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Progress Report

on the review of the Joint Assessment Framework in the area of health

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1. INTRODUCTION

On 25th November 2013, the Social Protection Committee (SPC) adopted an ISG report on developing an assessment framework in the area of health based on the Joint Assessment Framework methodology (hereafter "*JAF Health*").[1] The report aimed at providing a way to apply the methodology developed in the Commission-EMCO-SPC Joint Assessment Framework in the area of health. To this end, it first captured the multidimensional and complex characteristics and determinants of health and health systems in a conceptual framework. At a second step, the dimensions of the conceptual framework were populated with a set of indicators, for which limitations in data availability and comparability were described. Special attention was dedicated to areas for which appropriate indicators are still lacking and as a logical consequence, the report pointed out to ways ahead for improving the data basis and to needs in indicator development. The report launched the first stage of implementation of the framework, and it was agreed that the JAF Health would be piloted for a period of one year after which it would be reviewed by the ISG.

The present paper is a Progress Report on this one year "pilot phase" in the use of JAF Health and it covers the period from November 2013 – December 2014. Firstly, this paper provides an update on the policy context, it then explains the use of JAF Health in the course of the European Semester 2014. Next, it details the activities undertaken as part of the quality assurance undertaken to test the JAF Health framework and the underlying indicators, in response to the ISG request. Finally, the report also points to the ways in which the framework could be used, including in the context of the Open Method of Co-ordination and possibly also during the European Semester. It concludes with the assessment of the pilot phase and proposed next steps.

The present progress report accompanies the document *Towards a Joint Assessment Framework in the area of Health; Work in progress: 2014 update*, which in turn provides an update of the data availability for indicators listed in the JAF Health document, which was adopted in November 2013.

The SPC is invited to take note of the current state of JAF Health as presented in the document *Towards a Joint Assessment Framework in the area of Health; Work in progress: 2014 update.* In addition, the SPC is requested to extend the mandate for the ISG to continue to pilot and develop JAF Health and to provide guidance for its use as well as for the future SPC work on health along the lines as suggested in the report at hand.

2. POLICY CONTEXT

2.1. Wider policy context

Given the current socio-demographic situation, the Member States have to balance the need to provide access for all with an increasing demand for health services due to population ageing,

[1] This report was developed jointly by the SPC's Indicators Sub-Group (ISG) and the Commission services through several consultation rounds in 2013. Final version of the pilot phase report *"Developing an assessment framework in the area of health based on the Joint Assessment Framework methodology: final report to the SPC on the first stage of implementation" [see SPC/2013.11/7]*, available from: http://ec.europa.eu/social/main.jsp?catId=758

increased use of more costly technological and pharmaceutical innovations and increased expectations from citizens and patients. This is in the context of constrained resources due to decreasing public resources and lower incomes.[2] Therefore, in the past years, greater attention has been given to the issue of measuring the performance of health systems, both at national and at international levels. Over the last few years, considerations over health systems have also been gaining visibility in high-level EU policy processes, namely Europe 2020 and the European Semester processes.[3]

While a more comprehensive discussion on the policy background was given in the November 2013 JAF Health paper, this section will take account of the policy outcomes that were particularly noteworthy in the period from November 2013 – December 2014.

Firstly, the Council conclusions on the *"Reflection process on modern, responsive and sustainable health systems"*[4] called to *"continue the reflexions on the adequate representation of health in the framework of the Europe 2020 Strategy in order to ensure that this strategic issue will be included also during future exercises of the European Semester, subject to the forthcoming evaluation of this process".*

Next, in its Communication from April 2014[5], the European Commission outlined actions to 1) strengthen the effectiveness of health systems; 2) increase the accessibility of healthcare and 3) improve the resilience of health systems. This Commission Communication underscored the importance of national work on health systems performance assessment, which can be helped by delivering comparative data collection in the area of health.

Finally, in the view of the mandates given by the President of the European Commission to the incoming Employment, Social Affairs, Skills and Mobility Commissioner, social policy, including social protection, should be given greater visibility in the context of the European Semester[6]. This entails a greater need for social indicators for the European Semester and also to monitor the impact of structural reforms. In addition, the Commissioner for Health is

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2 European Commission and EPC (2010) Joint Report on Health Systems, available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/pdf/ocp74_en.pdf; and corresponding Council Conclusions http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ecofin/118273.pdf; European Commission (2012) Joint report on the quality of public expenditure in the EU, available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2012/pdf/ocp125_en.pdf; and European Commission (2013) The Ageing Report 2012, available at: http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-2_en.pdf

