day social interactions.

Baskets of health care were developed for eight capital cities: Amsterdam, Athens, Budapest, Brussels, Helsinki, Madrid, Rome, Vienna. The country teams that contributed to this chapter are described in Annex 4 of this report. This chapter is organised as follows. First, we review the literature and elaborate on the general principles that can guide the construction of the personal care basket. In paragraph 7.3, we provide more details regarding the construction and pricing of country-specific personal care baskets, paragraph 7.4 describes the results. We conclude in paragraph 7.5.

7.2 General principles for the construction of cross- country comparable personal care baskets

There are little European or national guidelines with regard to adequate personal care. European organisations such as the Platform for Better Oral Health in Europe[55] try to foster a common European approach with regard to aspects of personal care, but overall the number of such organisations remains limited. Therefore, in this chapter we reflect upon the general functions that personal care should fulfil, review the literature, and focus on developing some principles that can guide the development of a concrete list of goods and services for realising personal care.

Several goods and services are essential for a good daily hygiene. Different parts of the body require different considerations with regard to hygiene. We make a distinction between:

- hand hygiene,
- oral hygiene,
- body hygiene,
- intimate hygiene for women,
- shaving,
- hair care.

In addition, we pay attention to bathroom and toilet equipment, as well as the use of cosmetics and perfume. In this section we successively discuss the essentials for adequate hand hygiene, oral hygiene, body hygiene, intimate hygiene for women,

[54] We are grateful to all country teams for their contribution to this chapter. A list of the members of the various country teams can be found in the annex of this report.

[55] www.Oralhealthplatform.eu.

shaving, hair care, cosmetics and bathroom and toilet equipment. As is the case for the health care basket, we discuss the needs related to personal care for persons that are generally in good health and have no particular allergy or disability. We do so for reasons of simplification in this pilot project, and also because this assumption helps to focus on the minimum required resources for adequate personal care. In future studies, it would be interesting to develop personal care baskets which cover additional needs that may arise from allergies, sickness or disability.

7.2.1 Hand hygiene

Studies confirm that good personal hand hygiene with soap can almost halve the risk of intestinal infections (Curtis and Cairncross, 2003). Dirty hands are responsible for the direct and indirect distribution of a range of bacteria. According to Reybrouck (2000) liquid soap is generally preferred over a bar of soap because of the risk of contamination of the latter with gram-negative bacilli by water stagnation on wet ground. Further, with a good soap the skin does not become chapped (Universitaire Huisartsen Groepspraktijk, 2007). Also, soap is preferably PH-neutral, mainly for preventing fungal infections that can manifest themselves in a dark, damp and rather alkaline environment.

After washing, the hands have to be dried. For hygienic reasons, one should regularly replace the towels used. Towels are hotbeds of microorganisms because of the combination of moisture, heat and dander. In theory it is preferable to use paper towels for drying the hands. However, this is expensive and environmentally less attractive. Therefore, especially in 'healthy' households with a low risk of infection, linen towels that can be frequently washed can be considered to be a good choice. A safe washing is characterised by the following formula: the product of the number above 55 degrees Celsius with the duration in minutes should at least amount to 250. 50 minutes at 60 ° C would be a good procedure for washing towels since after this procedure most of the basal germs will be slain. Towels of cotton or cotton mixed with synthetic materials (polyamide, nylon, polyester, polyacrilnitryl) are good choices (Reybrouck et al., 2000).

It is recommended to daily clean and brush the nails (and the space below). In that way, dirt and dust cannot accumulate (Curtis and Cairncross, 2003). Further, in some countries (especially those with cold winters) hand cream can be used to adequately moister the skin.

7.2.2 Body hygiene

The above-mentioned pH-neutral liquid soap can be used for all parts of the body. Shower gels and other expensive, perfumed soaps are not necessary from a health perspective and can better be avoided, because the skin flora can become unbalanced (Universitaire Huisartsen Groepspraktijk, 2007). The use of soft washcloths (to wash face and body) is very common in some countries. However, frequent use is undesirable for the hygiene of the (female) genitals because of potential irritant effects (University of Iowa Hospitals and Clinics, 2015). Although the same soap can be used for the hands and the rest of the body, it seems useful to foresee two separate bottles in the budget, as this allows people to keep two different bottles in different places (e.g. one in the toilet room or bathroom and one in the kitchen). As hand washing is very important, it makes sense to remove possible barriers to action and provide convenient access (Bloomfield, Aiello, Cookson, O'Boyle, and Larson, 2007).

Also, the above-mentioned towels can be used for other parts of the body. When washing the feet it is important to dry them very carefully afterwards to prevent fungal infections. Also in this case, sufficient towels should be foreseen. As for the hand nails, toe nails should be regularly cleaned and brushed.

Deodorants and antiperspirants are not essential for the body hygiene. Washing well can indeed avoid most unwanted smells. Moreover, some experts explicitly discourage the use of deodorants because it has been suggested that underarm cosmetics might be a cause of breast cancer and can lead to contact dermatitis (Devos and Constandt, 2002;

McGrath and Batten, 2003). However, others come to the conclusion that the evidence on the association between breast cancer and the use of deodorants is not conclusive (Namer, Luporsi, Gligorov, Lokiec, and Spielmann, 2008). An argument in favour of the inclusion of deodorants and antiperspirants in the personal care basket is that their use can help social acceptance by avoiding an unpleasant smell after working hard or doing sports.

7.2.3 Hair care

Shampoo can be used to wash the scalp and beautify the hair. A good shampoo removes grease and dust and therefore contains detergents. The most important ingredients are lauryl sulphates, amine oxides, cationic polymers and hydrolyzed animal protein (protective for the keratin). The addition of other additives is mainly intended for practical and aesthetic reasons: to improve softness, shine, volume, ease of molding, drying and combing and reducing static electricity (Draelos, 2010). An over-concentration (especially overuse) of these chemicals however can cause irritation. Shampoos based on DEA and TEA have been restricted from use in cosmetics in the European Union, based on their carcinogenic properties (Russ, 2009; Westervelt and Codrea-Rado, 2015). Further, contemporary shampoos prevent the precipitation of calcium, as this precipitation makes the hair dull. To this end, soaps are gradually displaced by synthetic detergents, preferably non-ionic surface-active agents. These also degrease the hair, but not too strongly, as fully degreased hair is dull and charged with static electricity. Finally, most shampoos are foaming, as a shampoo that does not foam has never been a commercial success. Still, such non-foaming shampoos are much better for the hair. Hair should be washed at least weekly, but the optimal frequency of washing the hair strongly depends on the sebum and sweat production. Scientific evidence is limited, but three washes per week have been proposed as a reasonable frequency[56]. Large amounts of shampoo per wash are not necessary. In principle, a small-stocked teaspoon (3 ml) is sufficient. However in reality, much greater amounts are used (Bremmer, Prudíhomme de Lodder, and van Veen, 2002).

In order to feel well and accepted by others, keeping hair in shape is generally considered important. Many tools for doing so are available, and cultural differences in what should be included for a minimum budget for adequate social participation are likely. Hence, it is important to take the local context adequately into account. Here we list some examples that are generally considered for a minimum budget: (1) Tools for avoiding knots in the hair and putting it in shape. A comb and brush are widely used. If the hair is kept clean, the same comb and brush can be used by all household members. Children might sometimes need their own brush and comb, e.g. for an overnight school trip or youth camp. In addition, a hair dryer allows to better control the shape and style of hair, which can be socially desirable. (2) Tools for keeping the hair in shape during the day, such as hair pins and hair ribbons. (3) As hair grows, a regular visit to a hairdresser and a barber can be included in the basket. Some people consider it important for their self-esteem to colour the hair or apply some other details, apart from having a haircut. In order to take this into account (if considered relevant in the national context), we somewhat augment the number of visits to the hairdresser compared to what is deemed strictly necessary (say every six weeks for short hair to every ten weeks for medium to long hair is necessary). In that way, freedom of choice is available, and people could diminish the frequency of the visits to a hairdresser and use the available budget for colouring the hair if they like.

7.2.4 Oral hygiene

Oral health is a determinant factor for the quality of life. The craniofacial complex allows us to speak, smile, kiss, touch, taste, chew and swallow. It provides protection against

[56] See, for instance, http://dermatologytimes.modernmedicine.com/dermatology-times/content/tags/cosmeceuticals/considerations-hair-washing-frequency.

microbial infections and environmental threats. Oral diseases are causing millions of school and work hours to be lost each year. Moreover the psychological impact of these diseases can diminish significantly the quality of life (Petersen, 2003).

In the European Union, the overall burden and economic cost of traditional oral diseases is considerable. Dental caries and periodontal diseases affect 60-90% of the school-aged children and the majority of adults. Less than half of adult Europeans (41%) claim to still have all their natural teeth (TNS opinion and Social, 2010). Further, the costs of traditional curative dental care are rising: on average, 5 to 10 per cent of public health spending is devoted to oral health, with costs having doubled over the past decade. This has turned oral diseases into the fourth most expensive group of diseases to treat (European Platform for Better Oral Health, 2012). At the same time, oral diseases are easily preventable by routine oral hygiene practices. Tooth brushing, flossing and mouth washing are important tools in the fight against gum disease, plaque and cavities.

A good toothbrush is adapted to the age of the user and is essential to prevent tooth decay and inflammation of the gums. There are hand toothbrushes and electric toothbrushes. They come in various shapes, size and hardness. There is little scientific information about the clinical relevance of all these variations. The head must not be too large. The ideal size is 2.5 cm to 1 cm, with a length of the hairs from 10 to 12 mm. Nylon bristles are best: in comparison with those made of natural hair, they can be better finalised in the manufacturing and are more hygienic than the (hollow) natural bristle. Variations in the implantation of the hair are intended to better reach certain areas, but there exists little scientific data on which variations are better. Further, a hard (stiff) toothbrush can hurt the gums and make the enamel wear out excessively. A medium or a soft brush is therefore to be preferred. The shape of the stem is a matter of personal taste. If the brush lies well in hand and allows the thumb to thoroughly control the pressure while brushing, it fulfils its task. A mug for the toothbrushes can be added to the budget to store the toothbrushes in a hygienic way and to gargle the mouth after brushing so as to remove redundant toothpaste.

Toothpaste is important because it contains fluoride which promotes remineralisation and prevents demineralisation of the enamel. Because children under six years often swallow a significant portion of the toothpaste, they should use special low fluoride toothpastes (max 500-1000 ppm for children < 2 years and 1000 - 1450 ppm for children between 2 and 6 years). Excess of fluorine, even moderate, is harmful. It can lead to fluorosis, discolouring of the teeth (ranging from white flecks to deep brown stains) (Walsh et al., 2010). From 6 years on, regular toothpaste with fluoride content of 1450 ppm is recommended.

Flossing removes plaque and leftover food in places where a toothbrush cannot clean. Flossing daily is recommended by the European Platform for Better Oral Health.

A quality mouthwash (e.g. with chlorhexidine) can be added to the budget because of its anti-bacterial effect. In addition, xylitol chewing gum might be added, as several studies have suggested a caries-preventive effect by helping to generate a healthy flow of saliva (Rethman et al., 2011). A Cochrane systematic review on the impact of xylitol-containing products on dental caries among children and adolescents recently concluded that some evidence is available which suggests that fluoride toothpaste containing xylitol may be more effective than fluoride-only toothpaste for preventing caries in the permanent teeth of children, and that there are no associated adverse-effects from such toothpastes, but that the number of high quality studies is too limited to come to firm conclusions (Riley et al., 2015).

Toothpicks are sometimes useful to remove food scraps and to promote the interdental cleaning (especially for larger interdental spaces). A good toothpick is made out of wood, is wedge-shaped, triangular in diameter and fits in the space between teeth.

7.2.5 Intimate hygiene for women

Sanitary napkins or tampons are generally used as a hygienic tool to absorb bodily secretions during the menstrual period. Sanitary napkins have the advantage that they are usually cheaper than tampons. Hygienically packaged tampons are handy to carry and offer more freedom in sports and swimming. Moreover, they do not send forth an unpleasant smell and cannot be seen from the outside of clothes. Therefore, tampons can be a preferred option when wearing tight fitted clothing or bathing suits. There is no conclusive evidence that tampons substantially affect rates of vaginitis or urinary tract infections (see articles cited in: Howard et al., 2011). Research in the 1980s found toxic shock syndrome (TSS) to be associated with high absorbency tampons. This led to a change in tampon composition and instructions for use (see again articles cited in Howard et al., 2011). The presence of an applicator is usually not necessary if hands are well washed. Both sanitary pads and tampons should be untreated, without perfumes, etc. (e.g. McKinley Health Center, 2005).

The timing of first menstruation, called menarche, occurs after development of the breasts, a growth spurt and the onset of pubic hair. It is also associated with the attainment of a certain body weight. The age of menarche is largely hereditary and situated usually before the age of 15 years. Girls who are solidly build, tend to menstruate earlier. For the sake of convenience and comparability, we include both sanitary napkins and tampons in the budget for girls from 12 years and older.

The amount of sanitary napkins or tampons needed per month is related to the necessity for regular replacement and the length of the menstrual period. Pads and tampons create a microbial microclimate, so regular change is important to prevent infections. Sanitary napkins should be replaced every 4 to 6 hours. Tampons should be replaced every 3 to 4 hours, even in the case of low blood loss, due to the additional risk of TSS (e.g. McKinley Health Center, 2005). The average menstrual period lasts between four and seven days (Grégoire, 1997).

7.2.6 Shaving

For every man and adolescent male of 12 years and older, shaving products for shaving one's beard can be included, in accordance with cultural expectations regarding shaving. Theoretically, optimal shaving results are obtained by making use of a real razor, a shaving brush made of badger hairs and foam containing glycerine. This procedure is rather unusual in most countries and dangerous if done incorrectly. It is the least expensive method. An alternative is to include a shaver with replaceable blades and shaving foam, though this is much more expensive. Electric shaving is a third and usually second cheapest alternative. As it is a common method and second cheapest, it makes sense to choose it for the basket. Aftershave should better be avoided because of the risk of dermatitis. Washing the face with cold water and drying it with a clean towel will do well.

Also for women and adolescent girls of 12 years and older, a shaver with removable blades can be provided in accordance with cultural expectations regarding shaving. A shaver with removable blades has the advantage that it can be used everywhere: extremities, face, intimate zone, etc. (Shapiro and Lui, 2006). The best shaving results are always achieved when shaving is done during contact of the skin with warm water. Thus, shaving the body in the shower or bath is an economical alternative to using shaving foam.

7.2.7 Toilet equipment

The use of toilet paper is hygienic and is common practice in Europe. Therefore, toilet paper could be provided for every person in the household. It is difficult to estimate a minimum quantity of toilet paper per person, as limited data are available, and this depends on the quality of the toilet paper used. Experience in several countries shows that participants in focus groups can have unnecessary long discussions about the

quantity of toilet paper to be included. According to non-scientific websites[57] Americans use on average, 8.6 sheets per trip or 57 sheets per day and Dutch people 8.5 sheets per time. That leads to a rough estimate of 1700 sheets per month (downwards rounding since people also use toilets outside home). Therefore, in all countries about 4 rolls with about 400 sheets are included, unless there are clear indications that this quantity is not appropriate. Further, for hygienic reasons a roll holder, toilet rubbish bin and toilet brush are added to the budget, in accordance with cultural expectations.

7.2.8 Bathroom equipment

Apart from the tools mentioned above, several other tools are usually used in the bathroom, which should be included in the reference budgets in accordance with common practice and with what is considered essential for adequate social participation. For instance, bathroom mats and a shower curtain can be included. In addition, from hygienic point of view a linen basket (to store dirty clothes until you wash them) and a towel rack (to dry towels after using) are necessary as well. Furthermore a mirror is indispensable for personal grooming. In case the house is rented, it may be necessary to include bathroom furniture to store the bathroom and personal care articles. For reasons of comparability, we include an open shelving unit with the size depending on the household size.

If the basket of rest and leisure foresees a holiday away from home, one may consider to add a toiletry bag to the budget, in accordance with cultural practice. Such toiletry bag can also be used for the storage of care products. If the basket of 'security in childhood' includes school trips and/or a youth camp for children, for each child a separate toiletry bag may be added to the budget.

7.2.9 Cosmetics and perfume

The personal care basket can also encompass a budget for perfumes and cosmetics. Although these may be easily regarded as a luxury, their use is self-evident or even desirable for certain social events or in particular professional situations. Make-up is sometimes essential for job interviews and in certain jobs (e.g. sales, catering…).

It is hard to define which products are indispensable and opinions about this vary widely. Therefore, as a starting point, we add the following products to the budget: mascara, lipstick, eye shadow, an eyebrow pencil, eyeliner, foundation, blusher, nail polish, nail polish remover and a brush for make-up. For the removal of make-up, cotton pads, water and mild soap could do. For putting on make-up and for shaving, a make-up mirror is included. With regard to the shelf life, it is important to keep in mind that the shelf-life of eye-area cosmetics is more limited than for other products (Food and Drugs Administration, 2014). Because of repeated microbial exposure during use by the consumer and the risk of eye infections, some industry experts recommend replacing mascara 3 months after purchase. To avoid dermatitis, all cosmetics should be hypo-allergenic.

7.3 The composition and pricing of the country-specific personal care baskets

The personal care basket is composed on the basis of the general principles outlined above. Individual countries can deviate, in line with national or regional more detailed public guidelines or regulations, insofar they do not contradict the latest stage of the literature. As is apparent from the previous section, international guidelines, and what we can learn from the literature is limited, and much depends on cultural expectations. Therefore, it is crucial that in a follow-up project, the acceptability of the lists developed

[57] E.g. http://encyclopedia.toiletpaperworld.com/surveys-stories/toilet-paper-statistics and http://www.wildvanwater.be/Weetjeswetenschap/Onderzoekfeiten/Grappigefeiten.aspx.

by national country teams is evaluated during discussions with citizens. We come back to this issue in the conclusion.

Table 13 summarizes the composition of the personal care basket by country. The table mentions the items out of which the personal care basket is composed, as well as the quantity of these items and the deviations in the individual countries. As can be seen, there is a high degree of similarity between the countries. In comparison to Belgium, all other countries included a hair dryer. In addition, a few countries also included hand cream and body lotion, or some other specific items.

The choice of shops and the selection of items priced are based on the information and argumentation made by participants in the focus groups. As a general rule of thumb, cheap and accessible shops are selected and products with the lowest prices unless participants have formulated good arguments for not doing so (for a selection of products). Details on pricing is further provided in Table 14. Given that we rely on a small-scale price survey carried out by each country team, sales are not taken into account because it impedes cross-national comparability and comparability across national retailers, it limits consumer choices and it reduces the ability to replicate the budgets in the future. If better pricing data would be available, it would be feasible to take discounts into account (a discussion can be found in the final chapter of this report).

Regarding the lifespan of items, the lifespan in Belgium is taken as a reference. The lifespans of the Belgian reference budgets were informed by the lifespans of reference budgets developed earlier in a range of countries, as well as expert advice and discussions in focus groups. Deviations were only allowed in case of objective indications that alternative lifespans are more appropriate[58].

Many of the personal care items such as shampoo and soap can be allocated to individuals, but are not purchased for personal use only. Since we assume that families economically manage their budget, the nature of the chosen package for those items depends on the size and composition of the family.

[58] In the last chapter of the report, the sensitivity of reference budgets to lifespan assumptions is scrutinised in some detail.

Table 13: Recommendation content personal care basket and country deviations.

	Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
Hand and body hygiene	Soap (200ml pp/month), nail set (1 pf/5 years), nail brush (1 pf/1 year, towels (3 pp /5 years), bath towels (3 pp /5 years), deo (3 pp >12 years) toiletry bag (1 pa /5 years; 1 pc/2 years)	✓	✓	✓	+ hand cream	+ hand cream, body lotion for women >12y	+ body lotion for women >12y	✓	+ hand cream, body lotion for women >12y
Hair care	Shampoo (40 ml pp /month), Comb (1 pa/5 years, 1 pc/ 5 years), Hairbrush (1 pa/3 years, 1 pc/3 years), Hairpins (4/ woman>12/year), Hair-ribbon (1/woman>12 /year), haircut (6 pp/ year, child price until 12 years)	+ hair dryer	+ hair dryer	✓	+ hair dryer	+ hair dryer	+ hair dryer	+ hair dryer	+ hair dryer, hair gel
Oral Health	Toothpaste (15ml pp/ month), toothbrush (4 pp/year), mug tooth brush (1 pf/5 years), flossing (1,6m pp/month), mouth wash (200ml pp/ month), toothpicks (1 pp/day)	✓	+ vaseline lip balm	✓	✓	no tooth picks; no mouth wash but xylithol chewing gum+ lip balm	✓	✓	✓
Intimate hygiene	Tampons (11/ women >12/ month, sanitary napkins (16// women >12/ month)	✓	✓	✓	✓	✓	✓	✓	✓

	Recommendation	Amsterdam	Athens	Brussels	Budapest	Helsinki	Madrid	Rome	Vienna
Shaving	Shaving foam (200ml/ man >12/month), shaver man (1/ man >12/ 5 years), replacable blades (2 blades /man >12/ month), shaver women (1/ woman >12/ 5 years), replacable blades (1 blade /woman >12/ 2 months)	✓	✓	✓	✓	✓	✓	✓	✓
Perfume and cosmetics	Perfume (1 pa/year), mascara (4/woman >12/ year), eye shadow (1/ woman>12/year), eyebrow pencil (1/ woman >12/year), eyeliner (1/ woman >12/year), lipstick (1/woman>12/year), foundation (1/woman >12/year), blusher (1/ woman >12/year), nail polish (1/woman >12/year), nail polish remover (1/woman >12/year), brush for make-up (1/woman >12/ 2 years), cotton pads (100 per woman >12/ year), make-up mirror (1/ woman >12/ 3 years)	✓	✓	✓	✓	€20 for perfume pp >12 years	+ face cream	✓	+ cleanser
Toilet and bathroom	Toilet paper (4 rolls pp/month), toilet brush (1 pf/year), toilet bin (1 pf/15 years), bathroom math (2 pf/5 years), shower curtain (1 pf/10 years)	✓	✓	✓	✓	✓	✓	✓	✓

Note: pa = per adult; pc = per child; pf = per family; pp = per person

Table 14: Pricing information.

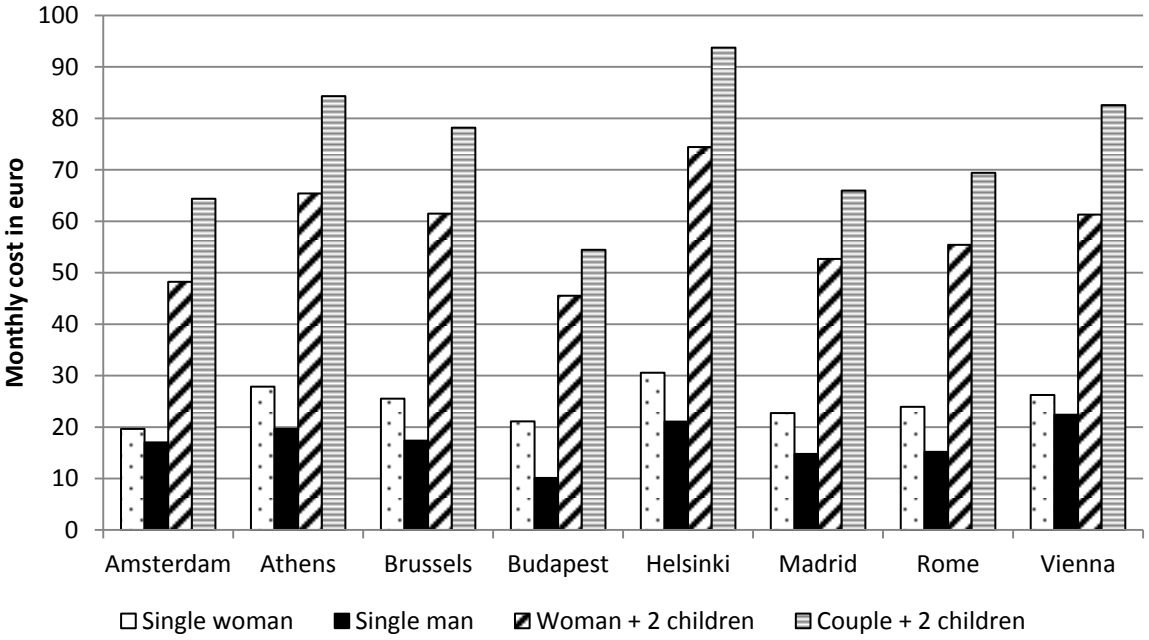
City	Pricing month	Shop choice criterion	Shop names	Product choice	Remarks
Amsterdam	July 2015		Albert Heyn, Ikea, Hema, Kruidvat, H&M		
Athens	May 2015	FG: price, quality and product variety	Sklavenitis, Ikea, Hondos Center, Media Market	Lowest price for good quality	
Brussels	May 2015	FG: price and quality	Colruyt, Ikea, Hema, Carrefour, Di, Kruidvat	Cheapest, Soap, shampoo: cheapest brand	
Budapest	June 2015	FG	Drogerie Markt, Rossmann, H&M, Lidl, Ikea	Cheapest or second cheapest	
Helsinki	May 2015	Price and convenience	Prisma, Ikea, Sokos, Giganti	Cheapest	
Madrid	May 2015	Shop of food basket	Mercadona, Carrefour, Ikea, Solostock	Cheapest	
Rome	June 2015	FG: Price, quality	Acqua e Sapone, Ikea	Cheapest	Lowest average price for haircut from Ministry
Vienna	May 2015 (cosmetics July)	Price, quality and spread	Online shops of DM Drogerie Markt, BIPA, Hairdresser Klipp	Cheapest	

7.4 Results

The graph below (Figure 29) presents the results of the priced personal care basket per city and per family type in Euros[59] per month. Budgets for a single man are lowest: on average €17 Euro per month with a minimum of €10 in Budapest and a maximum of €22 in Vienna. Budgets for a single woman are on average 48% higher (€25) and vary between €20 (Amsterdam) and €31 (Helsinki) per month. The budget for a child, is about as high as that of a man. As a result, the budgets vary respectively between € 46 and €74 (with an average of €58) and between €54 and €94 (with an average of €74) for a single women with 2 children and a couple with 2 children. For both family types Hungary is cheapest and Finland most expensive. Dependent on the family type under consideration, the reference budget for personal care in the most expensive city is between 1.6 and 2.2 times the budget in the least expensive city.

[59] For Hungary, an exchange rate of 1 Hungarian forint = 0,0032165 Euro was used to convert local prices into Euros.

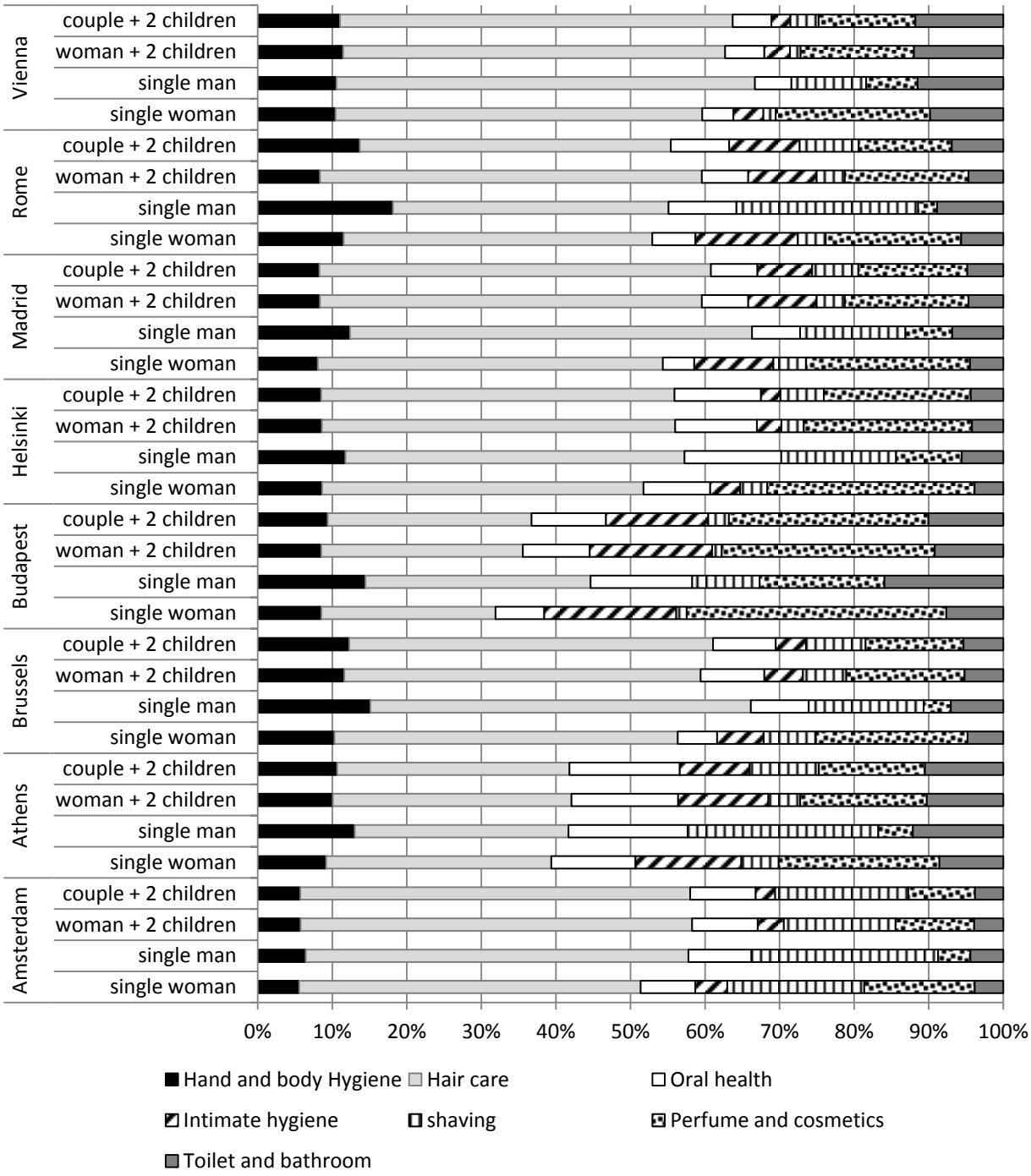
Figure 29: Reference budgets for personal care in eight EU capital cities (2015), monthly amounts in Euros.



Note: For Budapest, the exchange rate we used is 310.9 forint to the Euro.

Figure 30 gives an overview of the share in the total budget of different parts of the personal care basket – again for the different cities and family types. In all cities but Budapest, the highest share of the budget (on average about 44%) goes to *hair care*; especially the visits to the hairdresser for a haircut weight heavily. Although the hair care content of the basket does not differ in Budapest from that of the other cities, the budget for hair care is very limited as a result of very low prices for a haircut. We observe €3 an €5 per month for hair care for a single man and woman in Budapest in comparison to €8 and €11 on average in the other cities and €12 and €15 for a single woman or couple with 2 children in Budapest in comparison to €28 and €36 on average in the other cities. The recommended quantity of haircuts was set at 6 per year. This is considered as somewhat more than what is deemed strictly necessary. This was done to give the families some freedom of choice to diminish the frequency of the visits to a hairdresser and use the available budget for colouring the hair for example. Some countries (especially Greece and Hungary) proposed to stick to 4 haircuts per year. We accepted this suggestion and recalculated the budgets for all countries with the number of haircuts restricted to 4 per year. The resulting percentage reduction in the overall personal care budget is presented in Figure 31. The impact is quite large. On average the personal care budget decreases with about 13%. The impact is smallest in Budapest and Athens with a reduction in the total budget of respectively 7% and 9%, and highest in Madrid and Amsterdam with a reduction of about 16%.

Figure 30: Personal care basket: Components of the basket as share in total per city per family type (2015).



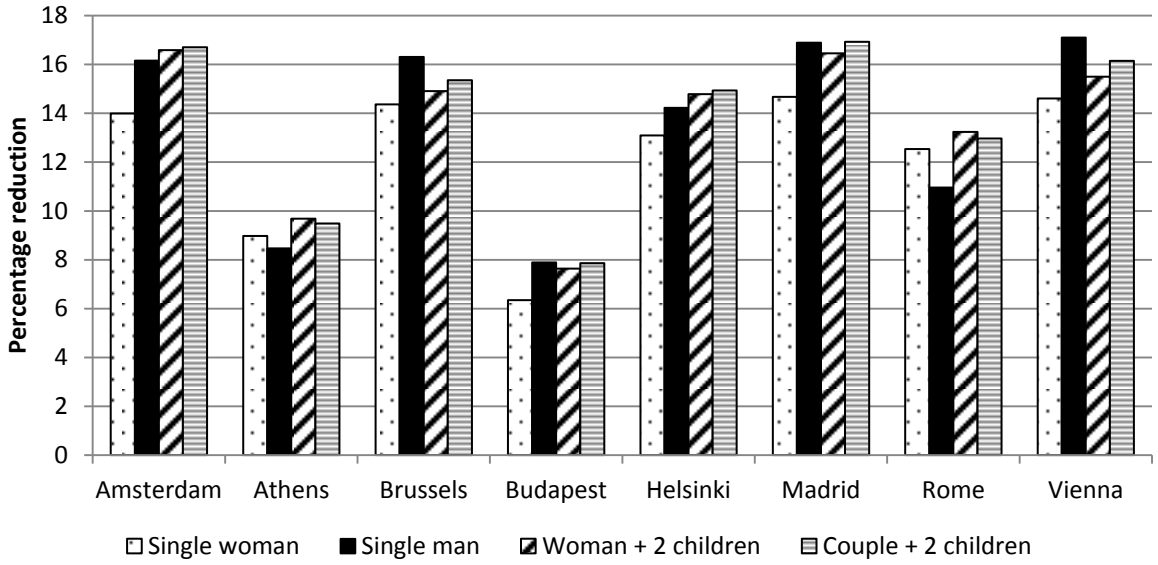
After hair care, perfume and cosmetics account for the largest share in family types including women. In contrast, shaving accounts for the second largest share in the case of a single man. Regardless of the family type, Helsinki is most expensive for perfume and cosmetics. Helsinki included a lump sum per adult for perfumes which was a bit more expensive than the average budget included for perfumes in the other cities, but Helsinki was also more expensive for most other cosmetic items. In contrast to results for other components of the basket, Budapest is the second most expensive for perfumes and cosmetics. Amsterdam is most expensive for shaving, except for a single man, where Athens becomes the most expensive city. Noteworthy are the bigger relative differences

between the most expensive and least expensive city for the shaving budget: for a single woman, the budget in Amsterdam (the most expensive city) is 12 times that of Budapest (the cheapest city).

In all cities except Budapest and Athens, hair care, shaving and perfume and cosmetics together account for 2/3 to 3/4 of the total personal care basket.

The overall average shares of the remaining components in the personal care budgets are as follows: hand and body hygiene, 10.2%, oral health, 8.6%, intimate hygiene 5.9% and finally toilet and bathroom, 7.3%. The budget for intimate hygiene shows somewhat more relative variability than other components: it is about 5 times as high in the most expensive city (Athens) in comparison to the cheapest city (Amsterdam). This is entirely due to the price differences of sanitary napkins and tampons.

Figure 31: Personal care basket: Percentage reduction of the budget due to a change of the number of haircuts from 6 to 4 per city per family type.



7.5 Conclusion

In this chapter, cross-country comparable budgets for personal care are developed. For reasons of simplicity and focusing on the minimum necessary, the baskets are constructed for hypothetical families that are not confronted with allergies, sickness or disability and whose members are well-informed and know how to manage the personal care budget economically. Due to a lack of European and national guidelines the list of items included for a proper daily care and especially the amounts are to an important extent a matter of convention. Starting from a commonly proposed list of items, hardly any deviations were considered: the baskets are really very similar in contents. There appear to be little objective reasons to vary the contents across countries.

Due to price differences, the budgets itself do show variation. The budgets in the most expensive city (Helsinki) are about 1.6 to 2.2 times the budgets in the least expensive city (Budapest). The relative differences are even much larger for some of the components: up to 12 times for shaving; up to 5 times for intimate hygiene. The greatest share of the budget is spent on hair care (about 44%) and perfume and cosmetics (16%). Noteworthy as well is the higher budget for a female adult in comparison to a male (+48%) and the similar budget for a child in comparison to a male adult. The average budgets per month for personal care are relatively modest: €17 for a single

man, €25 for a single woman, €58 for a single woman with two children and €74 for a couple with two children.

With the development of the basket for personal care, we have shown how the method for comparable reference budgets can be applied in a context of very limited guidelines, regulations, scientific evidence and data. In order to have results that can be meaningfully compared across countries, we opted for a substantial degree of standardisation. The basket could be further improved in two ways: (1) by organizing an in-depth consultation of citizens on this topic (as foreseen in the original methodology, and preferably on a representative basis); (2) by inquiring whether some aspects of this basket would better be covered on the basis of real expenses by households as documented in, for instance, household budget surveys. In a normative budget, the overall cost of personal care tends to be limited. The advantage of the fully-specified budget is its clarity in terms of the items covered and what can be afforded at the level of the personal care budget. However, it might prove more efficient and also more robust to work for this basket with real expenses of households at a certain percentile of the income or consumption distribution, in particular for specific items such as cosmetics and perfume or the cost of visits to a hairdresser, which pose severe challenges for developing a normative budget that does not look all too arbitrary. The impact on the cost of the total reference budgets is likely to remain limited, it ensures sensitivity to the local context, and it would require an arbitrary choice only with regard to (1) which items in a household budget survey can be considered to be directly related to personal care (2) at which percentile of the distribution expenses for personal care are measured. The clear drawbacks would be that in a range of countries only a limited number of personal care goods and services are included in the national household budget data and that starting form real expenses, some items might be included that may not be considered essential. Also, cross-national differences in that case may to an important extent appear to be the result of budget constraints rather than what is considered essential for adequate social participation. Nonetheless, given the lack of guidelines in this area, and the overall limited impact on the total cost of reference budgets it seems to be an approach that is worth exploring in a follow-up project.

References

Bloomfield, S. F., Aiello, A. E., Cookson, B., O'Boyle, C., & Larson, E. L. (2007). The effectiveness of hand hygiene procedures including handwashing and alcohol-based hand sanitizers in reducing the risks of infections in home and community settings. . *American Journal of Infection Control, 35*(Supll 1), S1-61.

Bremmer, H. J., Prudíhomme de Lodder, L. C. H., & van Veen, M. P. (2002). Factsheet cosmetica. Ten behoeve van de schatting van de risico's voor de consument.

Curtis, V., & Cairncross, S. (2003). Effect of washing hands with soap on diarrhea risk in the community: a systematic review. . *Lancet Infectious Diseases, 3*(5), 275-281.

Devos, S. A., & Constandt, L. (2002). Contact dermatitis from a dry stick deodorant. *Contact Dermatitis, 47*(3), 170-171.

Draelos, Z. D. (2010). Essentials of Hair Care often Neglected: Hair Cleansing. *International Journal of Trichology, 2*(1), 24-29.

European Platform for Better Oral Health. (2012). About oral health. from http://www.oralhealthplatform.eu/

Food and Drugs Administration. (2014). Cosmetics safety Q&A: Shelf life. Retrieved November 6th 2014, 2014, from http://www.fda.gov/Cosmetics/ResourcesForYou/Consumers/ucm1240208.htm

Goedemé, T., Storms, B., & Van den Bosch, K. (2015). Pilot project for the development of a common methodology on reference budgets in Europe: Proposal for a method for comparable reference budgets in Europe. Brussels: European Commission.

Grégoire, L. (1997). *Anatomie en fysiologie van de mens*. Leiden: Spruyt, Van Mantgem & De Does.

Howard, C., Rose, C. L., Trouton, K., Stamm, H., Marentette, D., Kirkpatrick, N., . . . Julie Paget, J. (2011). FLOW (finding lasting options for women): Multicentre randomized controlled trial comparing tampons with menstrual cups *Can Fam Physician June 2011, 57*, *e208-e215*.

McGrath, K. G., & Batten, M. (2003). Prevention. from www.breastcancercare.org

McKinley Health Center. (2005). Health information.Guidelines for vulvar skin care. from www.mckinley?uiuc.edu

Namer, M., Luporsi, E., Gligorov, J., Lokiec, F., & Spielmann, M. (2008). [The use of deodorants/antiperspirants does not constitute a risk factor for breast cancer]. *Bulletin du cancer, 95*(9), 871-880.

Petersen, P. E. (2003). The world oral health report 2003: continous improvement of oral health in the 21st century. The approach of the WHO Global oral Health program. Retrieved from: http://www.pfcac.org/documents/Oral_Health.pdf

Rethman, M. P., Beltran-Aguilar, E. D., Billings, R. J., Burne, R. A., Clark, M., Donly, K. J., . . . Amer Dent Assoc Council Sci, A. (2011). Nonfluoride caries-preventive agents Executive summary of evidence-based clinical recommendations. *Journal of the American Dental Association, 142*(9), 1065-1071.

Reybrouck, G., Schuermans, A., & Van de Putte, M. (2000). *Ziekenhuishygiëne*. Leuven: Acco.

Russ, K. (2009). A Review of the Evidence: Health Effects of Personal Care Products. *Nursing for Women's Health, 13*, 392–401.

Shapiro, J., & Lui, H. (2006). Treatments for unwanted facial hair. *Skin Therapy Lett, 10*(10), 1-4.

Riley, P., Moore, D., Ahmed, F., Sharif, M.O., Worthington, H.V. (2015). Xylitol-containing products for preventing dental caries in children and adults. *Cochrane Database of Systematic Reviews*, Issue 3. Art. No.: CD010743. DOI: 10.1002/14651858.CD010743.pub2.

TNS opinion & Social. (2010). Oral Health Special Eurobarometer 330 / Wave 72.3.

Universitaire Huisartsen Groepspraktijk. (2007). De genitale hygiëne bij de vrouw. from http://www.ugpleuven.be/info-sex-vrouw.php

University of Iowa Hospitals & Clinics. (2015). Vulvar Skin Care Guidelines: http://www.uihealthcare.org/vulvar-skin-care-guidelines/ (last accessed February 2015).

Walsh, T., Worthington, H. V., Glenny, A. M., Appelbe, P., Marinho, V. C. C., & Shi, X. (2010). Fluoride toothpastes of different concentrations for preventing dental caries in children and adolescents. *Cochrane Database of Systematic Reviews*(1). doi: 10.1002/14651858.CD007868.pub2

Westervelt, A., & Codrea-Rado, A. (2015). What's in your shampoo? *The guardian*. Retrieved from http://www.theguardian.com/lifeandstyle/ng-interactive/2015/feb/10/shampoo-ingredients-label-chemicals-interactive

8 The housing basket

Karel Van den Bosch, Tim Goedemé, Nathalie Schuerman, and Bérénice Storms

8.1 Introduction

Housing is generally recognised as a basic need. Adequate housing should provide adequate protection and security against disease bearers and adverse weather conditions. Furthermore, adequate housing is essential for a good health and should contribute to a hygienic lifestyle, for which clean and hot water are required, as well as adequate sewerage. Moreover, the household should be able to keep the dwelling clean and to maintain and decorate it, for instance by painting walls and carrying out small repairs. To prevent illness and depression, inter alia, (Murie, 1983; Doyal and Gough, 1991) households should have enough space to live decently and should dispose of light and heating. Finally, adequate housing is intertwined with various other functions such as being able to invite friends and family once in a while (insofar this is part of the national culture) and to give children a secure home where they can play. For many households, housing costs are one of the largest components of their expenditure, further enhancing the importance of this basket.

The standard approach for constructing a basket in reference budgets is to specify the nature, number and quality of the necessary items in that basket, and then to price those items. However, the housing market is very heterogeneous: every dwelling is different from any other in some respect. Hence, the supply of dwellings with exactly the same characteristics and price is very limited. For dwellings with a given set of basic characteristics, the price range is usually large. Therefore, in the case of the housing basket we propose a different approach for calculating reference values for housing costs. As for other baskets, the approach starts from a review of quality criteria, to sort out how adequate housing may be understood in contemporary Europe. In contrast to the procedure for constructing other baskets, estimations of reference housing costs are based on a representative household survey (EU-SILC). Given the time lag in household survey data availability, reference values relate to 2012 rather than 2015 while prices refer to a broader region than the capital city.

This chapter is structured as follows. In the next section, we review how some previous reference budgets have dealt with housing costs. Subsequently, we explain in more detail our approach. In section four, we review international and national quality criteria and guidelines for housing quality, and develop a set of criteria that we used for identifying dwellings of minimum acceptable quality. In section five, we present the results and explain how the reference housing costs for a selection of European capital regions (including Vienna, Brussels, Sofia, Athens, Madrid, Helsinki, Budapest, Rome and Luxembourg), as well as The Netherlands were derived from the EU-SILC 2012 data. In the final part we evaluate our approach and conclude.

8.2 Housing in previous reference budgets

Reference budgets have already been developed in the majority of the EU Member States, albeit using different approaches, different types of information, and assumptions (Storms et al., 2014). We briefly review how three earlier reference budget studies have dealt with housing costs.

First of all, the *Family Budget Unit (FBU)* developed reference budgets, targeted at a 'low cost, but acceptable' living standard (cf. Bradshaw, 1993; Parker, 2000). In this reference budget, housing is classified as a variable cost, implying that some budgets are based on higher rents or mortgages (Parker, 1998). Information on housing costs is derived from government guidelines and official standards (e.g. housing acts on qualitative housing, human rights), scientific evidence (e.g. empirical expenditure data

and quality criteria), focus groups (e.g. availability, accessibility and completeness) and expert opinion (e.g. appropriate number of rooms, life spans and pricing). The FBU researchers in Ireland and England used the specific rent system for dwellings in local authority housing to calculate housing budgets (Parker, 1998; Collins et al., 2012). The housing costs are variable and thus illustrative rather than normative (Parker, 1998).

The second approach is the *Minimum Income Standard* (MIS). In the 2008 MIS budgets, the assumption was made that the household lived in an urban area, whereas the more recent budgets make a distinction between housing in an urban area or a rural area (Bradshaw et al., 2008; Smith et al., 2010). In addition, housing prices were calculated separately by region, as was also the case in the reference budgets of Finland (with the extension of 'metropolitan areas'), Germany, Ireland, Portugal and France (Storms et al., 2014). Lastly, a substantial number of reference budgets also take the living environment into account to calculate the housing basket. This is the case in Croatia, Greece, Finland, Ireland, Italy, Lithuania, Portugal, Romania and the United Kingdom (Storms et al. 2014).

In Belgium, Heylen and Storms (2009) referred to government standards (the Flemish 'wooncode') to specify the requirement of a decent dwelling. The median amounts in rent and housing costs actually paid for dwellings meeting those requirements, as estimated from survey data, were adopted as the reference housing costs.

Although not part of official reference budgets, the 'fair market rents' calculated by the U.S. Department of Housing & Urban Development to determine a number of thresholds and standards in housing-related payments and programmes are worth mentioning in this context. Using data on actual rents paid, fair market rents are set at a percentile point (currently 40%) within the rent distribution of standard-quality rental housing units occupied by recent movers (U.S. Department of Housing & Urban Development, 2007).

8.3 The approach taken in this project

The purpose of this project is to propose reference values of housing costs that are as much as possible comparable across countries in terms of their adequacy for social participation. In line with the overall methodology, we start from a description of available national and international guidelines and quality criteria to define adequacy in the area of housing. However, these quality criteria do not always offer sufficient guidance for calculating a reference value for housing costs, either because they are too vague with regard to essential characteristics, or because they refer to characteristics for which we have no information in the survey data. Therefore, we develop suitable quality criteria, mainly derived from international standards and European indicators of housing adequacy, as well as a recent British study on housing quality requirements. The same set of criteria are subsequently applied to all reference cities.

In principle, the calculation of the cost of adequate housing is no different from that of other baskets. Given a set of requirements, one could determine the price of a dwelling which has the needed characteristics, but is otherwise fairly modest. However, housing is different from e.g. clothing in that it is very heterogeneous: every dwelling is different from any other in some respect, local price variations may be quite substantial, while the market for housing has low transparency. In other words, the range of housing prices for dwellings with similar minimum quality characteristics is likely to be relatively wide, and the availability of dwellings which adhere to the minimum requirements at the lowest prices may be very limited. These circumstances imply that it is very difficult if not impossible to attach a particular price to a reference dwelling with particular characteristics. Moreover, it is less easy to move house than to change clothing.

For these reasons, we propose a different approach for the housing basket. More in particular, we rely on an analysis of a representative survey which includes information on actual rents and housing costs: the EU Statistics on Income and Living Conditions (EU-SILC). We use EU-SILC data from wave 2012 which at the time of analysis were the

most recently available, and which, fortuitously, contain additional data from a special housing module. Costs are determined for tenants in the private sector and for outright owners. As the sample does not allow to select only those households living in the capital city, we limit the sample to densely populated areas in the region in which the reference cities are located (Vienna, Brussels, Sofia, Athens, Madrid, Helsinki, Budapest, Rome and Luxembourg), as well as to the full population of the Netherlands by lack of more detailed information on region and degree of urbanisation. We distinguish between rent and other housing costs; for tenants the latter are determined by subtracting rent from total housing costs. See Annex 1 of this chapter for details about the definition of rent and other housing costs in EU-SILC.

Given the heterogeneity of the housing market, we do not focus on the lowest cost of quality housing, but on a price for which we can expect that a reasonable number of dwellings is available on the market. More specifically, we try to establish what households actually pay at the 30th percentile for dwellings that conform to certain quality requirements (for a broadly similar approach, see U.S. Department of Housing & Urban Development, 2007). In other words, 30 per cent of households living in a dwelling with the specified characteristics can be expected to pay less than the reference housing cost identified in this chapter, while 70 per cent can be expected to be required to pay more for the same type of dwelling. Even though this 30 per cent threshold is arbitrary, it should allow for identifying important differences in housing costs for different household types across countries, and for gaining more insight into the cost of adequate housing more generally. Obviously, as is the case for health care, when reference budgets are used to assess the adequacy of income of real households, the actual housing costs that people face should be taken into account, rather than the reference housing costs proposed in this chapter, which serve purely analytical purposes.

8.4 Parameters for housing quality

In order to specify some minimum quality criteria with which a dwelling should comply for being considered 'adequate', we review the existing international and national guidelines on minimally acceptable housing. The purpose is to identify (1) which parameters are considered relevant for defining 'acceptable housing'; (2) which minimum thresholds are used for identifying acceptability. We start by reviewing some international guidelines to assess whether we can find some common ground for quality criteria across the EU. Subsequently we evaluate to what extent national guidelines provide sufficient guidance for estimating reference housing costs for 'adequate' housing in EU capital regions. It will turn out that, at least for this project, starting from a European definition of housing adequacy seems the best way forward. Therefore, in a final section we set out several criteria that could be used for defining 'adequate housing' and estimating reference housing costs across the regions covered in this chapter.

8.4.1 International guidelines

The right to adequate housing is recognised through quite a few international and European guidelines (for a review see for instance Kenna, 2005, 2012; Gailiūtė, 2012). The Universal Declaration of Human Rights (1948) establishes in Article 25 the right to a standard of living adequate for the health and well-being of all household members, referring *inter alia* to housing. This is reiterated in Article 11 of the International Covenant on Economic, Social and Cultural Rights (1966). The UN Committee on Economic, Social and Cultural Rights has further specified that the International Covenant does not only imply a right to some basic form of shelter, but to 'adequate housing'. Adequate housing should be interpreted broadly, "as a right to live somewhere in security, peace and dignity" (UN Committee on Economic Social and Cultural Rights, 1991: 2). Furthermore, concrete guidance is offered about how 'adequate housing' can be understood: "Adequate housing must provide more than four walls and a roof. A number of conditions must be met before particular forms of shelter can be considered to constitute 'adequate housing'. These elements are just as fundamental as the basic

supply and availability of housing. For housing to be adequate, it must, *at a minimum*, meet the following criteria:

- *Security of tenure*: housing is not adequate if its occupants do not have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats.
- *Availability of services, materials, facilities and infrastructure*: housing is not adequate if its occupants do not have safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal.
- *Affordability*: housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights.
- *Habitability*: housing is not adequate if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind, other threats to health and structural hazards.
- *Accessibility*: housing is not adequate if the specific needs of disadvantaged and marginalised groups are not taken into account.
- *Location*: housing is not adequate if it is cut off from employment opportunities, health-care services, schools, childcare centres and other social facilities, or if located in polluted or dangerous areas.
- *Cultural adequacy*: housing is not adequate if it does not respect and take into account the expression of cultural identity." (Office of the United Nations High Commissioner for Human Rights, 2009: 3-4, emphasis as in original)[60]

Even though the criteria remain rather vague, they offer a fruitful starting point. A clarification of the International Covenant in 1991 is somewhat more specific. In particular, it calls on "State parties to comprehensively apply the *Health Principles of Housing* prepared by WHO" (UN Committee on Economic Social and Cultural Rights, 1991: 3). The World Health Organization's (WHO) publication *Health Principles of Housing*, outlines a range of principles that could help to define 'adequate housing', even though not in sufficient detail for assessing the cost of adequate housing. The three principles that are most relevant for this chapter can be summarised as follows (WHO, 1989): Adequate housing…

1. provides protection against communicable diseases (including through safe water supply, sanitary excreta disposal, disposal of solid wastes, drainage of surface water, personal and domestic hygiene, safe food preparation, and structural safeguards against disease transmission);

2. provides protection against injuries, poisonings and chronic diseases (by paying special attention to structural features and furnishings, indoor air pollution, chemical safety, and the use of the home as a workplace);

3. reduces psychological and social stresses to a minimum (by having a dwelling environment which provides adequate living space, properly ventilated and lit, decently equipped and furnished, with a reasonable degree of privacy and comfort; provide a sense of personal and family security, reinforced by the community structure; provide space for children's play, sports and recreation, with minimum risks of injury and infection; be so sited as to reduce exposure to noise, provide contact with greenery and enable people to have access to community amenities; and be easy to keep clean and in good order).