3 Annual Growth Survey 2013, Council Conclusions on Council conclusions on the sustainability of public finances in the light of ageing populations (May 2012), available from: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/130261.pdf; council conclusions on conclusions "towards modern, responsive and sustainable health systems", available from: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:202:0010:0012:EN:PDF; Staff Working Document on Investing in Health (2013)

4 Council conclusions on the "Reflection process on modern, responsive and sustainable health systems"; Employment, Social Policy, Health and Consumer Affairs Council meeting; Brussels, 10 December 2013, available at: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/140004.pdf

5 European Commission (2014) "On effective, accessible and resilient health systems" COM(2014) 215 final, available from: http://ec.europa.eu/health/healthcare/docs/com2014_215_final_en.pdf

6 Mission letter from Jean-Claude Juncker, European Commission president-elect to Marianne Thyssen, Commissioner designate for Employment, Social Affairs, Skills and Mobility, available at: http://ec.europa.eu/about/juncker-commission/docs/thyssen_en.pdf

mandated to develop expertise on health system performance assessment, also in the context of the work of the European Semester[7].

2.2. Working Party on Public Health at Senior Level

In 2013, the SPC requested that future work on JAF Health takes into account the developments of the Working Party on Public Health at Senior Level (WPPHSL). The Working Party instructed the Expert Panel on Effective Ways of Investing in Health (EXPH) to define and endorse the criteria "to identify priority areas when assessing the performance of health systems" in response to the papers prepared by the work of WPPHSL Sub-group 5.[8] The Expert Panel outlined a number of key technical and general issues that need to be considered in development of an assessment framework/model.[9] The EXPH advised that *"[a] clear conceptual framework defining the parameters of the health system to be assessed should be developed, which will then inform a set of dimensions and the selection of robust performance indicators".* It also suggested consulting the framework bottom up. In the process of JAF Health development all these elements were addressed. Recommendations from the Expert Panel on Effective Ways of Investing in Health are also taken on board in this paper, when it comes to the proposals for future inclusion of indicators (see Section 5 below).

The WPPHSL has also endorsed the terms of reference for an Expert Group on health systems performance assessment (HSPA), which is jointly chaired by the European Commission and Sweden.[10] The group is mandated, *inter alia*, to "*provide participating Member States with a forum for exchange of experience on the use of HSPA at national level*" and to *"define criteria and procedures for selecting priority areas for HSPA at national level, as well as for selecting priority areas that could be assessed EU-wide in order to illustrate and better understand variations in the performance of national health systems"*. This Expert Group is also requested *"[to] liaise with other actors which deal with health systems performance within the European Commission, in order to avoid duplication and take advantage of synergies. The Expert Group should take into consideration the activities carried out by Economic Policy Committee on the sustainability of health systems, the Social Protection Committee with regard to the Joint Assessment Framework on health (…)".*

It is important to note in this respect that the purpose of the HSPA exercise undertaken by the Expert Group appears to complement the JAF Health, as regards scope and methodological approach: *"The outcome of this voluntary process is not to rank health systems, but it is to identify together tools and methodologies for Member States, which might be implemented in order to further improve their health systems performance. Moreover, this process aims at searching for ways to improve comparability of information through an agreed working framework. The application of such tools and methodologies is likely to focus on specific conditions (e.g. cancer, diabetes, etc.) and requires solid epidemiologic ground."* One of the objectives of the Expert

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7 Mission letter from Mission letter from Jean-Claude Juncker, European Commission president-elect to Vytenis P. Andriukaitis, Commissioner designate for Health and Food Safetry, available at: http://ec.europa.eu/commission/sites/cwt/files/commissioner_mission_letters/andriukaitis_en.pdf

8 This was a Working Group on measuring and monitoring of health investment; it was led by SE with the participation of AT, BE, DK, EE, HU, LT, ES, UK, CZ, PT, SI and the European Commission.

9 Expert Panel on Effective Ways of Investing in Health "Definition and Endorsement of Criteria to Identify Priority Areas When Assessing the Performance of Health Systems (adopted on 27 February 2014), available from: http://ec.europa.eu/health/expert_panel/opinions/docs/002_criteriaperformancehealthsystems_en.pdf ; please also see Annex 4 for a list of indicators used in this Thematic Assessment Framework on Health;

10 Terms of reference for an expert group on health systems performance assessment, available from: http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2012945%202014%20INIT

Group is to provide participating Member States with a forum for exchange of experience on the use of HSPA at national level. Another objective is to support national policy-makers by identifying tools and methodologies for developing HSPA. In order to achieve these objectives, the Expert Group will base its work on a conceptual framework, derived from existing HSPA frameworks developed by the OECD and WHO.