At the European level, a distinction can be made between charters developed by the Council of Europe (47 Member States) and the European Union (28 Member States). The Council of Europe promotes housing rights through the Revised European Social Charter which clearly recognises to right to housing of an adequate standard (Article 31), as well

[60] Cf. UN Committee on Economic Social and Cultural Rights (1991: 2-3), which is somewhat more elaborate.

as, indirectly, through the European Convention for the Protection of Human Rights and Fundamental Freedoms (Kenna, 2012). The European Committee of Social Rights further specified that adequate housing includes access to essential services such as heating and electricity, and implies having essential amenities, as well as a dwelling of suitable size considering the composition of the family in residence (cf. European Roma Rights Center, 2005). However, it must be noted that relatively few countries have committed themselves to Article 31 of the Revised European Social Charter. Until today 9 EU Member States have not yet ratified the 1996 Revised European Social Charter, including Croatia, the Czech Republic, Denmark, Germany, Greece, Luxembourg, Poland, Spain and the United Kingdom[61]. Furthermore, many countries opted out from article 31, and only seven EU Member States ratified all three paragraphs of article 31, including Finland, France, Italy, the Netherlands, Portugal, Slovenia and Sweden, while Latvia and Lithuania accepted part of article 31[62]. This does not mean that article 31 is not relevant for most EU Member States, as the European Committee of Social Rights argued that article 31 partially overlaps with article 16, included in both the revised and the original European Social Charter, which has been ratified by all EU Member States. Furthermore, the right to adequate housing is also indirectly covered by other articles of the (Revised) European Social Charter (Gailiūtė, 2012). In contrast to the Revised European Social Charter, the Charter of Fundamental Rights of the European Union, entered into force in December 2009, does not specify the right to adequate housing as such, but rather to 'social and housing assistance so as to ensure a decent existence' (Article 34(3)). At the same time, the Charter reiterates the commitment of the participating countries to the European Social Charter and the European Convention for the Protection of Human Rights as well as the case-law of the Court of Justice of the European Union and of the European Court of Human Rights.

This brief review highlights several parameters that are considered relevant for defining adequacy across the EU, including for instance the size of the dwelling, physical safety, availability of safe water supply and electricity, the disposal of solid wastes, redundant surface water and sanitation. However, the description of what exactly constitutes a dwelling of appropriate size, safety, hygienic standard, etc. remains at a qualitative level and is too vague for defining a minimum threshold of quality and estimating a reference cost of a dwelling with these characteristics.

Even though not of the same juridical standing and institutional purview, some common way of assessing housing adequacy is emerging within the European Union through the development of commonly agreed social indicators. Already in 2001, with the adoption of the so-called social inclusion Laeken indicators, the importance of covering the housing dimension was recognised during the Laeken European Council (cf. Marlier et al., 2007). However, there was no agreement on harmonised indicators of housing quality or housing deprivation, partially because of data issues, partially for conceptual reasons. Those who proposed the set of social indicators to the European Commission highlighted in particular that the concept of housing adequacy varies from country to country for cultural, environmental, social, and economic reasons (Atkinson et al., 2002). As it currently stands, the Social Protection Committee and its Indicators Sub-Group have still not decided on a 'primary' commonly agreed EU social indicator of housing quality and housing deprivation, but have accepted (in 2009) two secondary indicators and two context indicators related to housing (Social Protection Committee - Indicators Sub-Group, 2015). Two indicators relate to housing costs and are of less relevance here, but

[61] All these countries ratified the original European Social Charter, see http://www.coe.int/t/dghl/monitoring/socialcharter/Presentation/Overview_en.asp (last accessed September 2015).

[62] See http://www.coe.int/t/dghl/monitoring/socialcharter/Presentation/ProvisionTableRevMarch2015_en.pdf (last accessed September 2015).

the other two provide some clear minimum criteria for acceptable housing. More in particular, the commonly agreed EU overcrowding indicator specifies that a "person is considered as living in an overcrowded household if the household doesn't have at its disposal at least:

- one room for the household;
- one room for each couple;
- one room for each single person aged 18+[63];
- one room - for two single people of the same sex between 12 and 17 years of age;
- one room - for each single person of different sex between 12 and 17 years of age;
- one room - for two people under 12 years of age." (Social Protection Committee - Indicators Sub-Group, 2015: 22)

The second housing quality indicator is considered a context indicator and is defined as "Housing deprivation by item: Percentage of the population deprived of each housing deprivation item, and by number of items. The following housing deprivation items are considered:

- Leaking roof, damp walls/floors/foundations, or rot in window frames or floors;
- no bath or shower in the dwelling;
- no indoor flushing toilet for the sole use of the household;
- Dwelling too dark." (Social Protection Committee - Indicators Sub-Group, 2015: 24)[64]

Even though the list is not very extensive, the quality criteria embedded in the latter two indicators give some more concrete meaning to the minimum requirements of housing quality as set forth in the 1991 clarification of the International Covenant on Economic, Social and Cultural Rights. The existence and use of these indicators at the EU level, as well as their clear fit with the quality criteria set forth in the International Covenant, testify to their face validity. Furthermore, these indicators are available in the EU-SILC dataset, allowing us to estimate the cost of a dwelling which satisfies these criteria. At the same time though, it is unclear to what extent the quality criteria embedded in the latter two indicators are generally recognised as acceptable minimum criteria for housing quality in *all* EU Member States, and whether a dwelling that satisfies these minimum quality criteria can be considered equally adequate across the EU. Therefore, in the subsequent section, we evaluate whether these quality criteria could be refined on the basis of national guidelines and regulations.

8.4.2 National guidelines

In an informal document, the WHO (2010: 3) has indicated that "[t]here is a wealth of evidence indicating that housing and construction standards are almost exclusively based on technical norms, engineering knowledge and architectural design aesthetics. Consequently, standards of "adequate housing" or "sustainable housing" in the modern era tend to be informed by technological rather than health rationales, despite the fact that many housing laws have their origins in public health concerns. […] These requirements provide little information on what the minimum standards of healthy housing are, and what characteristics need to be fulfilled to provide adequate shelter from the perspective of human health." Costa Branco De Oliveira Pedro et al. (2010) have reviewed the technical building regulations in the EU and found that there are many

[63] Singles are considered to live in an overcrowded dwelling if they live in a studio with a bedroom that is not separated from the living room.

[64] See for instance Rybkowska and Schneider (2011) and Lelkes and Zólyomi (2010) for an empirical analysis of these indicators. It is noteworthy that the latter authors question the suitability of the overcrowding indicator. More in particular, they consider it too generous for a basic needs indicator, and argue that it should be rebalanced taking environmental sustainability into account.

differences in the organisation and formulation of the technical building regulations. Furthermore, in many countries, building regulations are defined not only by national authorities, but also by regional and/or local authorities. In addition, they found that in all EU Member States, health, safety and practicability (mostly space) concerns are included in technical building regulations. Given that all EU Member States have control mechanisms in place (Pedro et al., 2010), one would expect that technical building regulations are at least applied when constructing new dwellings, but are also reflected in already existing dwellings, insofar they also apply to the latter. However, given the prevalence of severe housing deprivation, especially in Eastern and Southern European countries (cf. Rybkowska and Schneider, 2011), it seems that technical regulations are not adequate, do not apply to existing dwellings, or are not always effectively enforced. Therefore, we cannot simply assume that all dwellings in the data comply with national housing regulation, and estimate the cost of adequate housing on the basis of the full dataset.

In order to find out whether, from an institutional point of view, EU Member States adhere to a similar conception of 'housing adequacy' beyond the one identified on the basis of international and European guidelines and housing indicators, a questionnaire on housing guidelines was completed by a selection of country teams (including BE, EL, ES, FI, HU, IT, and LU). Unsurprisingly, national and regional regulations are much more detailed than the relatively vague general recommendations of the international guidelines discussed above. For our purposes, the questionnaire revealed several difficulties for estimating the cost of adequate housing on the basis of country-specific criteria. In some EU Member States, building requirements are set at the national level, while in others (additional) regional or even municipal guidelines exist. Not only the criteria themselves, but also the degree of detail across and within countries varies considerably. Furthermore, the specification of quality requirements also differs in terms of measures used, such that they cannot be easily compared. In addition, some countries have specified several requirements for tenants only and not for owner-occupied dwellings, while for our purposes it would be difficult to assume that different minimum adequacy criteria should apply depending on the tenure states of households. Nevertheless, most countries apply similar principles: the dwelling should be safe, should enable a hygienic lifestyle and should offer sufficient space. Due to the different degree of detail, local variations in quality standards and the impossibility of identifying compliance with national or regional quality standards in the dataset (mostly due to a lack of information), we have identified a set of quality criteria that we will apply to all EU capital regions for estimating the reference housing costs, rather than making use of national, regional or local housing guidelines and regulations.

8.4.3 Quality criteria and assumptions used in the calculation of housing costs

The choice of quality criteria for estimating reference housing costs for adequate housing is largely constrained by the variables that are present in the EU-SILC 2012 data. They are derived from EU commonly agreed indicators of (housing) deprivation, from national guidelines and from common sense. In what follows, we briefly indicate the rationale for each of the quality criteria that we have used. All have been used both for reference rents and for the reference amounts of other housing costs, unless indicated otherwise.

First, we have applied a number of minimum quality criteria for selecting a sample of adequate dwellings. Dwellings with the following characteristics have not been taken into account for estimating the reference costs of adequate housing:

- **Moisture problems.** In EU-SILC the following problems are mentioned: a leaking roof, damp walls/floors/foundation, and rot in window frames or floor. This item is part of the EU severe housing deprivation indicator.
- **No indoor flush toilet or shower or bath.** These items are part of the EU severe housing deprivation indicator.
- **No ability to keep the home adequately warm.** This criterion is included in the calculation of other costs, apart from rents or mortgage, only to avoid that our

estimate of housing costs is downwardly biased as a result of what is sometimes called '*fuel poverty*'. This variable is part of the commonly agreed EU material deprivation indicator.

- **No adequate electrical installations** (wiring, contacts, sockets, and other permanent electrical installations in the dwelling).
- **No adequate plumbing/water installations** (pipes, taps, drainage, and outlets).

The last two criteria are not necessarily part of any official housing quality indicator, but are in line with the requirements of safety, habitability, availability of services and appropriate sanitation promoted through the international and European guidelines highlighted previously. In addition, their inclusion as variables of the EU-SILC housing module indicates that they have some face validity across countries as indicators of the quality of housing. Also, it seems a matter of common sense that adequate dwellings should have safe and adequate plumbing and electrical installations. (See Table 15 below for the percentages of dwellings in each country that do not meet these quality criteria.

For the remaining sample of dwellings, reference housing costs have been estimated by number of rooms and size of the dwelling. In order to calculate the reference housing costs for the various hypothetical families, several additional assumptions have been made with regard to the characteristics of the dwelling. These assumptions are necessary, either because they are central in defining a minimum level of adequacy (such as the number of rooms and the habitable space of the dwelling), or because they have a substantial impact upon the estimated housing costs.

Number of rooms. The commonly agreed EU overcrowding indicator defines that in order not to be overcrowded, a dwelling should have at least two rooms for couples and singles, at least three rooms for single parent families and couples with one child, and for couples or single parent families with two children should have four rooms, so that each child – as well as the parent(s) – can have her/his own bedroom, in addition to a common living room (we assume a family with a girl aged 14 and a boy aged 10).

Size of the dwelling in square meters. This criterion is added because sufficient space is generally recognised as an important aspect of adequate housing, and also because it turned out that this variable is the main determinant of the rent. Recently, a range of space standards have been defined as part of the UK housing standards review (Department for Communities and Local Government, 2013, 2015)[65]. This standard is not a building regulation and is intended only as a new form of technical planning standard for local authorities. However, it seems unique in its detail and its very thorough justification. The standard deals with internal space within new dwellings. It sets out reasonable minimum requirements for the gross internal (floor) area of new dwellings at a defined level of occupancy and provides minimum floor areas and dimensions for key parts of the home, including bedrooms and storage. The standard is designed to provide enough space to accommodate a minimum specified amount of furniture, fittings, activity and circulation space considered necessary to carry out a typical range of daily activities. Using the furniture sizes (including the space needed to open wardrobes etc.), and the spaces that people need to dress themselves, make up the bed, and generally to move about, the minimum required sizes of the various rooms are derived. The space standard is defined in relation to both the number of occupants and the number of bedrooms – where the latter can be both single and double bedrooms. An interesting and very useful feature of the standard is that it includes a calculator that produces the needed total space of the dwelling, based on the number of bedspaces (equal to the number of persons), bedrooms, bathrooms and WC/cloakrooms, for a particular type of dwelling. It is stressed that the space standard should be applied together with an accessibility

[65] See also http://www.designingbuildings.co.uk/wiki/Housing_standards_review (last accessed October 2015).

standard, which, among other stipulations, imposes certain requirements on the layout of dwellings, so that circulation is not obstructed.

The minimum gross sizes of flats or other one-floor dwellings are as follows Department for Communities and Local Government (2013, p 50 Table A1)[66]. The corresponding family type for which the standard is used here is mentioned between brackets:

- studio[67]: 1 bedroom 1 person: 38m² (single persons)
- 1 bedroom: 1 bedroom 2 persons: 47m² (couple)
- 3 bedrooms: 3 bedrooms 3 persons:[68] 64m² (single + 2 children)
- 3 bedrooms: 3 bedrooms 4 persons: 73m² (couple + 2 children)

The threshold for a single person corresponds with quality requirements used in Catalonia for new constructions, which stipulate that dwellings should be no less than 36 square meters in area, and are also close to a standard used in Italy (minimum of 30 m²). In Belgium (51 m²) and Austria (50 m²) higher minimum sizes are set (cf. Questionnaire among country teams). Note that these standards may serve different purposes from the UK standard discussed above.

These criteria cover more or less the general requirements of adequate housing identified in the previous section: the dwelling should be safe, should offer the possibility of a hygienic lifestyle and should be sufficiently spacious. It is important to be aware that all information on these quality requirements is provided by the household respondent, and not by a building expert, which inevitably introduces some noise and interpersonal differences into these data. Additional assumptions have been made with regard to the following characteristics.

Dwelling equipped with central heating. Other possible heating systems in the SILC questionnaire are 'other fixed heating' and 'non-fixed heating'. This criterion is added because in several countries both the rent and other housing costs are strongly influenced by the way the dwelling is heated. While 'non-fixed heating' seems undesirable, if only because of safety concerns, from the point of the ability to keep the dwelling warm, other fixed heating can be as adequate as central heating. The latter is chosen as the reference for two reasons, though. First, in all reference cities, the majority of tenant housing has central heating (the exception being reduced-rent dwellings in Budapest; see below Figures 32 and 34); in fact in some countries there is very little accommodation without central heating. Second, among traditional and commonly used heating systems, up-to-date central heating is probably the most economical, if properly installed and maintained.

An apartment or flat in a building with 10 or more dwellings. This is the most common type of dwelling in the private rental sector in all cities (except in Belgium)[69].

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[66] In a later document (Department for Communities and Local Government, 2015), the Department provided slightly different space standards (39m² for a 1 bedroom 1 person apartment, 50m² for a 1 bedroom 2 person one, and 74 m² for a 3 bedroom 4 person apartment). In the future, it is recommendable to redo the analysis making use of the revised standards.

[67] A studio is generally taken to be a dwelling where a single room serves both as living and bedroom. Yet, the definition of the EU overcrowding indicator implies that a single person should have a separate bedroom. Though "studio" is the term used by Department for Communities and Local Government (2013), at other places (e.g. p. 58) the document seems to suggest that this dwelling has a bedroom separate from the living room. Moreover, the 'calculator' stipulates that each additional person needing an extra bedplace, but not an extra bedroom, requires 9 m² extra. Subtracting this amount from the dwelling size for a couple also results in 38 m².

[68] The table referred to above does not state the minimum internal floor area for this type of dwelling. The size of 64m² has been derived using the rules specified on p. 59 of the document quoted.

Other dwelling types are free-standing, semi-detached, an apartment or flat in a building with fewer than 10 dwellings, and other.

Six years of contract. The number of years the current contract is running, has an important impact upon the estimated rent level. For calculating the reference housing costs, we assumed that the current contract of the model families was signed six years ago, which is about the median contract length over all countries covered in this chapter. For the Netherlands and Finland this variable is missing. Actual median contract lengths for rented accommodation in the private sector varied from 4 years in Madrid to 9 years in Vienna. Median contract lengths in the reduced rent sector are much longer: more than twenty years in Vienna and Rome, fifteen years in Madrid and Budapest, nine years in Brussels and seven years in Luxembourg.

Age of the oldest household member is between 40 and 49. This criterion is included in the equations used to estimate reference housing costs other than rent, as older and retired persons may need to spend more on heating than people at working age.

We have chosen to include these additional characteristics, which are not quality criteria, in the regressions, and then to use a constant value across all countries in the calculation of reference rents. Another option would have been to exclude these variables altogether from the regressions (implying that they are also excluded from the calculation of reference rents). To the extent that these characteristics explain variation in actually paid rents, this option would mean that the reference rents would have been estimated with less precision (i.e. with larger standard errors). Also, the reference rents per region would have been a kind of average across a varying mix of dwellings in terms of heating system, length of contract etc., which would make them more difficult to interpret and to compare. A third possibility would have been to include these characteristics in the regressions, but to use different values for them in different regions when calculating reference rents, e.g. the most common one, or the cheapest one. In this way, the reference rents would perhaps match more closely the various housing circumstances in each region. The main aim of this chapter is to show the large differences across countries in the rent that has to be paid for adequate housing as well as to illustrate a general approach to estimating reference housing costs. For this purpose, it seemed advisable to keep things as simple as possible, and therefore we opted for a constant value for these additional characteristics in the calculation of reference rents.

Finally, the reference families are assumed to live in Vienna, Brussels, Sofia, Athens, Madrid, Budapest, Helsinki, Rome, Luxembourg or The Netherlands. As the EU-SILC data do not allow to identify particular cities, we approximated this by the region (NUTS-2 level) and the condition that the area is densely populated[70]. Unfortunately, the region variable is missing for Belgium and for The Netherlands in EU-SILC 2012. For The Netherlands, the degree of urbanisation is also unavailable, which implies that all estimates for The Netherlands presented below refer to the whole of the country. When we denote these regions by the name of the capital city in the section that follows, it should be borne in mind that we refer to the capital regions, as defined here.

In principle, the rent refers to the amount paid for the use of an unfurnished dwelling, though this may not always be clear for respondents in a furnished dwelling. However,

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[69] This assumption is not strictly necessary; we could also have used an average across all dwelling types. However, in keeping with the other baskets of the reference budgets, we wanted to specify the reference dwelling in as much detail as possible.

[70] Densely populated areas are the areas with code A in the new DEGURBA classification, defined as "Contiguous grid cells of 1km2 with a density of at least 1 500 inhabitants per km2 and a minimum population of 50 000" (Eurostat, 2013: 103). See also http://ec.Europa.eu/Eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP_DEGURBA (last accessed August 2015).

we are not able to make a distinction between furnished and unfurnished dwellings, and the potential remaining difference in housing costs between the two are averaged out. In other words, in countries where furnished dwellings account for a substantial share of the housing market for renters, we might over-estimate the cost of an unfurnished dwelling. In that case, there would be some double-counting, given that kitchen equipment, including a freezer, a refrigerator, a table and chairs, are also included in the food basket.

Do we achieve the goal of substantive comparability of adequate housing? By applying these criteria to all countries, the implicit assumption is that we identify dwellings of the same level of adequacy across the various capital cities. We are convinced that the approach proposed here goes a long way, indeed, in achieving substantive cross-national comparability. Even though the same minimum quality requirements (and other assumptions) are applied everywhere, there is still room for variation: the housing stock that passes the minimum quality check will in some countries be of higher quality than in others, presumably in line with the average standard of living, apart from other factors and constraints. Our quality criteria may miss out on essential minimum criteria that are applicable in some countries, but not in others (e.g. with regard to the quality of the direct environment, or the degree of insulation), and some dwellings that are not in accordance with these criteria may still be in our sample. By estimating housing costs at the 30th percentile, though, it is unlikely that the reference housing costs would be applicable to a dwelling that would fall seriously short in terms of those unobserved quality criteria. Conversely, it might be that for some countries our minimum standard for dwelling size is perceived as being overly 'generous'. The diagrams and analyses of the UK Department for Communities and Local Government make clear that smaller dwelling sizes would be highly impractical. Yet, in countries where the majority of the population lives in dwellings that are smaller than those assumed for estimating the reference housing costs, the social meaning of such a situation is likely to be different than where this is the case for only a minority of households. It is a matter for further research whether this would mitigate the adverse impact of cramped housing and overcrowding on the opportunities for health, autonomy, safety in childhood and adequate social participation in general.

8.5 The calculation of reference housing costs

8.5.1 Housing patterns in Europe

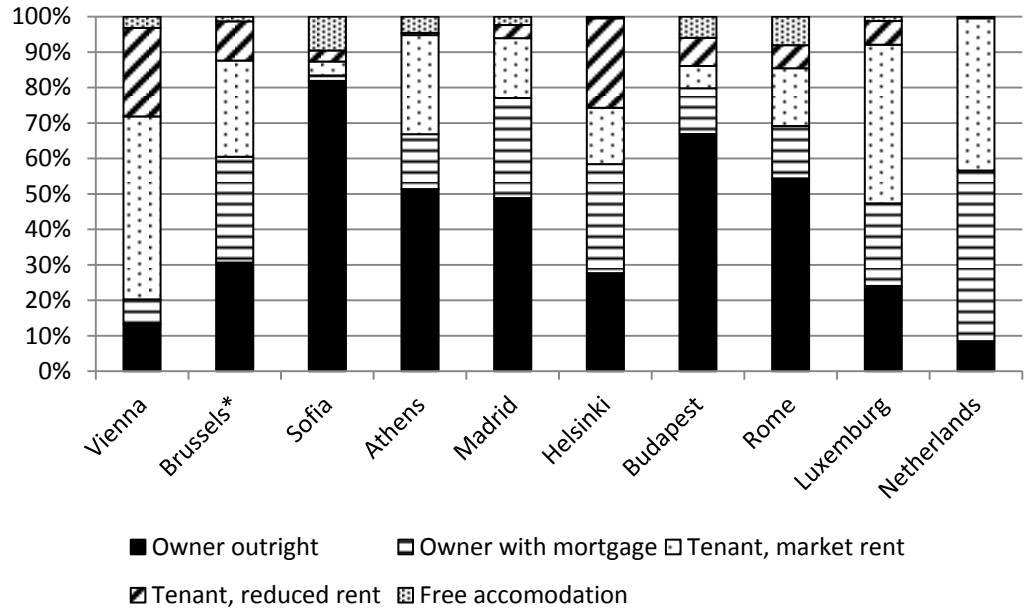
It is well known that the countries of the EU have substantially different housing markets, and this is also the case for the reference regions of this study, as shown by Figure 32. In fact, in each case the proportions for the country as a whole are not far from those for the reference regions; the latter generally contain slightly more tenants and fewer owners than the country as a whole. In Vienna[71], 80% of all households rent their dwelling; in Luxembourg this is the case for slightly over half of all households. In the other cities and countries owners are the majority, although the private rental market is still substantial in Brussels and Athens, while tenants in the private market are a clearly smaller group in Madrid, Helsinki and Rome. The private market for rented accommodation is quite small in Budapest and nearly non-existent in Sofia[72]. The Netherlands is something of a special case Most rental housing in The Netherlands is owned by not-for-profit housing associations that enjoy a substantial system of state aid (de Boer and Bitetti, 2014). Yet, in the EU-SILC data all rental dwellings are coded as

[71] As explained in the previous paragraph, please note that we refer to the densely populated areas in regions on the basis of the name of the capital city.

[72] In fact, the absolute number of tenants in the Bulgarian SILC wave 2012 is only 61 (private market) plus 77 (reduced rent), which is too small for reliable results. For this reason we will not present estimates of the reference rent and other housing costs for tenants in Sofia, but only the reference housing costs for outright owners in that city.

being in the private sector, so we cannot distinguish those that are owned by private investors from those possessed by housing associations.

Figure 32: Households in reference regions* by tenure status.



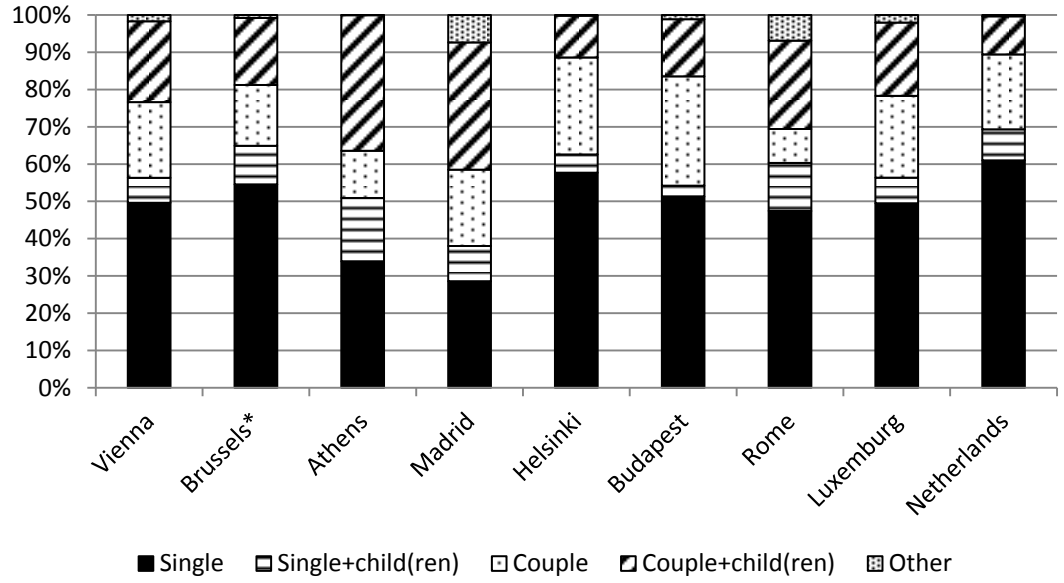
Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.
Source: EU-SILC 2012 UDB, version 1; own calculations.

The composition of the group of tenants in the private sector (Figure 33) in the reference cities also varies across countries. In the Northern European regions and in Budapest, couples with children are only a small minority among private tenants while singles and childless couples predominate. Larger proportion of couples with children among private tenants are found in Athens and Madrid. One-parent families represent more than 10% of private tenants only in Athens and Rome.

Singles and childless couples also form the majority of tenants in the reduced rent sector, except in Rome. In the latter city, and also in Budapest and to a lesser extent in Helsinki and Brussels these household types occur much less in this group than among tenants in the private sector. In Rome, Brussels and Budapest, the percentage of one-parent families is 10 per cent-points or more larger among reduced rent tenants than in the private sector (Figure 34).

Among outright owners (Figure 35), childless singles and couples predominate in Vienna, Brussels, Helsinki, Luxembourg and The Netherlands. In Sofia, Athens, Madrid Budapest and Rome, the proportion of couples with children is clearly larger. These differences across cities reflect partly variation in the household type composition of the populations of those countries generally. Also, in the countries of Northern and Central Europe, many families with children are paying off a mortgage for their home, while taking mortgages is less common in the South and East of Europe.

Figure 33: Tenants in private sector by household type in reference regions.



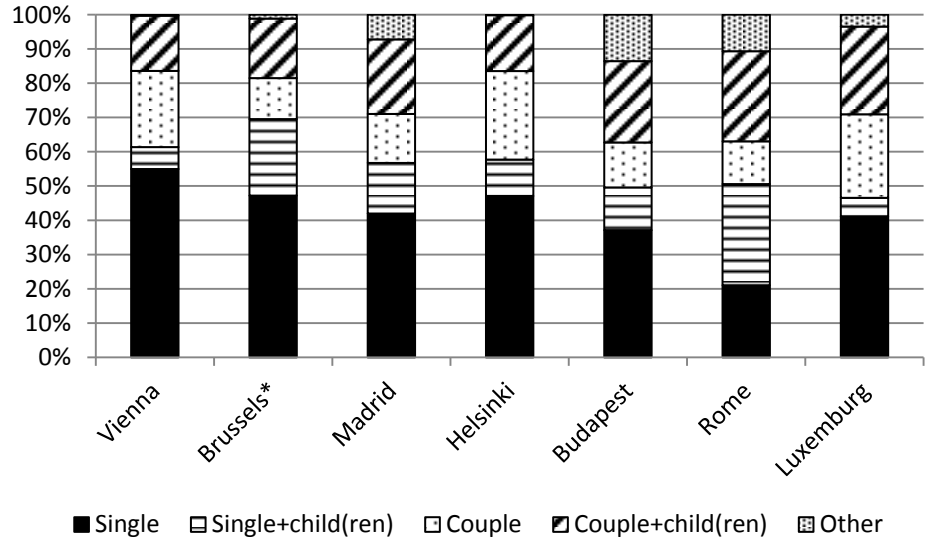
Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.

Results for Sofia (BG) not shown due to small number of observations.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Figure 34: Tenants with reduced rents by household type in reference regions.



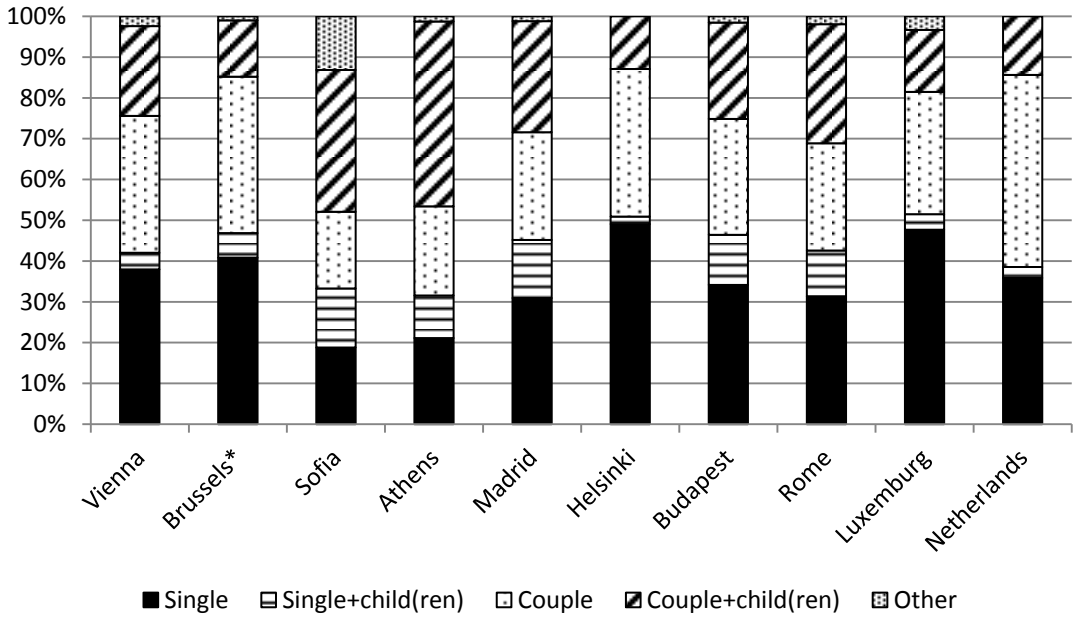
Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

The data in this figure refer to all households in the reference region, identified as described in the text, without further selections. According to EU-SILC data there are no dwellings with reduced rents in The Netherlands.

Results for Sofia (BG) and Athens not shown due to small number of observations.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Figure 35: Outright owners by household type in reference regions.



Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

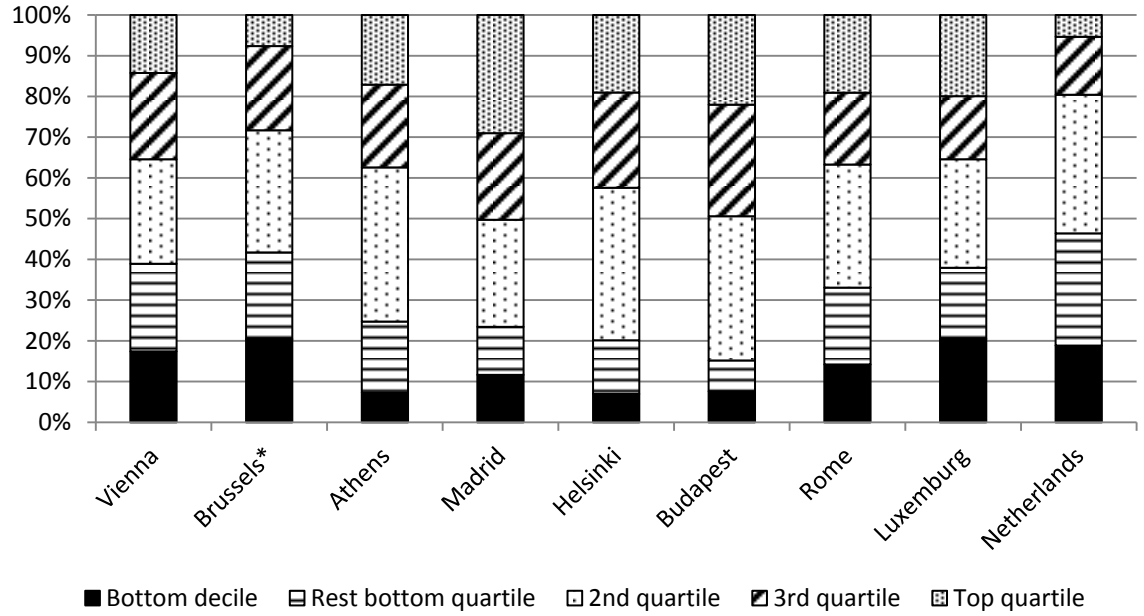
The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.

Source: EU-SILC 2012 UDB, version 1; own calculations.

As households with insufficient capital or savings potential to buy a home are forced to rent accommodation, one would expect that tenants often have low incomes. However, this appears not to be the case in all capital regions (Figure 36). In Madrid, Budapest and Helsinki less than 25% of all tenants belong to the bottom quartile of net disposable income, and between 40 and 50% are in the top half of the income distribution. Also in Athens, tenants are not found particularly among the low income groups. By contrast, in Vienna, Brussels, Rome, Luxembourg and The Netherlands, between 32% and 47% of tenants in the private sector are in the bottom quartile, and 37% or fewer belong to the top half. In The Netherlands, tenants in the private sector are most concentrated in low income groups.

As reduced rent accommodation is generally targeted (directly or indirectly) at households with limited means, one would expect these tenants to be concentrated among the low income groups. This is the most clearly the case in Brussels, and to some extent also in Budapest, but much less so in the other reference cities. In Rome, the distribution of tenants with reduced rent is even skewed toward the top half of the income distribution.

Figure 36: Tenants in private sector by income group in reference regions.



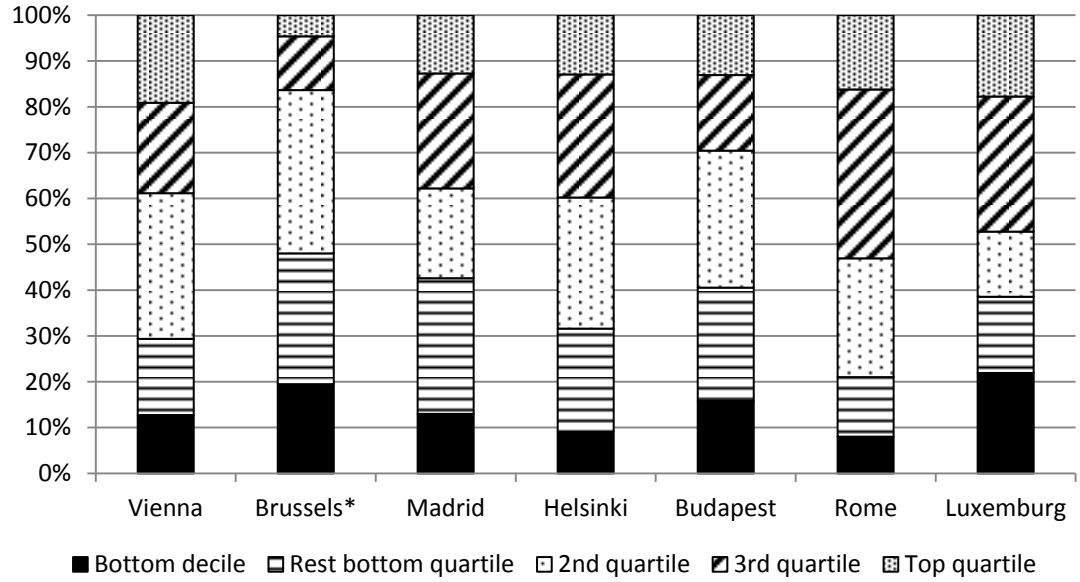
Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.

Deciles and quartiles refer to net disposable income and are composed using the income distribution of the country as a whole.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Figure 37: Tenants with reduced rent by income group in reference regions.



Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. For Sofia and Athens there were too few observations (40) for reliable results. In The Netherlands there are no tenants with reduced rent, according to EU-SILC.

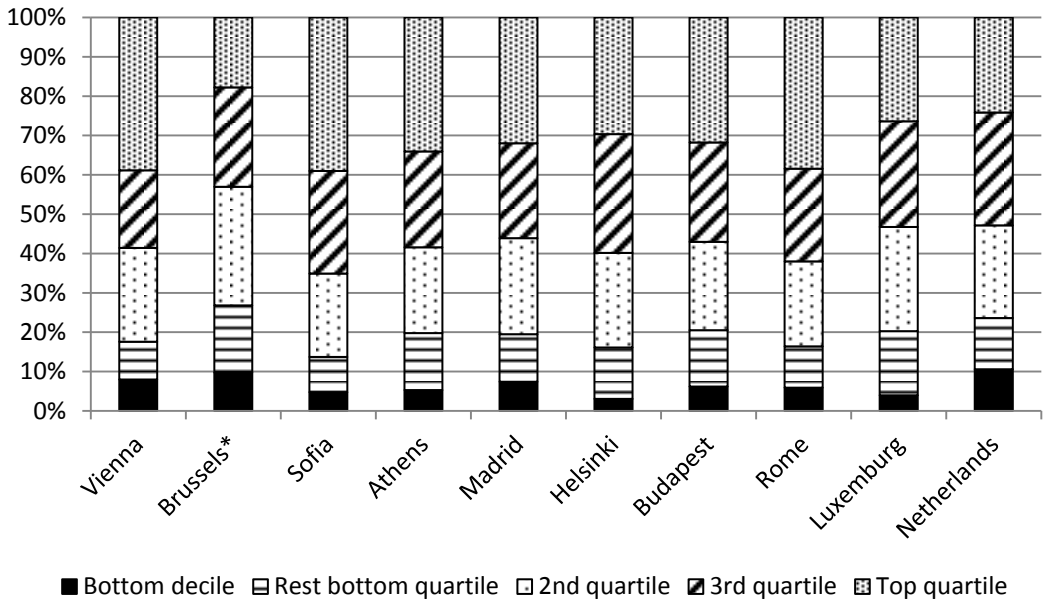
The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.

Deciles and quartiles refer to net disposable income and are composed using the income distribution of the country as a whole.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Compared with tenants, outright owners generally find themselves in higher income groups, most clearly so in Vienna, Sofia and Rome, though with the exception of Brussels.

Figure 38: Outright owners by income group in reference regions.



Notes: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

The data in this figure refer to all households in the reference region, identified as described in the text, without further selections.

Deciles and quartiles refer to net disposable income and are composed using the income distribution of the country as a whole.

Source: EU-SILC 2012 UDB, version 1; own calculations.

8.5.2 Calculation of reference rents for tenants in private sector

We now explain in more detail the statistical procedure for calculating the reference rents, in accordance with the quality criteria defined above. As explained in Annex 1 of this chapter, rent includes housing benefits even when these are paid directly to the landlord. As such benefits not paid to the tenant are not included in the net household income, this unfortunately creates a deviation from the principle that the total budget refers to a net disposable income. We do not know how important housing benefits to landlords are. We estimated quantile log-linear regression models, with rent (ln) as the dependent variable, in which we included as independent variables: size in m² (ln), number of rooms (ln), the elapsed duration of the current contract[73] (ln), whether the region is the region of the reference city (ind) and whether the area is densely populated (ind). (ln) indicates that the variable was entered after a logarithmic transformation,

[73] This variable is not available for Finland and The Netherlands.

while (ind) means indicator variable (i.e. dummies for each category for these variables, except the reference category). The regressions were run on the subsample of tenants in the private sector. The unit of analysis is the household, which is assumed to correspond in one-to-one relationship to a dwelling. As the definition of a household is a group of related or unrelated persons who 'live under one roof', this should generally be the case (i.e. shared dwellings should be an exception).

As mentioned previously, the other quality requirements (no moisture problems; indoor flush toilet and shower or bath; adequate electrical installations; adequate plumbing/water; heating facilities and ability to keep warm) were imposed as *selection criteria*, i.e. only cases which met these requirements were included in the regressions[74]. We ran the quantile regressions for the 30th percentile. All regressions were run for each country separately.

Quantile regression aims at estimating either the conditional median or other quantiles of the dependent variable, whereas ordinary regression targets the conditional mean. Also, quantile regression estimates are more robust against outliers in the dependent variable. A log-linear specification has been chosen as it implies that the impact of characteristics on the rent is proportional, rather than absolute. For example, the impact of living in a densely populated area could be that, ceteris paribus, the rent is increased by 15%, rather than by a specific amount (e.g. 80 Euro) irrespective of the size and other characteristics of the dwelling. For continuous independent variables, the regression coefficient can be interpreted as an elasticity. I.e. if the estimated coefficient is b, than an increase in the independent variable by 1% will be associated with a rise in the dependent variable by (approximately) b%. The assumption that effects are proportional was regarded as more plausible than an assumption that effects were absolute.

Table 15 gives descriptive statistics for the variables mentioned above for tenants in the private sector in the reference cities. Dwellings not meeting the quality requirements used as selection criteria are most common in Rome, mainly due to moisture problems, and also because of inadequate plumbing. In general, moisture problems are fairly common, though least so in Helsinki. By contrast, in the latter city and also in Madrid we find relatively many rented homes lacking an adequate electrical installation; in Madrid inadequate plumbing is also a relatively frequent problem. A remarkably large percentage of dwellings in Spain have no heating installation. In Brussels and Vienna the percentage without an indoor toilet and/or bath or shower is also relatively (and surprisingly) high.

A large majority of dwellings in the private rental sector in the reference cities are apartments, including studios. Due to the inability to identify the reference cities in Belgium and The Netherlands, the results for those countries are a bit different. In most countries, these apartments are in buildings with 10 or more apartments, though in Brussels and Luxembourg smaller buildings are more common. Most tenants have a

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[74] Furthermore, in order to eliminate possible bias due to outliers, households in extraordinary circumstances and possibly unreliable answers, we also excluded from the regressions (not from the descriptive Tables 15 and 17 below):

- households with very low or very high rents (less than 1/5 of / more than 5 times median rent in their country)
- households with very low or very high 'other costs' (less than 1/5 of / more than 5 times the median amount in their country)
- very small or very large dwellings (< 10 m² or > 250 m²)
- households with very low or very high equivalent incomes (less than 1/10 of / more than 10 times the median amount in their country)
- multi-generational or multi-family households (households with more than one couple, more than one father or more than one mother)

contract that started several years ago, although a substantial minority have signed or renewed their contract only during the current or last year, especially in Madrid.

The sizes of dwellings in the private rental sector vary quite strongly across countries. On average, the smallest accommodations are found in Budapest, where the majority of dwellings is less than 50m², and 41% has only one room. Also in Helsinki, rented houses are rather small, though the number of rooms is larger than in Budapest. In Athens, Madrid and Rome, the distribution of rented dwellings in terms of square meters is about the same, though the number of rooms is much larger in Spain than in Greece or Italy. The Brussels rental sector is characterised by the greatest variation in terms of size, with a non-negligible proportion of quite small apartments (less than 25m²), and also a high proportion of dwellings exceeding 100m². The high proportions of dwellings of large size and with many rooms recorded in Brussels and The Netherlands are of course related to the finding that many dwellings there are freestanding or semi-detached houses.

The distribution of rent paid also varies strongly across countries. The lowest rents are found in Budapest, where 90% of all rents are lower than 215 Euro, a level at which in the other countries hardly any rented accommodation can be found. Rents are highest in Luxembourg, where rents at the 10^{th} percentile are higher than the median rent in nearly all countries. Surprisingly, given the small size of dwellings there, rents are also fairly high in Helsinki.

Table 16 contains the estimated coefficients for the rent equations. The most important variable for explaining the level of rent in all countries is the size of the dwelling in square meters; with an elasticity ranging from 0.25 in Italy to 0.90 in Austria. Surprisingly, once controlling for the size of the dwelling in square meters, the effect of the number of rooms is negative, except in Belgium, Italy and Luxembourg, and significantly so in Spain and Greece. Given that there are sufficient bedrooms for the family, a large number of small rooms may be associated with a lower rent than a smaller number of larger rooms. Dwellings with central heating command a higher rent than those without, except in Hungary (while the effect is not significant in Finland, where nearly every dwelling has central heating). Compared to apartments in large buildings, free-standing or semi-detached houses are generally cheaper, other things, including size in square meters, being equal. This is also true for apartments in smaller buildings, except in Austria. The duration of the current contract has a negative effect on the rent in all countries except Greece. In all countries, except Austria, the rent is considerably higher in the region of the capital city than in other parts of the country. This effect is especially large for Budapest and Madrid, where rents are 82%, resp. 49% higher than for a similar dwelling in other urbanised regions in the respective countries. Also, in all countries the rent is higher in densely populated areas than elsewhere.

Table 15: Characteristics of dwellings of tenants in the private sector in reference regions, 2012.

	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
QUALITY PROBLEMS									
Moisture problems	14,4%	25,6%	16,1%	13,9%	6,6%	27,6%	27,7%	20,3%	21,1%
No adequate electrical installations	8,6%	8,4%	1,1%	13,8%	19,3%	2,0%	7,0%	3,7%	2,6%
No adequate plumbing/water installations	5,8%	4,7%	1,1%	18,8%	7,3%	1,9%	8,6%	2,1%	5,5%
No heating installation	0,0%	0,9%	0,0%	6,2%	0,0%	0,0%	1,4%	0,0%	0,0%
No indoor flush toilet and/or shower or bath	6,9%	9,5%	0,3%	0,0%	0,1%	0,0%	1,0%	0,0%	0,1%
At least one of the above problems	26.0%	37.2%	18.2%	28.1%	27.4%	28.4%	36.9%	22.6%	25.7%
Type of dwelling									
- freestanding	0,2%	3,1%	1,4%	3,0%	1,1%	0,6%	1,1%	2,4%	1,8%
- semi-detached	1,9%	17,7%	4,0%	3,1%	4,7%	2,8%	10,1%	2,4%	44,3%
- apartment in building with under 10 dwellings	12,9%	61,7%	45,3%	21,7%	3,2%	7,0%	30,0%	61,7%	12,8%
- apartment in building with 10 or more dwellings	85,0%	17,6%	49,3%	72,2%	91,1%	89,6%	58,9%	33,5%	41,2%
Number of years contract is running									
- about 1 year or less	12,0%	18,2%	12,5%	30,8%		2,0%	13,0%	11,4%	
- 1-5 years	28,7%	41,6%	37,9%	39,6%		71,9%	34,7%	40,2%	
- more than 5 years	59,3%	40,3%	49,6%	29,6%		26,1%	52,2%	48,4%	
Size of dwelling (m²)									
- 1- 24.9	2,0%	5,4%	0,0%	0,6%	6,8%	0,0%	1,6%	2,6%	3,8%
- 25 - 49.9	29,8%	16,4%	18,6%	5,9%	46,6%	64,5%	18,1%	18,9%	10,5%
- 50 - 74.9	38,0%	28,6%	42,6%	45,6%	31,2%	28,6%	42,9%	30,6%	31,6%
- 75 - 99.9	24,3%	22,5%	25,3%	33,5%	9,0%	3,1%	25,5%	26,3%	28,9%
- 100 or more	5,9%	27,1%	13,5%	14,5%	6,4%	3,8%	11,9%	21,7%	25,3%

Table 15: continued.

	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Number of rooms									
- 1	16,9%	3,4%	5,3%	1,4%	25,2%	41,1%	13,0%	15,2%	4,0%
- 2	38,6%	6,0%	42,9%	9,8%	35,1%	48,8%	37,4%	23,7%	13,6%
- 3	33,2%	33,7%	40,6%	21,7%	20,8%	7,8%	35,1%	37,9%	22,7%
- 4	9,0%	31,7%	9,0%	27,4%	11,8%	2,4%	10,9%	14,8%	28,0%
- 5	2,1%	16,8%	2,4%	33,2%	3,4%	0,0%	1,6%	3,7%	23,7%
- 6+	0,3%	8,3%	0,0%	6,5%	3,7%	0,0%	2,0%	4,8%	8,1%
Central heating	84,2%	78,5%	62,3%	87,1%	63,5%	99,8%	63,7%	87,0%	97,7%
Rent per month									
- 10th percentile	226	320	230	450	481	107	300	500	276
- 25th percentile	303	395	270	588	560	143	400	620	361
- 50th percentile (median)	440	500	330	700	704	179	600	800	450
- 75th percentile	585	621	414	800	820	215	750	1100	537
- 90th percentile	760	800	500	1000	1100	268	842	1483	662

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 16: Estimated coefficients with quantile regression at the 30th percentile of rented dwellings in the private sector, log-linear specification.

VARIABLES	Vienna coef	se	Brussels coef	se	Athens coef	Se	Madrid coef	se	Helsinki coef	se
Size in m² (ln)	0.903***	(0.045)	0.326***	(0.043)	0.722***	(0.072)	0.341***	(0.071)	0.553***	(0.071)
# rooms (ln)	-0.048	(0.041)	0.183***	(0.065)	-0.263***	(0.073)	-0.165**	(0.080)	-0.015	(0.060)
Central heating	0.129***	(0.032)	0.181***	(0.038)	0.092**	(0.038)	0.129***	(0.038)	0.250	(0.191)
Dwelling type (ref = apartment in block with 10+ apartments)										
free-standing	-0.016	(0.049)	-0.132*	(0.070)	-0.338***	(0.065)	-0.160*	(0.084)	-0.289***	(0.081)
semi-detached	0.096**	(0.048)	-0.274***	(0.050)	0.072	(0.068)	-0.265***	(0.077)	-0.110***	(0.047)
apartment in building with < 10 dwellings	-0.005	(0.023)	-0.096**	(0.039)	0.052*	(0.031)	-0.104**	(0.042)	-0.123	(0.081)
Years of current contract (ln)	-0.128***	(0.010)	-0.109***	(0.016)	-0.004	(0.020)	-0.099***	(0.023)		
Region of reference city (other region = ref)	-0.039*	(0.022)			0.145***	(0.032)	0.401***	(0.053)	0.216***	(0.051)
Area densely populated (not densely populated = ref)	0.171***	(0.023)	0.092***	(0.033)	0.116***	(0.031)	0.206***	(0.039)	0.200***	(0.051)
Constant	2.311***	(0.158)	4.592***	(0.161)	2.579***	(0.255)	4.631***	(0.262)	3.670***	(0.307)
Observations	1,266		585		557		612		656	

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 16: continued.