3. APPLICATION OF JAF HEALTH IN THE EUROPEAN SEMESTER 2014

The Social Protection Committee (SPC) proposed the development of JAF Health with a view to strengthen the evidence base in its activities related to health policy. Its primary objective is to contribute to the identification of challenges within the Europe 2020 Governance structure and, the European Semester but also in relation to in-depth thematic reviews and any other relevant tasks in the context of the Open Method of Co-ordination (OMC). According to the JAF methodology of the integrated guidelines[11], the JAF Health would have to support monitoring and assessment of structural reforms under the Employment Guidelines through a quantitative and qualitative assessment methodology. The findings from this quantitative and qualitative assessment would be a basis for identifying and verifying progress towards the common objectives of the OMC health strand, the main bottlenecks, and for supporting the work on development of Staff Working Documents (SWD) and Country Specific Recommendations (CSR).

In its report from November 2013, the ISG expressed reservations regarding the suitability of the JAF Health proposal for deriving conclusions or recommendations in the course of the European Semester process, due to the limitations in data availability and the need to further develop appropriate indicators. The SPC/ISG delegates called to clarify the use of the JAF Health during the European Semester and proposed to test the JAF Health in a pilot exercise during the 2014 European Semester.

However, it should be noted that JAF Health acts only as a first step-screening device and it is not to be used for automatic issuing of CSRs; indeed in the context of the European Semester, the country assessment is a multistage process involving many data sources and tools, together with qualitative review and consultation with Member States. Moreover, while, the European Semester is particularly driven by the fiscal sustainability concerns, it is the specific objective of the JAF Health to give more visibility to broader issues of access, quality and equity and population health status.

This section gives more information on the use and it also assesses the usability of the tool during the European Semester 2014.

3.1. JAF Health and the Annual Growth Survey 2014

The Annual Growth Survey (AGS) 2014, which started the European Semester 2014 process, underlines the need to strengthen the efficiency and financial sustainability of social protection systems, notably pensions and healthcare systems, while enhancing their effectiveness and adequacy in meeting social needs and ensuring essential social safety nets.

[11] Joint Assessment Framework (JAF) methodology was developed by the Employment Committee, Social Protection Committee and the Commission services to provide evidence base for tracking progress and monitoring the Employment Guidelines under Europe 2020. For more details on the JAF methodology, please see here http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=972&furtherNews=yes

It also acknowledged the important contribution of the health sector in tackling the social consequences of the crisis, stressing that active inclusion strategies should be developed, including broad access to affordable and high-quality services, such as social and health services.[12]

In relation to the healthcare-related text of the AGS quoted above, it can be seen that currently the JAF Health does **not** provide the information on the efficiency nor on the financial sustainability of health systems, which were the thematic focus of the European Semester 2014. Therefore to better assess health systems for the needs of the European Semester 2014, the Commission services used internal analytical tools, focussing on different aspects, such as fiscal sustainability[13], or on accessibility and effectiveness of health systems, which was also the focus of the Commission Communication of April 2014.[14]

While so far efficiency or sustainability of health systems are very difficult to be captured, the JAF Health includes indicators of health system's *access*, *quality* and *resources* and also relating to population health outcomes, which are referred to in some of the Staff Working Documents that form the analytical basis for issuing of the CSRs. A detailed overview of health indicators used in the context of the European Semester 2014 (both for Staff Working Documents and Country Specific Recommendations) is provided in Annex 1.

Only some dimensions of health systems touched upon in the 2014 CSRs were matching those covered in JAF Health. This is mainly the case for the access dimension. Moreover, JAF Health only looks at the overall health system, while many of the health-related CSRs were sector-specific (for example dealing with hospitals or primary care). Finally, some other areas highlighted for reform in the CSRs cannot be captured by available EU comparable health data.

3.2. Practical use made of the JAF Health during the European Semester 2014

The decision on endorsing the JAF Health for a pilot exercise was taken by the SPC in November 2013. At that point, the Commission preparations for the European Semester 2014 had already been underway. The JAF Health individual country outputs were delivered at a later stage and they were disseminated to the Member States via the SPC Secretariat on the 25th February 2014. The Commission services made the JAF Health data and country profiles available to DG EMPL staff working on country-specific analysis (so called "geographical desks") in February 2014. The JAF Health was also presented to the geographical desks and DG EMPL Europe 2020 team to raise awareness of the tool and explain how the data should be interpreted.