VARIABLES	Budapest coef	se	Rome coef	se	Luxembourg coef	se	Netherlands coef	se
Size in m² (ln)	0.864***	(0.236)	0.245***	(0.052)	0.411***	(0.040)	0.436***	(0.022)
# rooms (ln)	-0.227	(0.182)	0.068	(0.046)	0.077*	(0.042)	-0.027	(0.023)
Central heating	0.031	(0.108)	0.285***	(0.037)	0.181*	(0.096)	0.256***	(0.062)
Dwelling type (ref = apartment in block with 10+ apartments)								
free-standing	-0.393	(0.246)	-0.290***	(0.052)	-0.236***	(0.051)	-0.056	(0.053)
semi-detached	0.003	(0.260)	-0.125***	(0.039)	-0.175***	(0.048)	-0.078***	(0.015)
apartment in building with < 10 dwellings	-0.396***	(0.141)	-0.089***	(0.026)	-0.132***	(0.027)	-0.057**	(0.024)
Years of current contract (ln)	-0.129	(0.083)	-0.072***	(0.012)	-0.105***	(0.016)		
Region of reference city (other region = ref)	0.597***	(0.107)	0.190***	(0.028)				
Area densely populated (not densely populated = ref)	0.148	(0.117)	0.280***	(0.025)	0.174***	(0.025)		
Constant	1.365	(0.830)	4.583***	(0.198)	4.762***	(0.167)	3.961***	(0.101)
Observations	227		1,321		800		2,069	

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

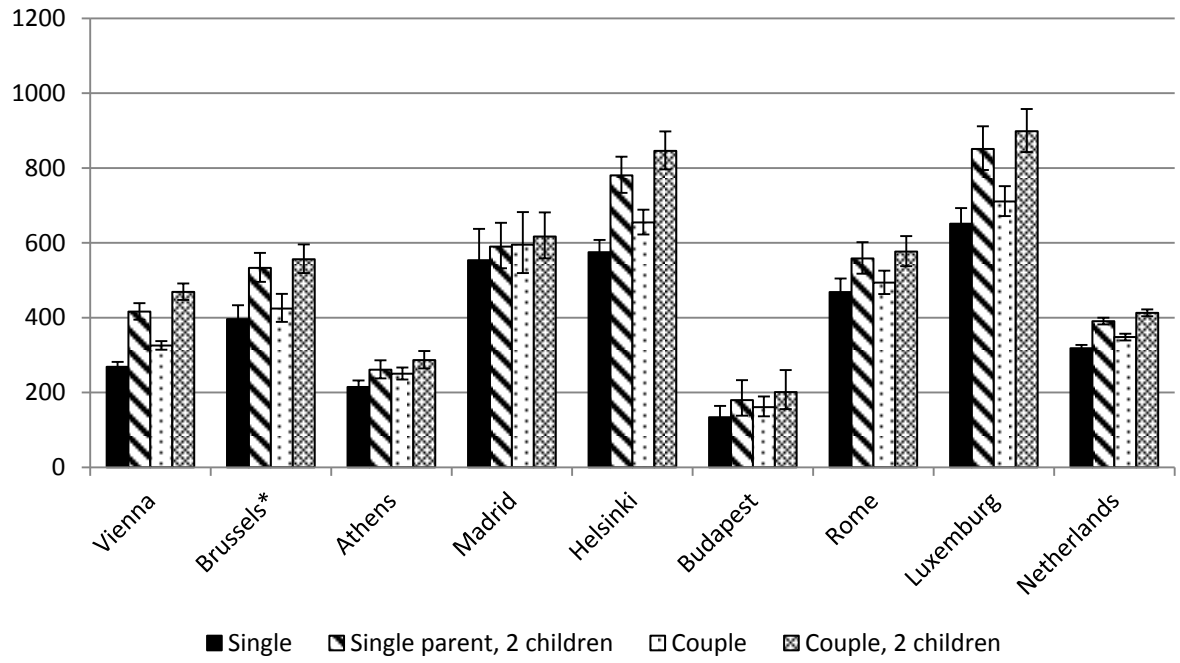
Source: EU-SILC 2012 UDB, version 1; own calculations.

The estimated regression equations were used to predict the rent at the 30th percentile for dwellings with the specified characteristics. The number of years of the current contract was assumed to be 6, which is the median value across countries and across all tenants. Taking the 30th percentile seemed to be appropriate, as the reference budgets aim to indicate the minimum income needed for adequate participation, while avoiding the lowest rents, which are often unrealistic in concrete situations. The resulting amounts are shown in Figure 39.

Across capital cities, there is a strong correlation between reference rents and the actual median rents, though it is not perfect. In most capitals, average reference amounts are some way below the median rent. However, the gap is relatively small in Brussels, Budapest and Helsinki. For Budapest and Helsinki this is due to the relatively small size of apartments in those cities; for Brussels the reason is not clear.

There are important differences between capital regions in the degree to which rents increase with the needs of the reference family in terms of size and number of rooms. In Vienna, the implicit "rent equivalence scale" is relatively steep, as the reference rent for a couple with two children is 69% higher than for a single person. By contrast, in Rome and Madrid reference rents do not vary much by reference family type. These differences are largely explained by the elasticity of rent with respect to size in square meters, which is quite high in Austria, and low in Italy and Spain, and presumably reflects the housing markets in those countries or cities.

Figure 39: Reference rents in private sector for dwellings satisfying the needs of four family types, 2012.



Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval.

Source: Regression results reported above.

8.5.3 Calculation of reference rents for tenants in the social sector

We also calculated reference rents for tenants with reduced rent[75], using exactly the same method as for tenants in the private sector. Obviously, apart from characteristics of the dwelling, the rent for these tenants may also depend on their income and family size and composition. We did not include those variables, as it would be hard to choose a reference level of income in the calculation of reference rents. This implies that the resulting reference rents are presented here mainly to show the extent to which rents are lower in the reduced rent sector than in the private sector. Given that rents tend to be a large proportion of the total budget, reduced rents can substantially lower the minimum resources required for adequate social participation.

Table 17 shows the characteristics of dwellings with reduced rents in the reference cities. In Vienna, Brussels, Madrid and Helsinki, the reduced rent sector has fewer quality problems than the private sector. By contrast, the reverse is true in Budapest, Rome and Luxembourg, where moisture problems in particular appear to be very common in dwellings with reduced rents. As was true for the private sector, in most reference cities, almost all rented dwellings are apartments, of which the majority are situated in larger buildings. The exceptions are Brussels[76] and Luxembourg, where we find a sizable proportion of semi-detached houses in the reduced rent sector. In all countries, with the exception of Luxembourg, the elapsed duration of contracts of tenants with reduced rents is much longer than that of their counterparts in the private sector, suggesting the former enjoy greater security. Most dwellings with reduced rents are of middling size; except in Luxembourg where we find a large proportion of large apartments or houses. Except in Budapest, dwellings with reduced rent tend to have a larger number of rooms than those in the private sector.

As expected, rents in the reduced rent sector are lower than in the private sector, but the extent of the reduction varies considerably across countries, and also across the distribution of rents. In Vienna and Helsinki, rents in the reduced rent sector are not much lower than in the private sector (not controlling for characteristics of the dwellings) and this is the case across the distribution of rents. In Brussels, the gap between the sectors is larger, but also varies not much across the distribution. In the other countries, we perceive that rents at the 10^{th} and 25^{th} percentiles of the distribution in the reduced rent sector are much below those at corresponding positions in the distribution of private sector rents, while this is much less the case at the 75^{th} and 90^{th} percentile. Consequently, in Madrid, Budapest, Rome and Luxembourg the inequality of rents in the reduced rent sector is much greater than in the private sector. Overall, the gap between private-market rents and reduced rents is largest in Budapest and Madrid.

Table 18 shows the estimated coefficients for the rent equations in the reduced rent sector. Given the small size of the samples in most countries, differences between these estimates and those for rent in the private sector should be interpreted cautiously. Even to a greater degree than was true for the private sector, the main variable for explaining the level of rent in all countries is the size of the dwelling in square meters, with an elasticity ranging from 0.70 in Luxembourg to 1.30 in Spain; in Belgium this variable has no significant effect, though. The number of rooms has no effect, or a negative one (in Luxembourg). Dwellings with central heating command a higher rent than those without in Austria, Italy and Madrid, but a lower one in Hungary (where central heating may refer to systems that provide heating to the whole building), while the effect is not significant in Finland, where nearly every dwelling has central heating, and Belgium. Similar to the private sector, free-standing houses are generally cheaper than apartments, other things being equal, including size in square meters. This is also true for semi-detached houses in Austria and Belgium, but not in Italy and Luxembourg. The duration of the current contract has a negative effect on the rent in all countries except Belgium. The impact of

[75] This group does not completely coincide with the social sector, as tenants may also enjoy a rent below market level for instance if their landlord is a family member or an employer.

[76] Of course, actually all densely populated areas in Belgium.

the regional variables is less straightforward than for the private sector. Only in Finland and Hungary do we find that the rent is considerably higher in the region of the capital city than in other parts of the country. In Austria, Finland and Italy the rent is higher in densely populated areas than elsewhere; the association is particularly strong in Spain. By contrast the effect of an urbanised region is not significant or even negative in Belgium, Hungary and Luxembourg.

Figure 40 shows the resulting reference amounts. For Madrid and Luxembourg the large confidence intervals indicate that these estimates are not very precise, reflecting the small size of the sample, but also the large inequality in reduced rents in those cities and countries. We should emphasize that these reference rents are not necessarily those that a family with an income equal to the total reference budget would pay if they were living in a dwelling in the reduced rent sector with the reference characteristics. In many cities, the rent in this sector is partly a function of the income of the tenant, and this has not been taken into account in this exercise. The main purpose of this analysis is to show the extent to which rents are lower in the reduced rent sector as compared to the private sector. It is clear that the ratio of reference rent in the reduced rent sector with respect to reference rent in the private sector is close to that of median observed rents in those sectors. Reference reduced rents are highest in Helsinki, where private rents are very elevated, and reduced rents not much lower. Reductions are large in Brussels, Madrid and especially Rome, so that reference reduced rents in those cities are below those in Vienna, even though reference rents in the private sector are higher. Reference reduced rents are quite low in Budapest, thanks to substantial reductions relative to private rents that were already low in comparative perspective.

Table 17: Characteristics of dwellings of tenants with reduced rents in reference cities*, 2012.

	Vienna	Brussels*	Madrid	Helsinki	Budapest	Rome	Luxembourg
QUALITY PROBLEMS							
Moisture problems	12,6%	20,7%	16,4%	5,2%	66,9%	34,9%	36,9%
No adequate electrical installations	3,6%	4,5%	3,9%	11,4%	12,8%	11,6%	14,6%
No adequate plumbing/water installations	1,6%	3,6%	10,3%	3,4%	12,4%	10,5%	0,0%
No heating installation	0,0%	0,0%	3,0%	0,0%	0,9%	0,9%	0,0%
No indoor flush toilet and/or shower or bath	5,4%	6,0%	0,0%	0,2%	10,9%	0,0%	0,0%
At least one of the above problems	20.8%	28.1%	20.5%	18.4%	67.7%	45.7%	38.8%
Type of dwelling							
- freestanding	1,0%	2,5%	4,4%	0,6%	2,4%	7,6%	12,6%
- semi-detached	4,6%	34,0%	4,3%	9,0%	6,9%	3,7%	23,3%
- apartment in building with under 10 dwellings	14,7%	27,4%	20,1%	1,5%	13,8%	16,4%	47,5%
- apartment in building with 10 or more dwellings	79,7%	36,1%	71,2%	88,9%	76,9%	72,3%	16,6%
Region of reference city							
Densely populated							
Number of years contract is running							
- about 1 or less	3,2%	9,8%	6,1%	0,0%	0,5%	6,3%	11,5%
- 1-5 years	16,8%	26,7%	20,6%	0,0%	20,5%	4,5%	34,7%
- more than 5 years	80,0%	63,4%	73,4%	0,0%	79,0%	89,2%	53,7%
Size of dwelling (m^2)							
- 1- 24.9	0,0%	0,8%	0,0%	2,7%	0,0%	0,0%	4,4%
- 25 - 49.9	20,6%	12,5%	10,9%	37,5%	62,3%	8,5%	6,3%
- 50 - 74.9	37,4%	37,5%	32,6%	36,6%	29,7%	47,2%	25,9%
- 75 - 99.9	23,6%	26,5%	35,1%	20,0%	4,6%	33,0%	19,7%
- 100 or more	18,5%	22,7%	21,4%	3,2%	3,5%	11,2%	43,7%

Table 17: continued.

	Vienna	Brussels*	Madrid	Helsinki	Budapest	Rome	Luxembourg
Number of rooms							
- 1	11,9%	1,1%	0,0%	11,7%	46,1%	2,9%	0,6%
- 2	34,9%	4,1%	12,2%	32,8%	36,1%	30,9%	18,3%
- 3	34,1%	22,3%	8,2%	29,4%	15,1%	34,3%	40,0%
- 4	14,6%	34,5%	22,7%	17,9%	2,7%	31,5%	25,6%
- 5	2,3%	26,0%	44,7%	6,1%	0,0%	0,0%	1,5%
- 6+	2,3%	12,0%	12,2%	2,1%	0,0%	0,4%	14,1%
Central heating	82,6%	78,3%	76,0%	99,9%	26,5%	87,8%	99,7%
Rent per month (amount)							
- 10th percentile	172	191	80	365	18	100	215
- 25th percentile	255	232	170	497	36	130	393
- 50th percentile (median)	360	300	300	600	57	220	500
- 75th percentile	500	415	500	780	89	450	1100
- 90th percentile	652	535	570	957	161	670	1500
Rent per month, as % of corresponding amount in private sector							
- 10th percentile	76%	60%	18%	76%	17%	33%	43%
- 25th percentile	84%	59%	29%	89%	25%	33%	63%
- 50th percentile (median)	82%	60%	43%	85%	32%	37%	63%
- 75th percentile	85%	67%	63%	95%	42%	60%	100%
- 90th percentile	86%	67%	57%	87%	60%	80%	101%

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

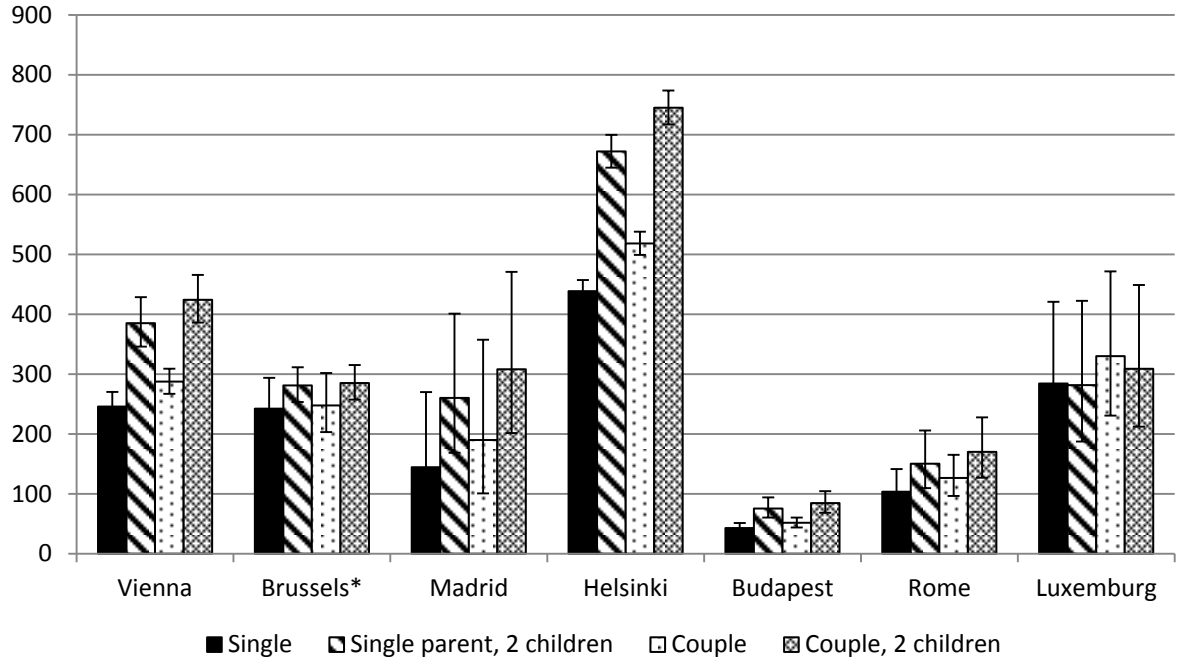
Table 18: Estimated coefficients with quantile regression at the 30th percentile of rent for tenants with reduced rents, log-linear specification.

	Vienna		Brussels		Madrid		Helsinki		Budapest		Rome		Luxembourg	
	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se	coef	se
Size in m² (ln)	0.734***	(0.083)	0.105	(0.087)	1.286***	(0.301)	0.803***	(0.053)	0.867***	(0.160)	0.940***	(0.214)	0.702***	(0.219)
# rooms (ln)	0.095	(0.078)	0.136	(0.153)	-0.118	(0.403)	0.009	(0.044)	0.162	(0.147)	-0.168	(0.191)	-0.541*	(0.285)
Central heating	0.123**	(0.051)	-0.017	(0.078)	0.333*	(0.173)	-0.018	(0.115)	-0.154*	(0.092)	0.300*	(0.156)		
Dwelling type (ref = apartment in block with 10+ apartments)														
free-standing	-0.256***	(0.078)	0.192	(0.128)	0.075	(0.293)	-0.851***	(0.068)	-0.446***	(0.147)	0.376	(0.246)	-0.066	(0.245)
semi-detached	-0.363***	(0.083)	-0.284***	(0.079)	-0.335	(0.272)	-0.036	(0.025)	-0.008	(0.187)	0.286*	(0.165)	0.477*	(0.282)
apartment in building with < 10 dwellings	-0.052	(0.041)	-0.131	(0.082)	0.212	(0.184)	-0.050	(0.072)	-0.224	(0.144)	0.256**	(0.113)	-0.118	(0.174)
Years of current contract (ln)	-0.142***	(0.019)	0.007	(0.030)	-0.374***	(0.081)			-0.068	(0.042)	-0.204***	(0.048)	-0.235***	(0.076)
Region of reference city (other region = ref)	-0.088**	(0.040)			0.226	(0.217)	0.156***	(0.030)	0.314***	(0.094)	-0.139	(0.117)		
Area densely populated (not densely populated = ref)	0.214***	(0.044)	0.095	(0.069)	0.984***	(0.190)	0.107***	(0.029)	-0.153*	(0.089)	0.342***	(0.106)	-0.039	(0.135)
Constant	2.774***	(0.295)	4.924***	(0.327)	-0.498	(1.019)	2.897***	(0.209)	0.607	(0.589)	1.197	(0.831)	3.933***	(0.837)
Observations	610		256		177		898		146		438		126	

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. *Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Source: EU-SILC 2012 UDB, version 1; own calculations.

Figure 40: Reference rents in reduced rent sector for dwellings satisfying the needs of four family types.



Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval.

Source: Regression results reported above.

8.5.4 Calculation of reference housing costs other than rent

Other housing costs refer to monthly costs connected with the household's right to live in the accommodation, other than the rent itself. This includes mortgage interest, taxes on housing, insurance, maintenance and repairs and also the costs of utilities (e.g. water, electricity, gas and heating) resulting from the actual use of the accommodation[77]. Since the mortgage interest depends on factors on which we have no information (the term of the mortgage, the original size of the loan, the type of mortgage, the interest rate), we limit the analysis to tenants (including those on reduced rents) and outright (mortgage-free) owners. We perform the analysis separately for tenants and outright owners, since the latter often bear costs, such as taxes, maintenance, and repairs, that for tenants are included in the rent.

Figure 41 shows that in most countries, median costs other than rent for tenants are around €150 (€120 – €180) per month. In Sofia, Budapest and, remarkably, in Helsinki, these costs are clearly lower. In Helsinki costs of heating are often included in the rent. It is striking that these other costs vary much less across cities and countries than the rent itself. This implies that in lower-income countries, these costs comprise a larger proportion of total income than in countries where incomes are higher. Whereas in most countries the median proportion for tenants is below 10%, it is 17% in Sofia, 16% in Athens and 19% in Budapest. Of course, in all countries there is considerable variation around the median.

[77] See annex for a detailed description.

Figure 41: Distribution of costs other than rent, for tenants (private sector and reduced rent).

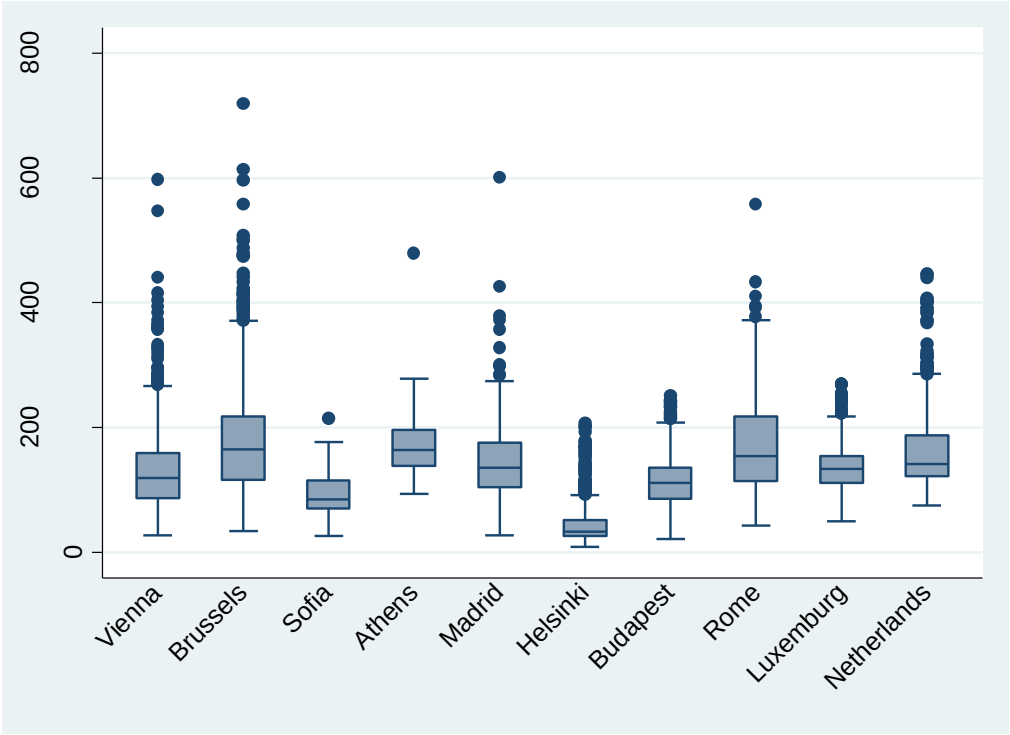
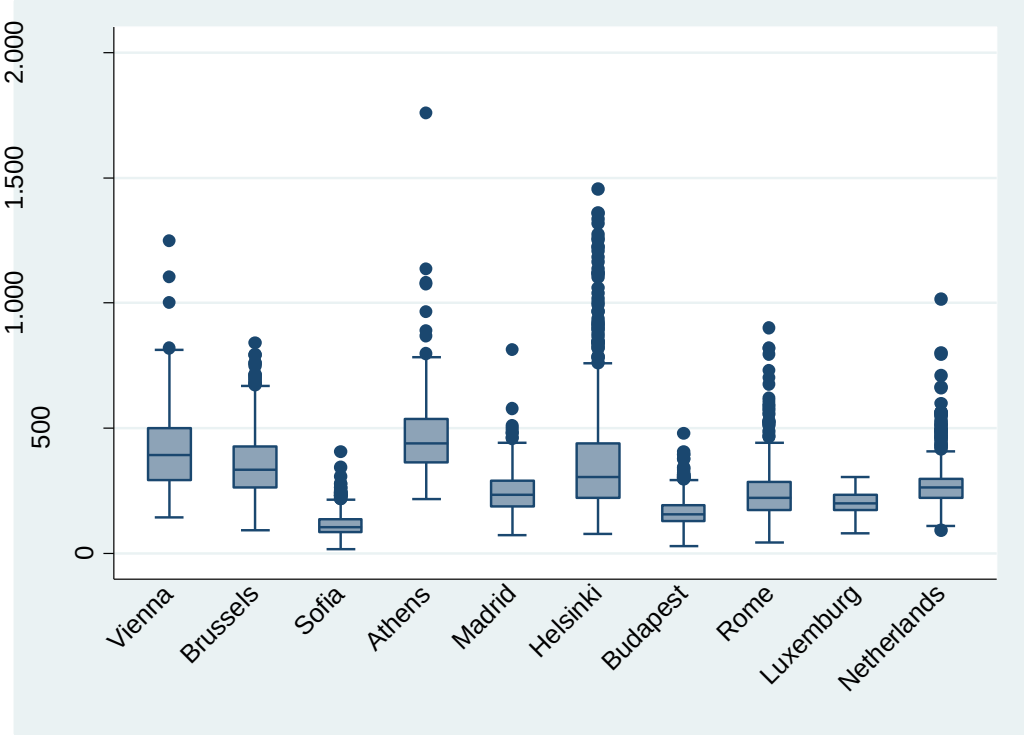


Figure 42: Distribution of housing costs for outright owners.



Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Figure 42 shows that for outright owners, costs are highest in Athens, followed by Vienna, Brussels, and Helsinki. In Sofia these costs are considerably lower than in the other cities. In all capitals, outright owners are faced with much higher costs than tenants have. The difference is especially striking in Helsinki, where costs for tenants are remarkably low, but also large in Vienna, Brussels and Athens. In Budapest, the contrast is fairly limited.

For the calculation of reference costs, we followed the same method as for rents. Quantile log-linear regressions were conducted, from which the reference costs were estimated. The same independent variables were used, with the addition of variables indicating the family composition (couple vs. single and the number of children; both as indicator variables), as the size and the composition of the family may have an influence on the need for (and costs of) utilities (electricity, water), independently of the characteristics of the dwelling. For a similar reason the age category of the oldest household member was included as an indicator variable. Furthermore, for tenants a variable indicating whether the household paid the full rent or a reduced rent was added to the model. By doing so, we assume that the structure of housing costs other than rent is the same for the private sector and the reduced rent sector, but that its absolute level may differ. The quality criteria used in the selection of cases for the analysis were also the same as for the rent model, with the addition of a variable indicating whether the household was able to keep warm in winter. The latter variable is included as a selection criterion to avoid that the cost of keeping the home adequately warm is underestimated due to a lack of resources of the households in the survey.

The results of the quantile regression of housing costs other than rent among tenants are reported in Table 19. The size of the dwelling in square meters has an important impact in most countries, except in Greece where it is absent, and in Luxembourg and the Netherlands, where it is weak. In those countries, and also in Belgium and Italy, the number of rooms is positively related to these costs. Central heating has a positive and strong effect in Austria, Italy and Luxembourg, no or a small impact in Belgium, Greece, Spain, Hungary and The Netherlands, and, surprisingly, a strong negative effect in Finland. These differences may be related to whether heating in a block of apartments is provided centrally from a common boiler, and whether tenants pay for the costs of such common heating as part of the rent, or as separate costs. Also, the alternative types of heating may not be the same in each country.

One would expect that a free-standing home and a semi-detached one are more expensive in energy and maintenance costs than an apartment, but the results confirm this only for some countries: Austria (semi-detached only, Belgium, Finland and The Netherlands (free-standing only). In the other countries, those types of housing seem to involve similar or even lower costs (Greece) than apartments, other characteristics in the model being the same. The number of years the current contract is running has a significant though limited effect only in Luxembourg. Being a tenant in the reduced rent sector is associated with lower housing costs other than rent in Austria, Belgium, Finland and Luxembourg.

Obviously, the family type has an important effect on housing costs other than rent. Couples have significantly higher costs than single persons, except in Spain, although the size of the effect varies substantially across countries. The presence of children has the same effect, although a clear increase in costs with the number of children is observed only in Greece, Spain, Hungary, Italy and Luxembourg. While costs decrease very strongly with rising age of the oldest family member in Greece, in other countries age has no effect, or there is no clear pattern across age categories.

In Finland and Italy, costs are lower, other things equal, in the region of the reference city than in other parts of the same country, while in Hungary it is the other way around. Whether the area is urbanised has a (positive) effect in Greece only.

The results for outright owners (Table 20) are quite similar to those for tenants. Several of the intriguing differences between countries also appear here, confirming that these

reflect real aspects of the housing situations in those countries. The size of the dwelling in square meters is an important factor in many countries, but has a limited effect in Greece, Luxembourg and The Netherlands. Central heating is associated with higher costs, except in Finland and The Netherlands. As was the case for tenants, somewhat surprisingly, in many countries owners of free-standing and semi-detached houses have lower costs, other things being the same, than people living in apartments. A larger number of family members lead to higher costs, although the effect of the family type variables tends to be smaller for outright owners than for tenants. As was observed for tenants, among outright owners in Greece costs decline very strongly with the age of the oldest family member.

Table 19: Estimated coefficients with quantile regression at the 30th percentile of costs other than rent for tenants, log-linear specification.

	Vienna		Brussels		Athens		Madrid		Helsinki	
	coef	se	coef	se	coef	se	coef	se	coef	se
Size in m² (ln)	0.487***	(0.064)	0.180***	(0.057)	-0.002	(0.026)	0.196**	(0.081)	0.381***	(0.076)
# rooms (ln)	0.084	(0.058)	0.338***	(0.094)	0.285***	(0.023)	0.081	(0.090)	-0.026	(0.059)
Heating system (ref = no fixed heating or no heating at all)										
central heating	0.462**	(0.224)	0.160	(0.154)	0.022	(0.027)	0.048	(0.054)	-0.340***	(0.054)
other fixed heating	0.400*	(0.226)	0.119	(0.161)	-0.018	(0.028)	0.030	(0.061)	0.004	(0.197)
Dwelling type (ref = apartment in block with 10+ apartments)										
free-standing	0.069	(0.067)	0.506***	(0.090)	-0.156***	(0.021)	0.104	(0.081)	0.530***	(0.090)
semi-detached	0.193***	(0.067)	0.367***	(0.060)	-0.142***	(0.024)	0.075	(0.083)	0.179***	(0.040)
apartment in building with < 10 dwellings	0.005	(0.033)	0.092*	(0.049)	-0.016	(0.010)	-0.003	(0.047)	-0.049	(0.089)
Years of current contract (ln)	0.027	(0.017)	0.033	(0.023)	-0.003	(0.007)	0.011	(0.027)		
Reduced rent sector	-0.052*	(0.030)	-0.135***	(0.044)	-0.012	(0.021)	0.034	(0.057)	-0.169***	(0.032)
Family type (ref = single w/h children										
couple	0.122***	(0.030)	0.118***	(0.041)	0.058***	(0.012)	0.066	(0.045)	0.308***	(0.035)
1 child	0.110***	(0.042)	0.053	(0.052)	0.100***	(0.013)	0.095*	(0.051)	0.258***	(0.051)
2 children	0.150***	(0.052)	0.176**	(0.072)	0.149***	(0.015)	0.210***	(0.063)	0.207***	(0.061)
3+ children	0.170**	(0.073)	0.056	(0.079)	0.291***	(0.033)	0.307***	(0.092)	0.316***	(0.080)
Age category oldest person (ref = < 35										
35-44	-0.011	(0.043)	0.022	(0.056)	-0.073***	(0.014)	0.055	(0.060)	0.115**	(0.049)
45-54	0.034	(0.043)	0.055	(0.055)	-0.179***	(0.018)	0.046	(0.066)	0.174***	(0.046)
55-64	0.023	(0.050)	-0.017	(0.062)	-0.226***	(0.019)	0.130*	(0.074)	0.122***	(0.046)
65-74	0.058	(0.055)	0.078	(0.072)	-0.298***	(0.020)	-0.001	(0.094)	-0.022	(0.063)
75+	-0.005	(0.066)	-0.068	(0.073)	-0.438***	(0.027)	-0.046	(0.090)	0.052	(0.065)
Region of reference city (other region = ref)	0.041	(0.031)			0.015	(0.012)	0.062	(0.058)	-0.206***	(0.043)
Area densely populated (not densely populated = ref)	-0.009	(0.033)	0.018	(0.042)	0.072***	(0.011)	0.039	(0.044)	-0.061	(0.043)
Constant	1.854***	(0.309)	3.270***	(0.267)	4.789***	(0.096)	3.445***	(0.306)	2.274***	(0.269)
Observations	1,815		777		407		713		1,521	

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 19: continued.

	Budapest		Rome		Luxembourg		Netherlands	
	coef	se	coef	se	coef	se	coef	se
Size in m² (ln)	0.303***	(0.096)	0.327***	(0.069)	0.069***	(0.021)	0.079***	(0.011)
# rooms (ln)	-0.011	(0.075)	0.150**	(0.062)	0.389***	(0.020)	0.187***	(0.012)
Heating system (ref = no fixed heating or no heating at all)								
central heating	0.045	(0.045)	0.307***	(0.109)	0.461***	(0.057)	-0.082*	(0.049)
other fixed heating			0.168	(0.125)	0.461***	(0.082)	-0.124**	(0.061)
Dwelling type (ref = apartment in block with 10+ apartments)								
free-standing	-0.038	(0.093)	0.023	(0.078)	0.018	(0.024)	0.122***	(0.028)
semi-detached	-0.104	(0.095)	-0.147***	(0.052)	0.005	(0.023)	-0.011	(0.008)
apartment in building with < 10 dwellings	-0.263***	(0.065)	-0.123***	(0.036)	-0.021	(0.013)	-0.016	(0.013)
Years of current contract (ln)	-0.006	(0.033)	0.024	(0.020)	0.021***	(0.008)		
Reduced rent sector	-0.062	(0.047)	0.016	(0.038)	-0.046***	(0.016)		
Family type (ref = single w/h children								
couple	0.203***	(0.044)	0.156***	(0.034)	0.068***	(0.012)	0.318***	(0.007)
1 child	0.106*	(0.055)	0.140***	(0.038)	0.100***	(0.014)	0.221***	(0.013)
2 children	0.157**	(0.073)	0.159***	(0.052)	0.181***	(0.016)	0.221***	(0.014)
3+ children	0.252***	(0.095)	0.245***	(0.089)	0.284***	(0.022)	0.184***	(0.025)
Age category oldest person (ref = < 35								
35-44	0.058	(0.060)	0.060	(0.049)	-0.031**	(0.015)	-0.025*	(0.014)
45-54	0.104	(0.067)	0.122**	(0.053)	-0.007	(0.015)	-0.010	(0.012)
55-64	0.085	(0.076)	0.151**	(0.061)	0.014	(0.019)	-0.006	(0.011)
65-74	-0.071	(0.101)	0.129**	(0.064)	-0.018	(0.026)	0.001	(0.012)
75+	-0.209*	(0.117)	0.142**	(0.069)	-0.005	(0.034)	-0.020*	(0.012)
Region of reference city (other region = ref)	0.173***	(0.046)	-0.243***	(0.038)				
Area densely populated (not densely populated = ref)	-0.074	(0.052)	0.041	(0.034)	0.019	(0.012)		
Constant	3.213***	(0.348)	2.931***	(0.286)	3.602***	(0.091)	4.326***	(0.063)
Observations	337		1,420		915		2,015	

Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 20: Estimated coefficients with quantile regression at the 30th percentile of costs other than rent for outright owners, log-linear specification.

	Vienna		Brussels		Sofia		Athens		Madrid	
	coef	se	coef	se	coef	se	coef	se	coef	se
Size in m² (ln)	0.540***	(0.036)	0.134***	(0.032)	0.118**	(0.056)	0.020**	(0.009)	0.355***	(0.020)
# rooms (ln)	0.030	(0.037)	0.070	(0.061)	0.008	(0.057)	0.390***	(0.010)	0.093***	(0.030)
Heating system (ref = no fixed heating or no heating at all)										
central heating	0.181	(0.136)	0.272***	(0.087)	0.153***	(0.049)	0.009	(0.010)	0.255***	(0.016)
other fixed heating	0.056	(0.138)	0.100	(0.091)	-0.017	(0.045)	0.006	(0.010)	0.129***	(0.017)
Dwelling type (ref = apartment in block with 10+ apartments)										
free-standing	-0.293***	(0.032)	0.055	(0.043)	0.043	(0.038)	-0.149***	(0.006)	-0.242***	(0.017)
semi-detached	-0.321***	(0.042)	-0.085**	(0.042)	0.021	(0.047)	-0.128***	(0.008)	-0.260***	(0.016)
apartment in building with < 10 dwellings	-0.061	(0.038)	-0.143***	(0.049)	0.035	(0.051)	-0.008	(0.005)	-0.090***	(0.015)
Years of current contract (ln)	0.005	(0.015)	-0.018	(0.018)	0.013	(0.025)	-0.015***	(0.003)	-0.052***	(0.010)
Family type (ref = single w/h children										
couple	0.081***	(0.020)	0.070***	(0.020)	0.217***	(0.030)	0.067***	(0.004)	0.099***	(0.011)
1 child	0.046*	(0.025)	0.124***	(0.029)	0.147***	(0.032)	0.145***	(0.005)	0.092***	(0.012)
2 children	0.031	(0.033)	0.184***	(0.046)	0.192***	(0.042)	0.213***	(0.006)	0.151***	(0.017)
3+ children	-0.021	(0.054)	0.061	(0.067)	0.281**	(0.125)	0.254***	(0.010)	0.174***	(0.033)
Age category oldest person (ref = < 35										
35-44	0.051	(0.054)	-0.092	(0.126)	0.023	(0.076)	-0.051***	(0.010)	0.014	(0.043)
45-54	0.110**	(0.051)	-0.056	(0.116)	0.037	(0.073)	-0.096***	(0.010)	0.075*	(0.042)
55-64	0.158***	(0.052)	0.030	(0.116)	-0.056	(0.074)	-0.181***	(0.010)	0.079*	(0.042)
65-74	0.144***	(0.053)	0.014	(0.117)	-0.110	(0.077)	-0.249***	(0.010)	0.033	(0.042)
75+	0.067	(0.056)	0.003	(0.118)	-0.130	(0.080)	-0.326***	(0.010)	-0.003	(0.042)
Region of reference city (other region = ref)	0.048***	(0.018)			0.077***	(0.027)	0.046***	(0.005)	0.117***	(0.017)
Area densely populated (not densely populated = ref)	0.090***	(0.026)	0.012	(0.020)	0.159***	(0.032)	0.069***	(0.004)	0.120***	(0.012)
Constant	3.002***	(0.194)	4.651***	(0.200)	3.419***	(0.224)	5.517***	(0.036)	3.216***	(0.088)
Observations	1,584		1,372		1,549		2,412		5,224	

Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. *Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 20: continued.

	Helsinki		Budapest		Rome		Luxembourg		Netherlands	
	coef	se	coef	se	coef	se	coef	se	coef	se
Size in m² (ln)	0.433***	(0.046)	0.248***	(0.023)	0.435***	(0.025)	0.033***	(0.011)	0.065***	(0.013)
# rooms (ln)	0.183***	(0.050)	0.127***	(0.020)	-0.008	(0.026)	0.485***	(0.014)	0.169***	(0.021)
Heating system (ref = no fixed heating or no heating at all)										
central heating	-0.114***	(0.036)			0.401***	(0.052)	0.034	(0.032)	-0.122***	(0.012)
other fixed heating	-0.524***	(0.075)	-0.128***	(0.011)	0.253***	(0.055)	0.028	(0.039)	-0.158***	(0.041)
Dwelling type (ref = apartment in block with 10+ apartments)										
free-standing	-0.295***	(0.032)	-0.103***	(0.015)	-0.124***	(0.019)	-0.018	(0.012)	0.033**	(0.015)
semi-detached	-0.059*	(0.033)	-0.123***	(0.025)	-0.155***	(0.017)	-0.002	(0.012)	-0.035**	(0.015)
apartment in building with < 10 dwellings	0.105	(0.110)	-0.074***	(0.025)	-0.178***	(0.017)	-0.005	(0.013)	-0.157***	(0.031)
Years of current contract (ln)			0.002	(0.009)	0.014	(0.009)	-0.001	(0.005)		
Family type (ref = single w/h children										
couple	0.093***	(0.025)	0.146***	(0.011)	0.189***	(0.013)	0.059***	(0.006)	0.243***	(0.009)
1 child	-0.055*	(0.031)	0.100***	(0.013)	0.117***	(0.015)	0.071***	(0.007)	0.116***	(0.018)
2 children	0.082**	(0.041)	0.170***	(0.017)	0.146***	(0.019)	0.132***	(0.009)	0.138***	(0.020)
3+ children	-0.017	(0.054)	0.207***	(0.025)	0.135***	(0.035)	0.195***	(0.016)	0.144***	(0.028)
Age category oldest person (ref = < 35										
35-44	0.016	(0.083)	-0.000	(0.024)	0.121***	(0.034)	0.048*	(0.027)	0.027	(0.036)
45-54	0.067	(0.076)	0.060**	(0.024)	0.215***	(0.033)	0.038	(0.024)	0.064**	(0.031)
55-64	0.019	(0.075)	0.046*	(0.024)	0.256***	(0.033)	0.045*	(0.024)	0.083***	(0.030)
65-74	0.018	(0.076)	-0.010	(0.026)	0.232***	(0.034)	0.046*	(0.024)	0.051*	(0.030)
75+	-0.007	(0.077)	-0.047*	(0.027)	0.224***	(0.035)	0.047*	(0.025)	0.044	(0.030)
Region of reference city (other region = ref)	0.151***	(0.031)	0.133***	(0.012)	-0.061***	(0.013)				
Area densely populated (not densely populated = ref)	0.043	(0.034)	0.041***	(0.012)	0.144***	(0.013)	0.007	(0.008)		
Constant	3.359***	(0.168)	3.547***	(0.087)	2.479***	(0.112)	4.235***	(0.056)	4.826***	(0.059)
Observations	3,181		4,959		7,072		1,509		782	

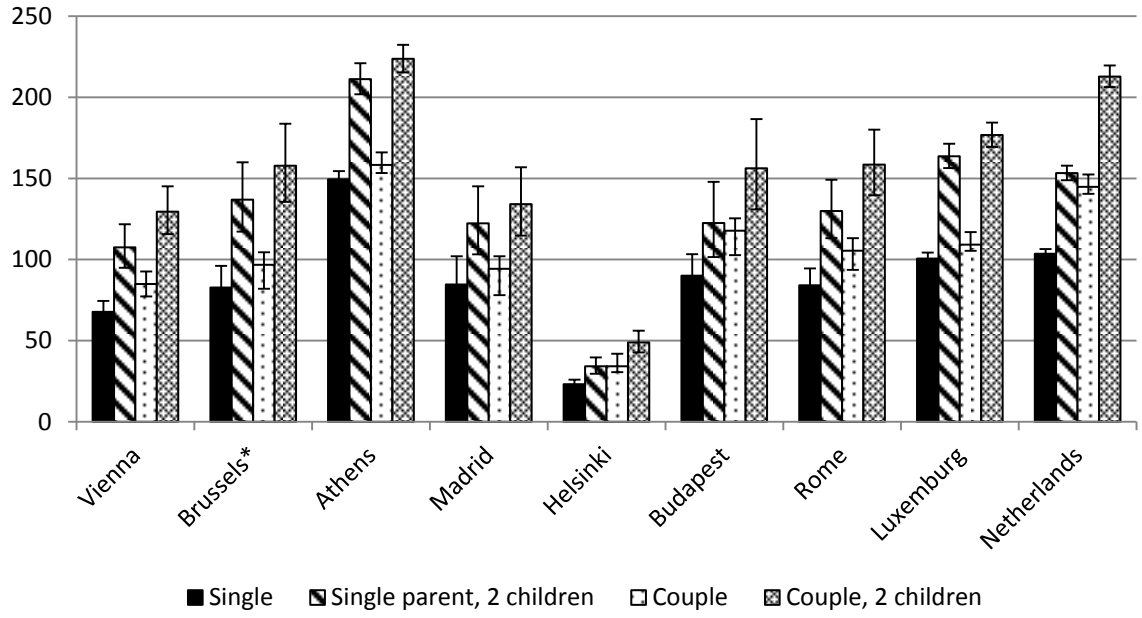
Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. *Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.*

Source: EU-SILC 2012 UDB, version 1; own calculations.

The reference amounts of housing costs other than rent have been calculated in the same way as the reference rents. Again, estimates of costs for reference dwellings at the 30th percentile are perhaps most appropriate for reference budget aiming to indicate a minimum for adequate social participation. In all countries, reference amounts for housing costs other than rent are well within the actual distribution of these costs. Perhaps surprisingly, reference amounts (at the 30th percentile) for tenants are highest in Athens, which reflects actual costs in Greece. Reference amounts in Budapest are not much lower than in other cities, which is in contrast to actual costs, and also to reference rents. Presumably, the low actual costs of tenants in Budapest are due to the small size of the apartments in that city, rather than lower prices. Reference costs other than rent for tenants are quite low in Helsinki, as are actual costs. This is due to the fact that heating costs are often included in the rent, which is relatively high in that capital.

Figure 43 shows that housing costs apart from rent for outright owners are much higher than for tenants. For outright owners, maintenance and taxes are included in these costs, while for tenants these costs may be part of the rent. As was the case for tenants, they seem very high in Athens. While these costs are lower in Sofia than in the other capitals, it is striking that they are at about the same level in Budapest and Luxembourg, despite the enormous difference in the level of income between those cities.

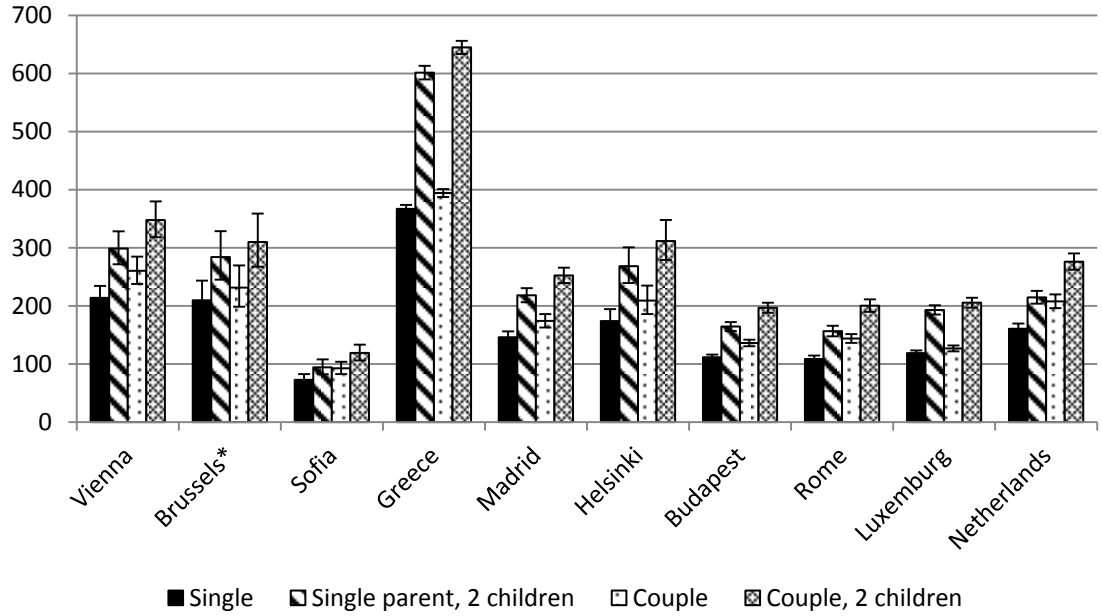
Figure 43: Reference housing costs other than rent for tenants in dwellings satisfying the needs of four family types.



Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval.

Source: Regression results reported above.

Figure 44: Reference housing costs for outright owners in dwellings satisfying the needs of four family types.



Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval.

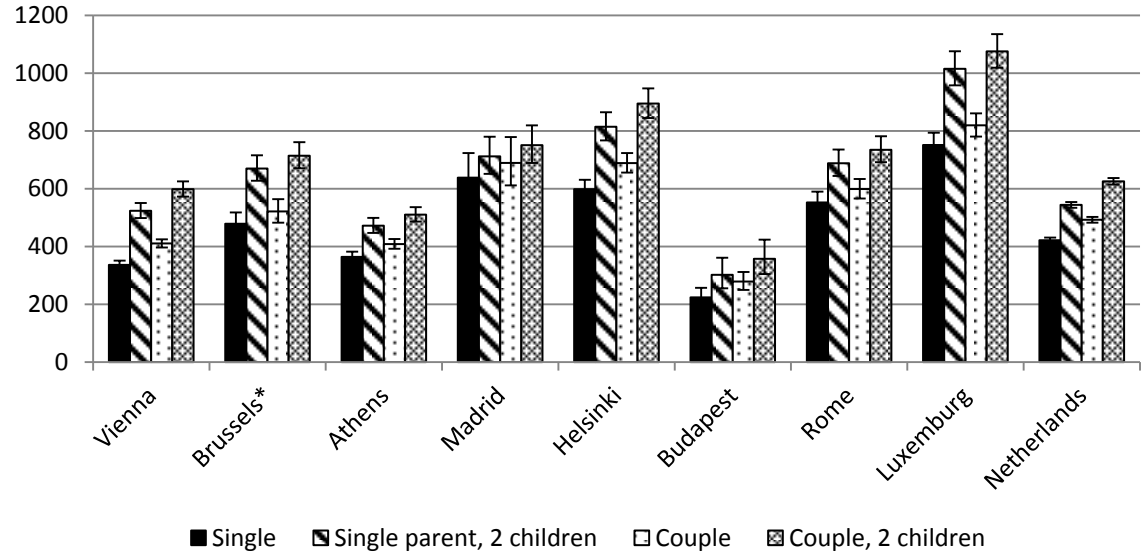
Source: Regression results reported above.

8.5.5 Total reference housing costs for tenants

Total reference housing costs for tenants are calculated as the sum of the reference rent and the reference housing costs other than rent.

Given the earlier results, Figures 45 and 46 contain no surprises. For private tenants, total housing costs are dominated by the rent. Total reference housing costs are highest in Luxembourg, followed by Helsinki and Madrid. Among the capitals in this study, the lowest total reference housing costs are found in Budapest. Given the high level of income, total reference housing costs seem relatively low in Vienna and The Netherlands. Total reference housing costs are of course lower for tenants with reduced-rents than in the private sector, most so in Rome, Luxembourg and Madrid, while the difference is quite small in Vienna.

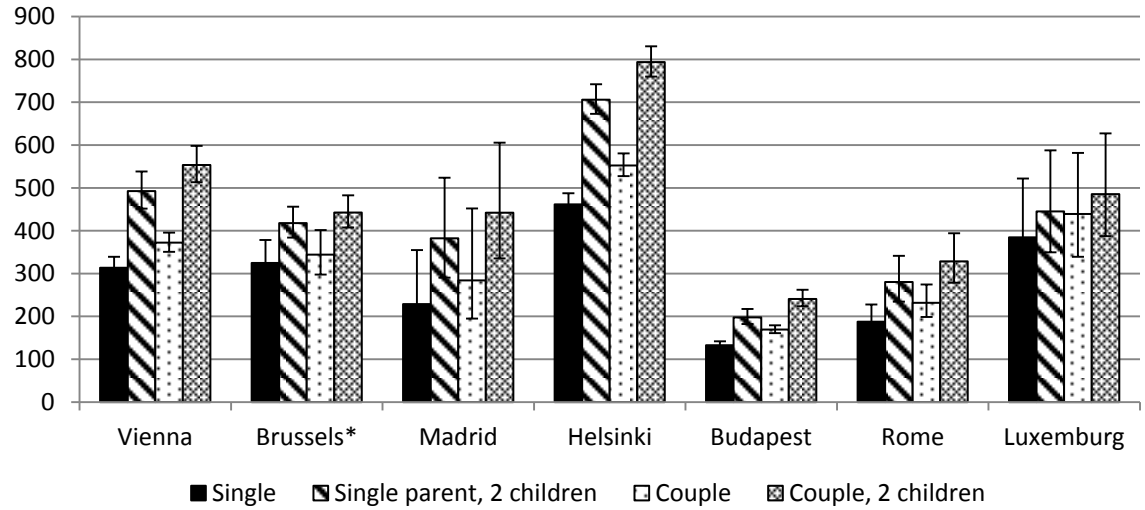
Figure 45: Total reference housing costs for tenants in the private sector in dwellings satisfying the needs of four family types, EUR, 2012.



Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval[78].

Source: Regression results reported above.

Figure 46: Total reference housing costs for tenants with reduced rents in dwellings satisfying the needs of four family types, EUR, 2012.



Note: *Note:*Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing. Error bars indicate 95% confidence interval.

Source: Regression results reported above.

[78] Confidence intervals in this and the following figure are based on standard errors that are calculated as the square root of the sum of the squared standard errors of reference rent and reference other housing costs. This implies that the covariance between those standard errors was not taken into account. However, a re-sampling exercise showed that the correlation between those standard errors was quite small (0.11 at most), in several countries even negative.

The above estimation of housing costs does not cover all costs. For instance, it does not cover the cost of renovating the dwelling once in a while. Also, and more relevant for our purposes, it does not cover costs such as decoration, cleaning and some maintenance that are not included in the rent and the other housing costs. In the Improve project a budget was calculated for curtains, painting and floor coverings, cleaning material, replacing a broken window, replacing light bulbs and a yearly check-up of the boiler and the central heating. Prices were determined for Belgium, and translated to other countries using goods-specific purchasing power parities. The total amount of these items varies between 11 Euros per month for a single person in Sofia to 34 Euros for a couple with two children in Helsinki or Luxembourg.[79]

8.5.6 Updating reference housing costs over time

As the reference housing costs were determined using EU-SILC data collected in and referring to the year 2012, these were updated to the year 2015 using specific price indices. For rent, the index for actual rents for housing is used, while the index for "electricity, gas and other fuels" seems the most appropriate one for housing costs other than rent, as energy presumably makes up most of those costs. Table 21 in Annex 2 gives the values of the index. Note that the price of electricity and fuels has fallen between 2012 and 2015 in most countries; the same is true for rent in Athens and Madrid. (Of course, these indices in fact refer to the whole country of the capital.) Other tables in Annex 2 show the reference housing costs updated to April 2015 (Tables 22 – 27).

For the future, we need to distinguish three kinds of updating procedure. For the short term, updates using the specific price indices mentioned above seem most suitable. In the medium term, the procedure followed in this chapter should be replicated. This is only possible, of course, if all variables used in the regression or as selection criteria would be collected in exactly the same way in a future wave of EU-SILC. It is worth mentioning in this context that the special module on housing conditions of 2007 contained quite different variables from the 2012 variables used in this chapter. In the long-term, the quality criteria and other variables used in the procedure, as well as the procedure itself, should be reviewed. In any case, breaks or jumps in the series are inevitable.

8.5.7 Sensitivity analyses

Clearly, different specifications of the regression equations could have been used, and these would have produced different reference amounts. Ideally, the differences should be limited, especially when there are no compelling reasons to choose between one or the other specification. In this section, we report the results of two sensitivity analyses for the reference rent in the private sector. In the first one, we apply a linear specification, instead of a log-linear one. Second, the quality criteria used as selection criteria are included in the regression as indicator variables (log-linear specification).

Whether a linear or a log-linear specification fits the data better cannot be determined by looking at the proportion of the variance that is explained by the regression (R^2), as the dependent variable is not the same. A more relevant criterion is the distribution of the residuals, which should be approximately normal and also homoscedastic (same variance for all levels of the independent variables). In this respect the log-linear specification is not clearly superior to the linear one. Application of a linear specification, and calculating reference rents using those results, produces the amounts shown in Table 28 in Annex 2. The differences with the results of the log-linear specification are limited. In general, reference rents for single persons are somewhat higher using a linear regression equation, while for couples with two children the reverse is true. Differences are largest for Helsinki. Interestingly, the

[79] An excel sheet with the detailed calculations is available on request.

reliability interval is considerably lower using the linear specification than on the basis of the log-linear one, in particular for Madrid, Helsinki and Rome. From a statistical point of view, the linear specification seems therefore superior to the log-linear one. We have retained the log-linear specification, as the assumption that the characteristics of dwellings and households have proportional effects on housing costs seemed more plausible to us than an assumption that these effects were linear, i.e. the same absolute amount irrespective of the level of the housing costs. Further research should clarify further which approach is the most appropriate to follow.

Including the quality criteria as independent variables in the regression leads to reference rents that are generally lower than those based on the original specification, in particular for the single parent, and to a lesser extent for couples with children (Table 29 in Annex 2). This is most strongly the case in Helsinki and Luxembourg. Reliability intervals are about the same, or larger, most so in Helsinki and Madrid.

8.6 Conclusion

In this chapter we illustrated how the common methodology can be applied for constructing reference budgets in the case that large comparative datasets are available. In our view such a situation is preferable, and can lead to more robust, valid and representative estimations. In addition, working with large empirical datasets allow more easily to assess robustness and representativeness by estimating the statistical reliability of the results and carrying out sensitivity tests. As we have argued in the case of the food basket, for these reasons it would be useful to have more comparable data at the EU level such that a similar approach could be applied to the construction of other baskets.

Reference housing costs corresponding to adequate dwellings for four model households were determined in order to illustrate the importance of housing costs, and the substantial impact that social housing can have on the minimum resources required for adequate social participation. In other words, the reference rents should not be used for evaluating the essential expenses of particular households, in which case real housing costs should be used. The hypothetical households are assumed to live in densely populated areas in the following capital regions: Athens, Budapest, Helsinki, Luxembourg, Madrid, Rome or Vienna. We also estimated reference rents for the Netherlands and densely populated areas in Belgium. Quality criteria for adequate housing were derived international and European guidelines, from the EU indicators of housing deprivation, the recent UK Housing Standards Review, as well as common sense. Using data from the Study of Income and Living Conditions (EU-SILC) of 2012, which included a special module on housing, and hedonic regressions, we estimate the rents as well as the other housing-related costs (energy, taxes, maintenance) of apartments meeting those quality criteria, both for the private sector and the reduced-rent sector. Reference housing costs were also calculated for outright owners. Apartments were chosen as the reference kind of dwelling, as this is the most common housing type in the capital regions mentioned.

Unsurprisingly, the estimates of reference rents for adequate dwellings vary strongly across capitals, reflecting cross-national differences in the level of the average rent. In most cities, average reference amounts are some way below the median rent, though the gap is relatively small in Brussels, Budapest and Helsinki. In Budapest and Helsinki many rented apartments are smaller than is required for adequate housing. By contrast, other housing costs, which mainly reflect energy costs, vary much less across the capitals studied. As expected, reference rents are always lower in the reduced rent sector than in the private sector. The difference is large in Budapest, Luxembourg, Madrid and Rome, and rather small in Helsinki and Vienna.

References

Atkinson, A. B., Cantillon, B., Marlier, E., and Nolan, B. (2002), *Social Indicators: the EU and Social Inclusion*, Oxford: Oxford University Press, 240p.

Bradshaw, J. (1993), *Budget Standards for the United Kingdom*, Aldershot: Avebury, 249p.

Bradshaw, J., Middleton, S., Davis, A., Oldfield, N., Smith, N., Cusworth, L., and Williams, J. (2008), *A minimum income standard for Britain; What people think*, York: Joseph Rowntree Foundation - Loughborouh University, 57p.

Collins, M. L., Mac Mahon, B., Weld, G., and Thornton, R. (2012), *A minimum income standard for Ireland. A consensual budget standards study examining household types across the lifecycle*, Dublin: Policy Institute.

Costa Branco De Oliveira Pedro, J. B., Meijer, F., and Visscher, H. (2010), 'Technical Building Regulations in EU Countries: A Comparison of their Organization and Formulation', in Barrett, P., Amaratunga, D., Haigh, R., Keraminiyage, K. and Pathirage, C. (eds.), *CIB World Congress 2010, Building a Better World*, Salford: University of Salford, pp. 1-13.

de Boer, R., and Bitetti, R. (2014), *A Revival of the Private Rental Sector of the Housing Market? Lessons from Germany, Finland, the Czech Republic and the Netherlands*, OECD Economics Department Working Papers, No. 1170, Paris: OECD, 61p.

Department for Communities and Local Government (2013), *Housing Standards Review. Illustrative Technical Standards Developed by the Working Groups*, London: Department for Communities and Local Government, 92p.

Department for Communities and Local Government (2015), *Technical housing standards – nationally described space standard*, London: Department for Communities and Local Government, 5p.

Doyal, L., and Gough, I. (1991), *A theory of human need*, Houndmills: Macmillan Education Ltd.

European Roma Rights Center (2005), *Collective Complaint No. 31/2005. European Roma Rights Center v. Bulgaria*, Case Document No. 1, Strasbourg: Committee of Social Rights.

Eurostat (2013), *Description of target variables: Cross-sectional and longitudinal. 2012 operation (Version May 2013)*, Luxembourg: European Commission, 390p.

Gailiūtė, D. (2012), 'Right to housing int he jurisprudence of the European Committee of Social Rights' in *Socialinių mokslų studijos - Societal Studies,* 4(4): 1605–1622.

Heylen, K., and Storms, B. (2009), 'Het budget huisvesting en veiligheid.', in Storms, B. and Van den Bosch, K. (eds.), *Wat heeft een gezin minimaal nodig? Een budgetstandaard voor Vlaanderen*, Leuven: Acco, pp. 217-238.

Kenna, P. (2005), *Housing rights and human rights*, Brussels: FEANTSA, 119p.

Kenna, P. (2012), 'Adequate housing in international and European human rights law: a panoramic view' in *International Journal of Land Law & Agricultural Science,* 7: 4-17.

Lelkes, O., and Zólyomi, E. (2010), *Housing quality deficiencies and the link to income in the EU*, European Centre Policy Brief, March 2010, Vienna: European Centre, 20p.

Marlier, E., Atkinson, A. B., Cantillon, B., and Nolan, B. (2007), *The EU and Social Inclusion. Facing the challenges*, Bristol: The Policy Press, 303p.

Murie, A. (1983), *Housing Inequality and deprivation*: Heinneman.

Office of the United Nations High Commissioner for Human Rights (2009), *The right to adequate housing. Fact sheet No. 21/Rev. 1*, Geneva: Office of the United Nations High Commissioner for Human Rights, 52p.

Parker, H. (1998), *Low Cost but Acceptable: A minimum income standard for the UK: Families with young children*, Bristol: The Policy Press.

Parker, H. (ed.) (2000), *Low Cost but Acceptable Incomes for Older People. A minimum income standard for households aged 65-74 years in the UK*, Bristol: The Policy Press.
Pedro, J. B., Meijer, F., and Visscher, H. (2010), 'Building control systems of European Union countries: A comparison of tasks and responsibilities' in *International Journal of Law in the Built Environment,* 2(1): 45-59. doi: 10.1108/17561451011036513.
Rybkowska, A., and Schneider, M. (2011), 'Housing conditions in Europe in 2009' in *Statistics in Focus,* 4/2011.
Smith, N., Hirsch, D., and Davis, A. (2010), *A minimum income standard for rural households.*, York: Joseph Rowntree Foundation.
Social Protection Committee - Indicators Sub-Group (2015), *Portfolio of EU Social Indicators for the monitoring of progress towards the EU objectives for social protection and social inclusion*, Brussels: European Commission, 59p.
Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014), *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.
U.S. Department of Housing & Urban Development (2007), *Fair Market Rents For The Section 8 Housing Assistance Payments Program*, http://www.huduser.org/portal/datasets/fmr.html (last accessed 11/09/2015), Washington, D.C.: U.S. Department of Housing & Urban Development, 11p.
UN Committee on Economic Social and Cultural Rights (1991), *CESCR General Comment No. 4: The Right to Adequate Housing (Art. 11 (1) of the Covenant), 13 December 1991,* , Doc E/1992/23, available at: http://www.refworld.org/docid/47a7079a1.html [accessed 14 August 2015], Geneva: UN Committee on Economic, Social and Cultural Rights (CESCR), 7p.
WHO (1989), *Health principles of housing*, Geneva: World Health Organization, 54p.
WHO (2010), *International Workshop on Housing, Health and Climate Change: Meeting report*, Geneva: World Health Organization, 28p.

Annex 1: Definition of rent and other housing costs in EU-SILC.

"The variable refers to the total monthly current rent paid on the main residence of the household. The rent refers to the monthly amount paid for the use of an unfurnished dwelling. Rentals also include payments for the use of a garage to provide parking in connection with the dwelling. Other payments which are made at the same time as the rent (such as for electricity, heating etc.), should be excluded. Also the regular repairs and maintenance and other services related to the dwelling should be excluded. Only rent related to the principal residence is taken into account In cases where part of the rent may be paid through a housing benefit (either paid to the tenant or paid directly to the landlord), the rent paid refers to the total rent payable: that is to the amount paid by the tenant from his or her own income plus the amount paid by housing benefit. For example, if the owner wants a rent for the dwelling: 700 €; the household pays to the owner (from their own resources): 500 €; the housing allowances (paid directly to the owner or through the household): 200 €; then: HH060 = 700 € (= 500 € + 200€)" (European Commission, Description of Target Variables. Cross-sectional and Longitudinal. 2012 operation (Version May 2013), p. 176).

Unfortunately, it is not very clear whether all responses comply with this definition, as in some countries renters may be required to pay a rent which includes some utility costs, without contractually distinguishing between the two. Also, the cost of an unfurnished dwelling is not always clear for respondents if they are renting a furnished dwelling.

"The term housing cost refers to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included. Only really paid housing costs have to be taken into account. Components that have to be included in housing costs:

OWNERS: Mortgage interest payments[80] (net of any tax relief), gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), regular maintenance and repairs, taxes, and the cost of utilities (water, electricity, gas and heating).

TENANTS (at market price): Rent payments, gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs[81] and the cost of utilities (water, electricity, gas and heating).

TENANTS (at reduced price): Rent payments, gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs1 and the cost of utilities (water, electricity, gas and heating).

RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable), regular maintenance and repairs and the cost of utilities (water, electricity, gas and heating.

[80] Included only in case of mortgage taken for the purpose of buying the main dwelling.

[81] Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

For example, in the case of tenants at reduced price, if: the household has to pay for the charges (electricity, water, etc): 300 €; the owner wants a rent for the dwelling: 700 €; the household pays to the owner (from their own resources): 500 €; the housing allowances (paid directly to the owner or through the household): 200 €; then: · HH060 = 700 € (= 500 € + 200€) · HH070 = 500 € + 200€ + 300€. The total housing cost (HH070) should be greater than the current rent related to occupied dwelling (HH060). It is necessary to impute a value of housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. This imputation may be possible using a cell average from an external source, such as HBS. It is necessary to spread over the 12 months of the year those expenses that are seasonal (for example 'heating') or those for which the payment is different for different months of the year." (European Commission, Description of Target Variables. Cross-sectional and Longitudinal. 2012 operation (Version May 2013), pp. 178-179)

Annex 2: Additional tables.

Table 21: Price indices for rent and energy costs, 2005 = 100.

	Actual rentals for housing		Electricity, gas and other fuels	
	June 2012	April 2015	June 2012	April 2015
Vienna	124,23	138,03	129,35	131,62
Brussels	111,98	116,37	157,10	131,02
Sofia	140,23	142,77	135,41	141,14
Athens	118,97	98,88	189,01	201,71
Madrid	121,60	119,82	162,16	160,14
Helsinki	124,44	134,76	164,12	164,14
Budapest	142,95	147,03	192,19	149,80
Rome	117,40	118,70	139,30	131,80
Luxembourg	115,70	119,91	143,90	126,46
Netherlands	114,02	128,02	121,85	122,64

Source: Eurostat.

Table 22: Reference rents in private sector, updated to April 2015.

Reference amounts	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	299	412	178	545	623	138	474	675	357
Single parent, 2 children	463	554	217	581	845	185	564	882	439
Couple	362	441	208	586	709	165	499	736	391
Couple, 2 children	521	578	238	608	916	207	583	931	464
Upper bound									
Single	313	450	193	628	658	169	510	718	367
Single parent, 2 children	488	595	238	644	899	240	608	945	449
Couple	375	482	222	672	746	195	532	779	401
Couple, 2 children	546	619	258	671	972	268	625	993	474
Lower bound									
Single	285	376	165	474	589	112	439	634	348
Single parent, 2 children	439	515	197	524	794	142	523	824	429
Couple	349	404	195	511	674	140	468	696	381
Couple, 2 children	497	540	220	550	862	160	544	873	453

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 23: Reference rents in reduced rent sector, updated to April 2015.

Reference amounts	Vienna	Brussels*	Madrid	Helsinki	Budapest	Rome	Luxembourg
Single	273	252	142	475	44	105	295
Single parent, 2 children	428	292	256	728	78	152	292
Couple	319	257	187	561	53	128	342
Couple, 2 children	471	296	304	807	87	172	320
Upper bound							
Single	301	305	266	495	53	143	436
Single parent, 2 children	476	324	395	758	97	208	438
Couple	343	314	352	583	62	167	489
Couple, 2 children	518	328	464	838	107	230	465
Lower bound							
Single	248	208	76	456	37	77	199
Single parent, 2 children	385	263	166	698	62	111	194
Couple	297	211	99	541	45	98	239
Couple, 2 children	429	268	199	777	70	128	220

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 24: Reference housing costs other than rent for tenants, updated to April 2015.

Reference amounts	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	69	69	160	84	23	70	80	88	104
Single parent, 2 children	109	114	225	121	34	96	123	144	154
Couple	86	81	169	93	34	92	100	96	146
Couple, 2 children	132	132	239	132	49	122	150	155	214
Upper bound									
Single	76	80	165	101	26	81	89	92	107
Single parent, 2 children	124	133	236	143	40	115	141	151	159
Couple	95	95	174	113	38	105	112	100	150
Couple, 2 children	148	153	248	155	56	145	170	162	221
Lower bound									
Single	63	59	154	69	21	61	71	85	102
Single parent, 2 children	97	98	215	102	30	79	107	137	150
Couple	79	68	164	77	31	80	89	93	141
Couple, 2 children	118	113	230	113	43	102	132	149	208

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 25: Reference housing costs for outright owners, updated to April 2015.

Reference amounts	Vienna	Brussels*	Sofia	Greece	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	218	175	76	392	144	174	87	103	104	162
Single parent, 2 children	304	237	98	642	215	268	128	148	170	216
Couple	265	193	97	421	172	209	106	136	112	209
Couple, 2 children	354	258	124	688	249	312	153	190	181	278
Upper bound										
Single	239	203	86	399	154	195	91	109	109	171
Single parent, 2 children	334	274	113	654	228	301	134	157	177	227
Couple	290	225	108	428	184	235	111	143	116	221
Couple, 2 children	387	299	139	700	263	348	160	200	188	292
Lower bound										
Single	199	151	67	385	135	155	83	97	100	153
Single parent, 2 children	276	205	86	629	204	239	122	140	163	205
Couple	242	166	86	413	161	186	102	129	107	198
Couple, 2 children	324	223	111	676	237	279	147	180	173	264

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 26: Total reference housing costs for tenants in the private sector, updated to April 2015.

TOTAL HOUSING COSTS	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	368	481	338	629	646	208	553	763	462
Single parent, 2 children	572	668	442	702	879	280	687	1026	593
Couple	448	522	377	680	743	257	599	832	536
Couple, 2 children	653	710	477	740	965	329	733	1086	678
Upper bound									
Single	389	530	358	729	684	249	600	810	475
Single parent, 2 children	612	729	474	787	939	355	750	1095	608
Couple	470	577	396	785	784	300	644	879	551
Couple, 2 children	693	773	506	826	1029	413	795	1155	695
Lower bound									
Single	348	436	319	543	610	174	510	719	449
Single parent, 2 children	535	613	413	626	824	221	630	961	579
Couple	428	472	359	589	704	220	557	789	522
Couple, 2 children	615	653	450	664	905	262	676	1022	661

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 27: Total reference housing costs for tenants with reduced rents, updated to April 2015.

TOTAL HOUSING COSTS	Vienna	Brussels*	Madrid	Helsinki	Budapest	Rome	Luxembourg
Single	342	321	302	559	67	175	374
Single parent, 2 children	537	406	482	848	112	248	415
Couple	406	338	356	654	87	220	442
Couple, 2 children	603	428	542	939	136	294	470
Upper bound							
Single	376	385	431	596	79	224	526
Single parent, 2 children	600	457	631	901	136	324	579
Couple	438	409	527	695	101	272	601
Couple, 2 children	665	481	712	993	164	376	636
Lower bound							
Single	311	267	230	525	58	138	270
Single parent, 2 children	481	361	382	800	92	190	301
Couple	375	279	263	618	76	178	328
Couple, 2 children	547	381	429	890	113	230	352

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 28: Sensitivity test 1: reference rents for tenants in the private sector using a linear specification.

Reference amounts	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	278	409	229	584	588	145	476	668	329
Single parent, 2 children	401	515	261	602	729	157	524	821	384
Couple	328	429	255	596	634	159	485	713	349
Couple, 2 children	451	535	287	614	775	171	533	866	403
Upper bound									
Single	293	456	249	621	611	167	504	723	342
Single parent, 2 children	423	555	290	632	758	195	558	884	394
Couple	341	476	273	633	655	178	512	765	361
Couple, 2 children	471	573	313	643	800	207	565	924	413
Lower bound									
Single	262	362	210	546	565	123	447	613	317
Single parent, 2 children	379	475	232	572	700	120	490	759	373
Couple	315	382	238	559	612	140	458	660	337
Couple, 2 children	432	497	261	585	749	136	502	807	393

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

Table 29: Sensitivity test 2: reference rents for tenants in the private sector when including quality criteria in the regression.

Reference amounts	Vienna	Brussels*	Athens	Madrid	Helsinki	Budapest	Rome	Luxembourg	Netherlands
Single	256	376	200	530	534	134	413	616	321
Single parent, 2 children	317	438	214	544	606	158	454	699	351
Couple	375	426	273	605	670	190	481	736	377
Couple, 2 children	433	516	257	586	729	206	517	823	400
Upper bound									
Single	277	405	225	630	603	179	449	661	334
Single parent, 2 children	343	469	244	635	684	215	494	751	363
Couple	399	460	301	716	755	243	515	782	391
Couple, 2 children	467	550	291	677	820	282	560	882	413
Lower bound									
Single	238	348	178	446	473	101	380	574	309
Single parent, 2 children	293	410	188	466	537	117	417	650	339
Couple	353	395	247	511	595	149	449	692	364
Couple, 2 children	402	483	227	508	647	150	477	768	388

Note: Reference region have been identified by region and density of population. See text for details. Region variable was not available for Belgium, so "Brussels" in fact refers to all densely populated areas in Belgium. For The Netherlands both variables were missing.

Source: EU-SILC 2012 UDB, version 1; own calculations.

9 The baskets combined: an illustration of the potential added value of reference budgets

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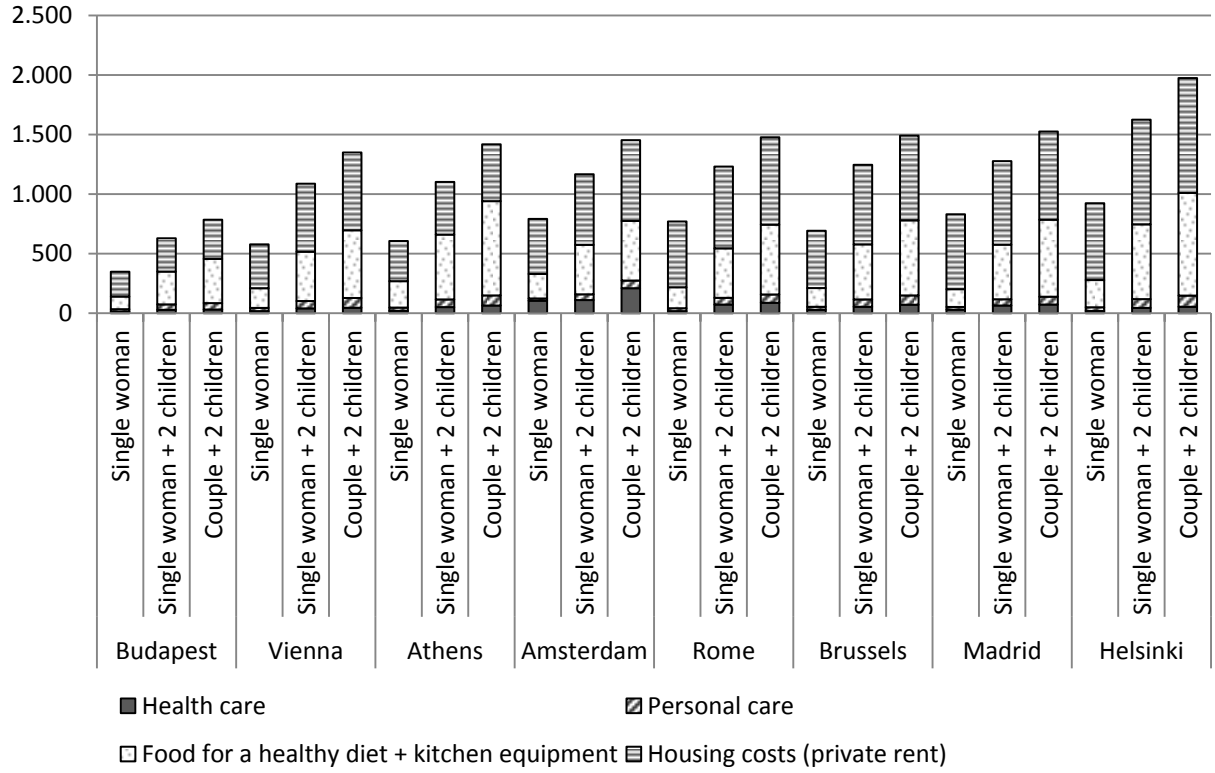
At the national level, reference budgets are used for a wide range of purposes (Storms et al., 2014). With this project, modest, but significant, steps have been made forward to increase the usefulness of reference budgets for applications at the EU level. Throughout the report, we have stressed that there is room for improving the quality of the budgets, as well as their comparability. Also, the quality varies across countries. Nonetheless, in this chapter, we provide a selection of illustrations of how reference budgets could inform the monitoring of the social situation, and the policy-making process, keeping in mind that these are *illustrations*, which – when put into practice – would require further analysis and validation. More in particular, we shed light on how reference budgets can help to contextualise other social indicators. Second, we will illustrate how reference budgets may help to evaluate the adequacy of (minimum) income levels, and social policies more generally. Finally, we show how reference budgets could be used as a social indicator themselves, and contribute to the identification and understanding of social problems and challenges. However, before doing so, we briefly look at how the various baskets developed in this project add up.

9.1 The baskets combined: an overview

The figure below shows the total monthly cost (in Euro) for the baskets health care, personal care, food for a healthy diet (including kitchen equipment) and housing for private tenants in eight capital cities[82]. The budgets are presented for three hypothetical households: a single woman, a woman with two children and a couple with two children. It is clear that there are large differences between countries. The lowest budgets can be found in Budapest totalling 349 euro and 785 euro per month for a single woman and a couple with two children respectively. In contrast, in Helsinki the total costs are almost three times higher, reaching924 euro per month for a single woman and 1,974 euro per month for a couple with two children. The other countries are situated somewhere in between these two ends of the spectrum with less pronounced differences.

[82] More information on how these baskets have been constructed, their underlying assumptions and limitations, can be found in the previous chapters.

Figure 47: The total cost of four baskets for three different family types in eight countries, Euro per month, 2015.



Note: For the estimation of housing costs and the other baskets, please see the respective chapters in this report.

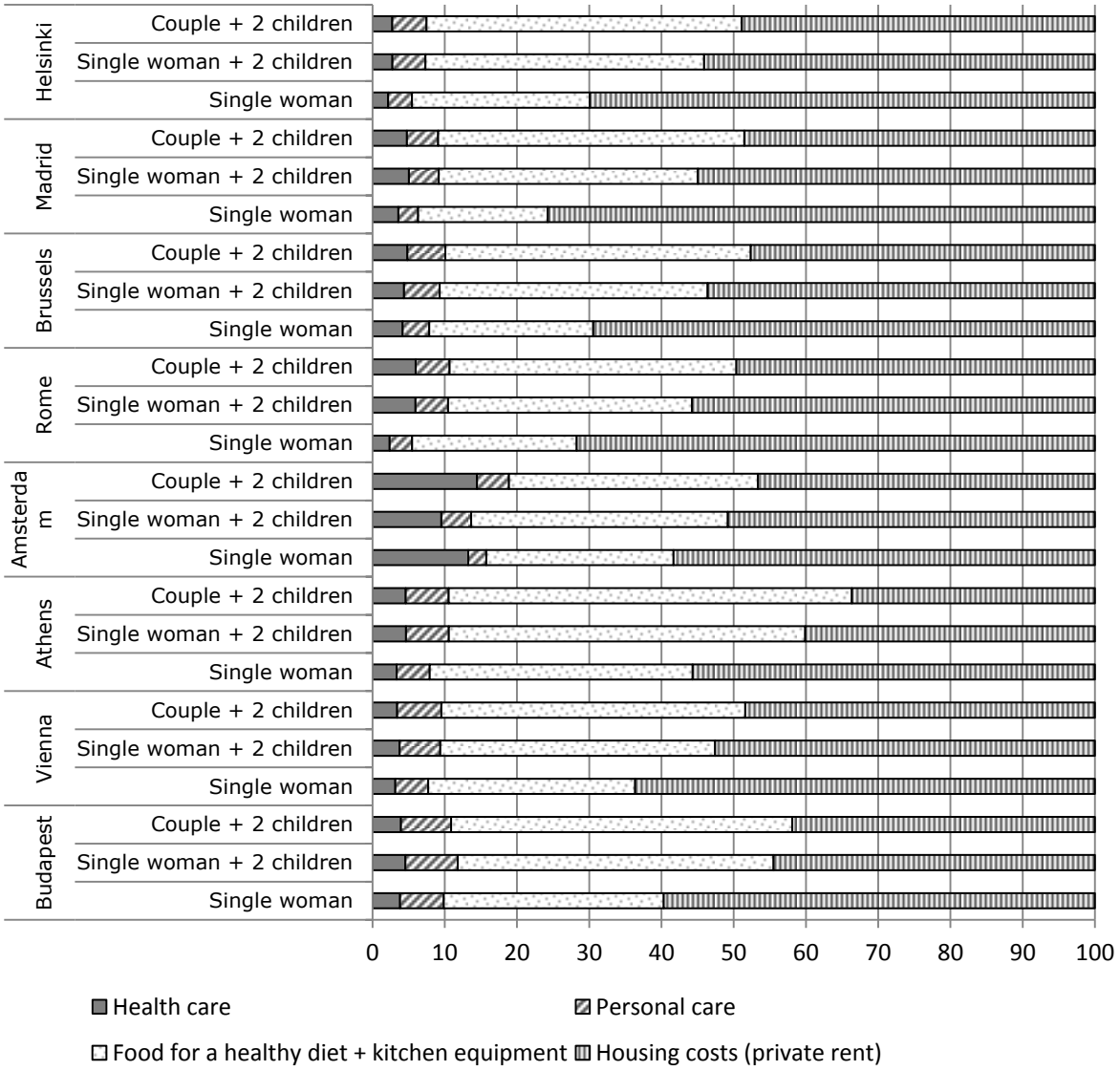
The budgets for a couple with two children are self-evidently the highest. But the relative differences between family types vary between countries depending on the additional cost of an extra adult or child in the household and related economies of scale. In Amsterdam and Madrid the budget of a couple with two children is 1.8 times the cost of a single woman, while in Athens and Vienna the ratio reaches up to 2.3. In other words, for these baskets there appear to be generally high economies of scale that are predominantly caused by the large share of housing costs in the total budgets. One exception is Amsterdam where economies of scale can also be attributed to the low additional costs for food[83]. Equivalence scales, derived from the sum of the four baskets for outright owners turn out to be flatter: here the ratio of the budget for a couple with two children and the budget for a single ranges from 2.1 in Amsterdam to 3 in Madrid. Please note that, given that other important needs are not covered by these baskets, the ratios of the budgets for different family types cannot be directly compared to equivalence scales used in poverty and inequality studies, such as the modified OECD scale. With complete reference budgets it would be possible to empirically assess the validity of equivalence scales (at least for an income at the level of the reference budgets). As became clear in the ImPRovE project, equivalence scales greatly differ with the proportion of fixed costs in budget. High fixed costs (e.g. housing costs, mobility costs) result in flatter equivalence scales, while smaller amounts of fixed costs give steeper equivalence scales. First results of the ImPRovE project, on the basis of complete reference budgets, show that especially in the case of outright owners the additional

[83] See Chapter 4 for a discussion on the large economies of scale for food in the case of the Dutch food basket.

cost of children seems to be underestimated by the modified OECD equivalence scale (Goedemé et al., 2015).

The figure below shows the share of each basket in the total budget by household type. We can see that in general, housing costs for private tenants account for the largest share in the total budget, followed by costs for a healthy diet. Exceptions are a couple with two children in Budapest and both singles and couples with children in Athens, where the costs for food appear to be exceeding the housing costs. In all countries, the share of housing costs substantially decreases for couples with two children in comparison with single households, since they can benefit from large economies of scale. The baskets for health and personal care constitute the lowest share within the total budget. For Budapest, Vienna, Athens and Helsinki the budget for health care is the lowest of the four baskets, while for Amsterdam and Madrid the budget for personal care ends up lower. In Amsterdam, health care has a relative high share in comparison with other countries due to the high insurance costs that have to be paid from after-tax income.

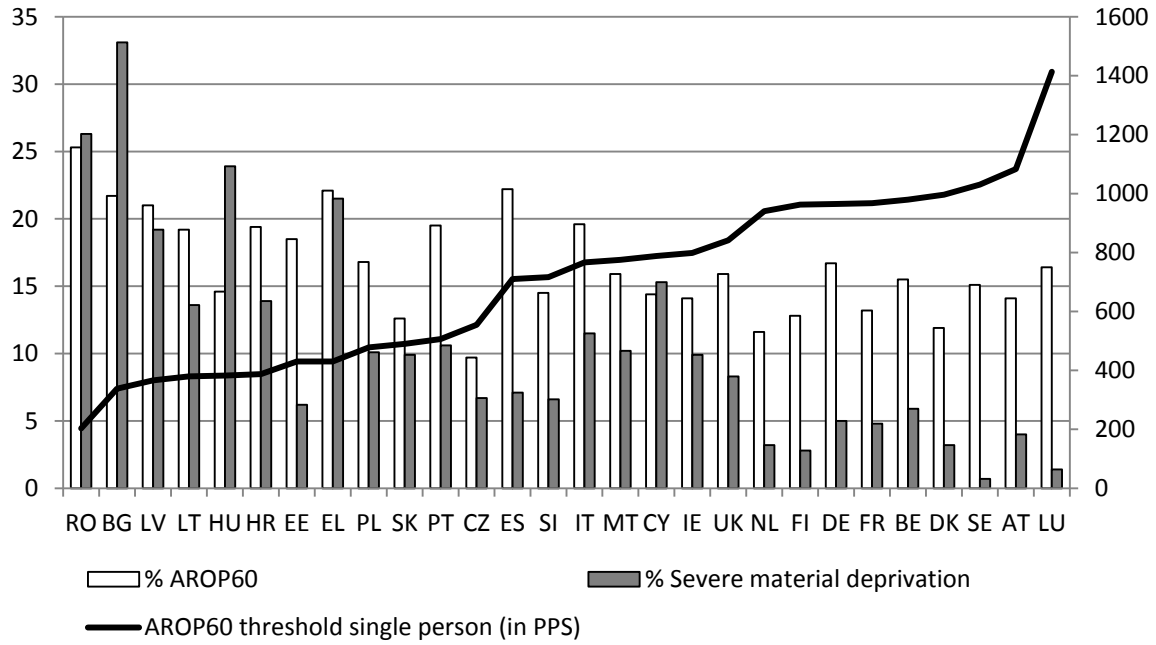
Figure 48: The share of the four baskets in the total budget per country and per family type, 2015.



9.2 Contextualising other social indicators

In our previous reports, we have argued that comparable reference budgets could be used for contextualising other social indicators. Importantly, reference budgets shed light on the cost of essential goods and services, and take into account the public provision or subsidisation of the latter, a factor that remains concealed by many of the current EU social indicators. Given the strong variation in living standards and social circumstances across Europe, the Social Protection Committee - Indicators Sub-Group (2015) has stressed the importance of contextualising its indicators for allowing for a well-informed interpretation. In particular, it has consistently emphasised the importance of showing and interpreting the at-risk-of-poverty indicator in conjunction with the at-risk-of-poverty threshold, expressed in purchasing power standards (PPS). Purchasing power standards express incomes in a single currency, taking exchange rates and price level differences into account, such that differences in income reflect real differences in purchasing power. Even though the at-risk-of-poverty thresholds in PPS indicate the difference in purchasing power at the level of the threshold across countries, it does not tell whether incomes are adequate at that level, and what kind of living standard can be achieved with it. Reference budgets may help shed light on that issue.

Figure 49: The at-risk-of-poverty threshold for contextualising the at-risk-of-poverty rate (EU-SILC 2014).

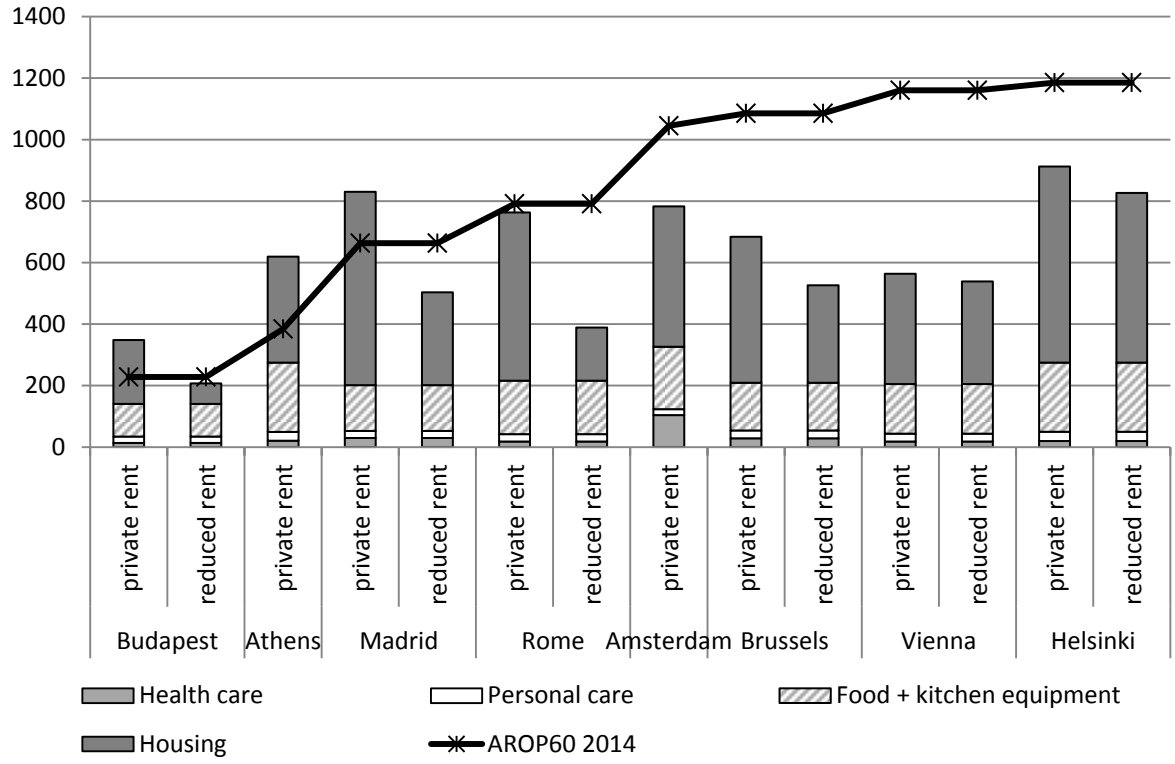


Source: Eurostat online database.

In the graph below, we show how reference budgets may help to interpret what kind of living standard can be achieved with an income at the level of the poverty threshold. It is clear that the at-risk-of-poverty thresholds refer to a very different level of adequacy. For Budapest, Athens and Madrid, the budgets developed in this project suggest that at the level of the poverty threshold, households renting a private apartment cannot afford an adequate dwelling, a healthy diet, basic personal care and basic health care at the same time. In contrast, for those renting a dwelling at reduced prices (in Budapest or Madrid), these baskets can be afforded with some room for spending on other items. The situation

is very different in cities such as Amsterdam, Brussels, Helsinki and, especially, Vienna. The reference budgets suggest that in the latter cities households living on an income at the level of the poverty threshold are probably able to spend sufficient income on a healthy diet, quality housing, basic health care *and* personal care, assuming the remaining gap between the at-risk-of-poverty threshold and the reference budgets suffices for covering other needs. Clearly, having an income at the level of the at-risk-of-poverty threshold means different things in different countries in terms of adequacy. To some extent, this could also be derived from the inverse correlation between the prevalence of severe material deprivation and the at-risk-of-poverty threshold. However, reference budgets help to make this more tangible. In this sense, reference budgets can help the interpretation by contextualising the indicators.

Figure 50: The at-risk-of-poverty threshold and reference budgets (single woman), Euro per month, 2013.

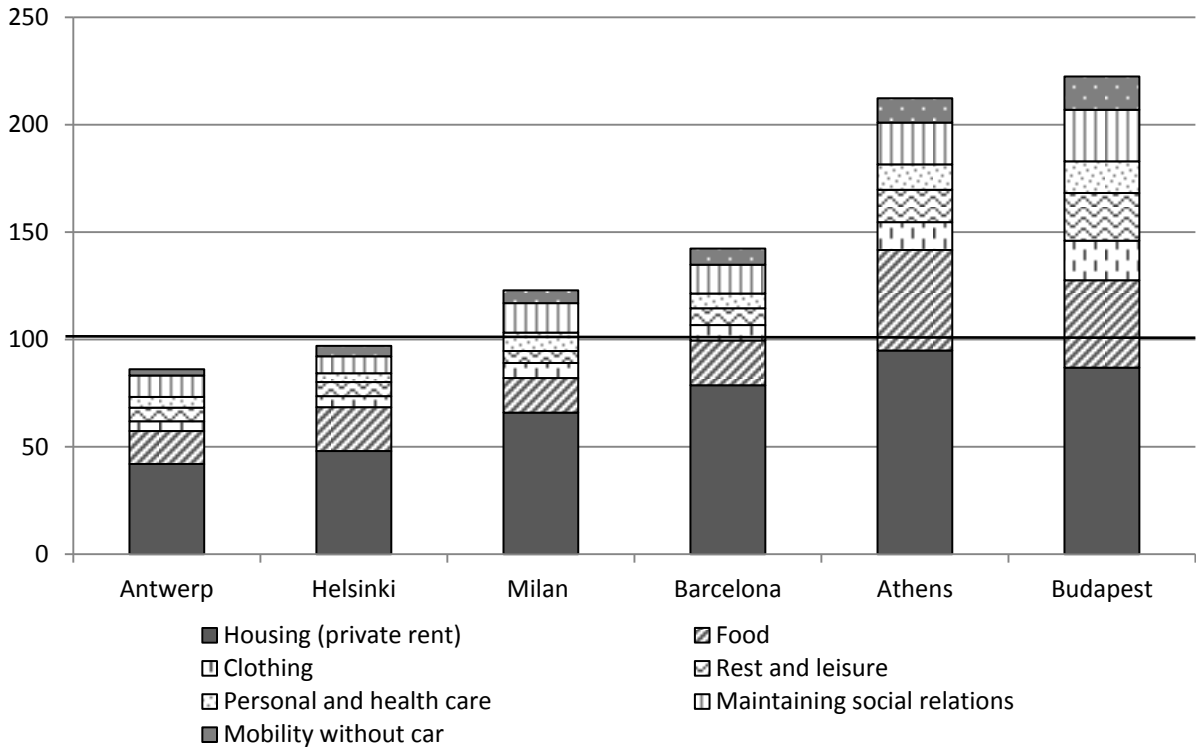


Note: The four different baskets converted to price levels of the year 2013 using the overall HICP published by Eurostat. At-risk-of-poverty thresholds downloaded from the Eurostat website (EU-SILC 2014).

However, for a complete understanding we should also add the budgets of the other needs required to participate adequately in society. For the ImPRovE project we have developed complete comparable reference budgets for six countries for the year 2014, applying a slightly different method (cf. Goedemé et al, 2015). In the graph below the total reference budgets for a single woman are expressed as percentage of the at-risk-of-poverty threshold. Here we see that when we add up necessary costs for clothing, mobility, maintaining social relations and rest and leisure, the level of the total reference budgets reaches nearly the poverty threshold in Finland and Belgium. In other words, the comparison suggest that single persons living with an income at the at-risk-of poverty threshold in more wealthy member states, and who live in an urban region, and have no health problems, are financially able to participate adequately in society. On the contrary, in Italy, Spain, Greece and especially in Hungary an income at the level of the poverty

threshold will –as we already noticed in the graph above- not suffice to participate adequately in society.

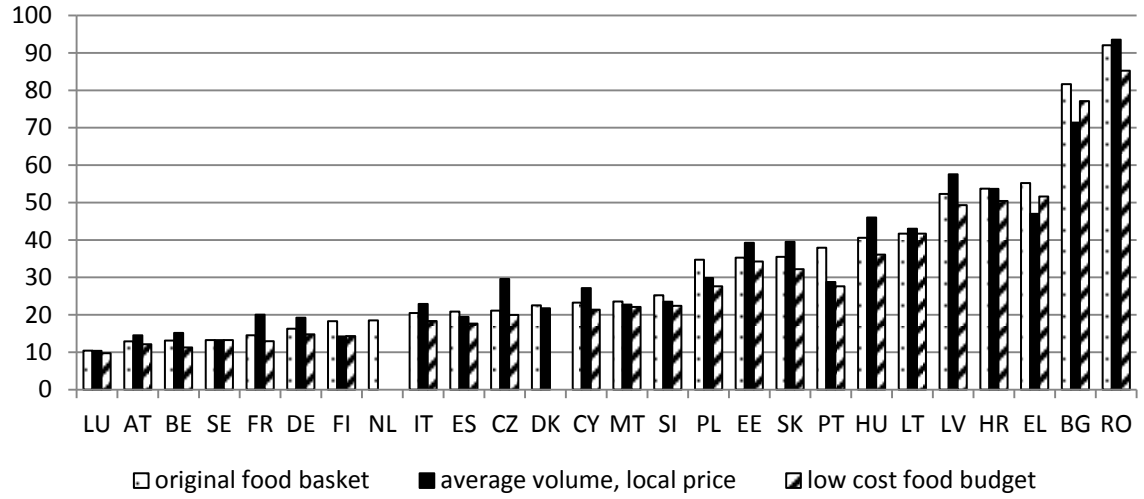
Figure 51: The total reference budgets (ImPRovE) expressed as a percentage of the at-risk-of-poverty threshold for a single person (woman), EU-SILC 2014.



Note: Total ImPRovE budgets (Goedemé et al, 2015) converted to price levels of 2013, making use of the overall HICP published by Eurostat. At-risk-of-poverty thresholds taken from Eurostat website, EU-SILC 2014.

To give a sense of the level of the at-risk-of-poverty threshold for more countries, in the graph below we depict the level of the food basket (only the healthy eating part) as a percentage of the threshold for a single person. We show the result for the original food basket, and for the two alternative estimates based on the sensitivity analyses carried out in Chapter 5. The 'average volume, local price' variant assumes that in all countries for each of eight food groups the same (average) volume of foods is included in the basket, while the unit-price per kg is taken from the original basket. In contrast, the 'low cost food budget' variant takes for a large number of foods an average unit price of the cheapest products only, whereas the original food basket allows for a minimum of choice. For all three variants, it is clear that the degree to which households with an income at the level of the at-risk-of-poverty threshold have sufficient income for affording a diet in accordance with the national food-based dietary guidelines varies substantially across EU Member States. Even if we would overestimate the cost of food in a number of countries, it is clear that the at-risk-of-poverty threshold in Bulgaria and Romania is not only much lower than the one in the richer Member States in some abstract sense, but also in a real, concrete sense as depicted below.

Figure 52: The level of the food basket expressed as a percentage of the at-risk-of-poverty threshold for a single person (woman), EU-SILC 2014.

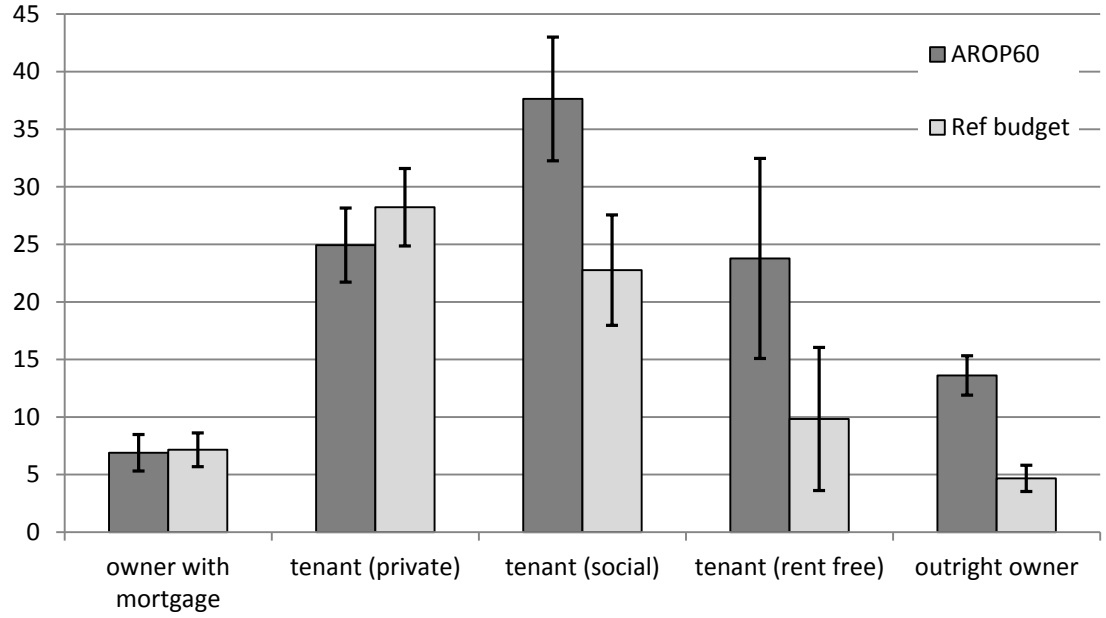


Note: Price levels refer to the capital city. The method used for the Dutch and Danish food baskets is not fully comparable to the other food basket. Food baskets converted to price levels of 2013, making use of the official HICP published by Eurostat. At-risk-of-poverty thresholds taken from Eurostat website, EU-SILC 2014.

Reference budgets may help the interpretation of the at-risk-of-poverty indicator also by showing the impact of some publicly provided goods and services. The graph below illustrates this for Belgium. The at-risk-of-poverty indicator shows that tenants in the social sector generally face a higher poverty risk than those renting on the private market. Certainly, a larger share of the former live on a relatively low income. However, it would be wrong to conclude that social housing does not contribute to alleviating poverty. Indeed, by making use of reference budgets to construct an alternative threshold, one can show that social housing contributes considerably to reducing the number of people that are not able to participate adequately in society. By reducing the amount that people need to spend on housing, social housing effectively contributes to ensuring a decent income level.

Even though we are convinced that reference budgets can help to contextualise in this sense the findings of the at-risk-of-poverty indicator, reference budgets were never meant to and cannot replace the latter indicator. Reference budgets generally face stronger challenges of robustness, and many assumptions need to be made. In addition, they are more costly and time-consuming for updating, and are meant to convey other messages. What they can do, though, is offering an important complement to the currently used EU social indicators. Interestingly, if more data on household spending would be available in EU-SILC, also the impact of other public goods and services could be better taken into account.

Figure 53: Percentage with income below the at-risk-of-poverty threshold / reference budgets in Belgium, EU-SILC 2008.



Note: 95% confidence intervals, taking as much as possible the sample design into account (cf. Goedemé, 2013).

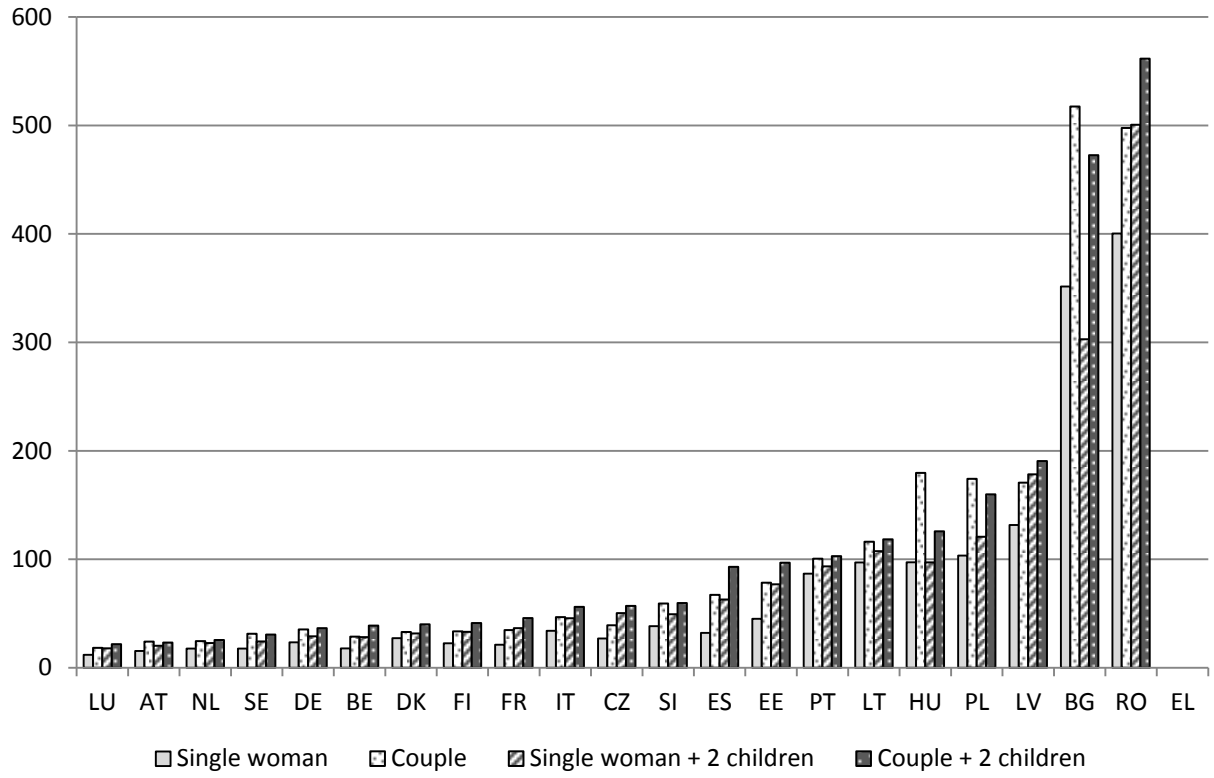
Source: Storms and Van den Bosch (2009); Van Thielen et al. (2010); EU-SILC 2008; own calculations.