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12 European Commission (2013) Annual Growth Survey COM(2013) 800 final, available from http://ec.europa.eu/europe2020/pdf/2014/ags2014_en.pdf

13 See http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp201_en.pdf, which was briefly presented to the ISG at its October 2014 meeting.

14 European Commission (2014), Commission Communication on effective, accessible and resilient health systems COM(2014) 215 final, available at: http://ec.europa.eu/health/healthcare/docs/com2014_215_final_en.pdf

Furthermore, the country profiles of the countries with a health-related CSR that were reviewed in the Multilateral Implementation Review (MIR) in April 2014 were part of the meeting documents and were circulated by the SPC secretariat before the meeting.

With the European Semester 2014 finalised, the geographical desks were asked for feedback on the usefulness of JAF Health. Overall assessment was that it is a useful tool for capturing health outcomes/population health status and access dimensions. Furthermore, it was suggested that the framework could be expanded to include user experience in health care. However, the biggest shortcoming for the users in the Commission was felt to be the lack of data on cost-effectiveness and efficiency of health systems.

3.3. Qualitative analysis in the context of the European Semester

As mentioned above, JAF Health, in the spirit of the JAF methodology, works as a first-step screening device and it should be supplemented by a more in-depth qualitative follow up. In the context of the European Semester, this is done by consulting the county specific publications, such as Health in Transition (HiTs) publications series,[15] OECD health publications,[16] information provided by the European Social Policy Network (or earlier ASISP)[17], reports from EU agencies or projects[18], or relevant national-level publications (statistical data, reports etc.). Since some of the comparative data used in the JAF Health is maybe relatively old, this problem can be addressed in the qualitative analysis, where more recent, national data sets can be used to get a more up-to-date picture of the situation.

More specific issues are also addressed during the country visits by Commission officials and the bilateral meetings with national governments as well as through discussion with other Commission services who approach assessment of health systems from a different perspective (cf: Annex 4: Thematic Assessment Framework of DG ECFIN[19], which focuses largely on health system fiscal sustainability).

In the future, the qualitative analysis stage of JAF Health could be developed further. More detailed and analytical country profiles could be written up following the analytical framework of the JAF Health based on available EU as well as national data.

4. QUALITY REVIEW

It was agreed that the pilot JAF Health will be subject to quality review by external experts. This happened in several steps, namely through 1) JAF Health Expert Meeting, 2) related discussion in the context of the Peer Review on Health System Performance Assessment hosted by Belgium and 3) several external presentations.

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15 Health in Transition publications series is available form: http://www.euro.who.int/en/about-us/partners/observatory/health-systems-in-transition-hit-series

16 OECD health working papers are available from: http://www.oecd-ilibrary.org/social-issues-migration-health/oecd-health-working-papers_18152015

17 See website of the ASISP network: http://socialprotection.eu/; which from 2014 is replaced by the newly created European Social Policy Network

18 For example Eurofound's "Access to healthcare in times of crisis" series of country reports, available from: http://www.eurofound.europa.eu/areas/health/healthcareservices.htm

19 European Commission (2014) Identifying fiscal sustainability challenges in the areas of pension, health care and long-term care policies, available from: http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp201_en.pdf

4.1. JAF Health Expert meeting

An important part of the quality assurance process was the JAF Health Expert Meeting, which took place on the 20th June 2014 in Brussels and was hosted by the European Commission and the ISG Vice-Chairs. Leading health experts from academia and international organisations (including WHO, OECD, WB and European Observatory on Health Systems and Policies) were invited to the meeting to discuss the following:

- the conceptual framework;
- the relevance of the current indicator set for measuring access, quality and equity;
- possible supplementary/alternative indicators;
- pathways for further developments, including data collection and indicators development;
- how the JAF-based framework can be used with other frameworks to avoid duplication of effort in data collection, development and reporting.

The meeting proved to be very useful. Most importantly, it confirmed that, with its limitations in mind, JAF Health is a comprehensive tool reflecting current work in this field. Several experts expressed the view that the majority of the selected indicators are valid and relevant for the specific purposes they are used for in the JAF to measure access, quality and equity of health. In addition, the experts provided concrete ideas of how to improve the conceptual framework and what indicators could be revised, dropped or added. A summary of the discussions and suggestions made during the expert meeting were brought to the attention of the ISG delegates.

4.2. Belgian Peer Review on HSPA

As mentioned above, the primary application of the JAF Health is for the needs of the European Semester and the relevant social OMC activities, including multilateral and thematic reviews. However, it is interesting to reflect on how this tool relates to other initiatives assessing the health systems, notably in the form of the Health System Performance Assessment (HSPA).