9.3 Monitoring the adequacy of (minimum) incomes

Reference budgets have the potential to be a useful tool to assess and monitor the adequacy of incomes in general, and minimum income schemes in particular. In the graph below, using the CSB-MIPI data for January 2012, we did a first exercise to illustrate this use on a European level. Here we compare the level of social assistance with the level of the food baskets in 22 EU member states for four different family types.

The food baskets (healthy eating part) are expressed as a percentage of the net disposable income of similar hypothetical households that are entirely dependent on the relevant minimum income scheme in each country (that is, the most relevant means-tested minimum income programme for the able-bodied at active age, including other relevant benefits). The graph suggests that the level of minimum income protection is inadequate in many EU member states for people living in the capital city, in the sense that the cost of a healthy diet in accordance with the national food-based dietary guidelines requires more than 50% of the monthly net disposable income (BG, EE, ES, HU, IT, LT, LV, PL, PT, RO, SI) for a family with two children. In BG, HU, LT, LV, PL, PT and RO the percentage of the food basket reaches over 100% of the minimum income for families with children. In Greece there was no social assistance scheme and in some countries such as Spain and Italy it is important to bear in mind that social assistance is regionally organised which means income inadequacy varies across regions. Of course, as we have shown in Chapter 5, under different assumptions the cost of a healthy diet may be lower than the original estimates. Even though this would result in a somewhat less bleak picture of the adequacy of minimum income support in a number of countries, it would not change the overall observation that people living in the capital city on minimum income schemes in many countries probably cannot afford a healthy diet in accordance with the national food-based dietary guidelines.

Figure 54: The cost of a healthy diet as percentage of the net income of hypothetical households living on minimum income schemes for the population at active age in EU countries, 2012.

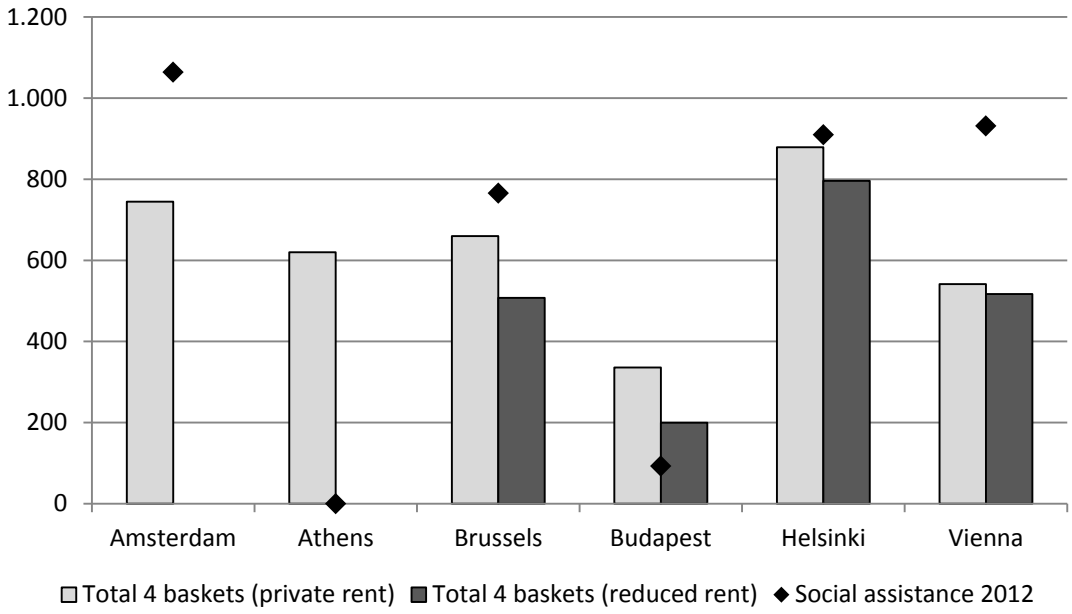


Note: The cost of a healthy diet refers to food prices in the capital city, excluding kitchen equipment, physical activity or social functions of food. Prices of the food basket are converted to 2012, using the HICP for food & non-alcoholic beverages published by Eurostat. Please note that the social assistance levels of Spain are those applicable in Catalonia rather than Madrid, and of Italy those of Milan rather than Rome.

Source: CSB-MIPI data, January 2012 (Van Mechelen et al., 2011). CY, HR, MT and SK are not included.

Obviously, especially in the richer EU Member States minimum income protection aims at a higher level than just enabling households to eat a healthy diet. The graph below compares the level of minimum income protection schemes for the population at active age with the sum of the four baskets developed in this project.

Figure 55: The total cost of personal care, health care, a healthy diet (incl. kitchen equipment) and housing compared with the level of social assistance for a single woman in six countries, January 2012.



Note: These are illustrative values. Insofar housing benefits are applicable, they may not be adequately reflected in the level of social assistance depicted in this graph. Madrid and Rome are left out of the exercise because the CSB-MIPI data cover social assistance levels for the regions Catalonia and Milan, rather than Rome and Madrid.

Source: CSB-MIPI data, January 2012. The total budgets are converted to prices of January 2012 using the overall HICP published by Eurostat.

The graph above suggests that in Athens and Budapest people who live on minimum income schemes and rent a dwelling on the private market are not able to afford adequate housing, food for a healthy diet, personal care and basic health care at the same time, even when not including costs related to other needs such as social relations, mobility, leisure, education and safety. In addition, the reference budgets assume that all household members are in good health, and have normal competences. For people with health problems, disabilities or other situations deviating from these assumptions, the related additional costs will make it even more difficult to meet essential needs.

When comparing various household types, and looking more at the details of this type of comparisons, especially when adding the budget of other essential needs to the cost of food, reference budgets may help to identify priorities in social policy. First, by comparing various household types, it is possible to identify groups that could be targeted. Second, and importantly, when using reference budgets as a benchmark, they highlight that income adequacy can be achieved either by increasing incomes, *or* by reducing the cost of essential goods and services. Looking at the reference budgets in detail may help to identify which type of costs are a heavy burden on a budget for adequate social participation. For instance, differences in health care policies are reflected in different levels of health care costs. In the Netherlands, the mandatory private health insurance may be a challenge for households on a relatively low net income that are not eligible for the maximum care allowance. In contrast, in Spain and Italy the comparatively high monthly cost of the pill may have an impact on the accessibility and degree of choice women and teenager girls have with regard to contraception. Of course, the affordability and accessibility of housing has a large –the largest- impact on the total budget. The

graph above shows how in six of the eight cities the possibility of social housing increases substantially the adequacy of minimum incomes.

In this way, reference budgets also facilitate cross-national learning with regards to how other (similar) countries reduce the cost and the accessibility of essential goods and services. It also makes clear that ensuring adequate incomes is not only about increasing incomes, but that decreasing essential costs can be an important complementary social policy strategy such as efforts for accessible and affordable (social) housing. Another example are qualitative school lunches publicly provided for free or at very low cost in some countries such as Finland, which lower the necessary costs for a healthy diet for children and therefore directly improve the budget capacities of families[84].

However, it is important to note that the current budgets may prove overly ambitious for some Member States, especially countries such as Romania and Bulgaria where only the cost of a healthy diet is already far more than double the level of social assistance. In this case the usefulness of complete reference budgets as a benchmark for minimum income schemes is questionable. However, what reference budgets could do in that case, is help to identify policy priorities, and define intermediate targets for improving the adequacy of minimum income protection.

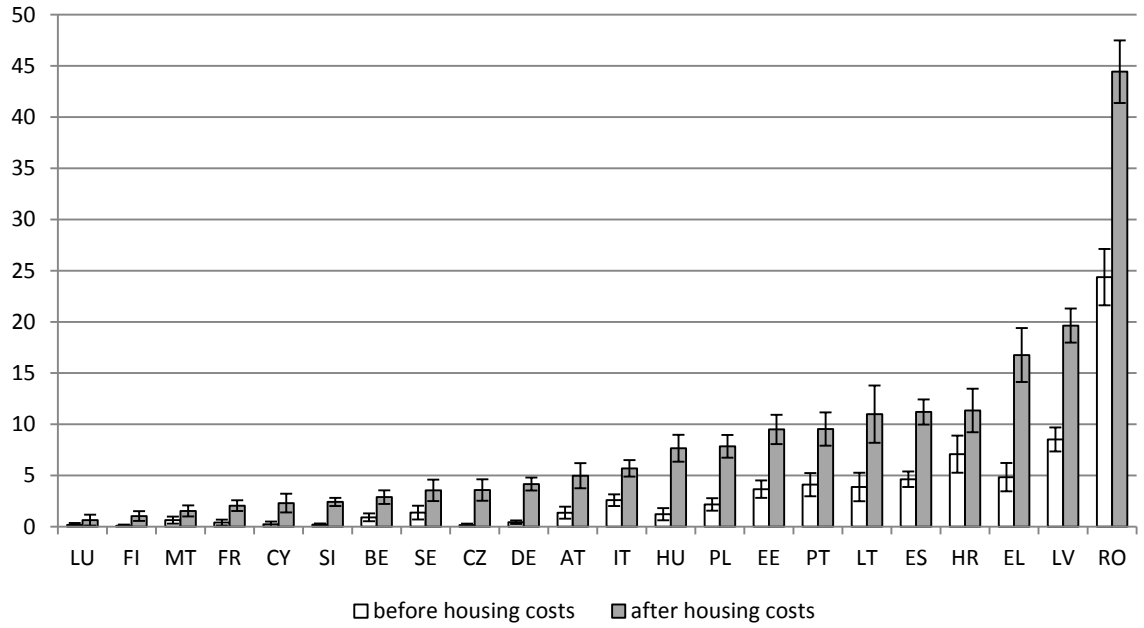
Finally, reference budgets could also be used for the evaluation of policy changes over a period of time. When reference budgets are frequently updated following price and institutional and cultural changes, they can be used as a benchmark to compare with net disposable incomes of families over time, and could also be used for ex ante policy impact assessments. It is possible to update reference budgets by assuming 'business as usual', and to compare this with reference budgets that take account of reforms in policies that have affected the cost of essential goods and services (e.g. an increase in the level of VAT on utilities, the cost of public transport, etc.). These could be compared with (nominal) changes in, for instance, net minimum wages or other income levels. Due to their detailed character, they allow for a much more refined decomposition of the change in the costs that households face, as compared to, for instance, the tracking of the change in real wage levels making use of official consumer price indices.

9.4 Identifying and better understanding social problems

Finally, reference budgets can potentially also be used to identify and understand social problems. For instance, we can use them to estimate the impact of budget constraints on the ability to eat healthily. A recent international report of the WHO (2014) confirms that malnutrition is an important factor that undermines health and wellbeing in Europe. Since health is an important policy goal, it is worth seeing whether obtaining a healthy diet is affordable for all. By making use of the food basket (healthy eating part), we can get a sense of the breadth of the problem on the basis of a dataset such as EU-SILC, even though it does not contain information of actual food consumption expenditures. For instance, the graph below shows that even in the case that the cost of a healthy diet would be somewhat over-estimated, it is clear that in several European countries, and especially Romania, people living in densely populated areas are confronted with severe financial constraints to eat in accordance with the national food-based dietary guidelines. In contrast, at first sight financial constraints appear to be a less pressing direct cause of unhealthy eating in the richest member states, as well as some Mediterranean countries (MT and CY) and the Czech Republic

[84] See Chapter 4 on the Food basket for more information on the impact of school lunches in some countries

Figure 56: Percentage of people living in a household with a disposable income below the cost of a healthy diet for their household, densely populated areas, EU-SILC 2012.



Note: 95% confidence intervals take clustering within households into account (cf. Goedemé, 2013). It is assumed that there are no economies of scale in the cost for a healthy diet.

Source: EU-SILC 2012, ver1, own calculations.

9.5 Conclusion

In this chapter we brought the results of the various baskets of goods and services together, and tried to illustrate some of the ways in which reference budgets could create an added value for researchers and policy makers. In this project, eight country teams developed a food basket, a basket for health care, a basket for personal care and a housing basket for eight capital cities in total, including Amsterdam, Athens, Brussels, Budapest, Helsinki, Madrid, Rome and Vienna. It is clear that the budget required for fulfilling the needs covered by these baskets varies in important respects between these cities. In euro terms, the budgets for Budapest are the lowest, whereas those for Helsinki are the highest with a ratio of one to three. The variation in the level of the budgets for the combined baskets is much lower than the variation between national median equivalent net disposable household incomes. Housing costs for private tenants mostly account for the highest share in the total budgets, followed by budget for adequate food intake.

Fully developed reference budgets can be used for many purposes. In this chapter, we have illustrated how reference budgets could contribute to contextualising social indicators; evaluating the adequacy of minimum income protection and identifying policy priorities; assessing policy reforms taking into account changes in the accessibility and cost of public services; and better understanding important social problems, such as food insecurity.

First, they can be used to contextualise other social indicators such as the at-risk-of–poverty indicator. More in particular, reference budgets help to see what kind of living standard can be afforded at the level of the at-risk-of-poverty threshold. The first results of this pilot project suggest that having an income at the level of the at-risk-of-poverty threshold means different things in different countries in terms of adequacy. Within countries, the threshold does not correspond to the same level of income adequacy for

households with different tenure statuses. At the same time, it is clear that reference budgets should be considered a complement to existing indicators, rather than as a replacement of any of the already existing indicators.

Second, reference budgets have the potential to be used as a benchmark for assessing the adequacy of net incomes, and in particular minimum income schemes. It is remarkable that first results suggest that families (esp. those with children) living in the capital city on minimum income schemes in poorer European countries cannot afford a healthy diet in accordance with the national food-based dietary guidelines. Obviously, if other essential needs would be taken into account, minimum income schemes seem not to be fully adequate in quite a few other countries as well. This also means that complete reference budgets would not offer a useful benchmark for those countries where this would clearly be overly ambitious in the medium term. However, also for these countries complete reference budgets could (1) show that raising the adequacy of minimum incomes is not only or necessarily about increasing the level of benefits, but can also be achieved by reducing the cost of essential goods and services; (2) help to identify goods and services that weigh particularly heavily on a budget for adequate social participation, and so may receive priority for policy action; (3) facilitate cross-national learning by showing how other countries reduce the cost of essential goods and services and improve accessibility; (4) help to formulate intermediate targets. In addition, reference budgets can be used for evaluating policy changes over a period of time, or as a tool for ex ante policy impact evaluations.

Third, reference budgets can potentially be used as an instrument to identify and understand social problems. For instance, if combined with other data, the food basket could help to gain more insight into food insecurity and unhealthy eating patterns in Europe.

Finally, it is worth repeating that the exercises carried out in this chapter mainly serve the purpose of illustrating how reference budgets could create a considerable added value to the toolkit of those assessing the social situation and inform the policy-making process in Europe. For substantive conclusions, more in-depth research is required. Obviously, this also requires robust, valid and comparable reference budgets. As we have stressed before, and will highlight in more detail in the next chapter, there is still considerable scope for improving the quality of the budgets developed in this project.

References

Goedemé, T. (2013), 'How much confidence can we have in EU-SILC? Complex sample designs and the standard error of the Europe 2020 poverty indicators' in *Social Indicators Research,* 110(1): 89-110. doi: 10.1007/s11205-011-9918-2.

Goedemé, T., Storms, B., Stockman, S., Penne, T., and Van den Bosch, K. (2015), 'Towards Cross-country Comparable Reference Budgets in Europe: First Results of a Concerted Effort' in European Journal of Social Security (EJSS), 17(1): 3-31.

Social Protection Committee - Indicators Sub-Group (2015), *Portfolio of EU Social Indicators for the monitoring of progress towards the EU objectives for social protection and social inclusion. 2015 update.*, Brussels: European Commission, 76p.

Storms, B., Goedemé, T., Van den Bosch, K., Penne, T., Schuerman, N., and Stockman, S. (2014), *Review of current state of play on reference budget practices at national, regional, and local level*, Pilot project for the development of a common methodology on reference budgets in Europe, Contract no. VC/2013/0554, Brussels: European Commission, 150p.

Storms, B., and Van den Bosch, K. (eds.) (2009), *Wat heeft een gezin minimaal nodig? Een budgetstandaard voor Vlaanderen*, Leuven / Den Haag: Acco, 342p.
Van Mechelen, N., Marchal, S., Goedemé, T., Marx, I., and Cantillon, B. (2011), The CSB-Minimum Income Protection Indicators dataset (CSB-MIPI), CSB Working Paper Series, CSB WP 11/05, Antwerp: Herman Deleeck Centre for Social Policy, University of Antwerp, 104p.
Van Thielen, L., Deflandre, D., Baldewijns, K., Boeckx, H., Leysens, G., Storms, B., . . . Van den Bosch, K. (2010), *Minibudget. Wat hebben gezinnen nodig om menswaardig te leven in België?*, Onderzoek gefinancierd door Federaal Wetenschapsbeleid in opdracht van de POD MI, Geel: Katholieke Hogeschool Kempen, 458p.
WHO (2014), *European Food and Nutrition Action Plan 2015–2020*, Copenhagen: WHO regional office for Europe, 24p.

10 Areas for improvement and future research

Tim Goedemé, Karel Van den Bosch, Nathalie Schuerman, and Bérénice Storms

In this final chapter we examine the way forward for comparable reference budgets in Europe and highlight several options that may be worth prioritising[85]. First, we elaborate on possibilities for expanding the range of model families covered as well as the range of baskets of goods and services. We single out some priorities that we consider worth exploring further. In particular, we argue in favour of developing targeted policy indicators that create a more immediate added value for policy makers as an intermediate step, prior to developing complete reference budgets. At the same time, a handbook should be developed for constructing complete reference budgets in a comparable way in Europe.

Subsequently, we draw attention to several areas that require further methodological improvement. In our view, more methodological research and targeted experiments in the area of (1) the pricing procedure, (2) the lifespan assumptions as well as (3) the consultation of citizens are key to improving the quality, comparability, robustness, transparency and acceptability of the reference budgets. We pay considerable attention to each of these three issues and sketch some routes for further research.

Finally, we briefly elaborate on the research infrastructure for constructing reference budgets. More in particular, when continuing the work on reference budgets, it is necessary to evaluate and strengthen the current EU Reference Budgets Network; to work towards a more systematic and integrated data collection effort of essential background information; and to develop better software and tools for collecting the priced baskets of goods and services in a harmonised way, while limiting the potential of data processing errors.

10.1 Options for extending the reference budgets

One could think of many fruitful ways for extending the reference budgets as developed in this project. In this section we highlight several options that may be particularly useful to explore in the future. At the same time, it is essential that such further extensions are done with care, and should be accompanied by further efforts to improve the methodological quality and robustness of reference budgets, as we will explain in the sections that follow.

10.1.1 Extending the range of model families

In order to be able to compare across countries and to set up a process of cross-national learning, it is essential to work with model families that are specified in a common way across countries. However, as is shown in the methodological paper (Goedemé, Storms, and Van den Bosch, 2015), the 'representativeness' of the model families chosen in this project is limited and varies a lot across countries. We have opted to start from relatively 'simple' model families, which can be considered to constitute the building blocks of other, more complex, model families. The theoretical framework as well as the method designed for this project, can be rather easily applied to other model families, with variations on the following characteristics, which we will discuss further below:

- More complex household compositions;
- Different types of locations;
- More age groups, especially very young children and elderly people;
- Common health problems or disabilities;
- People with different ethnic backgrounds.

[85] A previous version of this chapter has been submitted as a separate deliverable ("Guidance note").

By covering a wider set of household compositions, it would be possible to extend the representativeness of the reference budgets. Furthermore, while sticking to a common core of model families to allow for cross-national comparison and learning, national variations could be developed that are most relevant to the local context. It is advisable to define these national variants across common lines in order to: profit from knowledge built up in other countries; to increase efficiency in the research process; as well as to maximise the potential for cross-national learning. In particular, it would be useful to look for groups of countries for which similar model family specifications may create and added value, such that cross-country collaboration remains possible, while maximising knowledge sharing, efficiency and comparability. For instance, policy makers might have limited interest in reference budgets for multi-generational households in several West European or Scandinavian countries, but clearly they are not only of interest to Romania either. Furthermore, when defining the characteristics of these multi-generational households, it would still be possible to specify the age of the household members in line with the age of the household members for less complex households that are developed all across Europe.

Similarly, it would be useful to diversify assumptions regarding the living situation of households. In this project we have developed reference budgets for people living in the capital city, even though in many countries the capital city is very different from other places in the country in terms of the institutional settings, the availability of goods and services and their associated price. Therefore, it seems useful to extend the range of model families and to develop also reference budgets for a family living in the countryside, and/ or a moderate-sized city. Also in this case one could consider to standardise somewhat the definition of 'countryside' and 'moderate-sized city', such as to maximise the potential for cross-national learning. When alternating the living environment of people, for some countries the adaptations to be made to the already existing reference budgets may be relatively limited, and it may suffice to focus on those goods and services that account for a large share of the total budget (e.g. housing), and those that may require obvious adaptations (e.g. mobility). For some baskets special care should be given to the production for own consumption and informal exchanges, as this may be more prevalent in the countryside than in the capital city. Obviously, this would require an additional documentation effort, and some refinement of the method as it may be difficult to take this properly into account.

The model families included in this project consist of people at active age (around 40 years old), a boy in primary education (about 10 year sold) and a girl in secondary education (about 14 years old). Obviously, it would be useful to extend the age range of the household members included in the model families, and develop also reference budgets for older people (e.g. at the age of 65 and 80) and young children (e.g. babies and toddlers) as well as students in higher education, since these age groups are confronted with very specific needs and expectations. When developing such reference budgets, an additional round of consultation of citizens would be warranted, as social expectations towards elderly persons and very young children may be very different from those regarding the age groups covered in this project. For older persons, it may be worth to specify not only an age range, but also (or even rather) a level of disability in terms of an Activities of Daily living (ADL) and an Instrumental Activities of Daily Living (IADL) score, especially if one would like to make cross-national comparisons. Even though elderly persons are more often confronted with health problems, it may still be relevant to develop reference budgets assuming good health (for a given age), while calculating separately the cost for several very common health problems or limitations in ADL or IADL. For an example of such an approach, see Van Thielen et al. (2010). The main advantage of a reference budget for persons that are generally in good health is that it is more easy to interpret and more robust to construct.

Expanding the range of household compositions as well as the age of the household members would offer important insights into differences in the cost of essential goods

and services for different households in the population. This would be very helpful for evaluating equivalence scales that are currently used for measuring poverty, but also for evaluating implicit equivalence scales that are embedded in welfare benefits. In addition, for several policy purposes it might be useful to set up additional exercises in which the assumptions of 'good health' and 'self-reliance' are modified: (1) in many cases disability and chronic illness are associated with lower employment and higher poverty risks (e.g. OECD, 2010), reference budgets could help to see what the additional costs faced by these vulnerable groups are and which illnesses are confronted with the highest additional costs; (2) there may be a specific policy interest in how different countries cater for the needs of persons confronted with disability or chronic illness. If reference budgets are to show the effect of different health care systems on the expenses of households, reference budgets should also be developed for model families in which one or more persons are confronted with illness or disability. When setting up such an exercise, it is very important to: (1) be very clear on the exact characteristics and consequences of the illness or disability under study (it is essential to develop specific assumptions); (2) as well as regarding which types of additional costs will be covered; (3) to re-evaluate all the baskets of goods and services (and not only the health care basket) as diseases and disabilities have consequences for many spheres of life; and (4) to start from a model family with exactly the same characteristics, except for the disease or disability under study such that the additional costs can be easily calculated and explained. For an example of a study in which specific budgets have been developed for a range of diseases and disabilities, see also Van Thielen et al. (2010)[86]. It is easy to see that any endeavour to develop reference budgets that cover specific illnesses or disabilities should be undertaken in close collaboration with health experts, and involve a consultation of citizens confronted with these health problems, preferably through a combination of a (existing) survey data to collect representative information on the cost of several health and other expenses, and in-depth interviews or group discussions to elaborate in a well-considered manner the impact on all baskets of goods and services.

Finally, for some countries, and especially capital cities, it may be useful to consider developing reference budgets for specific ethnic groups. Rather than developing completely different reference budgets, it may be preferable and more efficient to organise a limited number of discussion groups with citizens of the groups under study and evaluate whether with the reference budgets developed for the dominant ethnic group the costs of cultural variants may also be covered (e.g. with regard to food or celebrations). Earlier experience in Brussels and Antwerp has learned that this is a viable alternative to developing completely different reference budgets from scratch.

10.1.2 Expanding the range of baskets

In this project, we report on food baskets for 26 EU Member States, and a housing basket, a health care basket and a basket covering personal care for 8 Member States. As explained elsewhere, complete reference budgets do also cover clothing, rest and leisure, safety in childhood, social relations, mobility, security, life-long learning and decent work. Evidently, future efforts could focus on expanding the range of needs covered by the reference budgets by developing these other baskets as well. The four baskets covered in this project, offer examples of how the general methodology presented in Goedemé, Storms, and Van den Bosch (2015) can be translated into a more concrete set of instructions for developing concrete lists of goods and services. The four baskets show how this can be done in very different settings: in the previous chapters we showed how a concrete list of goods and services can be developed when official guidelines are available which offer foothold (food and health care), when little official guidance is available (personal care), and when the variation in real-life situations is so

[86] That study covered among others diabetes, obesity, polyarthritis, breast cancer, paraplegia, Crohn's disease and fibromyalgia.

big that it is preferable to largely build on representative survey data to estimate the cost for households for fulfilling the need (housing).

Before setting up an exercise for developing complete comparable reference budgets covering all baskets of goods and services in a large number of countries, it is advisable that the general methodology is first developed into a 'handbook' covering all baskets. At the same time, experience has learned that somehow the development of such 'handbook chapters' as included in this report for the aforementioned baskets is best done in interaction with drawing up the list of goods and services for a diverse set of countries: only by developing the baskets in diverse contexts it becomes clear in which ways instructions need to be made more specific or general and which aspects are best further standardised (or not). Therefore, the further development of the handbook could best be undertaken in interaction with the construction of the baskets for a limited number of well-chosen countries. Similarly, it would be valuable to evaluate more in depth the budgets developed in this project and the extent to which it would be advisable to standardise further several aspects, for instance in relation to physical activity or the social functions of food. This project has learned that it is infeasible to undertake such an exercise for a large number of countries in a short time span, without having sufficient time to first clarify the exact procedure to follow.

10.1.3 Sustainable and fair reference budgets

The reference budgets developed in this project focus on the minimum resources required for adequate social participation for a particular household, using prevailing market prices, and to some extent regardless of what effects such a spending pattern may have on others. If, for instance, the level of reference budgets depends strongly on the availability of cheap products and it would be the case that these are partially a result of wages that do not allow for adequate social participation (be it in the country under study, or another country), one can question the validity of the approach. Similarly, while putting together the baskets of goods and services, the environmental impact is not explicitly taken into account. It could well be that a spending pattern in accordance with the reference budgets may have adverse environmental effects and so compromises the possibilities of future generations to reach the same living standard. Therefore, in the future one could think of producing an alternative variant which takes these social and ecological concerns more fully on board. After all, it could be argued that a life that is compatible with human dignity should not unnecessarily adversely affect the living conditions of other people, both now and in the future (cf. Storms and Van den Bosch, 2009). If this is indeed the case, then sustainability must be an additional criterion for selecting goods and services to be included in the reference budgets. Undoubtedly, such an undertaking would require a major additional data collection effort regarding the social and environmental effects of all goods and services to be included on the list. In addition, it is likely that such reference budgets would imply a higher level of resources required for adequate social participation.

10.1.4 Partial budgets: prioritising the development of new policy indicators

In our view, a follow-up project financed with European resources should not primarily focus on extending reference budgets to other model family types, complete baskets of goods and services or a 'sustainable' variant of reference budgets. Rather, we would argue in favour of a more modest setup, focusing on areas for which a 'reference budgets approach' creates the strongest added value to other social indicators: the cost of essential goods and services, provided or subsidised by the government (e.g. education, child care, health care, mobility). Reference budgets offer a unique perspective on the expenditure side of the living standard of households, which is not offered by other social indicators. They have the potential to show the impact of (changes in) government expenditures on publicly-provided goods and services, as directly experienced by households. This impact is completely absent from income based indicators, and can only

indirectly be observed through government expenditures (that are also affected by the number of beneficiaries and changes in the quality and accessibility of goods and services) or household budgets survey data (which do not offer a normative view on what 'adequate expenditures' should contain and are also affected by preferences and budget constraints).

For instance, a follow-up project could focus on designing more robust policy indicators regarding the direct cost for households of accessing essential goods and services that are in most countries (at least partially) provided by the government. This would allow for improving first the empirical basis of these essential elements of reference budgets, and would also create the biggest added-value for the policy-making process. Such an approach could take both direct and indirect costs into account. For instance, in the case of education it could include the costs of enrolment, but also the cost of books and other study materials, school trips, and school lunches, providing a complete picture of the cost of education in different European countries. This would allow to better understand the barriers people face for accessing different types of education in different countries. Also, if extended over a longer period, increased or decreased efforts to make essential services more accessible would show up in these indicators in an unambiguous way. Undoubtedly, even a focus on one or more of these policy areas would require a substantial investment in methodological refinement and data collection, given that many of these domains are every complex (for instance, the cost of education may differ strongly between different types of education: public versus private, but also general secondary education versus different types of technical or vocational secondary education).

A focus on developing such new policy indicators, while making use of a reference budgets approach, would allow for further standardisation and an increased robustness of the approach. It would also involve a more targeted effort of data collection, potentially leading to a higher quality of the results. By focusing on policy areas with important involvement of public authorities, the indicators would provide policymakers immediately with important additional information. Finally, it is an essential step in developing complete reference budgets that are of high quality and comparable.

10.2 Possibilities for future pricing methods

It is easy to see that the pricing procedure is key for evaluating the level of the reference budgets. Currently, pricing is done on the basis of a relatively small sample of products, for which prices are observed at a single point in time in one shop. Even with such a modest setup, pricing all items in the baskets proved to be time-consuming, and not without risk of data collection errors. Therefore, it would be worth to explore routes for improving the efficiency, transparency and reliability of the pricing procedure. Also, more background research regarding the spread and evolution of modestly priced products, as well as the pervasiveness of discounts on consumer prices would help to evaluate the validity of the current pricing procedure and contribute to designing a more valid procedure.

An obvious and economical choice for pricing the baskets of goods and services would be to make use of existing price survey data collected by National Statistical Institutes (NSIs). All NSIs collect price information in order to estimate changes in the consumer price index. Representativeness of the results would be another advantage of using these data, especially if representative information is available on low-priced products. If the sample would be sufficiently large, it would be possible to estimate a 'low price level', for instance at the 25^{th} percentile, in a representative way. Such a procedure would probably be a more straightforward, valid and reliable way of estimating a low price level as compared to the procedure implemented in this project. One difficulty, however, is that due to confidentiality regulations usually these price survey data are not available for research at a sufficiently detailed level. In addition, official price surveys do not always

cover the full (price) range of all relevant goods and services included in reference budgets.

In what follows, we report on two experiences with information collected by NSIs. First, we report on an exercise carried out by STATEC, the NSI of Luxembourg. Subsequently, we report on the experience of the Dutch institute Nibud, which makes use of the national price survey carried out by Statistics Netherlands (CBS). Statistics Netherlands, is one of the few institutes in Europe that make advanced use of cash register data to collect price information. Subsequently, we briefly elaborate on two other potential price data sources: the use of cash register data for comparable reference budgets in Europe, and the use of online price survey data.

10.2.1 The use of price survey data of national statistical institutes: the experience of STATEC[87]

The reference budgets for Luxembourg presented in this report, are developed by Statistics Luxembourg. In order to test the feasibility of using the micro data available through the official price survey, they analysed the prices of the items of the personal care basket in more detail. More in particular, they evaluated:

- The availability and prevalence of the items in the official price survey
- The quality and characteristics of the items in the official price survey
- The observed prices in the official price survey, as compared to a new data collection focused on low-priced products

The RBs clearly included a range of items that were not available in the official price survey used for updating the consumer price index in Luxembourg: out of 31 products in the personal care basket, 9 were not included in the official price survey. Furthermore, in several cases the official price survey only covered one or a few price observations of a certain product. These relatively badly covered items appeared to be sometimes rather expensive, as compared to what was found on the basis of a specific price survey covering the cheapest and second cheapest products in 14 shops. At the same time, when comparing prices in the official price survey with those of the 'second cheapest product', the price differences were usually smaller, given that the cheapest product often is a private brand, whereas the second cheapest is not. As is illustrated in the table below, the inclusion of some particularly expensive items in the official price survey, can easily distort the price level of the personal care basket. The researchers also reported that the same is also true for items in other baskets, for instance, furniture.

Table 30: Comparison of cheapest price levels in the official price survey and the cheapest prices in a widespread shop in Luxembourg, personal care basket for a couple with two children, September 2014.

	Delhaizedirect.lu	Official price survey
Hand care	8.13	8.97
Dental care	11.63	12.67
Body care	71.84	112.72
Total	91.60	134.36

Note: Missing products in the official price survey have been replaced by the price found on Delhaizedirect.lu.
Source: Franziskus, A. (2014), Quel prix pour le budget de référence ?, Luxembourg: STATEC, mimeo.

[87] This text and the data presented herein are based on Franziskus, Anne (2014), *Quel prix pour le budget de référence ?*, Luxembourg: STATEC, mimeo. The text has been written in collaboration with Anne Franziskus and Paul Zahlen from STATEX, Luxembourg.

At the same time, though, the researchers in Luxembourg stressed the advantages of making use of the official price survey:

- It is updated regularly, and it is feasible to make use of a sub-selection of the price survey that fits most closely the needs of the RBs
- It can be used to cover at least those items that the RBs and the price survey have in common, potentially leaving out 'badly covered' or exceptionally expensive items
- It helps to reduce substantially the time needed for collecting the relevant prices
- It is representative for the entire country, while there is no single shop or supermarket which is sufficiently accessible over the entire country, or even for the city of Luxembourg.

Therefore, for the future it seems advisable to strengthen the links with national statistical institutes such that at least part of the RBs could be priced on the basis of the existing official price survey, considerably limiting the additional effort needed for pricing the RBs. Alternatively, if RBs would be used in an official setting, it would be worthwhile to study the possibilities of extending the official price survey such that it would cover more adequately a wider price range, and also those products in the RBs that are currently missing in the official price survey. Currently, it is not clear to what extent the situation in Luxembourg is comparable to the situation in other European countries. It might be that in other countries there is a more extensive price survey, such as it appears to be the case in the Netherlands (cf. infra).

10.2.2 The use of official (cash register) data: the experience of Nibud[88]

In the Netherlands, Nibud[89] makes use of cash register data ("barcode scanning data", or "scanner data") to price part of the reference budgets. Scanner data are collected at the level of the European Article Numbering (EAN) 13-code. The EAN code is printed on virtually all packaged materials. All specific products have their own 13-digit code. For instance, a 500 gram coffee pack has a different EAN code from a 250 gram coffee pack, and each producer has its own EAN codes. In this text, we use the term 'article' to denote a product with a distinct EAN code, and the term 'product' to denote material with similar characteristics and use, but packaged in different formats and with different brands (e.g. washing powder, orange juice, carrots, …). When customers buy products in a shop, the number of articles bought and their price are registered at the cash desk. As a result, the scanner data include information on the price paid at the cash desk, the quantities bought and the total turnover.

Over the past ten years, Statistics Netherlands has systematically decreased the share of manually collected prices in the price survey, among others by increasing the collection of scanner data. Currently, about 80 per cent of the CPI index is determined on the basis of prices collected electronically, while scanner data account for about 15 per cent.

[88] This subsection is written in collaboration with Marcel Warnaar, Nibud.

[89] http://www.nibud.nl/.

Table 31: Method of price collection by share in CPI, 2014.

Data source	Percentage of CPI
Internet and electronic price lists	38%
Electronic questionnaire 'rent'	18%
Scanner data	15%
E-data natural gas, electricity and fuel for automobiles	9%
E-data travel agencies	2%
Manual price collection in shops	11%
Written price collection	5%
Price collection by telephone	2%

Source: Statistics Netherlands, http://www.cbsvooruwbedrijf.nl/index.aspx?FilterId=2&ChapterId=17&ContentId=8007 (last accessed on 27/05/2015).

Nibud is allowed to use the data for pricing the reference budgets under the following conditions: (1) the supermarket chains have to give permission; the data that Nibud makes public should not be linked to specific products or specific supermarket chains; analyses on scanner data should be carried out at the premises of Statistics Netherlands, and the output is checked by the Dutch national statistical institute. Statistics Netherlands has developed a classification system to link EAN codes to a product grouping that is suitable for the measurement of inflation. However, this product grouping is not entirely the same as the one used for developing the reference budgets, so Nibud carries out a re-grouping of items. So far, Nibud makes use of the scanner data collected by Statistics Netherlands for food prices and for some items related to personal hygiene, available in supermarkets. At the moment, the scanner data from these supermarket chains account for about two-thirds of the total expenditures on food sold in shops.

For pricing the reference budgets, Nibud makes use of the final price paid by the consumer, that is, including discounts. Focus groups discussed at length which prices should be taken into account. Most support was reached for choosing 'normal supermarkets, including weekly discounts'[90]. The exact pricing procedure is as follows: First, similar articles are grouped together at the product level. Second, articles are sorted per product by turnover, without making a distinction between different chains and retailers. Articles with a low turnover are dropped, as it is a time-consuming work to calculate the price per unit for each article. Usually, in the case of most products about 10-20 articles account for the largest market share and the other articles would have limited impact on the average price. For the remaining articles, the price per unit (litre, kg, …) is computed. Articles with an exceptionally high price are excluded. Subsequently the average price of the product is calculated, weighted by the turnover of each article. In other words, articles that are more costly as well as those that are more frequently sold have a relatively larger impact on the average price.

An important advantage of the procedure is that the scanner data allow for calculating yearly average prices rather than a snapshot at a single moment in time. This is important, as seasonal variation in prices has been observed to be large, especially with regard to fresh fruits and vegetables. Seasonal price variations are much more modest though at the level of the complete food basket. Other differences between the method applied by Nibud and the one applied in this project are summarised in the table below. It is not clear from the outset whether the procedure applied by Nibud necessarily leads to higher prices as compared to the pricing procedure applied in this project. This is

[90] Other options discussed include 'average prices in "normal" supermarket (without weekly discounts)', 'average prices in discount supermarket', 'cheapest price in discount supermarket', 'Food bank/Own production'.

especially so, because Nibud takes discounts fully into account. Given the large prevalence of discounts, weekly discounts play an important role in defining the average price, as articles sold at a discounted price are sold in much higher volumes than articles that are not eligible for the weekly discount (for an illustration, see van der Grient and de Haan, 2010).

Table 32: Differences between the Nibud method and the pricing procedure applied in this project.

	Nibud	This project	Comment
Timing	Yearly average	Snapshot on a specific moment	Scanner data allow for more reliable and robust pricing
Discounts	Fully taken into account	Standard: excluded (some exceptions)	Pros and cons, scanner data allow for more realistic picture, if representative
Exclusion of products	Very expensive products, products with small market share	Very expensive products, weighted average of cheap and middle-range products	Expensive products easily detected with scanner data, as well as products that are likely not to be very accessible or acceptable given their low turnover
Shops	All retailers that provide scanner data	Specifically chosen shop recommended by focus groups and known to have low prices (small survey)	Scanner data provide possibility of representative price, in principle, choice of retailers can still be discussed in focus groups, however, depends on representativeness of chains providing scanner data
Geographical focus	Country	Capital city	Statistics Netherlands does not publish regional price differences and Nibud has no access to regional price information.

10.2.3 The potential use of cash register data in other countries[91]

The use and availability of cash register data is more and more widespread. In four EU Member States NSIs make use of scanner data for constructing the consumer price index, especially in relation to trends in food prices (BE, DK, NL and SE)[92]. Cash register data contain information both on the prices and quantities sold of all individual items in a shop. They have a high potential to offer a very rich data source for better pricing the items covered by the reference budgets in a larger number of countries.

As may be clear from the experience of Nibud, cash register data have some advantages as compared to a manual price survey (Sammar et al., 2012; Feldmann, 2013; de Haan and Krsinich, 2014):

[91] We are grateful to Ronald Goudsmit from The Nielsen Company to provide us with more information on the options and limitations of using the cash register data collected by The Nielsen Company and to Berthold Feldmann from Eurostat Unit C4 for providing up-to-date information on the use of scanner data by NSIs in the EU.

[92] A larger group of NSI is doing tests with scanner data. Several workshops on the use of scanner data for constructing consumer price indices in Europe have taken place, see for instance https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_sem_lista&tipo=r&detalhe=165101941; and http://www.statistik.at/web_en/about_us/events/scanner_data_workshop/index.html.

- It is possible to cover a much larger sample of products, as the data are centrally provided, the statistical reliability can be substantially increased, while regional breakdowns are possible.
- The data tend to be more reliable: they exclude human errors while collecting prices, and make sure that the prices paid at the cash desk are recorded rather than those shown on the packages. In a large-scale study for Sweden about 9% of the items in a manual survey could not be found in the shops and of about 6% of the items the price shown on the package or shelf was different from the one to be paid at the cash desk (cf. Sammar et al., 2012).
- It is possible to have a series of measurements in one month and to smooth out short-term fluctuations in price levels that are encountered in a one-off price survey, and thus further increase the representativeness and reliability of the monthly estimate.
- It is possible to gain more insight into the importance of discounts and the extent to which customers make use of these. Therefore, a more straightforward procedure could be developed to take discounts into account in a harmonised way cross-nationally.
- The data collection process could be much more efficient, as there is no need to go physically to shops to collect the prices manually.

Collecting scanner data as part of the research process would be inefficient given that it entails contacting a high number of companies, a substantial investment in cleaning the data and assessing its quality, etc. Currently, quite a few national statistical institutes have started to collect cash register data, and it would be worth checking to what extent they could make the data (in an aggregated way) available for developing reference budgets. Alternatively, scanner data are also collected by private companies. For instance, The Nielsen Company, a global marketing research firm, collects detailed scanner data for a large number of products in a large number of countries, and probably has the most extensive dataset available. They make the data available for research (for a study by the ECB on the basis of these data, see Gábor and Vermeulen, 2014). As the dataset includes detailed information on the type of products, the type of retailer, their price (with and without discounts), and the quantities sold, it is possible to compute a representative lower price level, leaving out those items that are rarely sold and types of shops with a very low market share. For instance, it would be possible to estimate the 25 per cent cheapest price level per product, including only those chains and products that have a minimum market share[93].

Yet, there are some important limitations: the number of items covered is much more extensive in some countries than in others (cf. Gábor and Vermeulen, 2014) such that the representativeness of the scanner data will vary from one country to another, depending also on the share of the market covered by the retailers that have provided the data (e.g. the data tend to be more complete if the market share of supermarkets and hypermarkets is large; whereas the opposite is true if local groceries account for a large market share); overall, for a wide range of goods covered by the RBs no scanner data are available or are less reliable (e.g. for fresh food and vegetables), while typically, scanner data for services are not available. In comparison with official price surveys about 20 to 30 per cent of all product groups are covered (Feldmann, 2013). Furthermore, working with scanner data requires some care and caution as product codes (so-called GTIN codes, formerly EAN codes) tend to change rapidly, and

[93] A preliminary test shows that the exact procedure for estimating a lower price level could make an important difference to the final result. If one would make use of scanner data for estimating a low price level, considerable further analyses and sensitivity checks are clearly warranted.

sometimes for unclear reasons (e.g. the same product may be produced with a new EAN code, even though the product itself has not been changed); and the codes are not consistent across countries.

It is clear that scanner data may help to improve the pricing of RBs, and offer useful information for validating the results. However, currently they cannot fully replace a manual collection of prices for the complete set of items covered by the RBs. The cost of getting access to the data can be considerable, and this will have to be weighed against savings made on collecting prices manually, and gains in the quality of the pricing procedure. At the same time, NSIs and Eurostat are setting decisive steps for improving the collection of scanner data (Feldmann, 2014), implying that future RBs projects should regularly re-evaluate the potential contribution of scanner data to the pricing procedure. In addition, it would be useful to have a closer look at new developments in collecting prices manually. Several NSIs are experimenting with using manual, portable scanners and tablets for collecting prices in shops. If reference budgets are to be updated regularly, it might be worth it to invest more into new tools for collecting prices more efficiently (and with less errors).

10.2.4 The potential contribution of online price surveys

Increasingly, people buy goods and services online. Also, shops show the prices of products online, even if products can only be purchased offline. Hence, companies and researchers have started to carry out online price surveys on the basis of 'web crawling' and 'web scraping' techniques, as have several national statistical offices. In addition, several websites have been set up to collect prices by asking participants to notify the web owners about the price of products in their local area, including those in shops that are not necessarily available online or through cash register data. Clearly, online price surveys could be of interest for reference budgets research, as they could help to construct a representative price database at reduced cost. Therefore, in this section we briefly review a selection of online price surveys. The surveys provide potentially enlightening perspectives for improvements in future research on reference budgets.

- **MIT project**

The Billion Prices Project was initiated by the Massachusetts Institute of Technology (MIT)[94]. The project brings together prices from websites of numerous online retailers by means of web scraping. Prices are collected for a variety of countries and on a daily basis. The retailers covered are multi-channel retailers (i.e. that sell both online and offline) and are selected on the basis of their market share. The datasets that are publicly shared are twofold: 1) supermarket data from the seven largest supermarkets in six countries in Latin America and the US in the period 2007-2011 and; 2) global retailer data from four renowned shops[95] in 85 countries from 2008 till 2013. PriceStats[96], a private company, continues to collect prices daily. The (private) survey has as advantage that the data is always up-to-date, and is collected in a comparable manner. However, comparability depends on the perspective: indeed, even if the methodology is similar for the countries to a certain degree, the way one values the representativeness of the selected stores (e.g. the same stores differ in prestige across countries) probably causes differences. Other advantages of this type of data include: the data are collected at a relatively low cost, as there is no need to visit shops offline and data can be collected from shops in a wide range of countries; the data are available in real-time, with little delay; the data contain information on product details (e.g. brand, package size); the data allow for the comparison of the price of exactly the same product in different

[94] http://bpp.mit.edu/ (last accessed September 2015).

[95] Apple, IKEA, H&M, and Zara, see also http://bpp.mit.edu/datasets/ (last accessed September 2015).

[96] http://www.pricestats.com/ (last accessed September 2015).

countries; products can be included in the survey from the moment they enter the market, until they are no longer sold (cf. Cavallo, 2012; Cavallo et al., 2014). The drawbacks of the data are that relatively few retailers are covered, and not all types of products, and especially services, are available online. In addition, the representativeness of the data varies strongly across countries (e.g. in terms of market shares of the retailers and products covered in the database).

- **NUMBEO**

Numbeo[97] provides a free online tool that creates a database containing data on living conditions in cities and countries across the world, by means of collecting information on amongst others cost of living, health care, and quality of life. Starting in 2010, this data is gathered through the systematic input of visitors of the website, filling in the local cost of goods and services. Newly entered data is checked by an algorithm which compares the new contribution with existing data and the probability that the new contribution is admissible (e.g. falls approximately within a reasonable range of the already available price data). In case the data entry seems implausible, the data will undergo a manual review and will be approved accordingly. A disadvantage of this online survey is that in some countries the number of respondents is rather low, making it difficult to assess the veracity of the prices. The same goes for the representativeness of the data collected.

- **Living wage indicator project**

On the website wageindicator.org various projects of all over the world with regard to assessing the living wage are brought together. In addition, in order to state something meaningful about the minimum level of a living wage, survey websites concerning the cost of living are summarised per country (for 85 countries). Similar to Numbeo, for each of these countries visitors can enter the cost of a range of goods and services as they encounter them in the local market. The survey contains aspects of cost of living in the categories supermarket, transport, telecom, salary, and financing. As this price survey is broadly equal to Numbeo, similar drawbacks of representativeness apply.

- **Prixing.fr**

Prixing.fr is a website providing an application whereby (online) prices of more than ten million products from numerous French retailers are being compared to determine which store (online or offline) has the cheapest offer. By scanning in a shop the bar code using a mobile phone, the cheapest price is shown (alongside other information on the product). The range of products varies from food in supermarkets to household appliances in warehouses. Additionally, one can create shopping lists (including promotions), ensuring one can accurately estimate the total amount that will be spent in the supermarket. Furthermore, the price history of each product is accessible through daily price reports. It is clear that such a tool does not only make our assumption of economical agents that look for the cheapest prices on the market more realistic, it also entails the construction of a massive price dataset, which could be used for pricing reference budgets. As more and more consumers add also the price of offline shops, and more retailers present the price of their products online, representativeness of the data increase. We are not aware of similar initiatives for other countries, but clearly it would be worth it to explore to what extent similar tools are available for other countries and whether the data could be made available for research (and for pricing reference budgets in particular).

The initiatives described here give some insight into how in the long term online price surveys could potentially contribute to developing cross-country comparable reference budgets. Price data collected on the basis of web crawling and online price surveys are

[97] Cf. http://www.numbeo.com/cost-of-living/ (last accessed September 2015).

increasingly available for research. With more price information becoming available on the web, the representativeness and quality of these new types of information are increasing. Evidently, the collection of price data online might offer a considerable reduction in the cost of carrying out a price survey. At the same time, the current price data are not readily suitable for reference budget research. For instance, representativeness is an issue, either because online purchases are not equally prevalent everywhere, or, as also is the case for price surveys based on voluntary contributions, the price surveys are not based on random selection from a population frame. Furthermore, at least in the case of voluntary surveys, reliability may pose significant challenges. Another drawback is that online price survey data currently do not contain information about the number of times a certain good or service is purchased, which would be helpful in selecting the most realistic price. Nonetheless, with more and better data becoming available, and increasing market shares of online providers, it is worth to keep track of updates and methodological improvements of existing online price surveys.

10.2.5 Conclusion

The procedure for pricing the list of goods and services is a crucial step in developing reference budgets. The pricing procedures applied in different RBs in Europe varies widely. In this pilot project, we have opted for a manual small-scale price survey, to be carried out by the national research teams.

Pricing items in a reliable and efficient way is not obvious. For future projects, it is advisable to explore new ways for collecting prices, especially in collaboration with National Statistical Institutes. Official price surveys are relatively extensive and reliable and may offer a possibility for making the pricing procedure more efficient, representative and robust. However, our experience with Statistics Luxembourg shows that official price surveys may not always cover the full range of items in the RBs, and may lack representative information on the price range for some specific items. A combination between a manual price survey, specifically for the RBs and the official price survey would remain necessary, unless NSIs would agree to extend their price survey. In any case, this seems to us the most promising route for further exploration in the short term.

At the same time, new data collection methods employed by NSIs look very promising. Scanner data offer the advantage of providing information on normal prices as well as discounts and turnover rates for a large range of products and articles. The more retailers and chains share this information, the more representative and robust these data become. Due to the richness of this data, a much more reliable and robust pricing procedure could be conceived. However, it would be inefficient to collect scanner data directly from retailers and chains, as this would require an enormous effort for negotiating access and cleaning the data. Also in this regard, collaboration with NSIs seems to be the most promising and efficient way forward. By and large, the same is true for other data sources that could provide more representative price information, such as web crawling techniques and electronic questionnaires. Nonetheless, for the time being a specifically designed manual price survey will remain necessary due to the wide range of products included in the RBs, and the focus on a lower price range. Furthermore, it should be stressed that the availability and representativeness of these new types of price information seems to be very unevenly distributed across countries. A more in-depth study in which the results of a specifically designed manual price survey as carried out in this project is compared to the results of a pricing procedure which builds on electronic data sources seems warranted to assess the comparability of the results. In the meantime, a different route that might be worth exploring would be to make use of a barcode scanner to price the items in the various shops when doing the price survey so that the prices can be collected in a more efficient manner.

10.3 The sensitivity of reference budgets to lifespan assumptions

The total monthly cost of the items included in the reference budgets does not only depend on the price of the items included in the baskets of goods and services, but also on their average quantity per person per month. Appropriate average monthly amounts are usually more easy to determine for items that can be used only once. For instance, this is the case for many food products, when concrete recommendations are available, or when it concerns products with a tested and published shelf life such as foods or medicines. However, reference budgets contain also a wide range of items which can be used over a longer time period. This applies to furniture, but also to items such as clothing, utensils for personal hygiene, a bike or a car, electronic appliances and kitchen equipment. The amount of time that the product is assumed to last, is called the lifespan. The average amount per month of a product is inversely proportional to its lifespan. The longer the lifespan, the lower the average monthly cost. Typically, the appropriate lifespan of products with a lifespan above one month is harder to estimate than the appropriate lifespan of products with a lifespan of less than a month. Furthermore, lifespans assumed in reference budgets do not only depend on the average lifespan in society, but on what is considered a maximum lifespan that would be appropriate to assume for a minimum budget for adequate social participation.

We are not aware of any concrete exhaustive list of lifespans that could be used for constructing comparable reference budgets in Europe. Therefore, in this chapter we (1) test to what extent the level of reference budgets is sensitive to different assumptions regarding the lifespan of goods; (2) elaborate briefly on the existing literature in relation to the lifespan of goods and suggest routes for improving the empirical basis of lifespans assumptions; (3) introduce 'lifespan sensitivity bounds' as a way to better communicate about the sensitivity of reference budgets to lifespan assumptions. We illustrate the importance of lifespan assumptions on the basis of the reference budgets developed for Antwerp (BE) and Budapest (HU) in the context of the ImPRovE project (Goedemé, Storms, Stockman, et al., 2015)[98].

10.3.1 Method

The lifespans in the ImPRovE reference budgets started from the Belgian reference budgets that were completed in 2009. If research teams had good reasons to deviate from the Belgian lifespan assumptions, they could make adaptations. On the basis of expert opinion, some (upward) changes to the lifespans were made, especially in relation to clothing (see the table below). The lifespan assumptions in the Belgian reference budgets built upon the lifespan assumptions of other existing reference budgets in the United Kingdom, Australia and the Netherlands, and were further informed by expert advice and focus group discussions in Belgium. Even though the assumed lifespans were informed by expert advice and focus group discussions, they cannot be considered to have a strong empirical basis, given that generally there is very little information available upon how long people use the items included in the reference budgets, and under what conditions.

In order to assess the sensitivity of the reference budgets to the lifespan assumptions, we first have assigned all items into two categories, namely having a varying lifespan ("varying items") or non-varying lifespan ("non-varying items"). For the latter category, we refer to all products where experts have recommended a certain amount or where specific regulations, prescriptions or guidelines on product lifetimes are available. All other items are assigned to the category of 'varying items'. Non-varying items include among other things services (e.g. a GP consult, a visit to a restaurant), food products, cleaning & washing liquids (e.g. soap), health care and personal care related items (e.g.

[98] At the time of writing we did not yet have the reference budgets developed in this pilot project at our disposal.

preservatives, sanitary napkins, most items included in the family medicine chest), recurring costs for mobility (e.g. season pass public transport, fuel for car, insurance), other recurrent costs related to communication services (e.g. internet, TV subscriptions), and direct costs for education (e.g. school books, subscription fee). In contrast, varying items include kitchen equipment, electric appliances, clothing, towels, rubbish bins, a comb and other tools for maintaining personal care , furniture, a bike (and related items such as a helmet), and a car. The table below provides an illustrative list of items with their original lifespan.

Table 33: Selected list of items and their lifespan (in months), single person household, Antwerp and Budapest, 2014.

	Antwerp	Budapest
Kitchen equipment		
refrigerator	120	120
wooden spoon	24	24
pot with lid	180	180
cutlery	180	180
Clothing basket		
heavy coat (adult)	36	60
jeans (heavy)	12	12
light dress	24	24
gummy boots (adult)	120	n/a
short sleeve T-shirt (boy)	12	24
iron	60	60
washing machine	120	120
Health care and personal care		
sun glasses	36	36
comb	60	60
toilet rubbish bin	180	180
bath towels	60	60
Social relations		
table	180	180
wine glass	60	60
additional chairs	120	120
mobile phone	36	36
Rest and leisure		
TV	60	60
mattress	120	120
Mobility		
bike (adult)	120	120
second hand car (fiat, 4 years old)	90	90

Note: Gummy boots are not included in the Hungarian reference budgets.

Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015).

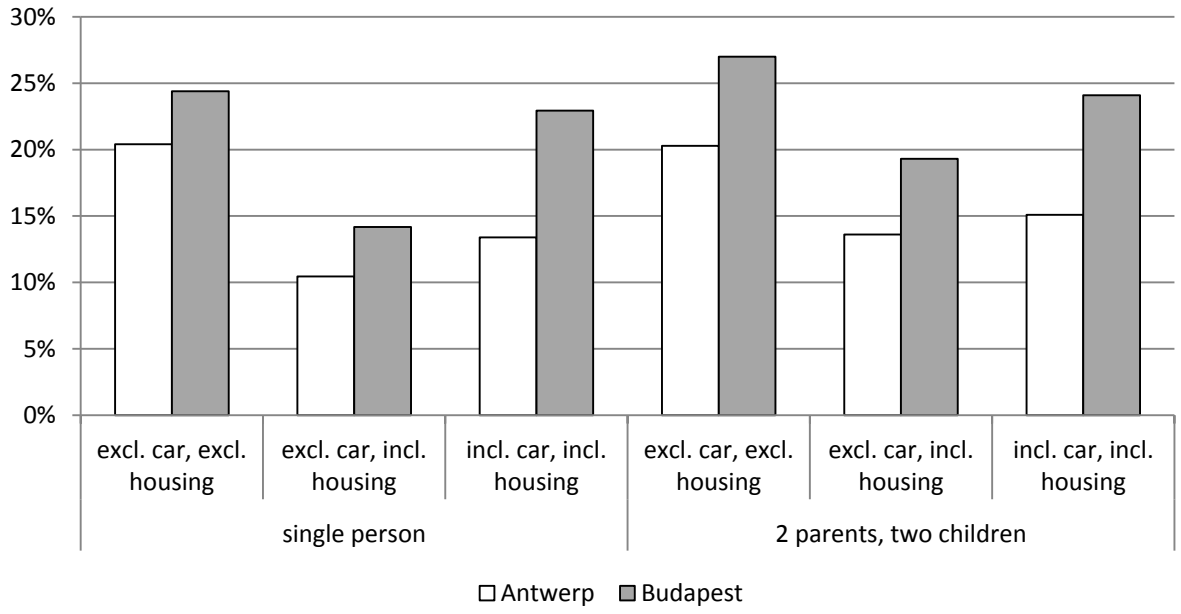
For all varying items, we allow the lifespan to vary by 50 to 200 per cent of the original lifespan. The price per month of these items is adapted accordingly in an inversely proportional manner, whereas the price per month of the non-varying items is kept constant. We have performed the exercise for two family types: a single woman at active age; and a couple with two children (girl aged 14 – secondary school, boy aged 10 –

primary school). Since having a car (mobility basket) and renting a dwelling (housing basket) are considered to be major costs, we repeated the exercise without including the cost of a second-hand car and/or the costs of renting a modest but adequate dwelling on the private market, at a price level equal to the 30th percentile (cf. Goedemé, Storms, Stockman, et al., 2015).

10.3.2 Results

The sensitivity of the reference budgets to varying lifespan assumptions is directly related to the share of these goods in the total baskets. As is shown in the graph below, the cost associated with the varying items as a share of the total reference budgets is generally higher for Budapest than Antwerp. When housing costs are included, the cost of the varying items as a share of the total reference budgets does not exceed 15 per cent in Antwerp, whereas their maximum share is about 25 per cent in Budapest. Evidently, if housing costs are excluded, the share is somewhat higher. With regard to family composition, the share of varying items is higher for a household consisting of two adults with two children as compared to a (female) single person household, mainly because of the smaller share of housing costs in the total budget and the larger share of the clothing basket, which consists nearly completely of items with a varying lifespan.

Figure 57: Share of the cost of goods with a 'varying' lifespan in the total reference budgets, Antwerp and Budapest, 2014.



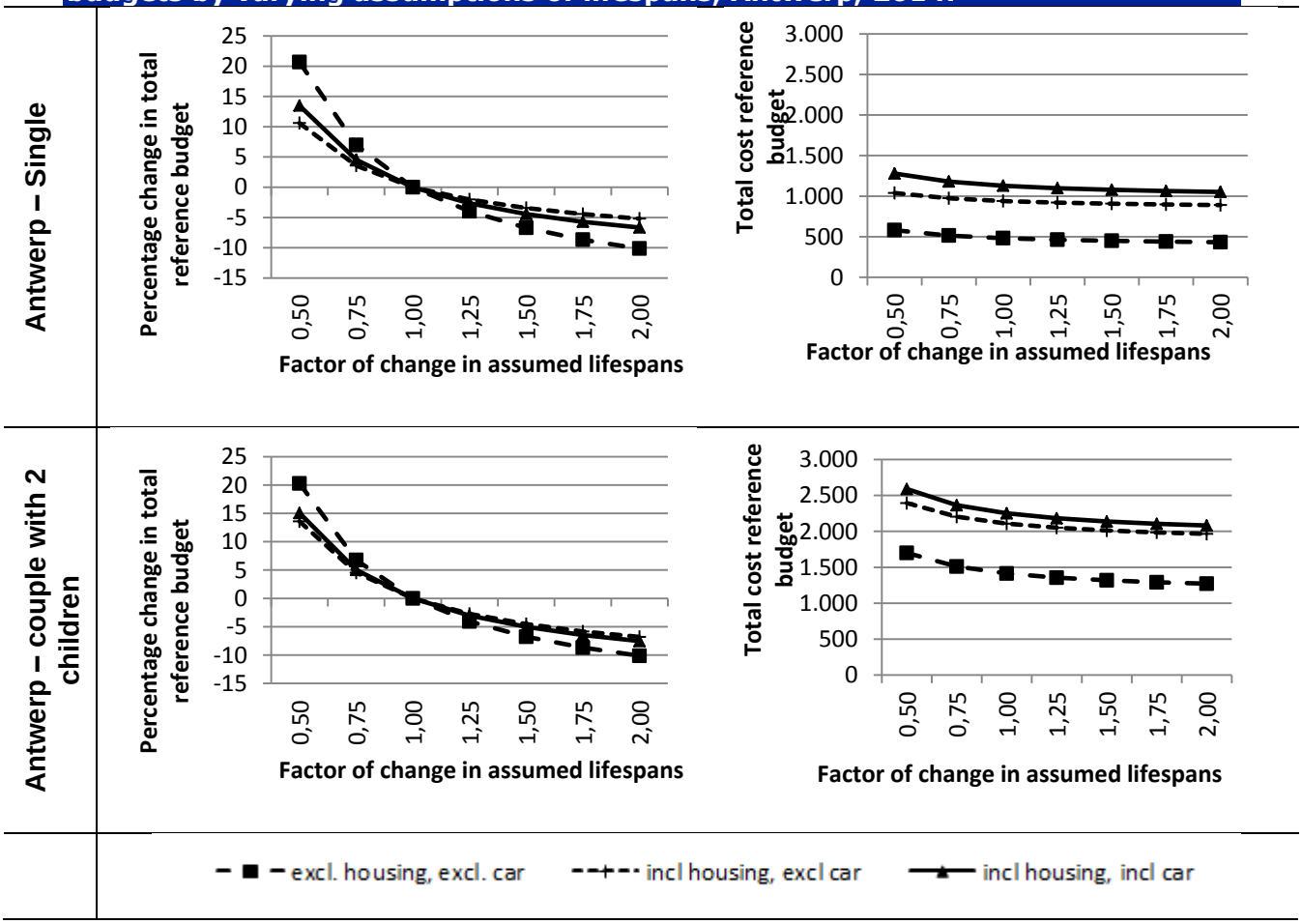
Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015); own calculations.

The graphs below show the impact of making different assumptions regarding the lifespan of the varying items. We multiply the original lifespans with a factor ranging from 0.5 to 2.0 and recalculate the total cost of the baskets. The impact upon the total cost is smallest when the car is excluded, and housing costs included (i.e. the most relevant situation for people living in large cities). In that case, halving the lifespans results in a relative increase of the reference budgets with between 10 and 20 per cent. However, doubling the lifespan results in a decrease of reference budgets with only between 5 and 10 per cent[99]. *This means that underestimating lifespans with a certain percentage results in a stronger deviation from the 'real' level of reference budgets as compared to overestimating lifespans by the same percentage.* Similar observations can

[99] It can be easily mathematically shown that the impact of halving the lifespan is always larger than the impact of doubling the lifespan.

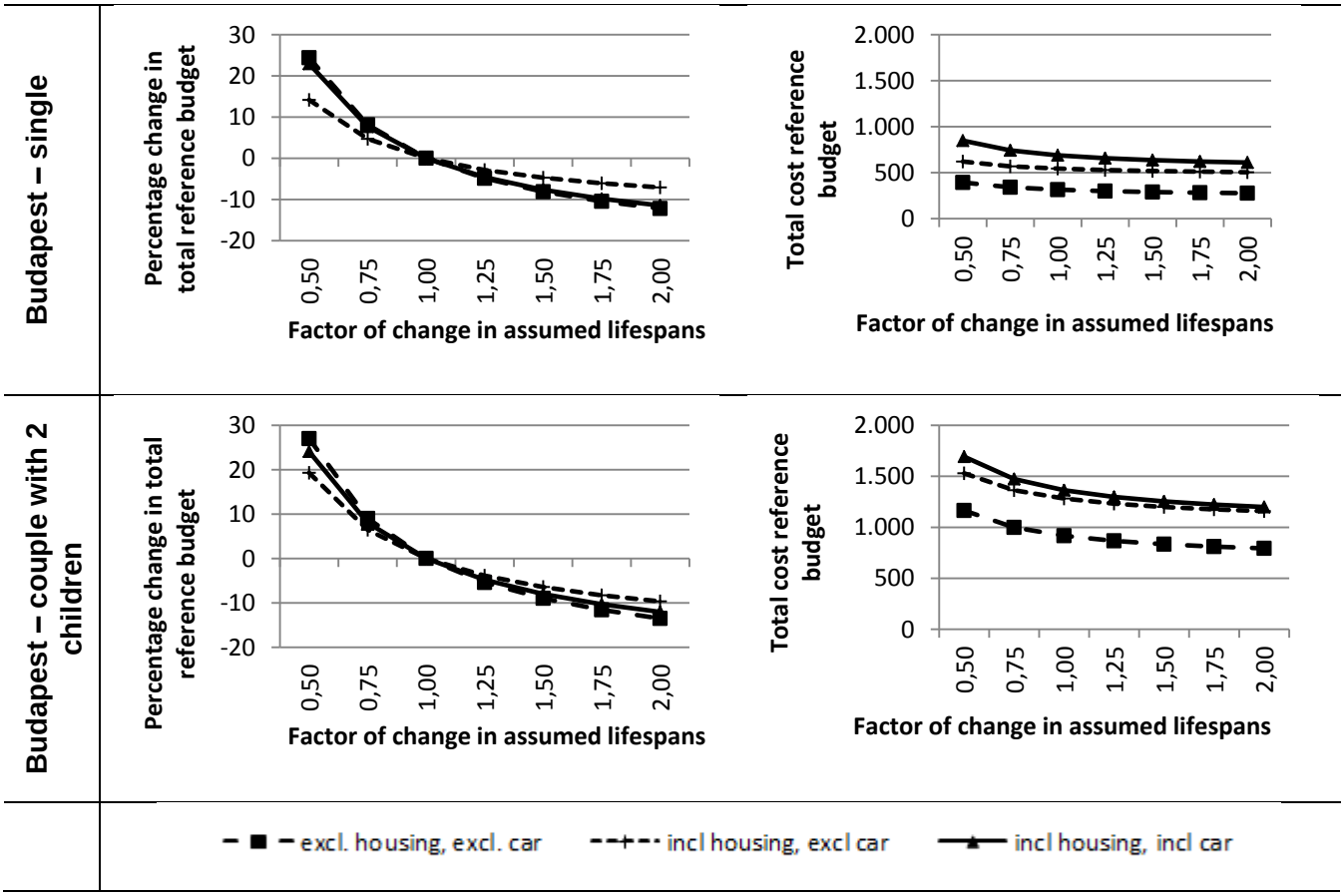
be made when the costs of a second-hand car are included, even though the sensitivity of the total cost to lifespan assumptions is considerably higher, especially for Budapest. Given that the share of varying items is larger for the Hungarian reference budgets, in relative terms their sensitivity to lifespan assumptions is larger compared to the Belgian reference budgets. Strikingly, in absolute terms (EUR), the total cost of reference budgets changes similarly for Budapest and Antwerp. Doubling the lifespan decreases the total cost of reference budgets (excluding the car) with about 50 EUR for singles in Antwerp and about 40 EUR for singles in Budapest. For couples with two children, these amounts are about 140 EUR for Antwerp and 120 EUR for Budapest. When including the cost of a second-hand car, the change in absolute terms is even slightly larger for the Hungarian reference budgets than for the Belgian ones, at least for single person households. It would be useful to know whether there is a more general negative relation between the level of reference budgets and the share of varying items across countries, as this would imply that lower reference budgets could be estimated with less precision than higher reference budgets.

Figure 58. Percentage change and change in EUR in the total level of reference budgets by varying assumptions of lifespans, Antwerp, 2014.



Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015); own computations.

Figure 59. Percentage change and change in EUR in the total level of reference budgets by varying assumptions of lifespans, Budapest, 2014.



Note: Exchange rate 300 HUF to the Euro.

Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015); own computations.

10.3.3 Improving lifespan assumptions in the future[100]

Ideally, empirically validated information on lifespans is available for all articles included in the reference budgets when conducting the price survey, such that it would be possible to identify the most economical articles, given several functional or other requirements. Given that such information is very fragmentary, not only regarding cross-country differences, but also for individual countries, the quality of reference budgets could be substantially increased by collecting better information on the lifespan of goods.

The estimation of lifespans is fraught with many difficulties. First, it should be made clear what the relevant point of reference is. Lifespans can be evaluated either by the year in which items were produced or shipped ('what is the average lifespan of items produced in year x?') or by the year in which items were discarded ('what is the average lifespan of products discarded in year y?') (cf. Oguchi et al., 2010). Any effort for collecting better information on lifespans, should first sort out what the most relevant time perspective is. Arguably, for reference budgets the former perspective is the more relevant one.

Second, it should be remembered that in the context of reference budgets, we are not necessarily concerned about how long people make use of certain products before discarding them, but about what an appropriate lifespan assumption is for adequate social participation. However, in an ideal scenario a normative viewpoint on lifespans is

[100] We are grateful to Tim Cooper (Nottingham Trent University) for providing feedback on this section. All views expressed in this section and any remaining errors or shortcomings are our own.

informed by information on (1) functional lifespans; (2) actual lifespans; and (3) economically optimal lifespans (cf. OECD, 1982; Cooper, 1994)[101]. Deciding on proper lifespan assumptions is further complicated by the fact that lifespans for a particular item are likely to vary across households, depending on how they use the item and on their circumstances.

According to Cooper (2005: 62) "[p]roducts are not merely functional objects, but convey important signals in human relationships. They convey meaning, reflect values, and contribute to identity". The time an item is used by a person usually depends either on whether the person is personally attached to it, whether the item is outdated, whether the item is able to show personal identity or whether it can still be used appropriately for the purpose it was initially bought for (maintaining functional utility) (Cooper, 2005; Cox et al., 2013). Indeed, in a consumer survey in the UK it was found that a significant portion of a wide range of products was still functioning when discarded, reaching more than half for mobile phones and computers (Cooper, 2004). Therefore, for a well-informed discussion on proper lifespan assumptions, we need information on both functional lifespans (the time the functional utility of a product can be maintained on average), and actual lifespans (the time people use an item before discarding it). The functional lifetime of durables depends on: the quality of the good (design and manufacture), the way and frequency with which it is used, local circumstances (e.g. the characteristics of tap water in the case of a washing machine), as well as the possibilities for repair and upgrading. Another complicating factor is that longer actual lifespans do not necessarily coincide with reduced costs for households, even for a given market price. Namely, as newer products may be much more resource efficient in their use, it may sometimes be cheaper to discard a product before reaching its functional lifespan and replacing it with a newer, more resource efficient product (cf. Cooper, 2004; Downes et al., 2011; Boulos et al., 2015). This is sometimes the case for electric and electronic appliances. However, the same reasoning may also apply to other goods, such as shoes, a bike or a car: the costs of maintenance and repair may sometimes be too high to be economically optimal as compared to the costs of replacing the item with a new product. In other words, in addition to information regarding functional and actual lifespans, in an ideal scenario information is acquired about the 'economically optimal lifespan' of a product.

To the best of our knowledge, there is a lack of reliable information on all three types of lifespans (functional, actual, economical) for a wide range of products. Nonetheless, there is a growing literature on the lifetime of products, especially in the context of improving waste management and the transition towards a less resource-intensive society. Rather recently, several Japanese researchers have put together a database on lifespans, covering a wide range of products with lifespan estimates for quite a few countries, including several West European countries (Murakami et al., 2010)[102]. Also in the context of the preparatory studies for Eco-design and Energy labelling legislation that carried out for the European Commission, information on product lifetimes can be found[103]. However, the data seem to be too fragmented for our purposes. Given the importance of information on product lifespans for the precision and level of reference budgets as well as the interest of this topic for other fields of study, we strongly recommend to look for synergies with other fields of study, such as waste management,

[101] A more detailed terminology of lifespans can be found in Murakami et al. (2010). However, this would lead us too far for the present purposes.

[102] Lifespan database for Vehicles, Equipment, and Structures: LiVES, available from http://www.nies.go.jp/lifespan/index-e.html (last accessed June 2015).

[103] https://circabc.Europa.eu/w/browse/f27f80a1-0cb3-4bb3-b73d-d75fa23c0b54 (last accessed June 2015). See also: http://www.eup-network.de/product-groups/preparatory-studies/completed/ (last accessed June 2015).

and other DGs, such as DG Energy and DG Environment, to jointly set up a study on lifespans in the EU and to collect information in a more systematic manner.

Options for data collection and methodologies for estimating lifespans are reviewed by Oguchi et al. (2010). In fact, a wide range of data sources can be considered: surveys of discarded commodities at recycling and waste treatment facilities, information available from national accounts, a household survey, a survey among producers and retailers, a systematic collection of laboratory tests. Probably, doing a household survey for collecting information on the year of acquisition of goods currently in use and information on goods discarded during the previous year (e.g. Ruffin and Tippett, 1975) would be the most efficient and informative way of gaining more insight into lifespans, with the potential of assessing both average lifespans and the distribution of lifespans, taking other socio-demographic and economic background factors into account (for a more recent example, see Langley et al., 2013). Such a survey could be combined with an effort to collect also other information that is much needed for improving the quality, comparability and robustness of reference budgets in Europe. At the same time, it would be advisable to collaborate with researchers with specific expertise in the area of lifespan research and durability, so as to be able to triangulate the survey results with information from other sources, given that a recall survey usually is subject to reliability challenges.

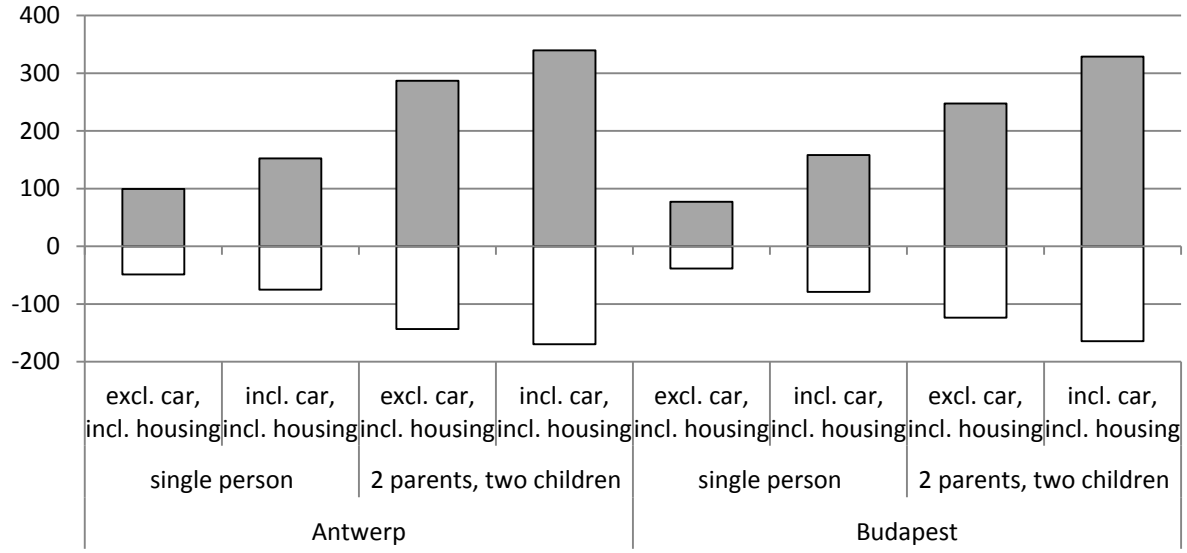
10.3.4 Better communicating about lifespans: 'lifespan sensitivity bounds'

For the time being, it is unlikely lifespan assumptions of reference budgets will have a more solid empirical basis in the near future. Therefore, it may be useful to communicate better about the uncertainties surrounding the exact level of reference budgets. In fact, as we have stressed elsewhere, reference budgets are *illustrative* priced lists of goods and services. They cannot be interpreted as a fixed or exact threshold given the elusiveness of the targeted living standard, and the limited empirical basis for a wide range of assumptions underlying the budgets and the pricing procedure. Therefore, presenting a range rather than a single value, may help to communicate not only the uncertainties in relation to the lifespan assumptions, but also regarding the overall level of reference budgets more generally. If sensitivity tests show that the range of uncertainty is rather limited, researchers and campaigners should not be afraid of such a more nuanced communication. In fact, many public statistics are estimates within certain bounds rather than single values.

By varying the lifespan assumptions, it is possible to define a simple procedure to depict reference budgets within certain bounds rather than showing a single value. For instance, one could show the reference budgets with their original value, surrounded with an interval based upon a proportional increase and decrease of the original lifespan assumptions. More exactly, the approach we propose consists in increasing and decreasing lifespans with a factor x, i.e. an upper bound to overall costs can be defined by dividing lifespans by this factor x (implying that the costs of varying items is multiplied by x), and a lower bound by multiplying lifespans by the same factor x (implying that the costs of varying items is multiplied by $1/x$), and calculate the resulting reference budgets[104]. It can be easily shown that in absolute terms the distance between the upper bound and the original reference budget will always be larger than the distance between the lower bound and the original reference budget. This point is illustrated in the graph below for the ImPRovE reference budgets developed for Antwerp and Budapest.

[104] An alternative approach would be to increase and decrease lifespans with a similar percentage, e.g. we could increase lifespans with 25 per cent for calculating a lower bound, and decrease lifespans with 25 per cent for calculating an upper bound. The drawback is that percentages of 100% or more are obviously not possible, and even percentages below but close to 100% would produce implausibly high upper bounds.

Figure 60: Factor 2 lifespan sensitivity bounds of ImPRovE reference budgets developed for Antwerp and Budapest (in EUR), 2014.



Note: The original lifespans are multiplied by two for defining the lower bound, and divided by two for defining the upper bound.
Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015); own computations.

Which factor to use when defining the lifespan sensitivity bounds is largely up to the user and should be determined by what one considers relevant in context. Similar to statistical confidence intervals, it is up to the user which degree of uncertainty one allows for. At the same time, it should be clear that statistical confidence intervals have strong theoretical underpinnings, whereas this is not the case for lifespan sensitivity bounds. Nonetheless, we are convinced that showing the bounds may prove useful for communicating in a more nuanced way about reference budgets, while drawing attention to the fact that the budgets are 'estimates' rather than exact empirical measures. We illustrate the communication of lifespan sensitivity bounds for 'factor 2 lifespan sensitivity bounds', which means that for calculating the upper bound the original lifespans have been halved, whereas for calculating the lower bound the original lifespans have been doubled. Probably these are the most extreme values one would reasonably communicate.

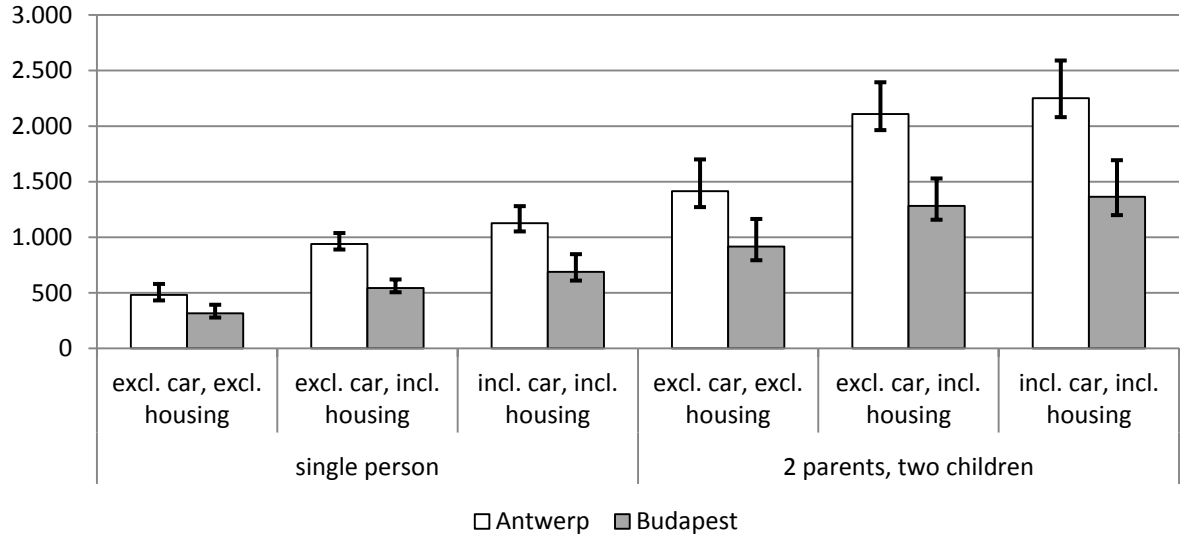
Furthermore, it is worth emphasising that the baskets for the various household types include often the same items. So if the total reference budget for one household type is decreased or increased, because lifespans are adjusted upwards or downwards, this is likely to be true for the total reference budgets for other household types as well. So overlapping lifespan sensitivity bounds should not be interpreted in the sense that the total reference budgets could be at the same level[105]. They merely serve to indicate uncertainty about reference budgets, not about differences between two reference budgets.

Finally, if in the future actual lifespans would be measured in a household survey (cf. above), it would be possible to strengthen the empirical basis of the lifespan sensitivity bounds. For instance, if the average or median reported actual lifespan of a pair of jeans would be 12 months and the 95% confidence bounds would be 8 and 16 months these could be used to define lifespan sensitivity bounds. Alternatively, one could use the

[105] A similar note applies to differences between countries, insofar lifespan assumptions across countries are correlated.

reported actual lifespans at certain percentiles for calculating lifespan sensitivity bounds. The advantage of such a procedure would be that it could take into account contingent skewness in the distribution. Admittedly, whether such an approach is feasible in practical terms is a matter of future research. As highlighted before, lifespan assumptions imply also a normative choice, and the empirical measurement of lifespans is not straightforward.

Figure 61: Reference budgets for Antwerp and Budapest with factor 2 lifespan sensitivity bounds, 2014.



Note: Exchange rate 300 HUF to the Euro.

Source: CSB EU Reference Budgets Database (Goedemé, Storms, Stockman, et al., 2015); own computations.

10.3.5 Conclusion

We have shown that the time a product is assumed to last before needing replacement has an important impact upon the level of reference budgets. The impact was stronger for the reference budgets developed for Budapest as compared to those developed for Antwerp in the context of the ImPRovE project. When excluding the cost of a car, halving the lifespans results in a relative increase of the reference budgets with between 10 and 20 per cent for singles and couples with two children. In contrast, doubling the lifespan results in a decrease of reference budgets with between 5 and 10 per cent. More generally, it is worth stressing that underestimating lifespans with a certain percentage results in a stronger deviation from the 'real' level of reference budgets as compared to overestimating lifespans by the same percentage. This is important, as the purpose in this project is to collect information on the *minimum* resources required for adequate social participation.

There is wide scope improving the empirical basis of lifespan assumptions. We recommend that future projects that are aimed at improving lifespan assumptions actively look for synergies with other fields of study and DGs, who may have a strong interest in up-to-date information on lifespans in Europe. Such information could be collected through a household survey, e.g. a special Eurobarometer survey.

Given the fragmented information on lifespans in Europe and the sensitivity of the level of reference budgets to lifespan assumptions, we have introduced and advocated the computation and communication of 'lifespan sensitivity bounds'. We have outlined two approaches: proportional sensitivity bounds and inverse sensitivity bounds. These bounds are calculated by shortening and extending lifespan assumptions of the products included in the baskets of goods and services. Such bounds would provide direct and easily

comprehensible insight into the sensitivity of the reference budgets to the assumptions made regarding product lifetimes, and would have the added advantage of communicating in a more nuanced way the fact that reference budgets are illustrative and do not provide an exact estimation of the minimum resources required for adequate social participation.

10.4 Improving the consultation of citizens

As we have stressed before, the consultation of citizens and involvement of stakeholders is key, due to the normative and very concrete character of the exercise. This is especially true for the social functions of baskets and of particular items. Consultation of citizens serves two distinct purposes (even if these are not always clearly distinguishable in practice), which can be labelled as 'reality check' on the one hand, and 'listening to the people's voice' on the other hand.

Baskets developed by 'experts' and researchers need a 'reality check' in the sense that it is important to check whether the assumptions that are made explicitly or implicitly are realistic. Examples of questions asked are: "Is it realistic to use only public transport and bicycles for mobility?"; "Which kind of supermarkets are accessible for low-income families?" On the other hand, for some items we need to obtain the views of ordinary citizens on what is socially acceptable. Relevant questions in this 'people's voice' regard are: "Is it necessary to be able to serve alcoholic drinks when entertaining people at home?"; "What kind of activities are expected during a child's birthday party?".

10.4.1 Limitations of focus groups in this project

In this project, the consultation of citizens was limited to three focus group discussions. The analysis of focus group discussions is a qualitative research technique that aims at collecting data in which group interactions during a discussion among 6-12 persons are considered to be the main source of information (cf. Morgan and Krueger, 1997). The results of the focus group discussions that are organised within this project are regarded as particular examples of how focus group discussions could proceed, accepting the fact that every focus group discussion is different, which may also be true for their outcome.

The methodological literature on focus groups makes clear that it is a qualitative technique that is mainly suitable for collecting arguments, experiences and opinions. In this project the qualitative and incidental character of focus groups remained fully respected and the groups were mainly used to collect arguments and experiences regarding the choices to be made when developing lists of goods and services that represent the minimum needed for adequate participation in society. In other words, they served mainly as a 'reality check'.

It might be interesting to give focus groups a more deliberative character during the 'arbitration phase' by asking them to come to an agreement on the exact contents of the reference budgets, taking all the previously formulated arguments into account. Such 'deliberative focus groups' are common in consensual reference budgets as implemented in Ireland and the UK (cf. Middleton, 2000; Vincentian Partnership for Social Justice, 2006; Bradshaw et al., 2008) and would strengthen the participatory character of the reference budgets. Insofar people disagree with one another or with the content of the reference budgets developed by researchers, discussions provide relevant contextual information regarding how the reference budgets should be interpreted and their argumentation strengthened. If people come to an agreement on the contents of the reference budgets in the focus groups, this can be an additional argument in the debate on what people need at the minimum, even if the focus groups cannot be interpreted in a representative way (e.g. Onwuegbuzie and Leech, 2007).

There are various ways in which the use of focus groups could be improved for the purposes of reference budgets research. First of all, many teams experienced problems in recruiting people that are willing to participate in focus groups. National stakeholders

sometimes proved to be less helpful than anticipated, or unable to mobilize a sufficient number of persons. Other teams successfully used market agencies for this purpose; the drawback being that this can be an expensive way of recruitment.

Second, different groups could be used in the orientation phase than in the argumentation phase. The function of the focus groups in the orientation phase is to provide guidance regarding the principal normative questions for constructing the reference budgets and to get a first insight in the most common and acceptable consumption and purchasing patterns. In other words, their role is to represent 'the people's voice'. For this purpose, recruitment from a broad cross-section of the population would seem most appropriate.

In the argumentation phase, complete lists of goods and services are drawn up using a range of arguments and reasons. In this phase, focus groups can serve as a 'reality check', whether the goods and services selected are really suitable in the concrete circumstances of households to meet the needs that were identified in the orientation phase. For this purpose, the participants of focus groups should be familiar with the circumstances and constraints of households with a standard of living that is not too far from the targeted living standard. The experiences and views of persons who enjoy a much higher living standard, as well as those of people who are much poorer, would seem less relevant.

Third, obviously, there should be many more focus groups for both phases than was feasible in this project. Ideally, additional focus groups should be consulted until a point of saturation is reached, i.e. until no more additional views, experiences and arguments are put forward. More focus groups would enhance the robustness of the findings from these groups, and therefore also of the reference budgets themselves. Also for practical reasons it is recommendable to split the orientation focus groups and those consulted during the argumentation phase, as otherwise time constraints do not allow for discussing all relevant topics in sufficient detail.

10.4.2 General limitations of focus groups and other forms of deliberative research

Yet, it should be recognised that focus groups have limitations that are inherent in the method. First, even using a much larger number of focus groups, the total number of participants is necessarily limited, making it difficult to claim that they represent a cross-section of the whole population. Second, all discussions are group- and time-specific, depending on the interactions between the participants (cf. Onwuegbuzie and Leech, 2007). A focus group meeting would be held again a week later, even with exactly the same participants, could reach a different 'consensus' than the first time. Third, there is a lack of openness. Even when the discussions are carefully written out, it is often not practical to consult and assess them. Especially when focus groups do not reach a shared consensus (or when different focus groups disagree with one another), the researcher must use her or his judgment about the arguments she or he considers most relevant. Even if the final decision would be left to yet another focus group, bias, non-representativeness and arbitrariness with regard to the composition and dynamics of this final focus group remains an issue of concern. In other words, even though such an approach is participatory, the question remains whose opinion the focus groups really represent if they are not representative of the population.

An adequate deliberative method to obtain the views of citizens on the contents of a reference budget for adequate social participation should meet three conditions:

- The participants should be representative for the whole population. In practice this is only guaranteed when the participants are selected through a random sample, and this sample is sufficiently large. This does not preclude making sure that people from particular groups or categories are present through stratification.

- The views expressed during the discussion should be 'well-considered'. This means that they should be informed, and be justified through arguments in encounters with contrasting points of view. It also implies that the beliefs of participants may be transformed during the discussions.
- The discussions should be open, and it should be transparent to participants and to outside observers how the conclusions (e.g. a consensus about the contents of a reference budget for social participation) are reached.

Since Walker (1987) first proposed to use group discussions to derive a consensual definition of a monetary poverty line, there have been important developments in what is now called deliberative research. Also, experience and reflection have revealed the advantages and limitations of the various methods of deliberative research.

The purpose of deliberation as a research technique is to uncover the public's informed, considered and collective view on a normative question. Usually, this kind of research involves a larger number of people than is possible with focus groups, so that the participants can be more representative for the population as a whole. There are many forms of deliberative research, including workshops, focus groups, polls and consultation. Common features are that the aim is to reach people's informed and considered judgments through a process of public reasoning, and that the process involves researchers providing information. In addition, there is also an expectation that the beliefs and values of participants may be transformed by involvement in the research. The intended endpoint is the generation of a consensus on the issue of deliberation (Burchardt, 2014).

A particular method of deliberative research is deliberative polling, which was developed to address two challenges in modern democracies: how to get both a representative and an informed view of what the public thinks and feels about an important public issue. It tries to achieve this by undertaking a three-staged process: survey of a random representative sample, an informed deliberation among a random representative group selected from the survey sample and a post-deliberation survey. Deliberative polls seek to address the limitations of 'top-of-mind' opinion surveys by giving participants the time and support they need to learn about an issue and to move from raw uninformed opinion to more considered judgment (Fishkin and Rosell, 2004). In a modified form, such a combination of quantitative and qualitative techniques would also be very useful for reference budgets research.

The aims and characteristics of deliberative research seem very well aligned with what we want to achieve in the construction of RBs. Furthermore, surveying a representative sample offers the possibility to fill some of the data gaps encountered in the orientation phase of the research process. Another advantage of deliberative research (or at least of deliberative workshops) is that citizens can have direct exchanges of views with experts, rather than being informed indirectly through second-hand accounts[106]. Such discussion will also benefit the experts, of course. A third advantage is that the whole process is more transparent and more open to scrutiny than is the case for focus groups.

However, before embarking on a full-scale deliberative research project on reference budgets, we need to resolve open questions like what kind of information to provide to whom in what way, the format and duration of the workshop or event, the number and

[106] In Lithuania a representative from the Health Ministry attended one of their focus groups to provide immediate feedback about the food basket. This offered the participants an opportunity to ask questions on the nature of this basket such as why the dieticians chose this kind of daily menu rather than another and why some food products were missing. The knowledge of a nutritionist can be very useful in this regard, since the participants will be more informed about the choices made and less inclined to irrelevant discussions on what is a healthy diet. The presence of experts during focus groups could therefore be considered as a valuable option for better oriented focus group discussions in the future.

recruitment of the participants, and so on. Small-scale experiments would seem necessary.

10.5 Improving the infrastructure for a more efficient development of high-quality reference budgets

Undoubtedly, important methodological challenges remain for high-quality comparable reference budgets. Improving the pricing procedure, lifespan assumptions as well as the consultation of citizens should be longer-term priorities for future research. As we have argued before, this should not preclude the continuation of further developing targeted policy indicators that make use of the reference budgets approach developed in this project. However, the quality of reference budgets does not only depend on methodologies and procedures, but also on the research 'infrastructure' that implements the procedure. In particular, the quality of reference budgets critically hinges upon: (1) a network of dedicated and independent high-quality researchers; (2) the availability and accessibility of important background information; (3) efficient tools for collecting the information on the reference budgets in all participating countries in a format that limits room for recording and processing errors. In this section, we briefly reflect upon these three elements.

10.5.1 Evaluating, deepening and expanding the network of researchers

In order to carry out this project, a network of national lead experts has been brought together. In each country, this national lead expert was asked to put together a team of researchers and to liaise with other experts, and especially a nutritionist. The team leaders were generally experts in the area of social policy, inequality and poverty research. It was essential the team leaders understood the policy relevance of the work and that they had a good general knowledge of the national social and policy context, given that reference budgets touch upon many areas of life. In addition, there was a team of experts at the EU level (a core team and EU expert team), including seasoned researchers and practitioners in the area of social indicators and reference budgets. Finally, we set up a team of 'domain coordinators' who were responsible for developing the handbook chapters of one basket and co-coordinating the research process for their specific basket. The EU Reference Budgets network was set up in a relatively short time span, and there was little room for bringing the network together to discuss the project, the methodology and the outcomes.

For many teams, reference budgets were a completely new field of research, and it proved to require a certain amount of goodwill and time to get acquainted with the idea and principles of reference budgets. For all teams, skype trainings were set up for explaining the methodology and the different tools for collecting the data and reporting the results. Over the course of the project, two teams dropped out (one team led by the Vincentian Partnership for Social Justice in Ireland, and another team based at Loughborough University in the United Kingdom). Both teams have a long tradition with developing reference budgets, and in the end decided to leave the project as they did not want to develop reference budgets based on another methodology. Other teams with experience in developing reference budgets (e.g. in Austria, France, the Netherlands and Finland) stressed the importance of having comparable reference budgets as a reason for continuing with the project, even though the methodology differed from the one they already implemented before. At the same time, for some teams it proved difficult to comply fully with the new method in specific cases or for some items on the list of goods and services when clear differences in results occurred as a result of the difference in methodology. In order to achieve comparable budgets, it is essential that researchers can work independently. Both established and new reference budgets researchers recognised the importance of having standardised procedures and a coordination mechanism to make sure the method is followed in the same way in all countries. During the final project meeting, many country teams stressed the importance of a further

standardisation of the approach in order to make sure results are comparable and comprehensible from a cross-national perspective.

One of the important challenges of reference budgets is to be able to collect a wealth of data and expertise about many spheres of life. In other words, it is essential that country teams can easily connect with other experts and researchers in different fields of study (e.g. nutritionists, health care specialists, …). For some teams this proved to be more difficult than for others. Given the investments made in setting up this international network, as well as the investments made by team leaders to start up a local network of researchers and experts on reference budgets, it would be good to continue the network in one form or another. Being able to bring the network together more frequently could help to work together towards a shared vision of comparability. Experience in a very different context, of the SHARE survey, has learned that such meetings are very helpful to come to a shared understanding of the aims and added value of comparability and how this can best be reached. By allowing more room for discussing the development of the methodology, a shared ownership and increased commitment to following the procedures could be created.

At the same time, there is a need for an evaluation of the network and to assess how the teams of some countries could be strengthened and become part of a broader national network of researchers that could contribute to high quality reference budgets. Helpful in this context would be more room for working more closely together with existing European networks of researchers and recognised experts. For instance, it would be beneficial to liaise with the European Federation of the Associations of Dietitians (EFAD), to further evaluate the validity and quality of national food-based dietary guidelines given their central importance for the food basket. By working together with these existing networks, the quality and acceptability of the different baskets, as well as the interpretation of comparability could be further increased.

In addition, the quality of reference budgets could be improved by setting up a follow-up committee with representatives from different DGs with linkages to the domains covered by the reference budgets to (1) make sure the reference budgets build upon the latest state of knowledge about the context in each country (e.g. regarding the transparency of markets, the price structure in different countries, the lifespan of goods, …); (2) create a platform of support across different DGs for reference budgets and the policy indicators that are constructed using them.

Finally, decisive steps have been made to set up a stakeholder network. Apart from consulting citizens more extensively, it is advisable for future initiatives to inform and consult stakeholder organisations at all stages of the project to make sure that all relevant experts are consulted, that stakeholders are well aware of the strengths and weaknesses of the approach and of the appropriate applications of reference budgets, as well as to generate sufficient support for the use of the developed reference budgets for policy-making and evaluation purposes. The fact that the methodology needs to be agreed upon at the European level, while the resulting reference budgets need to be acceptable at the local level, requires that the stakeholder network has a double-layered structure, consisting of 'European' stakeholders at the EU level and 'national' stakeholder organisations at the local level. It would be helpful to look for synergies with related projects and build as much as possible on existing networks. This creates efficiencies in terms of time and resources, but also makes sure that related projects are not carried out in isolation from one another.

10.5.2 More systematic data collection

In our view, high quality reference budgets should be embedded in, and build upon, an up-to-date knowledge of latest insights into the social, cultural, economic and institutional context for which the budgets are developed. Of course, the choices to be made will always have a normative and, to some extent, arbitrary component. However,

the 'grey zone' of arbitrariness can be greatly reduced by having more information on the local context. For instance, we have argued in favour of collecting survey data regarding the lifespan of goods. Also, the robustness and validity of some normative decisions could be greatly improved if they would be supported by a consultation of a representative sample of individuals. Furthermore, in this project we have asked focus group participants about the prevalence and acceptability of taking the following elements into account: production for own consumption, reliance on informal exchanges, and the accessibility and quality of public goods and services (e.g. need for informal payments). In addition, the choice of shops for pricing the list of goods and services would be greatly served by a representative opinion survey.

A first step would be to collect on a more systematic basis comparable information available in Eurobarometer surveys, EU-SILC, ESS and other European surveys. Similarly, once the household budget survey microdata become available at the EU level it would be an important source for better evaluating and contextualising the reference budgets. However, a special Eurobarometer devoted to reference budgets would have the potential to greatly improve the quality, validity, comparability and robustness of reference budgets. As we have stressed before, when setting up such a survey, synergies could be sought with other DGs and fields of study as the data needed for high-quality reference budgets are often also (and even more) relevant for other fields.

A survey among citizens could cover the following elements:

- During the orientation phase of the method:
  - Prevalence and acceptability for a reference budget of purchasing patterns
  - Ownership of goods and use of particular services
  - Prevalence and acceptability for a reference budget of several cultural and social habits (e.g. regarding inviting friends at home, physical activity, social functions of food, …)
  - Information on lifespans
  - Acceptability and use of shops
- During the argumentation or arbitration phase of the method:
  - Mixed-mode opinion survey for assessing acceptability of baskets

Obviously, before setting up such a survey it would be necessary to refine the methodology for constructing the reference budgets and to define clearly how the results will feed into the procedure for developing the RBs.

In the longer term, if substantial investments are made in more comparable data at the EU level, a more robust methodology could be conceived along the lines explained for the housing basket in this project. The general principle is to specify some minimum adequacy threshold, and subsequently look for the cheapest option that is available in sufficient number on the market. If data were available, this approach is not only possible for housing costs, but also for other baskets, including for instance food, child care, education, mobility, and even health care. A more data-driven approach would not only increase robustness, but also representativeness, validity, credibility and face validity. In the US, where more comparable datasets are available at the federal level, such an approach has received quite some support and is applied by various departments for informing public policy decisions and setting benefit levels (cf. Carlson et al., 2007; Gould et al., 2015; U.S. Department of Housing and Urban Development (HUD), 2015).

10.5.3 Tools for harmonised data collection and dissemination

In this project we have made use of several relatively simple tools for collecting information on reference budgets in a harmonised way, in the format of word documents and excel files. Checking the consistency of these files proved to be a labour-intensive and time-consuming task and errors in listing goods and services, calculating the monthly amount and especially the pricing procedure were not uncommon. The coordination of such a data collection effort is feasible if it is limited to a few countries or

a single basket. The high number of countries involved in this project, substantially increased the amount of time needed for adequate coordination and quality control. If the reference budgets would be extended to other baskets and more countries, it would be highly recommendable to develop better tools for collecting the information in such a way that errors are avoided from the start, and country teams receive warnings when the pricing procedure goes wrong. Purpose-designed software or an on-line data collection tool would undoubtedly prove to be efficient for future efforts and would help avoiding human errors. It would also be very helpful for turning the data into more accessible tables and adding product codes to create a user-friendly database. Special attention should go to doing the price survey. Also, in order to ensure the transparency of reference budgets, it would be useful to create a repository not only for all background (country) reports, but also for the translated documents and transcripts of focus group discussions.

10.6 Conclusion

Proper fully-specified reference budgets require an immense data collection effort, as they cover many spheres of life and require a truly mixed-methods approach. In our search for improving the methodological and empirical basis of reference budgets, we should make sure not to sacrifice the good for the possibly better. At the same time, we do not recommend to rush into the expansion of the reference budgets to other model families, needs, and countries covered in this project, as a further evaluation of the results, and improvement of the current approach is highly recommendable.

We have proposed several routes for expanding the range of model families and baskets of goods and services covered. It would be very useful to expand the range with more country-specific model families so as to make the reference budgets more representative of each country. At the same time, we advocate to keep a common core of relatively simple model families, as well as a common core of characteristics that can be combined in country-specific ways. The development of such more specific model families might be done for groups of countries rather than on a country-by-country basis. Another logical expansion of the approach concerns the range of baskets and areas of need covered. In particular, we recommend to focus in first instance on the direct cost for households of accessing essential goods and services that are in most countries (at least partially) provided by the government (e.g. education, health care, mobility). This would allow for improving first the empirical and methodological basis of these essential elements of reference budgets, and would also create the biggest added value for the policy-making process. In a second step, one could consider to expand the development of reference budgets to complete baskets of goods and services, and a wider range of model families. When doing so, it would be advisable to leave sufficient time for refining the methodology for the specific domain under consideration, and testing it first for a limited number of countries, before expanding the refined approach to all EU Member States.

At the same time, there is substantial scope for improving the robustness and validity of the methodology developed in this project. Therefore, when setting up a follow-up project for this pilot project, we strongly recommend to allow sufficient room for experimenting with potential methodological improvements. Further methodological research is necessary for: validating the current results and approach; improving further the validity, transparency and robustness of the methodology; improving the credibility of the results. In particular, we identify four areas for methodological improvement: (1) the pricing procedure; (2) the collection of information on appropriate lifespan assumptions; (3) improving the procedure for the consultation of citizens; and (4) the infrastructure for developing reference budgets in an efficient and high-quality way (the research network and network of stakeholder organisations, data collection and the availability of comparable datasets at the EU level, and software). Especially the first three of these areas for further improvement are the subject of specific fields of study, with connections to different DGs within the European Commission. Looking for synergies

and cooperation between different fields of study would not only improve the efficiency and quality of developing reference budgets, but would also contribute to creating ownership within other DGs and improving the dissemination and use of the results.

Overall, we propose the following five priorities for further steps in developing comparable reference budgets in Europe: (1) the further development of a handbook for developing reference budgets, covering all relevant spheres of life; (2) continuing, strengthening and deepening the EU Reference Budgets network, through evaluating the current network, making links with other existing expert networks as well as other DGs, and organising meetings of researchers and stakeholder organisations; (3) setting up an additional round of harmonised data collection through a survey, for instance a special Eurobarometer survey, which could substantially improve the empirical basis of reference budgets; (4) rather than developing complete baskets of goods and services for a large number of countries, prioritising the development of targeted policy indicators which are able to show the direct cost for households of accessing essential goods and services that are in most countries (at least partially) provided by the government (including education, health care, and mobility); (5) set up targeted experiments for improving methodologies in relation to pricing, lifespan assumptions and the consultation of citizens, potentially in collaboration with other DGs, Eurostat and National Statistical Institutes.

References

Boulos, S., Sousanoglou, A., Evans, L., Lee, J., King, N., Facheris, C., . . . Donelli, M. (2015), *The Durability of Products. Standard assessment for the circular economy under the Eco-Innovation Action Plan* Oxfordshire: Ricardo-AEA, 165p.

Bradshaw, J., Middleton, S., Davis, A., Oldfield, N., Smith, N., Cusworth, L., and Williams, J. (2008), *A minimum income standard for Britain; What people think*, York: Joseph Rowntree Foundation - Loughborouh University, 57p.