During an Open Method of Coordination (OMC) Peer Review on the HSPA organised by Belgium in May 2014 the following was noted in the report by the independent expert: *"The technical work of the Social Protection Committee in developing a health policy area within the Joint Assessment Framework appears to be aligned with the HSPA initiatives being developed by individual Member States. The proposed framework is consistent with many of the frameworks already adopted by Member States, and has a strong focus on equity, a persistent concern within many HSPA initiatives. As with all HSPA efforts to date, the SPC has not developed the efficiency aspect of the framework in any detail, and this would appear to be a priority.*"[20]

Although, the Peer Review dealt mostly with the national models of the HSPA, it was also noted that *"the feasibility and effectiveness of HSPA depends crucially on the existence of extensive comparable and reliable data sources, collected on a consistent basis from as many*

[20] See Synthesis report prepared by Peter Smith, an independent expert appointed for this Peer Review, available at: http://ec.europa.eu/social/main.jsp?langId=en&furtherNews=yes&newsId=1890&catId=89

countries as possible. A crucial role at the international level is to secure international agreement on the scope of data collection efforts, the specification of data definitions and standards, the promotion of data collection and dissemination by international agencies, and sharing best practice on the use of the information. It was also pointed out that HSPA should generally be a national undertaking, tailored to local needs." [21]

It can be said that JAF Health provides a good framework outlining the key dimensions of the health systems and pointing out which indicators it could be populated with for the needs of international comparisons or benchmarking. This gives a good guidance for the on-going and future work on EU-level health data collection (please see Section 6 for a discussion on data developments).

4.3. Presentations at other fora

Upon the invitation from other Commission services, JAF Health was presented in various expert fora, including:

- Expert Group of Health Information (EGHI) in January and May 2014;
- Expert Meeting on Health Inequalities in January 2014
- Eurostat Working Group on Public Health Statistics in December 2013

These presentations were for information only, however they contributed to the transparency of the process and also generated additional feedback on the tool. Also, as pointed by one of the experts *"The report has the great merit to tackle directly, using a language that can be understood by readers of different backgrounds, a topic that has constantly raised controversies at the EU level. Consequently, the approach is straight and offers a convenient basis for the further discussion of the topic at multinational level."*[22]

Furthermore, the need to make cross references between JAF Health and European Core Health Indicators (ECHI) was emphasised, as well as mainstreaming equity perspective whenever possible.

Lastly, the experts called for better coordination between different initiatives of the Commission in the area of health systems assessment and in relation to collection of health indicators (e.g.: ERIC on health information) in order to minimise the burden of data collection on the Member States.

5. STATISTICAL DEVELOPMENTS IN THE AREA OF HEALTH – LINK TO JAF HEALTH

JAF Health builds heavily on existing joint Commission-Member States work on health indicators, notably the EU social indicators, the European Core Health Indicators and the more general and on-going work on health statistics led by Eurostat, which supported

[21] More material form the Peer Review are available at: http://ec.europa.eu/social/main.jsp?langId=en&furtherNews=yes&newsId=1890&catId=89

[22] Written comments received from IT EGHI delegation.

Member States in their efforts to develop comprehensive and comparable expenditure and non-expenditure indicators on health and healthcare. JAF Health also includes relevant data and indicators work by the OECD and WHO.

One of the main outcomes of this work has been the identification of a number of areas for further improvement of health data and indicators' development which can allow for such an assessment framework to deliver on its objectives in a more comprehensive, timely and more accurate manner. The current availability of health data at the EU level does not allow for all of these objectives to be met. The following sections outline the main areas for future improvement that have been highlighted in the discussion, but also proposed solutions and plans for data collection.

5.1. Horizontal issues

Timeliness of health data

The economic crisis has shown the need for more timely health data as it has been difficult to capture the impact of the crisis on health outcomes and a number of relevant health indicators. Going beyond the crisis, the current substantial time lag for the majority of health data does not allow for their proper use in monitoring frameworks.

Sustainability of data collection and indicators development

In order for the current monitoring framework to help provide meaningful cross-country comparisons over time, sustainability of data collection needs to be ensured. Stability of questionnaires for EU-wide surveys is indeed essential in this regard in order to allow for consistent monitoring across time. Further harmonisation and improvement of the quality and availability of existing health indicators sets in a sustainable way is highly recommended.

Data gaps in the coverage

As the data overview provided in the accompanying JAF Health Framework document illustrates, there are significant data gaps for the areas that we propose to cover in the framework. In particular, this relates to data on non-health care determinants. While the EHIS regulation will improve the issue of coverage, its periodicity will still remain a challenge.

5.2. Ongoing and future developments

The section 5.1 above identified shortcomings related to data collection. However, there have been significant developments in the past year leading to changes and possibilities to close the data gaps in the medium-term. In particular, the following initiatives should be mentioned:

1) The second wave of the European Health Interview Survey (EHIS), which covers all Member States, is being implemented in 2013-2015. The data for available countries will be disseminated by Eurostat as from 2016 allowing populating in particular the indicators in the "Lifestyles" dimension of JAF Health. For the time being EHIS is expected to be carried out every 5 years[23] in all Member States.

[23] There are ongoing discussions on the periodicity of all European Statistical System social surveys in the context of the modernization of social statistics. The periodicity of EHIS may be changed to 6 years.

2) The joint EU-WHO-OECD data collection on health expenditure according to the System of Health Accounts will become compulsory with the entry into force of a new Regulation. The data will be annually available for all Member States as from 2016. This will close the data gaps in the "Resources" dimension.

   In response to the ISG request, Eurostat is also working on improving the ways of calculating Out-of-Pocket expenditure at a macro level in the context of SHA data. First efforts to this end were dedicated in the recent meeting of the Task Force on SHA data collection. Eurostat and the present Member States committed to continue the work in the coming year as well as to explore ways of involving all the EU Member States.

3) Eurostat Task Force on Satellite Lists finalised in 2014 its work on the development of theme-specific lists to improve the dissemination of death statistics. The data on amenable and preventable mortality will be disseminated by Eurostat from 2015 onwards.

4) In the context of the revision of the EU-SILC legal basis foreseen for 2018 a health module would be collected every 3 years. This module would consist of maximum 20 variables covering health status, health care and health determinants. This would significantly strengthen the "Access" dimension, including variables covering "financial burden of health care" at a household level. This module would improve the frequency of data for the "Lifestyles" dimension as well, which otherwise is collected less frequently through EHIS. Some health variables would already be tested within the 2017 SILC ad-hoc module.

5) Eurostat set up in 2014 a Task-Force on the Global Activity Limitation Indicator (GALI). GALI is used for calculation of one of the JAF Health indicators namely the Healthy Life Years. The Task-Force is mandated to propose ways to improve the harmonisation, comparability, acceptability and use of GALI. The Task-Force should report to the Directors of Social Statistics in 2015 in view of deciding whether GALI could become or not a core social variable, i.e. used in a similar way in all social surveys of the European Statistical System, in order to expand the availability of data on the situation of disabled persons in various domains of life.

6) Eurostat's Working Group Public Health (WG PH) agreed in December 2013 to set-up a Task-Force to contribute to the work on the future implementing regulation for non-expenditure health care data (IR HCARE). The basis for the IR HCARE is the joint data collection on non-expenditure health statistics (together with the OECD and WHO). A first proposal for mandatory variables was presented to the WG PH in December 2014. That proposal includes all non-expenditure health care data required for the current JAF Health indicators except MRI units and CTs units. However, the list of mandatory variables might be modified during the subsequent discussion process. The Task-Force mandate was extended by the WG PH beyond December 2015 and the implementing regulation is planned for 2017.

Therefore, it is proposed to base JAF Health on the data that is already being collected or its collection is in the pipeline, without placing undue additional burden on the Member States.

Table 1: Summary of health data developments at the European level

Data source	New developments	Impact on JAF Health	Intended frequency of data collection and coverage
European Health Interview Survey (EHIS)	Wave 2 EHIS implemented in all MS in 2013 - 2015	Data on **"Lifestyles"** to be available in all the MS	Every 5 or 6 years collection in all MS
System of Health Accounts (SHA)	SHA data collection will become compulsory in all the MS as of 2016	Data on "**Resources"** to be available in all the MS from 2016	Annual data collection in all MS
Causes of death	Dissemination of data on amenable and preventable mortality	More data on "**Overall Health Outcomes**" to be available in all the MS from 2015	Annual data collection in all MS
EU-SILC	Every 3-year health module	More data on **"Access"** and potentially **"Overall Health outcomes"** and **"Lifestyles"** (after 2020)	Every 3 years collection in all MS
EU-SILC (and potentially other surveys)	Improvement of GALI	Improved harmonisation of HLY indicator	Annual data collection in all MS
Non-expenditure health care data	Regulation for non-monetary data	More complete and higher quality data for relevant variables as sub-set of the Joint questionnaire with OECD and WHO	Annual data collection in all MS