Burchardt, T. (2014), 'Deliberative research as a tool to make value judgements' in *Qualitative Research,* 14(3): 353-370. doi: 10.1177/1468794112469624.

Carlson, A., Lino, M., and Fungwe, T. (2007), *The low-cost, moderate-cost, and liberal food plans, 2007*, CNPP-20, Washington, D.C.: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 42p.

Cavallo, A. (2012), *The Billion Prices Project: Building Economic Indicators From Online Data*, Presentation at the UNECE CPI Meeting, May 31st 2012, Geneva: UNECE.

Cavallo, A., Neiman, B., and Rigobon, R. (2014), 'Currency Unions, Product Introductions, and the Real Exchange Rate*' in *Quarterly Journal of Economics,* 129(2): 529-595.

Cooper, T. (1994), *Beyond recycling. The longer life option*, London: New Economics Foundation, 21p.

Cooper, T. (2004), 'Inadequate life? Evidence of consumer attitudes to product obsolescence' in *Journal of Consumer Policy,* 27: 421-449.

Cooper, T. (2005), 'Slower Consumption Reflections on Product Life Spans and the "Throwaway Society"' in *Journal of Industrial Ecology,* 9(1-2): 51-67. doi: 10.1162/1088198054084671.

Cox, J., Griffith, S., Giorgi, S., and King, G. (2013), 'Consumer understanding of product lifetimes' in *Resources, Conservation and Recycling,* 79(0): 21-29. doi: http://dx.doi.org/10.1016/j.resconrec.2013.05.003.

de Haan, J., and Krsinich, F. (2014), 'Scanner Data and the Treatment of Quality Change in Nonrevisable Price Indexes' in *Journal of Business & Economic Statistics,* 32(3): 341-358. doi: 10.1080/07350015.2014.880059.

Downes, J., Thomas, B., Carina Dunkerley, and Walker, H. (2011), *Longer product lifetimes - Final Report*, London: Department for Environment, Food and Rural Affairs.

Feldmann, B. (2013), *Scanner Data – some answers, many questions*, Presentation during the Workshop on Scanner Data for HICP, organised by Statistics Portugal, 26 September 2013, Lisbon.
Feldmann, B. (2014), *Scanner data – next steps*, Presentation during the 2014 Scanner Data Workshop, organised by Statistics Austria, 2-3 October 2014, Vienna.
Fishkin, J., and Rosell, S. (2004), 'Choice Dialogues and Deliberative Polls: Two Approaches to Deliberative Democracy' in *National Civic Review,* 93(4): 55-63.
Gábor, E., and Vermeulen, P. (2014), *New evidence on elementary index bias*, ECB Working Paper Series, No. 1754, Frankfurt: European Central Bank, 40p.
Goedemé, T., Storms, B., Stockman, S., Penne, T., and Van den Bosch, K. (2015), 'Towards Cross-country Comparable Reference Budgets in Europe: First Results of a Concerted Effort' in *European Journal of Social Security (EJSS),* 17(1): 3-31.
Goedemé, T., Storms, B., and Van den Bosch, K. (2015), *Proposal for a method for comparable reference budgets in Europe*, Pilot project: developing a common methodology on reference budgets in Europe, contract no VC/2013/0554, Brussels: European Commission, 104p.
Gould, E., Cooke, T., Davis, A., and Kimball, W. (2015), *The Economic Policy Institute's 2015 Family Budget Calculator. Technical documentation*, Working Paper No. 299, Washington, D.C.: Economic Policy Institute, 12p.
Langley, E., Durkacz, S., and Tanase, S. (2013), *Clothing longevity and measuring active use*, Oxon: WRAP, 11p.
Middleton, S. (2000), 'Agreeing poverty lines: the development of consensual budget standards methodology', in Bradshaw, J. and Sainsbury, R. (eds.), *researching Poverty*, Aldershot: Ashgate, pp. 59-76.
Morgan, D. L., and Krueger, R. A. (1997), *Focus group kit: Volumes 1-6*, Thousand Oaks: Sage.
Murakami, S., Oguchi, M., Tasaki, T., Daigo, I., and Hashimoto, S. (2010), 'Lifespan of Commodities, Part I' in *Journal of Industrial Ecology,* 14(4): 598-612. doi: 10.1111/j.1530-9290.2010.00250.x.
OECD (1982), *Product durability and product life extension*, Paris: OECD, 129p.
OECD (2010), *Sickness, Disability and Work: Breaking the Barriers*, Paris: OECD, 165p.
Oguchi, M., Murakami, S., Tasaki, T., Daigo, I., and Hashimoto, S. (2010), 'Lifespan of Commodities, Part II' in *Journal of Industrial Ecology,* 14(4): 613-626. doi: 10.1111/j.1530-9290.2010.00251.x.
Onwuegbuzie, A., and Leech, N. (2007), 'A Call for Qualitative Power Analyses' in *Quality & Quantity,* 41(1): 105-121. doi: 10.1007/s11135-005-1098-1.
Ruffin, M. D., and Tippett, K. S. (1975), 'Service-Life Expectancy of Household Appliances: New Estimates from the USDA' in *Home Economics Research Journal,* 3(3): 159-170. doi: 10.1177/1077727x7500300301.
Sammar, M., Norberg, A., and Tongur, C. (2012), *Scanner Data – A Collection Method for the Future*, Stockholm: Statistics Sweden, 11p.
Storms, B., and Van den Bosch, K. (2009), 'Mutual Learning on Reference Budgets: Lessons Learned', in Warnaar, M. and Luten, A. (eds.), *Handbook of Reference Budgets. On the design, construction and application of reference budgets*, The Netherlands: Nibud, pp. 122-131.
U.S. Department of Housing and Urban Development (HUD). (2015), 'Proposed Fair Market Rents for the Housing Choice Voucher Program, Moderate Rehabilitation Single Room Occupancy Program and Other Programs; Fiscal Year 2016' in *Federal Register,* 80(173): 53817-53886.
van der Grient, H., and de Haan, J. (2010), *The use of supermarket scanner data in the Dutch CPI*, The Hague: Statistics Netherlands, 16p.
Van Thielen, L., Deflandre, D., Baldewijns, K., Boeckx, H., Leysens, G., Storms, B., . . . Van den Bosch, K. (2010), *Minibudget. Wat hebben gezinnen nodig om menswaardig te leven in België?*, Onderzoek gefinancierd door Federaal Wetenschapsbeleid in opdracht van de POD MI, Geel: Katholieke Hogeschool Kempen, 458p.

Vincentian Partnership for Social Justice (2006), *Minimum essential budget standard for six household types*, Dublin: Vincentian Partnership for Social Justice, 300p.
Walker, R. (1987), 'Consensual Approaches to the Definition of Poverty: Towards an Alternative Methodology' in *Journal of Social Policy,* 16(2): 213-226.

11 Summary and Conclusion

Over the past 30 years, the Council, the European Commission and the European Parliament have emphasised the importance of active inclusion policies and adequate minimum income support for ensuring a decent life to all citizens. With the aim of helping Member States in designing efficient and adequate national minimum income support systems and to facilitate their task of monitoring the adequacy of income support in Europe, the European Commission launched the 'Pilot project on developing a common methodology on reference budgets in Europe'.

The project had three main objectives. The first was to establish a reference budgets network composed of key experts and representative stakeholders, at national and EU level, to share experience and expertise on reference budgets. The second objective was to develop a theoretical framework and a common methodology for developing cross-nationally comparable reference budgets in European Member States. The third goal of the project was to develop comparable food baskets for the capital city of a maximum of Member States and as many as possible other baskets for the capital city of a selection of countries.

In this conclusion, after summarising the approach that we took, we review to what extent these goals have been achieved, and discuss the main results. We also indicate how we think that the work on comparable reference budgets could be continued in the most fruitful way.

11.1 To what extent have the goals been achieved?

11.1.1 Network of experts and stakeholders

Regarding the first objective, the project succeeded in bringing together a network of national experts and EU experts, working together on the construction of cross-nationally comparable reference budgets in the EU. In each Member State, a national lead expert put together a team of researchers and liaised with other experts, especially nutritionists. For a certain number of these national teams, reference budgets were a new field of research. For most of them it proved to require a great amount of time and effort to get acquainted with the idea of reference budgets and to develop a national food basket in accordance with the principles, the quality criteria and the methodology set forth in the methods paper. At the same time, for a few other, more experienced teams, it proved difficult to comply fully with the proposed method when it became clear that the proposed methodology could lead to differences in results compared with the currently used national budgets. For this reason, over the course of the project two experienced country teams withdrew from the project; one team led by the Vincentian Partnership for Social Justice in Ireland, and another team based at Loughborough University in the United Kingdom. In contrast, during the final project meeting, the great majority of the lead experts welcomed the use of standardised procedures and a strong coordination mechanism to make sure national reference budgets are comparable and of sufficient quality. Moreover, many of them stressed the importance of a further standardisation of the approach and expressed the hope to continue the network.

At the same time, there is a need for an evaluation of the network and an assessment of how some of the country teams could be strengthened and become part of a broader national network of researchers that could contribute to high quality reference budgets. Helpful in this context would be to work more closely together with existing European networks of researchers and recognised experts. For instance, it would be beneficial to liaise with the European Federation of the Associations of Dietitians (EFAD), to further evaluate the validity and quality of national food-based dietary guidelines given their central importance for the food basket. By working together with these existing networks, the quality and acceptability of the different baskets, as well as their comparability could be further increased.

In addition, the quality of reference budgets could be improved by setting up a follow-up committee with representatives from different DGs with linkages to the domains covered by the reference budgets to (1) make sure the reference budgets build upon the latest state of knowledge about the context in each country (e.g. regarding the transparency of markets, the price structure in different countries, the lifespan of goods, …); (2) create a platform of support across different DGs for reference budgets and for the policy indicators that are constructed using them.

Finally, decisive steps have been made to set up a stakeholder network, both at the national and the EU level. National stakeholders were involved in the organisation of the focus groups and in many countries national experts committed themselves to inform stakeholders afterwards about the methodology used and the results obtained in this project. For future initiatives, it is advisable to foresee sufficient time and means to inform and consult stakeholder organisations at all stages of the project, so that they are well aware of the strengths and weaknesses of the approach and of the appropriate applications of reference budgets.

11.1.2 A common theoretical framework and methodology

The second objective of this project was to develop a theoretical framework and a common methodology for developing cross-nationally comparable reference budgets in European Member States. We briefly summarise the approach taken in this project and the identification of how it could be strengthened in the future.

Reference budgets can become a tool for cross-national learning, monitoring, and the exchange of best practices, only if they are sufficiently comparable. As became apparent from the review of current practices in constructing reference budgets, current methods and procedures have not been designed for these purposes. At the same time, the meaning of cross-country comparability in the context of reference budgets (and social indicators more generally) was under-theorised. In this regard, we introduced a distinction between procedural comparability and substantive comparability and explain that in the context of vast differences in living standards, the substantive comparability of reference budgets is unavoidably ambiguous. Procedural comparability means that the same procedures are implemented everywhere for measuring a phenomenon or characteristic. Substantive comparability is more demanding, and is defined as a situation in which at the level of the reference budgets, needs for adequate social participation are satisfied at a similar level.

In this project, adequate social participation was further defined as the ability of people to adequately fulfil the various social roles one should be able to take as a member of a particular society. Being able to adequately take social roles, means that the material and other needs are fulfilled to take social positions in line with the dominant social expectations associated with them, as embodied by the institutions of the society in which one lives. In addition, adequate social participation implies that people should also be able to contribute to society by having the opportunity to redefine their social roles. In this project, we assessed to what extent there is a common ground across Europe for understanding what adequate social participation means in a substantive sense, and which needs should be fulfilled so that one can adequately participate in society. From an institutional point of view, the European Convention of Human Rights and the Charter of Fundamental Rights of the European Union helped to identify a core list of social positions that every European citizen should be able to take at a minimum. In addition, we built on extensive theoretical work in this area, and in particular the Theory of Human Need, developed by Doyal and Gough (1991) to identify the needs that should be fulfilled in order to be able to adequately participate in society. In order to be able to adequately participate in society, two universal needs should be fulfilled: physical health and autonomy. For the fulfilment of these basic capabilities, Doyal and Gough (1991) propose a non-exhaustive list of intermediate needs or universal satisfier characteristics which contain those 'inputs' that, according to the best available knowledge, contribute to the

realisation of basic capabilities in all countries. We slightly modified their original list to adapt it to the current European context and our purpose of creating reference budgets. In order to have the ability to stay healthy and to act autonomously, people should have at their disposal: adequate food, adequate housing, adequate health care and personal care, suitable clothing, rest and leisure, a secure childhood, a basic degree of security, the ability to entertain meaningful social relations, to be sufficiently mobile, and to have the opportunity for lifelong learning.

In order to probe into the degree to which this understanding of adequate social participation resonates with the considered views of citizens, 75 focus groups were organised in the capital city of 25 countries across Europe. The core list of social positions as well as the list of intermediate needs is broadly in line with views of citizens consulted in the project. At the same time, some groups argued in favour of a refinement, or added some other social positions. With regard to the list of needs, it is striking that the need of 'decent work' was identified as an extra intermediate need across many EU Member States.

Even though the basic understanding of adequate social participation can be shared across Europe, the level of economic resources that individuals need for adequately participating in society, varies by their personal characteristics as well as the context in which they live. In order to take due account of individual characteristics and circumstances, fully-specified reference budgets, that is reference budgets based on detailed lists of goods and services, were developed for several clearly defined 'hypothetical households'. Except for the location, the characteristics of these households were kept constant across Europe, to facilitate comparability and cross-national learning. In this project, reference budgets were developed for three hypothetical families: a single-person household (male / female); a single parent household with two children; a couple with two children. All three families are assumed to live in the capital city of the country (as required by the call for tender). The adults are in working age (about 40 years old). The children are assumed to be a boy in primary education (about 10 years old) and a girl in secondary education (about 14 years old). Furthermore, we assume that all household members are in good health, are well-informed, have the necessary competences to be self-reliant, make the right decisions with regard to their health and safety, and are able to act economically. Of course, these assumptions are not realistic in real life situations, but by making these assumptions, a lower bound on the minimum financial resources for adequate social participation can be estimated, limiting the risk that reference budgets are criticised as being too high. Arguably, if the characteristics above are not fulfilled, people need more financial resources to satisfy their needs. In addition, a focus on this lower bound helps to increase the robustness of the approach.

Clearly, a single basket of goods and services would not represent the same level of adequacy across Europe, given wide differences in climatological and geographical conditions, differences in the institutional and cultural context, and in the price, quality and accessibility of essential goods and services. Therefore reference budgets should reflect the particular circumstances of the local context in order to be comparable in a substantive sense. Consequently, substantive comparability requires a massive data collection effort so as to document the factors that determine what adequate social participation means in different local contexts and how this impacts upon the minimum financial resources required. In this project we aimed at going beyond procedural comparability by setting decisive steps forward in collecting this information, and at identifying important data needs that should be met to improve the validity, reliability, persuasiveness and comparability of reference budgets in the future.

The approach can be characterised as a mixed-method approach, building as far as possible on all relevant sources of information on the needs and costs of adequate social participation, and on new data collected through 75 focus group discussions organised across the European Union. The research process was organised in six phases, during

each of which the country teams and the coordinating team have, respectively, specific tasks to complete. These phases can be summarised as follows:

In the preparation phase (phase 1), an international and national network of researchers and stakeholders is set up. This was a major part of this pilot project and will remain an on-going activity. Furthermore, the coordinating team developed a handbook which provides detailed guidance regarding how the reference budgets can be developed, and summarises most important findings from international research regarding the requirements for adequate health, housing, clothing etc. Harmonised data files were designed to collect the lists of goods and services in all countries in a harmonised and transparent way.

Subsequently, in the orientation phase (phase 2), national research teams, in collaboration with a local network of experts, collect the necessary evidence on the local institutional, cultural, climatological and economic context. To do so, they consult national guidelines and recommendations, the scientific literature and existing studies regarding both factual living patterns and normative positions about what is considered adequate. In addition, all country teams organised three focus group discussions involving citizens with different socio-economic backgrounds, to provide guidance regarding the principal normative questions for constructing the reference budgets and to get a first insight in the most common and acceptable consumption patterns.

In the next phase, country teams drew up complete lists of goods and services, and documented these in the data files and in a country report, with a clear focus on the argumentation (phase 3) and motivation for including the goods and services on the list. The results of the focus groups organised during the previous phase served as an important input.

In the fourth phase, a process of deliberation and pricing (phase 4) followed. The coordinating team checked the data files and country reports for inconsistencies within and between countries, and compliance with the common procedures. They also checked whether cross-country differences can be explained on the basis of institutional, cultural, climatological and geographical cross-country variations, as well as differences in availability and quality of goods and services. They asked for clarifications if this was not the case. At the same time, country teams carried out a price survey to estimate the cost for households of getting access to all the items on the list of goods and services.

Next, in the arbitration (phase 5) phase, country teams adapted the data files and country report in response to the remarks and suggestions made by the coordinating team and resolved outstanding issues. The harmonised data files and country reports were updated to reflect the final reference budgets.

The sixth phase consists of dissemination and discussion, and will remain an on-going concern after the publication of this report.

Obviously, this is a rather generic method, which required adaptation to the specific context of each basket of goods and services. By developing a food basket, a basket for health care, a basket for personal care and a basket for housing, we have shown how this generic method can be adapted to very different contexts, characterised by varying degrees of scientific evidence, availability of high-quality comparable data, availability of international or national guidelines and recommendations, and involvement of public authorities in providing or subsidising essential goods and services. In this sense, the method proved to be sufficiently flexible. Also, it proved to be conducive to baskets of goods and services that can be meaningfully compared across countries. At the same time, it is clear that the quality of the baskets and their comparability is strongly dependent on the quality of public guidelines, the availability of high quality comparable data on the cost and use of essential goods and services, and the degree to which country teams are committed to implement the common methodology uniformly. Also it is clear that for meaningful cross-national results, a further standardisation of some

procedures is required (cf. below). In this sense, the baskets developed in this project should be considered 'pilot baskets', that are open for further improvement. Below we will indicate the priorities of how the development of high quality and comparable reference budgets could be strengthened in the future.

11.1.3 Comparable baskets in Member States of the EU

Finally, the third goal of the project was to develop comparable food baskets for the capital cities of the Member States and as many as possible other baskets for the capital cities of a selection of countries. Food baskets were developed for the capital city of 26 EU Member States, a health care basket and a personal care basket for the capital city of eight EU Member States, a housing basket for the capital region of ten Member States.

Food baskets

With the construction of 26 national food baskets, we have refined and applied the proposed methodology in the context of food. Starting from food-based national guidelines (FBDGs) and official recommendations, national food budgets were developed, aiming to present cross-nationally comparable low cost budgets complying with the institutionalized dominant social expectations regarding what constitutes a healthy diet in each country. In each country, a nutritionist translated the recommended quantities and qualities into concrete food items. Strikingly, FBDGs recommend very different amounts of various foods in different countries. Probably, these variations do not only reflect differences in cultural patterns or requirements due to different living conditions, but also differences in priorities in health policy and in the quality and timeliness of food-based dietary guidelines. In addition, even with rather detailed FBDGs, there always remains some room for interpretation by nutritionists. The food baskets were checked by citizens in three focus groups, and fairly well accepted. FGs discussions did not result in many adaptations of this part of the food basket.

Beside food enabling a healthy diet, the food basket also includes the minimum necessary kitchen equipment for storing, preparing, serving, eating and conserving food. Furthermore, when recommendations for physical activity are included in the national food guidelines, country teams included this in their food baskets. Finally, also a budget for fulfilling other functions of food than nutrition was developed, mostly covering take away food and eating out once in a while, a budget to invite people at home, and small budgets for celebration meals, for buying food on holidays and day trips. Finally all commodities included in the food basket were priced in March-April 2015 on the basis of a common pricing procedure.

For kitchen equipment, physical activity and other functions of food, recommendations or information on national purchasing patterns is generally lacking. Therefore, in the case of kitchen equipment we offered national experts an example list which had to be adapted to the local context with help of nutritionists and focus groups. This procedure seemed to work relatively well. In order to test the necessity and impact of a standardised vs. a non-standardised procedure, related to physical activity and the other functions of food no standardised procedure was foreseen, except that this should be done as much as possible on the basis of agreement in focus groups. Insofar time allowed for discussion, agreement could not always be obtained or was unstable across the three focus groups.

As a consequence, only for the part of the food baskets which relates to having a healthy diet, we are convinced the budgets are comparable across countries in the sense that they reflect dominant institutionalized expectations regarding what constitutes a healthy diet. Substantial variations (in EUR) can be observed between countries with, in the example of a single woman, the highest budget (for Denmark) being almost four times higher than the lowest (for the Czech Republic). Nonetheless, even though cross-national differences in the minimum cost of a healthy diet are wide, they vary much less than national median equivalent disposable household incomes. Interestingly, results also

show that in some countries, public provision or subsidisation of school lunches substantially reduce the cost of an adequate diet for children.

The substantial variations in the healthy eating part of national food baskets are the result of a combination of differences in food amounts on the one hand and price differences on the other. In the case of the capital cities of the Czech Republic, Hungary, Estonia and Slovakia, both low volumes and low unit prices are explaining the relatively low levels of the food baskets. In contrast, in Greece, Finland, and especially Denmark, above average unit prices and volumes reinforce one another, leading to relatively high budgets for a healthy diet. In most cases however, unit prices and volumes have an opposite effect. Taking all food baskets together, it appears that unit prices explain twice as much of the cross-national variation in budgets for a healthy diet as differences in quantities do. This finding emphasises the point that accurate price surveys are key to construct reliable reference budgets.

Even though the food baskets can be considered comparable in the sense that they reflect countries' dominant institutionalized expectations of what constitutes a healthy diet, they do not necessarily represent the same level of adequacy across countries, given the differences in the timeliness, content and quality of the food-based dietary guidelines across countries, and the fact that the baskets were priced on the basis of a small-scale price survey carried out by the country teams. To have an idea of the nutritional value of the various food baskets, a first nutritional check, limited to the baskets from four countries of four different European regions was carried out. This revealed significant variations in the amount of provided energy (kcal) and in the amount of alcohol, which raises the question whether the baskets really represent the same level of adequacy in all countries. Sensitivity checks in which the amount of foods in eight different food categories were kept constant across all countries, and a test with an alternative pricing procedure showed that these elements do not have a uniform impact on the budget across countries. Nonetheless, the overall ranking in cost of a healthy diet remains the same. Therefore, even though the quality of the food basket can be certainly improved, we have some trust in the overall patterns that the baskets reveal. The development of common food-based dietary guidelines for the EU (at least at the level of broad categories of food), and an objective procedure of how these could be adapted to the local context would considerably improve the substantive comparability of the budgets. Also, a more data-driven approach, which relies on large-scale comparable food consumption data, data on the nutritional value of food, and a comparable price survey, such as implemented by the U.S. Department of Agriculture, would probably lead to more robust and comparable results. Finally, it is highly recommended to investigate the possibilities of improving the price survey and pricing procedure, preferably in collaboration with National Statistical Institutes.

Other baskets: health care, personal care, housing

Beside for food, we have refined and applied the proposed methodology also in the context of health care, personal care and housing for the capital cities of Austria, Belgium, Greece, Finland, Hungary, Italy, the Netherlands and Spain. However, due to a lack of time and resources, consultation of citizens was limited to the orientation phase and the acceptability of these baskets has not been checked by focus groups. For developing cross-nationally comparable health care budgets we have drawn on a substantial body of literature regarding the necessities for staying in good health. In addition, also for this basket most countries have detailed public guidelines regarding adequate health care. In contrast to food, the domain of health care is characterised by strong involvement of the public sector in providing or subsidising essential health commodities. The constructed national health care baskets represent a minimum budget required for having access to adequate health care by healthy people without severe medical problems. Due to differences in the organizational setup of health care and health insurance, differences in local prices, and differences in the reimbursement practices of the different countries, there is a lot of variation in the level and composition

of the national budgets for health care in the eight countries. Health care costs are lowest in Budapest, Hungary and highest in Amsterdam, the Netherlands. Differences in insurance costs to be paid out of net incomes explained most of the variation across countries. Price differences seem most important to explain differences in the reference budget for contraception. High costs of the pill in Greece, Italy and Spain greatly increases the budget shares of contraception in those countries. Also differences in reimbursement practices are important to explain differences in the references budgets for dental examinations and everyday diseases.

In contrast to the health care basket, the basket for adequate personal care is characterised by limited scientific evidence, few official guidelines and recommendations, and no public provision. Therefore, the list of items included for a proper daily care and especially the included amounts are to an important extent a matter of convention. More than is the case for other baskets, a comparison with real expenses of (low income) people should be performed in order to check if the baskets are not too far away from reality. However, clear drawbacks would be that in a range of countries only a limited number of personal care goods and services are included in the national household budget data and that starting form real expenses, some items might be included that may not be considered essential. Also, cross-national differences in that case may to an important extent appear to be the result of budget constraints rather than what is considered essential for adequate social participation.

In contrast to food, health care, and personal care, in the area of housing comparable data on the quality and price of dwellings are available. In addition, some international and national public guidelines have been developed regarding minimum quality standards and public authorities play an important role in realising adequate housing. In our view the availability of comparable data is preferable, and can lead to more robust, valid and representative estimations. Reference housing costs corresponding to adequate dwellings were determined in order to illustrate the importance of housing costs, and the substantial impact that social housing can have on the minimum resources required for adequate social participation in the capital regions of Athens, Budapest, Helsinki, Luxembourg, Madrid, Rome, Vienna, the Netherlands and densely populated areas in Belgium. Unsurprisingly, the estimates of reference rents for adequate dwellings vary strongly across capitals, reflecting cross-national differences in the level of the average rent. In Budapest and Helsinki many rented apartments are smaller than is required for adequate housing. By contrast, other housing costs, which mainly reflect energy costs, vary much less across the capitals studied. As expected, reference rents are always lower in the reduced rent sector than in the private sector. The difference is large in Budapest, Luxembourg, Madrid and Rome, and rather small in Helsinki and Vienna.

11.2 Possible applications of comparable reference budgets

The use of reference budgets in the national context is well established in quite a few EU Member States. Fully developed reference budgets that are comparable across countries could also be used for EU level purposes. In this report, we illustrated a number of these: contextualising social indicators; monitoring the adequacy of minimum income protection taking into account differences in the accessibility and cost of public services; and better understanding important social problems, such as food insecurity. We stress that the exercises carried out serve mainly the purpose of illustrating the potential added value of reference budgets. Further research and reference budgets of sufficient quality and comparability are required to further substantiate the preliminary results discussed in this report.

First, comparable reference budgets could help the interpretation of the EU social indicators. For instance, reference budgets illustrate in a tangible way that having an income at the level of the at-risk-of-poverty threshold means different things in different countries in terms of adequacy. For instance, first results suggest that the degree to which households with an income at the level of the at-risk-of-poverty threshold have

sufficient income for being able to afford a diet in accordance with the national food-based dietary guidelines varies substantially across the capital cities of EU Member States. Adding other baskets helps to see which living standard can be afforded at the level of the poverty threshold for the richer EU Member States. The EU's Social Protection Committee has recommended that the levels of the at-risk-of-poverty line are mentioned when quoting the at-risk-of-poverty rates, so that policy makers and the general public understand that these figures refer to quite different realities depending on the Member State in question. A comparison with the costs of the various baskets in comparable reference budgets would strongly enhance that message. Even though we are convinced that reference budgets can help to contextualise the at-risk-of-poverty indicator, they cannot replace it. Reference budgets generally face stronger challenges of robustness, and many assumptions need to be made. In addition, they are more costly and time-consuming for updating, and are meant to convey another message. What they can do, though, is offering an important complement to the currently used EU social indicators.

High quality comparable reference budgets can potentially make an important contribution to monitoring the adequacy of incomes, and in particular minimum income schemes. First results suggest that people living in the capital city on minimum income schemes in many countries probably cannot afford a healthy diet in accordance with the national food-based dietary guidelines. If also the other baskets are taken into account, even in wealthier Member States such as Belgium and Finland minimum income schemes often prove to be inadequate when households are renting a dwelling in the private sector. At the same time, when reference budgets are much higher than minimum incomes, and are in fact around median income or higher, their usefulness as benchmarks against which the adequacy of national minimum incomes schemes can be assessed is limited. Nonetheless, also for those countries where raising minimum incomes to the level of the complete reference budgets would clearly be overly ambitious in the medium term, complete reference budgets could be a useful instrument to (1) show that raising the adequacy of minimum incomes is not only or necessarily about increasing the level of benefits, but can also be achieved by reducing the cost of essential goods and services; (2) help to identify goods and services that weigh particularly heavily on a budget for adequate social participation, and so may receive priority for policy action; (3) facilitate cross-national learning by showing how other countries reduce the cost of essential goods and services and improve accessibility; (4) help to formulate intermediate benchmarks.

Finally, reference budgets can also be used to identify and better understand social problems. For instance, if combined with other data, the food basket could help to gain more insight into food insecurity and unhealthy eating patterns in Europe. Preliminary results suggest that in several European countries, and especially Romania, people in densely populated areas are confronted with severe financial constraints to eat healthily. In contrast, at first sight financial constraints appear to be a less pressing direct cause of unhealthy eating in the richest member states, as well as some Mediterranean countries and the Czech Republic.

11.3 The way forward

As became obviously clear in this pilot project, constructing proper fully-specified cross-nationally comparable reference budgets requires an immense data collection effort, as they cover many spheres of life and require a truly mixed-methods approach. The pilot project has revealed a number of problems in constructing reference budgets that are comparable across EU member states (which is of course exactly what a pilot project should do). Therefore it is clearly too early to rush into the expansion of the reference budgets to other hypothetical households, needs, and countries covered in this project. According to our opinion, there is substantial scope for improving the robustness and validity of the methodology developed in this project. If a follow-up project for this pilot project would be launched, we strongly recommend to allow sufficient room for

experimenting with potential methodological improvements. Further methodological research is necessary for: validating the current results and approach; improving further the validity, transparency and robustness of the methodology; improving the credibility of the results. In particular, we identify four areas for methodological improvement: (1) the pricing procedure; (2) the collection of information on appropriate lifespan assumptions; (3) improving the procedure for the consultation of citizens; and (4) the infrastructure for developing reference budgets in an efficient and high-quality way (the network, data collection and the availability of comparable datasets at the EU level, and software).

In terms of expanding the current budgets, probably comparable reference budgets have most to offer to policy-makers when we focus on particular budget components. In subsection 10.1.4 we argued in favour of a somewhat modest setup, concentrating on areas for which a 'reference budgets approach' creates the strongest added value to other social indicators: the cost of essential goods and services, provided or subsidised by the government (e.g. education, child care, health care, mobility, housing). Reference budgets can show what financial barriers typical persons or households face when accessing those essential amenities. Differences between countries in this regard can provide scope for policy learning. To make this exercise more useful, the range of hypothetical households could be enhanced in directions which are most relevant for the domains mentioned (e.g. different kinds of education: general and vocational, secondary and higher).

In conclusion, we propose the following five priorities for further steps in developing comparable reference budgets in Europe: (1) the further development of a handbook for developing reference budgets, covering all relevant spheres of life; (2) continuing, strengthening and deepening the EU Reference Budgets network, through evaluating the current network, making links with other existing expert networks as well as other DGs, and organising meetings of researchers and stakeholder organisations; (3) setting up an additional round of harmonised data collection through a survey, for instance a special Eurobarometer survey, which could substantially improve the empirical basis of reference budgets; (4) rather than developing complete baskets of goods and services for a large number of countries, prioritising the development of targeted policy indicators which are able to show the direct cost for households of accessing essential goods and services that are in most countries (at least partially) provided by the government (including education, health care, and mobility); (5) set up targeted experiments for improving methodologies in relation to pricing, lifespan assumptions and the consultation of citizens, potentially in collaboration with other DGs, Eurostat and National Statistical Institutes.

12 Annex 1: Script for focus group discussions

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12.1 Introduction

In this technical annex, we describe the process for recruiting, organising and analysing the focus group discussions that have taken place in this project. This annex is adapted from a text that was written for the country teams that developed the national budgets. It can be used by persons interested in setting up reference budgets themselves, or who want to understand the technical details of how reference budgets were developed in this project. It is set up as a list of guidelines, rather than a research report.

As is explained in this report, the consultation of citizens provides an essential input for constructing reference budgets, especially regarding the identification of cultural norms and social expectations, the contextualisation of the theoretical framework and the underlying assumptions of the reference households[107]. In the proposed method, citizens are actively consulted during various phases of the research process for informing and evaluating the construction of the reference budgets: phase 2 (orientation), phase 3 (argumentation) and phase 5 (arbitration). Due to financial and practical constraints, in this pilot project the consultation of citizens is organised through three focus group discussions in all EU Member States. It goes without saying that ideally, such a consultation is organised during all three aforementioned phases for constructing the reference budgets. Given that it is the first time reference budgets are constructed in a comparative framework for so many countries, we considered it key to validate the conceptual and theoretical framework in the focus groups. At the same time, without a consultation of citizens too much information is lacking to develop a food basket which also covers the social functions of food. Finally, we considered it essential to test the acceptability of the food basket during group discussions. Therefore, the script we developed for the focus groups covers the main elements of both the orientation and the argumentation phase. This has resulted in a relatively long and detailed topic list. The script was tested several times before finalisation to ensure its feasibility. However, it would be more comfortable if group discussions would be organised separately for the different phases of the research process.

Given that the purpose of this project is to maximise comparability across countries, it is essential the focus groups are recruited, organised and analysed in a harmonised way. In this annex we describe the detailed instructions that have been communicated to all national teams. This script includes various documents which require translation into the language that will be used for the discussion in the focus groups. This is not a trivial task, as the meaning of the concepts should be conserved, while making sure the concepts used in the discussion are sufficiently accessible and clear for the participants. One should devote sufficient time to think this carefully through, and to check with others, e.g. colleagues (by translation and back translation) whether they agree with the translation of the most important concepts and questions. Documents that need to be translated are:

- The questionnaire for recruitment (Annex 1.1)
- A consent form for each participant (Annex 1.7)
- A weekly menu for each participant (Belgian example Annex 1.10)
- The PowerPoint on reference family (separate document)

[107] During the discussion groups, we prefer the use of the term 'reference households', rather than 'model families', as the latter may invoke the wrong connotation.

- The PowerPoint on the food basket (separate document)
- The PowerPoint with questions for the moderator (separate document)
- The Excel template for reporter (separate document)
- Three topic lists (see below): for moderator, reporter and assistant

This technical annex is structured as follows. In the main part, we provide concrete guidelines of how to plan the work, how to recruit members for participating in the focus groups, how to prepare and carry out the focus group discussions and how to analyse them. In the appendix of this technical annex, you can find a brief literature review which explains a range of choices we have made for this stage of the research process, as well as several supporting documents for organising the focus groups, either as an illustration or guideline, or as a format that needs to be translated into the relevant language. In addition, there is a PowerPoint presentation, which guides the group through the discussion. Before the organisation of the focus groups, several skype trainings were organised for national teams, with Q&A sessions. In addition, some training materials have been developed which were made available to national teams and which are available upon request from the authors.

We have done our utmost best to make this 'script' as clear as possible, but undoubtedly questions will remain, either before, or after the organisation of the first focus group. Please do not hesitate to get in touch with us for clarifications, or should you encounter unexpected problems. Finally, we would highly recommend to have a small 'test focus group' with several colleagues, given that a minimum of practice considerably improves the quality of the focus group discussions.

12.2 Planning of focus groups

12.2.1 Time line

It is impossible to give accurate estimates of the time required to organise a focus group. For small focus group studies, the following time line can be found in the literature (e.g. Morgan, 1998) and is supported by others (Simon, 1999; Rio-Roberts, 2011): two weeks for planning, one and a half week for recruiting participants, followed by half a week of reminder calls, moderating three groups can be done in one week, and analysis and reporting requires two weeks. However, practice shows that it often may take more time to recruit participants to compose well-balanced, mixed groups.

Table 34: Stylised time schedule for the organisation of focus groups.

	weeks											
Activity	1		2		3		4		5		6	
planning												
recruiting												
moderating												
analyzing												

In order to decrease the risk that – carefully selected – participants do not show up, make sure that a reminder through mail or SMS is sent to the participants one week before the actual focus group and, if possible, another reminder call two days before. Make room arrangements (cf. specifications below) sufficiently in advance (at least one or two weeks). Check the IT facilities (laptop, beamer, screen are needed) in the room and collect the necessary material.

12.2.2 Location of the focus group and room arrangements

The focus groups should take place in the capital (or the reference city). The location should be carefully selected. Think about:

- Accessibility with public transport
- Parking facilities
- Signs to indicate the location of the room
- The comfort of the room:
    - Choose a sufficiently large room with facilities for a projector and enough power outlets.
    - Be sure that the room is not noisy so that participants and the moderator can hear each other well and the (sound/video) recording is intelligible.
- Seating arrangements
    - The table should be arranged beforehand. Put the tables in a circle, a square or a rectangle. People can choose their own place and get a name card. Moderator and reporter are not sitting next to each other, but e.g. in front of each other. The assistant, on the other hand should sit next to the moderator.
    - Make sure everybody can see one another
    - Make sure everybody can see the screen

12.3 Sampling of the focus groups

12.3.1 Number of focus groups, composition and recruitment

A rather wide range of opinions can be found in the literature regarding the composition of a focus group and the recruitment of participants (Freeman, 2006; Kitzinger, 1994; Morgan, 1996). Table 3 presents the sampling and recruitment criteria for the focus groups. These criteria are based on the advantages and disadvantages put forward by the available conventional literature on the composition of focus groups (Krueger, 1993; Kitzinger, 1994; Sasson, 1995; Morgan, 1996; Morgan, 1998; Bloor et al., 2001; Hollander, 2004; Freeman, 2006; Blanchard and Vanderlinden, 2009; Vicsek, 2010; Acocella, 2012) as well as own research (Devuyst et al., 2014). In order to ensure a good composition of the focus group, the recruitment questionnaire in Annex 1.1 should be used. For more detailed information about the theoretical justifications for the choices made, we refer to the brief review of literature on the composition and recruitment of focus groups in Annex 1.2.

Table 35: Presentation of the recruitment criteria for focus groups.

Number of focus groups	1 test group + 3 focus groups
Number of participants per focus group	8-10 persons (slight over-recruitment required)
Selection criteria	○ Households live in the capital city (or the reference city). ○ Adults are between 30 and 50 years old (Q2). ○ Participants have never been involved in developing reference budgets (Q 13=no). ○ All household members are in good health (Q6=no OR Q7=very good or good).

Composition	Each focus group is composed of: ○ Participants with different socio-economic backgrounds. Socio-economic background is measured by activity status (Q8-Q9), level of education (Q10-Q11), and financial burden of household-related costs (Q12). To ensure a mix of socio-economic backgrounds, focus groups should be composed of a mixed group of participants with high scores, medium scores and low scores on the variables. ○ Men and women (Q3) should be represented equally or nearly equally. ○ Both couples and singles, with and without children (Q4-Q5): nearly two thirds of participants are parents with at least one child between 8 and 16 years.
Recruitment	Period of planning and recruitment: 8/12/2014 – 5/1/2015.

12.4 Role of the moderator, reporter and assistant

To moderate a focus group, three persons are required, who need to work closely together. The reporter makes notes, while the moderator is concentrating on making sure the group discussions proceed well. A third person takes the function of assistant. His/her role consists of projecting the slide show and in recording the answers of the participants on the slides. The moderator and the reporter should be well-informed about the research topic and the conceptual framework, they should be well trained and should have technical expertise regarding planning, organizing and conducting focus groups. All focus groups are to be conducted by the same two well-trained and well-informed persons. Both may change roles during the break of the group discussion, if this facilitates the concentration and the co-operation. An important qualification of the reporter is that he/she types fast and can support the moderator when necessary. Reporter, moderator and assistant should be neutral persons. This implies that these tasks are probably best performed by other persons than the researchers directly involved in constructing the reference groups, e.g. colleagues with experience in moderating focus groups. They should be capable of summarizing the answers given by the participants, and translate them into the conceptual framework.

In what follows we describe more concretely the roles of the moderator, the reporter and the assistant.

12.4.1 Role and tasks of the moderator

At the start of the meeting a skilled moderator should make sure the focus group participants:

- Feel at ease;
- Have a good understanding of the purpose of the research and the type of information that will be extracted from the focus group discussions;
- Know the course of the discussion (use the PowerPoint and questions for the moderator[108])

[108] This is a PowerPoint with all questions that should be asked by the moderator for each part. It is a tool for the moderator to use during the discussion and to make sure that all important questions are asked.

- Are well aware that during the discussion they are expected to refer always to a well-defined reference household, rather than their own household.

During the discussion the moderator should ensure that participants arrive at a shared understanding of the social positions that all members of the reference household should be able to take and to a common understanding of the needs* that should be fulfilled in order to be able to take these positions (see the topic list below). Next, the moderator should encourage a lively discussion on the contents and the acceptability of an adequate food basket (see topic list) and should ask concrete questions on the purchasing patterns that should be taken into account when composing the various baskets of the reference budgets* (see topic list). For the latter two parts it is important that the moderator always asks the participants to carefully motivate their viewpoints. Participants do not have to reach a consensus, but it is important to check to what extent all participants agree, and the reasons participants put forward for not having the same point of view.

Furthermore, the moderator is expected:

- To cover all topics and ask all essential questions (marked in blue colour in the topic list below) literally;
- To be well aware of the meaning of concepts that are used in the focus group discussion. Therefore, he/she should carefully go through Annex 1.4 with words to avoid and their alternatives and be familiar with the definitions of the important concepts (see Annex 1.5);
- To summarise the main conclusions after each discussion topic and to ask whether participants can agree with the conclusion.
- To respect the time that is reserved for each of the three parts;
- To leave sufficient room for interaction in order to guarantee that focus group participants have the time to reflect upon their own views and opinions;
- To keep participants focused, engaged, attentive and interested;
- To stay impartial, avoiding guiding questions, suggestive indications, expressions of agreement or disagreement by facial expressions;
- To limit side conversations and to encourage one person to speak at a time (essential for optimal recording);
- To pay attention to non-verbal expressions (nodding, expressions of disagreement, confusion, looking as if one wants to say something but being interrupted,…);
- To ensure that the discussion is not dominated by one individual or a certain group of individuals; all participants should be actively and individually encouraged to express their opinion.
- To avoid as much as possible problematic silences, problematic speech (strategic shaping of comments), socially desirable bias and conformism with the most popular opinion;
- To complete together with the reporter the debriefing form immediately after the focus group discussion. This is an important check to see whether the moderator and reporter have the same understanding of what happened (Annex 1.6).

12.4.2 Role and tasks of the reporter

The role of the reporter is essentially one of an observer, making accurate notes of what is happening during the focus group. When necessary, the reporter should assist the moderator in monitoring the time, in summarizing the discussion at the end of each part, or in reframing questions in case of misunderstanding.

More concretely the reporter is expected:

- To take notes of the participants' answers in the format that has been delivered (See the related excel file: Template Reporter);
  - To type "XXX" when he/she missed something;
  - To note also non-verbal communication (e.g. L=laughing, F=frowning, C: crying, S=silence);
  - To type important quotes literally.
- To complete notes afterwards;
- To complete the debriefing form together with the moderator.

12.4.3 Role and tasks of the assistant

The role of the assistant is more a technical one. He or she is responsible for the projection of the slides and for completing the slides with the answers of the participants. By completing the slides, the participants have a clear overview of the discussion.

The assistant is expected:

- To record the discussion on tape or video (check if the recorder is running!);
- To be able to edit a slide show and a PowerPoint presentation in particular;
- To be able to type very fast and without errors;
- To be able to listen carefully to the participants and summarize all the information by using key words;
- To be able to summarize and bring information together in a clear and structured way;
- To understand the subject of the discussions;
- To know the sequence of the slide show by heart.

12.5 Preparation of the focus groups

In preparation to the focus group discussion, the moderator and the reporter take care all documents and materials mentioned in the check list below are available in sufficient number.

Check list:

- The list of participants (Annex 1.3)
- Recruitment questionnaires in case socio-demographic information is still lacking for one or more participants (Annex 1.1)
- The debriefing note (Annex 1.6)
- A few pictures of the reference household to hang in a visible place and to give to the participants (cf. separate document)
- The following documents, translated into the appropriate language:
  - The questionnaire for recruitment (Annex 1.1)
  - A consent form for each participant (Annex 1.7)
  - A weekly menu for each participant (Belgian example Annex 1.10)
  - The PowerPoint on the reference family (separate document)
  - The PowerPoint on the food basket (separate document)
  - The PowerPoint and questions for the moderator (separate document)
  - The Excel template for reporter (separate document)
  - The topic list (cf. below): one for the moderator, one for the reporter and one for the assistant
- Recorder or camera (+ extra batteries)

- Something to monitor time
- Three computers (laptop, tablet): one for the reporter, one for the assistant and one for the moderator (a copy of the script in print could also do for the moderator)
- Projector
- Screen
- Room arrangements (drinks and snacks, cups and glasses)
- Pens
- Name cards
- Incentives for the participants (small gift or amount of money)

12.6 The topic list

➔ Estimated time: 160 minutes

For reasons of maximising cross-country comparability, the following contains an extended topic list with concrete questions for the moderator. These questions, marked in blue colour should all be asked literally. However, the exact words should be translated such that the meaning is conveyed in an accessible and understandable way. It is highly recommended to check with colleagues (by translation and back translation) whether the meaning of the translated words corresponds to the concepts used in the theoretical framework.

The topic list consists of four parts. An introductory part, a first part with a discussion on the theoretical underpinnings of the reference budgets, a second part in which participants discuss the content of an adequate food basket and a third part with a discussion on purchasing patterns. We would like to remind the reader that this topic list is more elaborate than we would have preferred, and covers the main elements of both the orientation phase and the arbitration phase (insofar it concerns the food basket). In an ideal situation, separate focus groups should be organised for each of these phases.

12.6.1 Introduction

➔ Estimated time: 10 minutes

12.6.1.1 Welcome

- Give every participant an individual welcome;
- Ask for their names and give them a name-card (with first names only) and put it visibly on the table in order to facilitate discussion and to facilitate the work of the reporter;
- Stimulate informal chatting before starting.
- Offer participants a drink;
- If some details about personal or household characteristics are still lacking, ask the respondents, before the discussion starts, to fill-in the recruitment questionnaire (Annex 1.1)
- Ask participant to sign the list of participants (Annex 1.3).

12.6.1.2 Introduction and research goals

- Introduction of moderator, reporter and assistant: name, function, age, family situation;
- Introduction of participants: name, age, family situation.

Explain the goals of the research and the group discussions and let them sign the consent form (Annex 1.7)[109].

Goal: You take part in a research project in which 28 countries are developing cross-country comparable reference budgets*[110]. These reference budgets can be defined as illustrative priced baskets of goods and services that every citizen needs at the minimum to participate adequately* in society. We use different information sources to construct these reference budgets. One important information source is the everyday experience of people. This is the reason why we have invited you today. We will discuss with you three topics. Firstly, we will ask you some questions regarding the needs that according to your opinion should be fulfilled so that people can participate adequately in society. In a second part we will discuss with you the content of a food basket that represents all items that people need in order to eat healthily and to take part in social and cultural life in this city. Thirdly, we want to discuss the purchasing patterns that are common in our society and that according to your opinion we should take account of when composing the baskets of the reference budgets*.

- It is very important that you know from the beginning that we will not discuss your own housekeeping, family situation or household income, but that during the discussion we will always refer to a reference household, which I will present to you immediately.
- The discussion will take about two and a half hours.
- It is normal that there may be disagreements during the discussion. This is not a problem. We are interested in all opinions. Every argument you put forward has its own added-value. In case of a disagreement, it is important to discuss with each other, so that we can take note of your arguments. Throughout the discussion you might refine or change your original conviction or maybe on the contrary, you may stick to your original position because you find it more robust than the proposed alternatives. This is all part of the game as long as there is mutual respect for other opinions. After discussing the different topics we will summarize your opinions and ask every one of you to say if you agree or not agree with the conclusions.
- We would like to record this discussion in order to make sure we do not leave out anything that has been said from the transcripts. Everything will be processed anonymously; all names and personal information details will be deleted after the analysis. Does anyone have some difficulties with the fact that the interview will be taped? (If this is the case, please try to convince the person concerned by stressing that the tapes will be deleted when the data have been processed and that for analysing and reporting no names will be mentioned. In case of resolute refusal you should make clear that, unfortunately, participation is no longer possible.)
- Let each participant sign the consent form (Annex 1.7).

12.6.1.3 Presentation of the reference household

For presenting the reference household, the assistant uses the PowerPoint with the information on the reference family.

The reference family that is central to the discussions and is projected has the following characteristics (the assistant shows slides 1 to 4 of the PowerPoint): a couple with two children, a boy of 10 years and a girl of 14 years old. The family lives in the capital, in a dwelling which is in accordance with minimum quality criteria. All family members are in

[109] In some countries, it may be more appropriate / habitual to ask to sign the consent form during the recruitment phase.

[110] All words marked with * are concepts explained in the list with definitions below (see Annex 1.5)

a good health and are able to run the household budget economically. We know very well that in reality a lot of families do not live in these circumstances. But for developing reference budgets we are looking for the limit under which it is hardly possible for almost all people to participate adequately in society, so we will discuss the content of a basket with essential goods and services for people with these characteristics.

12.6.2 Part I: social participation and needs

➔ Estimated time: 60 minutes

For part I the assistant uses the PowerPoint about the reference family

In this first part we aim to discuss the theoretical framework in which the targeted living standard* is embedded. More specifically we will discuss the concept of adequate social participation* and the needs* that should be fulfilled to enable this.

12.6.2.1 Adequate social participation

Goal: to gauge to what extent the participants can agree on a list with social positions that every adult and child who lives in similar circumstances of the reference household* ***should be able*** *to take in your society (≠* actually take).

- People do not live isolated in a society, but are part of smaller and bigger social networks such as the family network, the school network, or the neighbourhood, among others. A first question that we have for you is on these networks and more specifically on the positions that people should be able to take in these networks. Here are some examples of social positions (slide 5 and afterwards slide 6 (for the children) of the PowerPoint on the reference family is shown by the assistant). Being:
    - parent
    - member of an association
    - citizen

- Which other social positions* should any woman and man like the woman and man we just presented be able to take in our society if they want to (the assistant projects the reference family on slide 5 (the parents))? This is an illustrative list of examples, should other social positions be added? If so, which ones?
    - The assistant should write down the social positions* that are mentioned in the first column of slide 5 – 6 of the PowerPoint on the reference family.
    - Ask for generalisations in case the positions are too detailed (e.g. member of a football club=member of a sporting association).
    - If people ask for more details about the characteristics of the family (members) (E.g. Are the adults working? Are they representing a cultural majority/minority?), ask them to discuss this (E.g. According to your opinion should all adults like the adults we just presented in our society be able to work or to look for work when they want?).
        - If only a limited number of positions are mentioned, you could ask participants to think about their own social networks and which positions they believe everyone should be able to take.
        - Repeat for the children (see slide 6 of the PowerPoint): Which are the social positions* in our society that any child like the children we just presented should be able to take if they want to?

- Let them brainstorm on the essential social positions* for adults and children for about 10 minutes.

- After the brainstorm, the assistant should show slide 8 of the PowerPoint on the reference family so that the moderator can check the positions with the list and discuss the ones that are not mentioned by the group. Here you can see the positions that will be presented in all European countries.
  - If I compare the social positions you have mentioned with this list, I can see …
    - In case some positions are not mentioned: Do you conceive these positions as essential? Should everybody in society be able to take these positions if one chooses for this? Why so, why not?
    - In case some positions mentioned are not at the list: Do you conceive these positions as essential? Should everybody in society be able to take these positions if one chooses for this? Why so, why not?
  - Ask for differences when living situations change: According to your opinion, do these essential social positions differ between couples and singles, between families with and without children, or between employed and unemployed people?
  - Ask for common agreement on the list of positions: Do you agree with the list, are there any positions lacking/redundant?
  - Formulate a conclusion, summarize and look for confirmation (ask for arguments in case of disagreement). *Please note that the argumentation that people put forward is the most important kind of information that we are looking for.*

12.6.2.2 Human needs*

Goal: Gain insight into the extent to which the participants agree on the needs that should be fulfilled for every member of society to enable adequate social participation.*

- In a first instance we will ask participants to sum up the things that people should be able to do or to have in order to function well and to be accepted by others in the above mentioned social positions*. In a second instance we will ask them to compare their answers with a list of essential intermediate needs* that should be fulfilled at the minimum to make adequate social participation* possible.

  - Keeping in mind the social positions that every member of a society should be able to take, what do you believe the reference family **should be able to do and to have at the minimum** (≠ actually do; = cannot adequately participate without) in order to function well and to be accepted by others? Ask for short answers, this is a first brainstorm. Activities as well as goods and services can be mentioned here. For instance, for being a good parent, one should be able to take care for the children, to give them a good education, to play with them once in a while. For doing this, the reference household should have at its disposal: adequate food & kitchen equipment, school books, toys, …
    - Ask for each social position* the essential activities and broad categories of goods and services. The assistant should write them down in the second and third column next to the social positions* mentioned earlier (see slide 5 (for the parents) – 6 (for the children) of the PowerPoint on the reference family).
      - Regarding the needed satisfiers, make clear that we are not only looking for paid goods and services (e.g. babysitting by family members of friends as a favour).
    - Let them brainstorm for about 15 minutes.