It is also worth to take note of the developments at the OECD in relation to quality of healthcare indicators. Since 2002 an expert group is developing a set of indicators that facilitates international comparison of health care quality based on a common conceptual framework for understanding quality of care at a health system level as well as an initial assessment and identification of potential indicators in various areas of health care such as health promotion, prevention and primary care, acute care, cancer care, mental health care, patient safety and patient experiences. An extended set of indicators for which data is collected by the OECD covers the following aspects of the quality dimension: effectiveness, safety and responsiveness/patient centeredness.[24]

Furthermore, in its review of health statistics, the OECD recently proposed to develop health care efficiency indicators, giving the need to reconcile rising demands for health care with public budget constraints.[25] This work will also be supported by a joint European Commission-OECD project on Efficiency of health systems.

[24] More information about the project is available at: http://www.oecd.org/els/health-systems/health-care-quality-indicators.htm

[25] OECD (2014) Review of health statistics: discussion of possible future strategic directions to improve health systems performance assessment (DELSA/HEA(2014)17

All the developments listed in this section will significantly contribute to the availability, timeliness and quality of the data underlying JAF Health in the medium term.

6. ASSESSMENT OF THE PILOT PHASE

JAF Health is an evidence-based tool that can flag up initial problems in country's health system, although it has its limitations. Due to data gaps and missing indicators, JAF Health is work in progress and its explanatory power is limited. It aims to respond to the need for a comprehensive tool covering the measurement of outcomes, access, quality and equity, going beyond the focus on fiscal sustainability.

Moreover, JAF Health has also been useful in defining key dimensions of health systems and clarifying the data collection and indicator development needs that would be useful for EU/international comparisons. Therefore, it can be said that it has acted as a catalyst in pushing health data developments at the EU-level, building on already existing body of work by Eurostat/OECD/WHO. Due to data collection developments, some of the data gaps have been, or will be, addressed in the mid-term, and this will improve the quality of JAF Health outputs. Therefore, it is useful to have a stable framework that will guide the data collection and indicator development efforts. This in turn will make building time-series possible in the future. It could be considered that the areas identified for data and indicators development are an important outcome of this review alongside the definition of the framework as such.

As requested by the ISG, in order to validate the tool, a review process was undertaken. The key lessons learned from this process are summarised below.

6.1. Agreement on the building blocks of the conceptual framework

The JAF Health conceptual framework is built on other existing frameworks, most notably the OECD's Health Quality indicators project and as such, it is generally accepted by other stakeholders. However, the JAF Health conceptual framework seeks to illustrate the dimensions of health systems from the social protection perspective. Moreover, it is not intended to become a dynamic model capturing the inter-relations between its various dimensions.

6.2. Limitations and strengths

JAF Health can only be a first-step screening device based on a very limited set of quantitative indicators. Also for some indicators missing data observations hinder cross-country comparative assessments. Moreover, the problem of incomplete data coverage in the area of health hinders the use of a weighted EU-28 average as a reference point for illustrating the indicators results, the way it is conceptualised in the core JAF. Another limitation in the visualisation of indicators results is perceived in the application of EU average reference point for NAT indicators. Although the JAF methodology envisages the use of NAT indicators, they are much less NAT indicators in the other JAF social areas than in health. That is why both issues require further work in the visualisation tool in order to better reflect the specificities of this particular area of social protection.

Furthermore, timeliness of data collection poses problems as sometimes the updates are available only every 5-6 years (EHIS). Relative improvement to the current situation can be expected with the release of the 2nd wave of EHIS data in 2016, which will cover all Member

States. However, how frequently EHIS will be conducted and which variables will be included in the next waves are still uncertain. The continuity for some JAF Health indicators based on EHIS data could be nevertheless resolved and timeliness ameliorated through the suggested EU-SILC health module. It gives prospects to provide data for five lifestyle indicators proposed for use by the JAF Health every 3 years instead of 5-6 years.

Another important aspect to be highlighted is that some dimensions, like quality, though covered by several indicators, do not sufficiently cover the complexity of the dimensions. Therefore, not only data availability and quality of data pose a barrier, but also the relatively limited coverage of the complexity of the different dimensions by existing indicators.

Therefore, policy conclusions cannot be based on JAF Health outputs alone. They should be based on an in-depth review using as much information as possible on a specific country, including qualitative background information as well as time trends based on nationally available data that arguably will face less time lags in data availability. The data presented in JAF Health need to be interpreted with caution, taking into account the complexity and diversity of national health systems and health challenges. However, it should also be acknowledged that the context of work for JAF Health is more complex compared to existing JAFs in other social areas and it demands data input beyond the available comparable data at EU level.