- Repeat –as many times as necessary- that we are looking for the minimum/essential requirements that every citizen **should be able to do or to have**.
- Of course people have different preferences, however we are not looking for their actual behaviour but about what the members of the reference household (cf. characteristics of reference family type) **should be able to do or to have** when taking the above social positions*.

▪ Ask them about what would change if assumptions regarding the reference family were altered? What would be different if this couple would have no children, if the adults were single or if their employment status would change?

▪ Ask the participants: Are you sure that only those activities and satisfiers are summed up that everybody *should* be able to do **at the minimum** in order to participate adequately (you can't participate adequately without)

- After the brainstorm activity, ask all participants: Do you agree with the list, do you think something is redundant, or something is lacking?
- Formulate a conclusion, summarize and look for confirmation

○ Now we want to ask you to group these activities and needed goods and services in broad categories according to their characteristics, more specifically you should think about the needs that they fulfil. For instance healthy food, kitchen equipment are essential items to have sufficient and nutritious food. Hence, the broad category that brings these products together is "Food". What are the other needs underlying the list of activities and satisfiers?

▪ After participants discussed the needs*, the assistance shows slide 9 of the presentation, in which the following intermediate needs* are mentioned:

- Nutritious food
- Protective housing (incl. energy, water, …)
- Health & Personal care
- Suitable clothing
- Rest & Leisure
- Security in childhood (education, child care, leisure)
- Significant primary relationships
- Mobility
- Security
- Life Long Learning

▪ In case one or more intermediate needs* are not mentioned during the discussion, please ask: What do you think about these needs? Are they essential or not essential according to your opinion?

- Why, why not?
- If yes: For which kind of activities are they necessary? Which essential goods and services should people have at their disposal at the minimum.

▪ In case other intermediate needs* are mentioned than the ones should in slide 9, take note of this and ask again: Do you consider these needs as essential. Why? Why not?

▪ Ask explicitly for common agreement on the intermediate needs*: Do you agree that all needs mentioned until now should be fulfilled in order to enable people to play all their essential social roles? Do you think of other needs that are not mentioned yet?

- Formulate a conclusion, summarize everything that is said after each and look for confirmation. Ask for arguments in case of disagreement.

_ Break (10 minutes)_

12.6.3 Part II: food basket

➔ Estimated time: 40 minutes

In the second part of the discussion we would like to discuss with you in detail the necessary goods and services of one of the discussed needs, namely the need for food.

- In a first part the food basket and an example of a healthy weekly menu is presented to the focus group participants. You should tell them that this is developed by a professional nutritionist and based on dietary guidelines (see slides 1-3 of the PowerPoint on the food basket).
- The assistant presents the basket and the menu by projecting the PowerPoint (see slides 4-10 of the PowerPoint on the food basket) and the moderator goes through it step by step.
  - Make clear that the first part is about the necessities for a healthy diet and that in the next part the other functions of food will be discussed. Ensure that the picture and tables presented in the PowerPoint on slide 4 till 9 are not discussed in detail but with reference to the weekly menu (see slide 10).
- Ask about the general acceptability after the assistant showed slides 4 - 10:
  - Is the overall healthy food basket acceptable and feasible for the family type? (show slide 10 again and give them a copy of the menu (cf. Annex 1.10))
    - Do you have any first remarks?
  - Have we forgotten something regarding the food items (show slides 4-7)? If yes, ask to motivate why additional items are necessary
  - Have we forgotten necessary items in the basket of the Kitchen equipment (show slide 8-9)? If yes, ask to clarify why additional items are necessary
  - Could we leave items out and still have a food basket that allows the family to prepare, consume, conserve and serve healthy food?
  - Do things change if this couple would have no children, if the adults were single or if their employment status would change?
  - Formulate a conclusion, summarize everything that is said and check whether everyone agrees with the conclusion.
  - Is it acceptable to presuppose all meals are cooked at home?
    - If yes, why?
    - If not, why/when not? What instead?
  - Does this healthy food basket enables you to cook and eat (show slide 10):
    - Tasty?

        - Well-varied?
            - If yes, why?
            - If not, why/ not?
            - What should be changed?
    - Formulate a conclusion, summarize and look for confirmation (no consensus needed per se if good arguments are provided). Ask for arguments in case of disagreement.

- In the second part the social functions of food will be discussed
    - Are there any other reasons why people need food besides ensuring a good health? Think about the social positions and the activities you mentioned in the first part of the discussion.
        - Let them brainstorm about 15 minutes.
    - The assistant presents the list of social functions of food (see slide 11) of the PowerPoint on the food basket.
        - Now I'm going to show you a list of social functions of food that we found in the literature. Could you say for each of these functions if according to your opinion these are essential for fulfilling the social roles that we discussed and if yes, what kind of food you think should be included and what should be an acceptable minimum?
        - Should other functions be added to this list? Could you say what kind of food-related items you think are necessary for an acceptable minimum?
    - Are there any other food-related items/satisfiers needed for adequate participation in society than those mentioned in the healthy food basket?
        - Why are these necessary? In which circumstances, related to which positions?
        - What should be conceived in this regards as an acceptable minimum? (qualities, amounts, frequencies)

    - Formulate a conclusion, summarize everything that is said after each discussion point and look for confirmation (no consensus needed per se if good arguments are provided). Ask for arguments in case of disagreement.

    - Finally, the moderator checks the feasibility of the assumptions made
        - Do you think it is realistic to assume that everyone has the capacity to:
            - Cook a healthy meal on a daily basis?
            - To shop economically?
        - In which situations are these assumptions realistic/not realistic?
        - Are these assumptions realistic for all kind of family types (single, single parent, couple, couple with children)?
    - Formulate a conclusion, summarize everything that is said after each discussion point and look for confirmation (no consensus needed per se if good arguments are provided). Ask for arguments in case of disagreement.

12.6.4 Part III: Purchasing patterns

➔ Estimated time: 40 minutes

We've reached now the last part of the discussion. In this part we want to ask you some concrete questions on the purchasing patterns that we should take into account when composing the food basket and the other baskets of the reference budgets.

The questions that follow should be repeated for the different baskets, especially if you are developing complete reference budgets. If not, please only discuss the following questions in the context of the food basket, unless you have sufficient time left.

12.6.4.1Purchasing patterns food basket

- In order to get access to food and kitchen equipment for which goods and services should people like the ones in our reference family rely on:
  1. production by the market (private market, shops);
  2. home production;
  3. informal exchange by family and friends;
  4. production by the state in the form of public goods and services.

In case of 2) and 3) ask:

- Do most people rely on them? Who does/doesn't? Why? How often?
  - If you have reliable survey information on this topic, you should not ask this question to the participants, but you better give them this information (e.g. in our country x% of food is the result of own production) and ask:
- Is it realistic/feasible for all people living in the circumstances like our reference family? And for other people? Why? Why not?

In case of 4) ask:

- Are the public goods and services that are mentioned sufficiently accessible, of sufficient quality and variety? Does this suffice? Why? Why not?
- Are people expected to pay informal payments for making use of the public good or service that is mentioned? *(With special focus on health care, the educational system, mobility,…)* in which circumstances? Should we take this into account in a minimum budget for social participation?

Formulate a conclusion, summarize and look for confirmation (no consensus needed per se if good arguments are given). Ask for arguments in case of disagreement.

12.6.4.2Purchasing patterns other baskets

The assistant shows slide 12 of the PowerPoint on the food basket

Now I want to repeat these questions for each of the following baskets: clothing/ furniture/ electronic devices/ personal hygiene products / mobility/ education / health care

Repeat all the above questions for each item summed up on slide 12 <u>separately.</u>

12.6.4.3Choice of shops and pricing

Finally, we will ask some questions to the focus groups participants about the choice of shops and the pricing of essential goods and services that should be included in the baskets of the reference budgets.

In case you have some survey information on these topics, please do give this information to the participants as an input to the discussion

- Are there any items for which people can rely on second hand goods without the risk of functioning inadequately because of this?
- Are second hand items cheaper than new ones, and if yes, ask:
  - If it is always accepted that people buy second hand goods?
  - If there is a sufficient supply of second hand goods in the capital?
- For what kind items that are bought at the market, it is defendable that people should always rely on low priced products when thinking about a minimum budget* that enables adequate participation?
  - Is it defendable to buy only the store's own-brand products?
  - For what types of products should more choice be possible?
- Are there situations in which bargaining about the prices of certain goods and services is appropriate to be assumed in a minimum budget for adequate social participation?
    - In which cases and for which kind of goods and services?
- According to you, which providers/stores are appropriate for this family to buy specific products at low prices?
  - Why do you think of these shops?
  - What requirements should shops, used in a minimum budget, comply with (e.g. reachable by all people in all circumstances, warranty service, at home delivery…)?
  - Does anything change if people have / do not have a car?
- Should people be able to frequently visit a limited number of stores to buy certain types of products? Or should they look for the cheapest products in a range of stores?
- Does anything change if assumptions regarding the reference family are altered? What would be different if this couple would have no children, if the adults were single or if their employment status would change? And what about having a car or not?

Formulate a conclusion, summarize the results and check whether everyone agrees with the conclusions. No consensus is needed per se, ask for arguments in case of disagreement.

The discussion has come to an end, thank all participants for their inputs. Give them the reward (if applicable), and explain where they will be able to find the results of the project (http://referencebudgets.eu).

12.6.5Notes on the focus group discussions

- The reporter should use the excel templates and write down the answers of each participant, also including literal quotes if possible

- He or she should write down other relevant non-verbal information such as body language, (dis)agreements and how these are reached, emotional moments, dominant participants, changes in opinion,…
- In case the discussions are going too quickly, and the reporter cannot write down all the information, fill out a sign and indicate the exact time (e.g. XXX 02:20), so that afterwards you can easily look up the discussion fragment on the tape.
- The reporter should not hesitate to ask to repeat what participants said in case things are going too fast.
- The reporter should complete the excel template afterwards if necessary (listen to the tapes when some information is missing (cells with XXX).
- The reporter should write down a brief conclusion for each row in the second last column in each focus group
- Full agreement among respondents on …?
- Points of disagreement
- In the last column, the reporter mentions general remarks, such as difficulties, errors or misunderstandings
- Save this file and make a copy
- Send this copy to sara.stockman@uantwerpen.be and bereniceML.storms@uantwerpen.be

12.6.6 Debriefing

Finally, immediately after the focus group discussion the reporter, together with the moderator should fill out the debriefing report (cf. Annex 1.6).

Send a copy of the debriefing note to sara.stockman@uantwerpen.be and bereniceML.storms@uantwerpen.be.

12.7 Analysis

12.7.1 Description of the participants

As a first step in the analysis of the focus group discussions we expect you to fill out table I which summarizes the composition of each discussion group and the main characteristics of the participants. For each focus group the number of participants, the socio-economic background of the participants, the employment status, the family situation, the sex as well as the location of the focus group should be filled out. In this way it is easier to detect the likelihood of bias due to the composition of focus groups and it may contribute to an enriched analysis in which the particular characteristics of participants or composition of a focus group is taken into account.

Table 36: Focus group composition and number of participants by characteristics.

	number of participants	Socio-economic background			Family situation				Sex		Location of focus group
		High	Medium	Low	Single	Couple	Single with Children	Couple with children	Male	Female	
FG1:											
FG2:											
FG3:											
TOTAL											

12.7.2 Analysis of the results

In the next step, the moderator, reporter, and if necessary the assistant, should fill in the analysis template (see separate document) based on the answers and arguments that arose from the focus group discussion serving as a first step in the analysis of the focus group conversations. Doing so, questions about the participants' views regarding part I, part II and part III should be answered. To do so, you should use the template added in an additional document and illustrate your answers with literal quotes originating from the focus group discussion followed by the sex, age and socio-economic status of the person to which the quote refers.

Send a copy of the analysis template to: sara.stockman@uantwerpen.be and bereniceML.storms@uantwerpen.be.

12.8 Annex 1.1: Questionnaire for recruitment

Focus groups on the development of cross-nationally comparable reference budgets (Focus group nr …) & (Participant nr…)		
Name:		
Address:		
(Mobile) phone number:		
Email address:		
1. What is your place of birth?	Place: ……..	
2. What is your date of birth? (day/month/year)	Date: ……/……./…….	
3. Gender:	☐	Female
	☐	Male
4. What is your household situation?	☐	I live alone
	☐	I live with my partner without children
	☐	I live alone with my children
	☐	I live with my partner and children
	☐	Other, specify:……..
5. In the case you have children who live in your household: could you indicate their age?	Child 1:	…… years
	Child 2:	…… years
	Child 3:	…… years
	Child 4:	…… years
	Child 5:	…… years
	Other:	…… years
		……..
6. Do you, your partner or your children have any longstanding illness or longstanding health problem?	☐	No
	☐	Yes
7. How is your health in general?	☐	Very good
	☐	Good
	☐	Fair
	☐	Bad

	☐	Very bad			
8. What is your activity status?	☐	Work 100%			
	☐	Work 50-99%			
	☐	Work < 50%			
	☐	Parental leave			
	☐	Unemployed			
	☐	Studies			
	☐	Pension			
	☐	Other……			
9. (only for couples) What is the activity status of your partner ?	☐	Work 100%			
	☐	Work 50-99%			
	☐	Work < 50%			
	☐	Parental leave			
	☐	Unemployed			
	☐	Studies			
	☐	Pension			
	☐	Other……			
10. What is the highest level of education you successfully completed?	☐	No formal education, primary education			
	☐	Lower secondary education			
	☐	Upper secondary education, post-secondary non-tertiary education			
	☐	Tertiary education (bachelor or equivalent, master or equivalent, doctoral degree or equivalent)			
11. (only for couples) What is the highest level of education your partner successfully completed?	☐	No formal education, primary education			
	☐	Lower secondary education			
	☐	Upper secondary education, post-secondary non-tertiary education			
	☐	Tertiary education (bachelor or equivalent, master or equivalent, doctoral degree or equivalent)			
12. When you think of your household's total daily costs and housing costs, including payments	1	2	3	4	5
	☐	☐	☐	☐	☐

on mortgage or rent, insurance and service charges, on a scale from 1 to 5, are these costs:	No burden at all				A heavy burden
13. Have you ever been involved in a research on reference budgets?	☐	Yes			
	☐	No			

12.9 Annex 1.2: Brief review of literature on the composition and recruitment of focus groups

12.9.1 Recruit participants from various socio-economic backgrounds

A first discussion point regards the choice between a homogeneous and heterogeneous composed focus group. Generally speaking, researchers adhering to a realist perspective tend to favour a homogeneous group of participants as regards their socio-economic status (Krueger, 1993; Krueger, 1994; Krueger and Casey, 2000; Freeman, 2006) since they are interested in the individual opinions derived from focus groups, while trying to reduce as much as possible the interaction effects. According to them, a breakdown in homogeneous subgroups enables the comparison between different groups, increasing the external validity (Freeman, 2006). Krueger and Casey (2000) add that in homogeneous groups it is easier for participants to express their 'real' opinions, being among peers from the same status. However, there is also an important part of the literature which favours the use of heterogeneous groups. The advantage of mixed focus groups is that the different socio-economic backgrounds of people contribute to diversity in the group which can challenge participants to make their opinions and arguments explicit and which enables the researcher to highlight contrasting opinions (Smithson, 2000). For contextual constructivists, heterogeneous groups are preferable since they help to provide insight into processes of interaction and into how ideas are constructed in a sociocultural context (Kitzinger, 1994; Hollander, 2004; Freeman, 2006).

We construct reference budgets that should represent what is necessary for adequate social participation*. What adequate social participation* means, and the needs that are related to these, is likely to vary across groups in society. While the feasibility of reference budgets is sometimes best assessed by people with relatively low incomes, acceptability of the budgets is a matter of concern for all members of society. In the peer review on 'Using Reference Budgets for Drawing up the Requirements of a Minimum Income Scheme and Assessing Adequacy', it is recommended to recruit people from different socioeconomic backgrounds in order to shine a light on possible existing inequalities and conflicts in society, while enhancing the external validity of the results and helping to contextualize the RBs, making them more representative and empirical-based (Vranken, 2010). Moreover, some researchers have defended that heterogeneous focus groups prevent the degradation of the minimal norm, which might occur in homogenous groups that consist only of people with a lower socio-economic status. In our experience also the opposite may occur: people with access to few resources may tend to overestimate the average living standard in society, whereas relatively rich people may underestimate the resources required at the minimum as they have little experience with what it means to do without a large number of goods and services. For instance, in a small-scale study in which variations of group compositions were used, Devuyst et al. (2014) found that persons living on low incomes seemed to attach more importance to a range of goods and services included in the baskets as compared to participants living on middle and high incomes. Clearly, involving participants from different income groups stimulates participants to take a public perspective (Deeming, 2010; Vranken, 2010) and helps to bring in information on the range of living standards in society as well as about what it means to do without a number of goods and services.

Although we recognize the advantages of working with a homogeneous focus group, following the recommendations of the European peer review (Vranken, 2010), we are convinced that in the framework of constructing reference budgets, focus groups with participants from different socio-economic backgrounds are to be preferred since they ensure a more nuanced discussion (Bloor et al., 2001). From experiences with focus groups in Belgium and the UK, we have learned that heterogeneous composition of focus groups can facilitate a lively discussion between people with various forms of expertise and different points of view regarding the acceptability, the feasibility and the completeness of the various baskets. Being confronted with a wider range of opinions, participants will feel the urge to provide a more in-depth explanation of their point of view which can result in better argued interaction.

12.9.2 Over-recruitment of people with a low socio-economic status

The organisation of mixed focus groups is confronted with certain challenges that should be taken into account. In particular, the 'expectation states theory' says that it is common for high-income participants to dominate the group discussion at the expense of the participants with a lower socio-economic status, potentially resulting in a false confirmation of the dominant opinion by all other contesters (Berger et al., 1972). Hence we should make sure that there exists a good balance in the composition of the focus group. It is recommended to ensure that more people from vulnerable groups (e.g. low-income groups) are well-represented. This will endorse free expressions of thoughts and will make the focus group members feel more confident (Devuyst, et al., 2014).

12.9.3 Compose a focus group with people holding a mix of different background characteristics

Besides the socio-economic background, other characteristics like gender, residence and ethnic background can determine the course of the discussion (Hollander, 2004). Consequently, one should aim at a mix of people with different characteristics instead of supremacy of one particular group. In order to test the acceptability and feasibility of the reference budgets among different groups, we recommend a balanced group composed of men and women, with different employment status. However, given the limited number of focus groups we will not be able to test the acceptability of the baskets for all different minority groups in society, neither for different regions. Therefore, it is important to recognise that the reference budgets developed in this project will rather reflect the minimum needed for specific family types of the dominant culture, living in a particular city.

12.9.4 Compose focus groups with people from the household type and age for which the reference budget is developed

It is important that participants can identify themselves to some extent with the reference household, and that they can understand their needs. Morgan (1996) recommends to conduct different focus groups for each relevant segment of the research population. Ideally, this means we should organize at least two to three focus groups for each family type for which we construct reference budgets. However, at this stage, we will not organise focus groups for the various reference households separately, as the discussions will focus on relatively broad questions, and as we have resources to organise only three focus groups (one focus group discussion for each household type would not make much sense). Therefore, we look for participants at active age (30-50), while targeting at a mixture of singles, single parents, couples and couples with children, with preferably a higher weight for adults with children. Also, as discussed in the

12.9.5 Composing a focus group consisting of 'strangers' is preferable

Some authors state that participants who already know each other are more likely to engage in a profound discussion (Sasson, 1995). In contrast, others discourage the use

of (partly) pre-existing groups because they have their own dynamic (Morgan, 1998). Our own experience suggests that focus groups consisting at least partly of strangers, are more practicable and less chaotic. In order to stimulate diversity and independence of opinion, we strongly recommend to limit the number of people who know one another as much as possible. Anyhow, the extent to which people will reveal personal information and take part in the conversation actively, varies substantially between persons and discussion groups (Devuyst, et al., 2014; Storms, 2012). An experienced professional moderator is of crucial importance to make sure all persons take part in the discussion.

12.9.6 Recruit at least eight participants

In order to determine the number of participants in one focus group, one should keep in mind the manageability of the discussion. Focus groups that are too big (more than ten people) will often result in chaotic discussions and make it hard to ensure that all voices are heard. On the other hand, when focus groups are too small (less than five people), problematic silence can arise and only a narrow view on what is needed to obtain a particular standard of living can result due to the unmet relevant socio-economic selection criteria. As it is impossible to guarantee that all recruited candidates will attend the discussion, a small amount of over-recruitment is advisable (Morgan and Krueger, 1997). In this project, we recommend to recruit 8 to 10 persons to ensure focus group discussions with about 6 to 8 participants, and without running the risk of having a group that is too big.

12.9.7 The number of focus groups

The number of focus groups needed, will vary from research project to research project as it depends on the point on which data-saturation is reached. Data-saturation is reached when a clear structure occurs and new focus groups do not add any new information (Krueger, 1994). Given that data-saturation is not to be predicted, no decisions on the number of focus groups can be taken in advance (Stewart et al., 2007). Depending on the value of the information that already has been gathered and on the amount of new arguments that tend to come up, one can decide if additional focus groups are necessary. Even though data saturation is a promising concept, it is at the same time a vague one (Carlsen and Glenton, 2011), since it is difficult to know when saturation is reached. In practice, in many cases the number of focus groups is defined in advance regardless of the point at which data-saturation can be established, given the existence of constraints on time and resources (Devuyst, et al., 2014).

Morgan (1996) posits that if we divide the population into homogenous groups, the total amount of focus groups increases equally. In general the use of two up to five focus groups for each subgroup is considered being appropriate (Morgan, 1996). Since we have chosen for heterogeneous focus groups we do not need to conduct various focus groups for different socio-economic groups in the population. However, we already mentioned that it would be favourable to conduct focus groups for the different family types, but unfortunately we are limited by the given time and resources of the project. In this project, we ask each national team to organise and report on at least three focus group discussions. If feasible, we strongly recommend the organisation of a pilot focus group to test the time needed, the difficulty and comprehensibility of the questions and the workability of the used material.

12.9.8 Recruitment office

The most ideal way to recruit focus group participants would be turning to a professional recruitment bureau. When informed thoroughly, a recruitment bureau is able to invite a representative mix of people that meet the selection criteria. However, we do not know whether high quality recruitment companies are available in all 28 participating countries, and sometimes recruitment companies can be very expensive. We kindly ask to check for existing recruitment companies and to ask for their price. This information will help us to

define the budget needs in case there is a follow-up project. In the likely case that the price of recruitment companies is higher than recruiting yourself, we advise for this pilot project to rely on intermediate persons and organisations. This is less costly, but nevertheless time consuming and depending on the local context and available social networks. We advise you to look at the list of involved organisations for your country that are well aware of the project (see separate document) and to contact them for helping you to recruit participants that meet the selection criteria. When recruiting indirectly by means of associations and intermediate persons, it is recommended to stay in touch with the participants and let them fill in the recruitment questionnaire, to avoid recruitment based on wrong criteria. Moreover, the participants should be motivated to attend the discussion to ensure equal involvement and in-depth discussions. Obviously, the engagement that is required of focus group participants implies a latent selection (Vicsek, 2010).

However, we recommend that not all participants are to be members of an association, since this can have an influence on their point of view on what is minimally needed for adequate social participation*. In any case, it should be made clear that people participate on an individual basis in the focus group discussions and not as a representative of the organisation through which they are recruited, as we are interested in their own personal opinions. Instead of contacting organisations you can also recruit people directly by help of local welfare offices, public services or firms. To facilitate the recruitment we give a non-exhaustive list of possible recruitment channels:

- local welfare offices
- poverty experts
- associations working with people in poverty
- social workers
- trade unions
- firms
- parents' associations
- other civil society organisations
- public services
- …

When various potential candidates have filled in the recruitment questionnaire, a mixed focus group can be composed relying on the information about the different background characteristics of the participants. The chosen participants should be informed as soon as possible about the location, date and time frame of the focus group discussion. Make sure all participants can arrive at the focus group meeting by helping with information on public transport, bike routes or parking availability. Finally it is important to send a couple of reminders in advance, to make sure most candidates will attend the focus group discussion.

12.10 Annex 1.3: List of participants

To be filled in and signed by participants (if this is needed by your research administration to recover the costs of the incentives).

Focus groups on the construction of cross-nationally comparable reference budgets in Europe date …../……/…….			
First Name	Family Name	Address	signature

12.11 Annex 1.4: Words to avoid and alternative options

NOT TO USE	TO USE INSTEAD
Basic needs	Human needs*
Full participation	Adequate participation*
Model family	Family type/ reference household
Poverty line	A minimum for adequate social participation*
Wants* or preferences*	Needs

12.12 Annex 1.5: Definitions of important concepts

Adequate social participation	The ability of people to adequately play the various social roles* one should be able to play as a member of a particular society*.
Human needs	By building on the Theory of Human Need (Doyal and Gough, 1991), we identify health and autonomy as universal needs that need to be fulfilled in order to be able to adequately participate* in society.
Intermediate needs	Universal human needs* can be translated into 'intermediate needs' or 'satisfier characteristics'. In this project we will make use of the following non-exhaustive list of intermediate needs: nutritious food, adequate housing, suitable clothing, adequate personal care & health care, sufficient rest and leisure, security, a safe childhood, mobility, maintaining social relations and lifelong learning. These needs are used as a tool for developing the corresponding baskets of goods and services that together reflect the targeted living standard*.
Reference budgets	Illustrative priced baskets of goods and services that represent a targeted living standard*.
Social inclusion	Social inclusion is both a process and the result of a process that starts from human dignity and that aims at adequate participation by improving societal institutions and empowering vulnerable citizens (Storms, 2012).
Social position	The place that people take in formal or informal social networks. We focus on social positions defined in broad terms (e.g. being a mother, being an employee, being a citizen,…) which society* recognises as those that its members should be able to take at the minimum and at least those that are necessary to fulfil essential societal functions (e.g. reproduction, education, social cohesion).

Social role	The expected, socially recognised, pattern of behaviour of an individual who occupies a given social position*. It serves as a strategy for coping with recurrent situations and dealing with the roles of others. The term, borrowed from theatrical usage, emphasizes the distinction between the actor and the part. A role remains relatively stable even though different people occupy the position. Role expectations include both actions and qualities: a teacher may be expected not only to deliver lectures, assign homework, and prepare examinations but also to be dedicated, concerned, honest, and responsible.
Society	A human society can be seen as a network of interrelationships connecting individuals together in a particular territory, while making them subject to a common system of political authority and dominant cultural expectations. It is important to recognize that society in this sense is not a fixed social entity. In fact, systems of political authority and cultural expectations may be multi-layered, with some forms being worldwide, some European, some 'national' and others being rather regional or local. At the same time, societies can be plural, that is, they can be deeply divided along cultural, religious, ethnic or other lines (Nagata, 2001).
Targeted living standard	The targeted living standard in this project can be described as the minimum financial resources needed to participate* adequately in society.
Wants, needs & preferences	Needs differ from wants and preferences because of the subjective character of the latter two. Needs are what all people should be able to have for adequate participation in society. Preferences and wants express the subjective and personal wishes of a person. In contrast with needs, they are not existential. When wants and preferences are not met, adequate social participation* is not necessarily threatened, while the reverse is true if needs* are not met (Doyal and Gough, 1991).

12.13 Annex 1.6: Template debriefing

Country: Number focus group: Date: Duration: Number of participants:	
Debriefing notes on: Active involvement of the participants Understanding of the questions Criticisms Special events	
Do respondents agree on the essential social positions* that everybody should be able to take? If not, what were the main discussion points?	
Do respondents agree on the activities that people should be able to play? If not, what were the main discussion points?	
Do respondents agree on the intermediate needs*?	
What are the main points of agreement and disagreement regarding the necessities for a healthy diet?	
What are the most important other functions of food that were mentioned?	
What are the most striking points (agreements/disagreements) regarding the purchasing patterns?	
Were the assumptions about the reference household sufficiently specific? Did participants mention other	

characteristics that were relevant for the discussion, but which were not predefined (e.g. working or not; tenure status)?	

12.14 Annex 1.7: Consent form to participate in a discussion group on reference budgets

You have been invited to participate in a discussion group on reference budgets. These discussion groups are organised in 28 European countries and are part of a project financed by the European Commission. The aim of this project is to develop cross-nationally comparable reference budgets that represent goods and services that people need at the minimum to participate adequately in society.

You can choose whether or not you want to participate in the discussion group and stop at any time. Although the discussion will be tape recorded, your responses will remain anonymous and no names will be mentioned in the report.

We want to hear many different viewpoints. There are no right or wrong answers to the questions we will pose and it is normal that your view or opinion is not always in agreement with the rest of the participants. By taking part in the discussion group, you commit yourself to respecting the opinion of others and to keep all responses made by the participants confidential.

I understand this information and agree to participate under the conditions stated above.

Signature: Date:

_____ _____

12.15 Annex 1.8: Things that need emphasizing

- We are looking for what is needed at the minimum for the represented family that lives in the described circumstances and with the given kind of characteristics. We are not looking for what goods and services are needed for people living in poverty.
- It is about what the family types in general need at the minimum to ensure adequate social participation*, not about personal preferences.
- It is not about what this reference household would do, but what it should be able to be or do at the minimum under these presented assumptions (when they work, have a certain age, have two children of a certain age, live in a particular city, in a particular housing type,…).

12.16 Annex 1.9: Tips and tricks

- The assistant should project the picture with the reference household as often as possible and the moderator should regularly refer to it as the reference family for which we are developing the reference budget. Additionally, the stylised picture of the family should be shown in print on a visible place and some pictures should be laid on the table for the participants.
- Keep repeating that we are looking for what this particular family (and not what the participant) needs *at the minimum* in order to be able to participate adequately in your society.
- Repeat as often as necessary the assumptions about the family type we are referring to
- Give a close look to Annex 1.5 and be sure that you understand well, and are able to explain well all important concepts
- Use synonyms and other wording when explaining what should be understood by adequate social participation* (e.g. =being able to fulfil all social roles* one should be able to play as a member of a society, =avoid people from functioning inadequately)

12.17 Annex 1.10: Example weekly menu

Menu	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast	brown bread margarine cheese Jam yogurt coffee or tea	brown bread margarine cheese jam yogurt coffee or tea	brown bread margarine cheese jam yogurt coffee or tea	brown bread margarine chicken breast yoghurt coffee or tea	brown bread margarine chicken breast yoghurt coffee or tea	brown bread margarine cheese yoghurt jam coffee or tea	brown bread margarine cheese jam yoghurt coffee or tea
Lunch	brown bread margarine chicken breast raw vegetables dressing Choco	brown bread boiled ham raw vegetables dressing margarine	brown bread Boiled ham raw vegetables dressing margarine Choco	brown bread cheese raw vegetables dressing margarine	brown bread cheese raw vegetables dressing margarine	brown bread chicken breast winter turnip soup margarine cheese	brown bread boiled ham parsnip soup margarine
Dinner	winter salad with goat cheese poached fish with steamed broccoli potato gratin	chicory with apple grilled winter vegetables turkey stew cinnamon pudding	Leek soup Salmon from the oven with herb cheese spicy carrots	pancakes with mushrooms pasta salad with ham carrot cake	fish cakes vegetarian moussaka	winter turnip soup vegetarian meatloaf vegetable puree	lettuce burger potatoes from the oven grilled pineapple
Snacks	skimmed yogurt kiwi pear cheesecake with lemon	cinnamon pudding pear apple	apple banana vanilla cookies	apple Banana kiwi cheese cookies with cherries	pear banana semi-skimmed yoghurt Brownie	kiwi pear semi-skimmed yoghurt Mango mousse	apple semi-skimmed yoghurt vanilla cookies
All day	water	water	water	water	water	water	water

REPLACE THIS MENU BY YOUR OWN WEEKLY MENU

13 Annex 2: Note on cross-national comparable adaptations of the food basket after the FGs

As has been mentioned in the handbook chapter on the food basket, focus group discussions should serve as an important input to check feasibility, completeness and acceptability (sufficiently varied, tasty and not too distant from cultural habits) of the healthy food basket. In addition, they provide the most important source of information for including items which should guarantee that also the other functions of the food can be fulfilled in correspondence with what is essential for adequate social participation. In this note, we provide some more detailed information about how the healthy food basket should be adapted in response to the results of the focus group discussions, and how a list of goods and services can be added to take the other functions of food into account.

When evaluating the results of the focus group discussions, it is important to: assess the validity and 'strength' of the arguments put forward in light of what can be considered a healthy food basket; to take into account the degree of agreement among participants in the focus groups. As a rule of thumb, 'general agreement' can be understood as a situation in which the majority of participants in at least two of the three focus groups agree.

13.1 Adaptation food basket for a healthy diet

Most important principle: after adaptations the food basket should still allow for a healthy diet (Healthy= balanced, food categories and amounts according to national guidelines)

1. If there is a *general agreement* in the three FGs that the food basket is sufficiently varied, feasible and acceptable, no adaptation is needed. Please describe in the final report the extent of agreement, the motivations put forward for accepting the basket, and the most important remarks and considerations raised.
2. If there is a general disagreement with the choice and/or amounts of (some of) the items, because of:
   - 2.1. <u>non-accordance with cultural/eating habits</u>
     - 2.1.1. Look if the criticism solely relates to the illustrative menu that gives participants only a limited overview of the total food basket, or whether the criticism is equally valid for the complete list of foodstuff. If the criticism is not applicable to the total food basket, but only to the specific menu, describe this in the final report. It would be useful to give suggestions how the menu could be adapted (without changing the content of the food basket) such that it looks more acceptable.
     - 2.1.2. If the criticism relates to the content of the basket, and not just to the illustrative menu used for the discussion:
       - 2.1.2.1. Look if criticism is linked to the other functions of food and make adaptations accordingly (see below)
       - 2.1.2.2. If the criticism relates to the healthy and tasty aspect of the food: ask the nutritionist to check if the suggested adaptations can be taken into account (e.g. change proportions of the items within one category, e.g. more variation in diary) without influencing the healthy aspect of the basket.
     - 2.1.3. Describe the foregoing process (degree of agreement, considerations, criticisms and adaptations) (even if no adaptations can be made) transparently in the final report.

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2.2. Inadequate quantities

2.2.1. No changes should be made based on this argument (too much/ insufficient amounts) if the food basket is constructed by a professional nutritionist and based on qualitative dietary guidelines. Often participants don't have a good overview on the content of the total basket and only are criticizing the amount of one particular item. Nonetheless, describe in the final report the extent of agreement, the motivations put forward for accepting/rejecting the basket, and the most important remarks and considerations raised.

2.2.2. If the food basket is based on dietary guidelines of questionable quality, the proposed adaptation of the quantities should be discussed with the nutritionist. Describe the foregoing process (degree of agreement, considerations, criticisms and adaptations) (even if no adaptations can be made) transparently in the final report.

2.3. Missing food items

2.3.1. If food items are missing so that people are not able to cook tasty (e.g. inclusion of herbs, spices, sauces,… (so not cake, sweets,…)) than the proposed adaptations can be made after consulting the nutritionist. As before, please provide a clear description of the process, adaptations, degree of agreement etc. as before.

2.3.2. If this is not the case, check if it is not better to include these items in the food basket that fulfils the other functions of food instead (see below). However, if respondents say that items that would contribute to a more healthy diet are missing, discuss these with the nutritionist to see whether adaptations of the food basket are needed. Describe the process and considerations as before.

2.4. Lack of feasibility

2.4.1. It could be that focus group participants do not consider it feasible to cook on a daily basis, e.g. because of time constraints. We advise to clearly write down the arguments put forward and to document all proposals formulated by the participants to increase the feasibility of the food basket. We do not advice to make further adjustments for reasons of cross-nationally comparability. However, if participants propose to include lunches offered in school or working canteens, we kindly ask you to calculate two separate baskets: one with the price for home-cooked meals and one with the price for breakfast and dinner prepared and consumed at home and one with the price of lunch eating in a canteen (at school or work place).

2.5. Other reasons for non-acceptability.

2.5.1. Please discuss with the coordinating team what should be done. In general, all proposed adaptations need to be discussed with the nutritionist and transparently described in the final report.

13.2 Food basket for other than health functions of food, essential for adequate social participation

Ideally, there should be more time for discussing the other functions of food in the FGs to come to a more concrete list of goods and services. As we have decided in this pilot project to jointly discuss the theoretical basis and the food basket in the focus groups, there was relatively little time for this, which may mean that it can happen that you have relatively little information on the other functions of food. When developing this part of the food basket, please rely as much as possible on the results of the FGs discussions. To compose a food basket that fulfills other essential, but non-health related functions, please follow the steps below:

1. Describe all other functions of food mentioned and agreed upon by the participants.
   1.1. In case this is not discussed in the FGs, you should estimate the goods and services needed to fulfill the other functions of food listed in the handbook chapter on the food basket. For doing so, it is essential to rely as much as possible on other information sources, such as survey data (e.g. average number of days people receive friends or family at home), literature and existing studies to estimate the essential goods and services for fulfilling these functions. Please describe clearly the motivations for the proposed list of goods and services.
2. In case the other functions of food have been discussed in the FGs, translate these functions in commodities (food items, food related activities, quantities and frequencies), following the same procedure as described under 1.1. However, now you should give preference to the information provided in the focus groups, regarding which functions are essential and which goods and services should be included in the basket. If these lists cannot be considered complete, please follow the instructions as under 1.1.
   2.1. When completing this part you should keep in mind:
      2.1.1. That we are looking at what people need at the minimum in order to adequately fulfil all expected social roles (common expectations related to social functions).
      2.1.2. That the same commodities can fulfill different functions. If the same goods/services can fulfill several functions at the same time, there is no need to include them multiple times. For instance, FG participants may say it is important to go out eating once in a while to teach children how to behave themselves in a restaurant. Furthermore, they might agree that it is important to be able to eat out on special occasions (e.g. a birthday). In that case, it might suffice to include eating out 4 times a year in the case of a couple with two kids (once for each birthday).
   2.2. Follow the procedure below to translate the mentioned functions into commodities
      2.2.1. Look if the other functions of food can be fulfilled by the items already contained in the healthy food basket
         2.2.1.1. If this is the case: no extra items should be added but please describe this clearly in the final report.
         2.2.1.2. If this is not the case: describe the food related products/services and the quantities/frequencies that people in your country do need at

the minimum to fulfil these other functions mentioned. Do this based on:

2.2.1.2.1. Solid arguments given by the focus groups and eventually supported by survey data.

2.2.1.2.2. In case these information sources are lacking and you have difficulties with deciding on what kind of food to take into account it can be sufficient to just double the daily food amounts in the healthy food basket enabling people to cook more special, expensive or extended meals (see BE example).

2.2.1.3. When deciding on the addition (or not) of food-related items (type of item, frequency and quantity), it is important to reflect upon the decision in a functional way: you should ask the question whether without adding this particular item a certain function cannot be fulfilled and will lead to inadequate social participation. Below you can find an illustration of this functional reasoning for some of the prelisted social functions.

13.3 Some examples

1. Hospitality function: e.g. inviting relatives or friends

Please rely as much as possible on the outcomes of the FG discussions, and use the instructions below to 'fill the gaps'. If it is a cultural habit to offer visitors food or drinks then:

1.1. Decide on the frequency of this event. What is defendable as a minimum in your country (based on all relevant information sources available).

1.2. Decide on what to take into account (e.g. which kind of food, drinks,…).

1.3. To take into account what is needed at the minimum only include those items (incl. frequencies and amounts) that should be offered to visitors. A trick for deciding upon this is asking the question whether people in your country would feel ashamed if they could not offer at the minimum the items you would add to the basket.

Celebration function of food: celebrating important festivities

Please rely as much as possible on the outcomes of the FG discussions, and use the instructions below to 'fill the gaps'.

1.4. Sum up all the commonly celebrated feasts (both important religious, national as life events (e.g. graduation party, birthdays,…) celebrations) in your country.

1.5. Decide which of them are essential for fulfilling adequately essential social roles (e.g. if you would not do this, would you be considered a bad friend/parent/citizen…)? (also here, the shame heuristic can be used). For these festivities:

1.5.1. Decide on the frequency of this event. What is defendable in your country.

1.5.2. Decide on what to take into account (e.g. which kind of food, drinks,…)

To take into account what is needed at the minimum only include those items (incl. frequencies and amounts) that are needed in order to adequately fulfill essential social roles.

2. *Religious function of food : food linked to particular religious practices*
   - 2.1. Only those religious food related items should be added that are not already fulfilled by items included for reasons mentioned above.
   - 2.2. For these religious related food items, only include those that are representative for the vast majority of the population
   - 2.3. Decide which of them should be included in order to feel not ashamed being a member of the dominant religious group. For these:
     - 2.3.1. Decide on what to take into account (e.g. which kind of food, drinks,…) based on FG arguments, survey data, …
     - 2.3.2. Decide on the frequency. What is defendable in your country based on FG arguments, survey data, …
       - 2.3.2.1. If you have difficulties with deciding on what kind of food to take into account it can be sufficient to just double the daily food amounts in the healthy food basket enabling people to buy or to prepare more special meals.
       - 2.3.2.2. To take into account what is needed at the minimum only include those items (incl. frequencies and amounts) that prevent people from inadequately fulfilling one's social roles.

3. *Gastronomical function of food: eating for the pleasure of it*
   - 3.1. We suppose that in each country people are able to cook tasty and varied menus with the budget of the healthy food basket
   - 3.2. If extra items are suggested: look if they can be added to the other functions of food mentioned above
   - 3.3. If extra items should be added because they are only related to the gastronomical function of food:
     - 3.3.1. Decide on what to take into account (e.g. which kind of food, drinks,…) based on FG arguments, survey data and your own experiences
     - 3.3.2. Decide on the frequency. What is defendable in your country based on FG arguments, survey data and your own experiences
       - 3.3.2.1. Only include those items (incl. frequencies and amounts) that people need at the minimum to adequately participate in society

14 Annex 3: The pricing of the food basket

The cost of the food basket does not only depend on its contents, but also on the price of the foods included in the basket. For most items, a wide price range may exist. Therefore, it is important to have a clear cross-country comparable pricing procedure. This consists of four steps. First, it is important to have a clear view on the common and acceptable purchasing patterns regarding food and kitchen equipment. Second the pricing period should be the same for all 28 countries. Third, the choice of shops and the selection of healthy food items and kitchen equipment should be done in a comparable way across Member States. Finally, also the purchase of food-related goods and services that fulfil mainly social needs should be performed in similar way across the 28 European Member states. Below we describe the procedure we propose. The aim of the procedure is to avoid as much as possible arbitrary price differences across countries.

14.1 Purchasing patterns

In all countries the food basket will be priced at market prices in well accessible shops that offer food products of acceptable quality. The shops should be well-spread over the city.

However, in some situations it may be common practice not to purchase food and kitchen equipment on the market, but by

- home production; receiving food from family and friends on a regular basis;
- exchanging informally goods or services for food;
- bargaining in shops or on the local market;
- receiving or buying subsidised goods and services (e.g. food consumed in school canteens).

If any of these mechanisms are common practice in the local context, country teams are requested to clearly document the argumentation for and against taking any of these mechanisms into account (that is, to document their acceptability in a budget that should represent the minimum resources for adequate social participation). If they decide to take account of one or more of the above practices, country teams are asked to list the items for which these practices apply and to transparently document (on the basis of survey data and focus group discussions) the frequency with which people make use of them, what the impact is on average on household budgets, and how widespread the practice is. In order to maximise the possibilities for cross-national learning, if applicable, we kindly ask country teams to construct a food basket that is completely valued at market prices, and one in which these mechanisms are taken into account.

14.2 Pricing period

The food basket should be priced at a common date such that price levels can be compared. The pricing date selected for the development of the food basket is March 2015.

14.3 Pricing of food and kitchen equipment

Two criteria will lead the pricing of the food and the kitchen equipment. First, the food budget should represent *the minimum resources* that people need to get access to all essential food items. Second, the choice of shops and the selection of items in the shops should be done in such a way that it leads to a minimum budget that gives people a minimum *acceptable degree of freedom*. Indeed, free choice is an important

aspect of individual autonomy, which is conceived as one of the two universal needs that need to be fulfilled in order to be able to adequately participate in society (see Goedemé, Storms, & Van den Bosch, 2014, pp. 45, 50). Below, we explain how both principles will be applied in a pricing procedure which should lead to 28 national food budgets that satisfy people's need for (healthy) food at a similar level.

14.3.1 Choice of shops

As there is no single 'low price' that corresponds to a particular good or service purchased at a given date, 'shopping around' can lead to considerable savings. Nevertheless, it is highly impractical to frequent different shops for regular purchases such as food. Therefore, we suggest buying the food items and kitchen equipment in one or, if not possible, in only a few retailors or markets that are suggested by the participants in the focus groups and that meet following criteria: 1) offering a wide variety of food/kitchen equipment of acceptable quality at low prices, 2), being well-spread over the city, 3) being well-accessible by public transport. Being well-spread over the country can be another criterion that can be taken into account, as this could facilitate the future pricing of reference budgets developed for other regions.

It is likely that focus groups have mentioned more than one shop which would be acceptable for the reference budgets. However, it is not practical to do an elaborate price survey in all these shops within the constraints of this pilot project. Therefore, we suggest that country teams which can rely on existing representative price comparisons between retailors, use this information source to decide in which shop prices should be noted (that is, in accordance with the criteria defined above). They describe in their country report how this choice is made in accordance with the targeted living standard, representing the minimum resources needed to participate adequately in society. In case country teams could not rely on such survey data, ideally they should do their own price survey. However, in this project we do not have the time, or the means to do this in robust way. Therefore, we suggest that partners choose (one of) the retailor(s) that meet best the three criteria mentioned above.

As is the case for food, also the kitchen equipment should be priced in shops that are well accessible in the capital city and, if possible, are also widely spread across the country. Other criteria that can be taken into account when selecting suitable shops are: the presence of an after sales' service and an at-home-delivery service for larger items as a fridge or freezer and the energy label. Also here, the choice of shops should be based on focus group discussions and available survey information. In case more than one retailer offers kitchen equipment at low prices, we ask partner countries to choose for the retailor(s) that meets the above criteria and that offers kitchen equipment of acceptable quality at the lowest price.

If on the basis of the above defined criteria several retailors still stand out, an additional criterion that can be decisive for choosing a suitable shop for carrying out the price survey is the availability of a linked online web shop. This can facilitate very much the pricing procedure. Of course one should inquire in advance whether the online prices are the same as the prices in the shop.

An alternative for pricing items in shops is to make use of detailed food price surveys which capture a defined range of shops and which contain various price ranges. However, to our knowledge most countries do not have such detailed price surveys, at least none that are easily accessible for research goals and that would allow to identify the cheapest products. If these are available, we propose to consult with the coordinating team to define a pricing procedure with the aim of maximising acceptability and comparability.

14.3.2 Choice of suitable items

It goes without saying that when looking for suitable items to price, the first selection criterion refers to the quality of goods or services. The selected items should meet the quality criteria as described in the food basket (e.g. percentage of fat in dairy, energy label of a fridge). Second, the pricing should lead to a budget that reflects the targeted living standard, defined as '*minimum resources required for adequately participating in society*'. For meeting the latter criterion, all partner teams should look for the items with lowest price, except for those items for which the participants in the focus groups give good arguments to choose for a less cheap option.

For pricing fresh food and non-pre-packaged food items such as fruit, vegetables, meat, fish and cheese, we propose not to choose just one price, but to calculate a price that represents a weighted average of all products for each of these food categories available in the shop[111], in such a way that the calculated budget enables families to prepare healthy menus that offer sufficient variation. Of course there will be cultural differences in what can be understood by 'sufficient variation' and how this should be operationalised in a food basket. In order to ensure maximum comparability across countries and over time, all partners are asked to use following step-wise procedure. If partners have reasons for deviating from the procedure, they contact the coordinating team to discuss an alternative procedure.

Step 1: Write down the lowest price (per kilo or litre) for all items in a category (e.g. fresh fruit) that are available (in this season) in the shop. If two or more different types/brands of a same food item are available (e.g. three different brands of apples), include the one with the lowest price.

Step 2: Order the items from the lowest to the highest price and number them.

Step 3: Ignore the 10% most expensive items.

Step 4: Calculate the average price of the 'x'[112] cheapest products and calculate the average price of the N-x cheapest product whereby:

- N = total number of products, except for the 10% most expensive products
- x = 7 for fruit
- x = 14 for vegetables
- x = 5 for meat, fish and cheese

Step 5: Calculate a weighted average price by using following formula: (5/7* average price of the x cheapest products) + (2/7*average price of the other products, except the 10% most expensive items). The idea of this weighting procedure is that it should enable households to eat on average 5 days a week a cheap meal and two days a week a somewhat more expensive dish. In case the weights used seem to be not appropriate for your country, a reflection should be included in the country report.

Another pricing issue that arises relates to the question of the treatment of sale prices. Almost all retailors offer regularly food at reduced prices and consumers may delay their purchases in order to take advantage of these. Nevertheless, as a rule of thumb, we do not take sales into account[113]. Sales tend to be relatively volatile and may lead to a non-representative image of the price level of the food basket.

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[111] See for detailed example: '20150219_Food basket example_BE.xlsx' (sheets 12-25).

[112] The idea is that people have sufficient choice to eat healthily in a sufficiently varied way.

[113] So when comparing prices, please always take the regular prices into account. If no regular prices, but only reduced prices are listed, try to recalculate the regular price yourself based on the mentioned reduction percentage. If no reduction percentage is noted, there is nothing else to do than taking the reduced price into account. In the latter case, please do mention this in the country report.

Therefore, taking sales into account may undermine the robustness and validity of the pricing procedure. As a consequence, it limits the possibilities for replication and appropriate updating of the food basket in the future, as well as its cross-country comparability. Furthermore, it also limits the comparability with other (national) retailers. Finally, it may limit too strongly consumer choices running against the requirement of acceptability (see also Saunders et al., 1998, p. 83). However, in some countries sales may be omnipresent during certain periods. Therefore, if applicable, comments and remarks regarding this rule of thumb should be reported in the final report.

Finally, by purchasing the food basket on a family basis rather than on an individual basis, it is possible to build in economies of scale. Larger packages are oftentimes relatively cheaper per unit of a product than small packages. However, before doing this, one should carefully look at the expiring date of the products and take this into account before deciding to purchase the required amount in larger packages. Of course, if feasible and acceptable, also for small families, price advantages of buying some items in bulk can be taken into account, e.g. in the case of products with a long expiring date or those that can be frozen.

14.3.3 Life span of kitchen equipment

The final cost of kitchen equipment does not only depend on the initial price, but also on the number of years one can make use of it. The lifetime of durables depends on: the quality of the good, the way and frequency with which it is used, and local circumstances (e.g. the characteristics of tap water). To the best of our knowledge, there is a lack of reliable information on the actual lifetimes of durables. Therefore, it is not possible to determine the expected life span in an objective way[114]. Focus groups can give more insight into the acceptability of the proposed lifetimes of durables, but cannot provide a reliable and robust estimate, because participants have experiences with goods of different brands and different quality, and may have difficulties in remembering correctly how long they have been able to use certain goods. Moreover, focus groups do not involve a representative sample of citizens. In addition, the characteristics and quality of durables tend to change over time: experiences with equipment bought a couple of years ago, does not necessarily reflect the quality of equipment which is currently available in shops. In order to strive for maximum comparability and transparency in this challenging matter, we propose to have a close look at the lifespan of the kitchen equipment in the example Excel files and to only deviate from this in case good arguments can be found, i.e. based on expert knowledge or research information. If there is a clear trend in focus groups that lifespans are too long or too short, this should be clearly described in the country report.

14.4 Pricing of food items that fulfil social functions

To ensure that the pricing of food-related goods and services that fulfil other than health related needs will be done in a comparable way across countries, the following procedure is proposed. First, for pricing food items the same pricing procedure as described above should be applied. Second, when food items will be used to prepare feasts, their price should be doubled in order to enable people to cook special meals. Third, regarding food-related services (food for celebrations, meals in a restaurant, a home delivery service…) an average price should be calculated based on the lowest price of five low-cost services that were proposed by the focus groups and that are

[114] At the moment we are doing some further research on this topic. If we make major progress in a more objective definition of the life spans, we will let country teams know.

well-spread over the capital (e.g. the cheapest pizza on average of a pizza delivery at home).

14.5 References

Goedemé, T., Storms, B., & Van den Bosch, K. (2015). Pilot project for the development of a common methodology on reference budgets in Europe: Proposal for a method for comparable reference budgets in Europe. Brussels: European Commission.

Saunders, P., Chalmers, J., McHugh, M., Murray, C., Bittman, M., & Bradburry, B. (1998). Development of indicative budget standards for Australia (pp. 633). Sydney: Social Policy Research Centre, University of New South Wales.

15 Annex 4: Country teams and partners

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