Despite the described above limitations, it should be noted that the available indicators proposed for the overall health outcomes and health care system access dimensions, as well as the socio-economic context indicators currently provide sufficient coverage, quality and confidence in the results and messages from JAF Health (i.e. where data is available for almost all Member States and the indicators are sufficiently robust). It is expected that by the end of 2016 this will also hold true for the most of the indicators suggested to populate the quality, resources and lifestyle factors dimensions.

6.3. Prioritisation of areas for indicator development

Given the existing data gaps, JAF Health can help to prioritise areas for indicator development, as it created a useful structure guiding future data collection efforts at the European level. Compiling new proposals on desirable indicators on health systems in JAF Health could provide additional weight to demands to fill data gaps through the future EU-SILC health module, the implementing regulation on health care non-monetary data, as well as future waves of European Health Interview Survey (EHIS). When new data becomes available, the resulting indicators will have to be tested and approved for inclusion into the JAF by the ISG and SPC. Wherever possible, the indicators used in the JAF Health should refer to the European Core Health Indicators (ECHI).

6.4. Involvement of external experts

The review of JAF Health benefited a lot from the discussion with the informal Expert Group convened for a consultative meeting in June 2014. Therefore, it would be useful to continue the involvement of experts and bring in their expertise also in the future development of this tool. This could take form of on demand expert meetings, in which ISG Members should participate, dedicated to discussing specific components of the framework (e.g.: access, quality or resources) and relevant indicators for development. Experts could also be invited to regular ISG meetings, or specific workshops on JAF Health organised back to back with ISG meetings. This work shall not duplicate work delivered under the Expert Group on health

systems performance assessment (HSPA), which is jointly chaired by the European Commission and Sweden.[26]

7. FUTURE USE OF JAF HEALTH

This section proposes ways for the use of JAF Health in the future. The elements proposed below were presented to the SPC in December 2014.

7.1. The European Semester

Using the JAF Health in the 2014 European Semester process proved that it can deliver information on access and outcomes and as such supported a more balanced assessment of health care in the Commission's Staff Working Documents (SWD). However, JAF Health has not been used for analysing the cost-effectiveness of national health systems, which was the focus of most health-related Country Specific Recommendations (CSR). Instead, the Commission services used internal analytical tools, focussing on different aspects, such as fiscal sustainability[27] or on accessibility and effectiveness of health systems.

The way JAF Health is being designed implies that, in principle, it includes building blocks needed for assessing cost-effectiveness, although these building blocks need to be further populated (there are important data gaps). There is also limited information on causal links between building blocks/indicators. This situation would preclude any definitive conclusions on whether a certain relation between outputs/outcomes and inputs can be attributed to efficiency or other factors (e.g. population age structure, lifestyle factors and wider socio-economic factors, quality aspects that are not directly related to health outcomes). In general, international HSPA frameworks still lack appropriate and comparable outcome indicators, which are essential for a meaningful assessments of cost-effectiveness and efficiency. While such shortcomings will beset any assessment framework based on comparative EU-level data, the advantage of JAF Health is that it is developed and used jointly with the Member States in a transparent way.

7.2. Strengthening of the health strand of the SPC work

JAF Health could be usefully developed to strengthen the capacity of the SPC to monitor the health systems situation in Europe and contribute to the reinforcement of the multilateral surveillance capacity of the Committee. JAF Health with its thematic blocks of population health, access, quality and resources and cross-cutting equity concerns could usefully guide thematic work in the area of health.

Similarly, JAF Health could serve as the analytical framework for presentation of information in the health section of the SPC's social situation report. JAF Health, in combination with additional contextual information, could be the basis for joint development of health system profiles from the social protection perspective by the SPC/ISG and the Commission. For interested countries, thematic in-depth reviews could be organised starting from this analysis.

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[26] Terms of reference for an expert group on health systems performance assessment, available from: http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2012945%202014%20INIT

[27] See http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp201_en.pdf, which was briefly presented to the ISG at its October 2014 meeting.

The tool could be regularly reviewed and further developed, taking into account statistical and data developments in the field. This work should be coordinated with the Working Party on Public Health at Senior Level (WPPHSL).

7.3. Towards in-depth reporting by the SPC on health systems

The SPC's annual review of the social situation covers issues related to health systems. Thanks to JAF Health, this analysis could be deepened. Another possibility could be to envisage regular in-depth reports on health systems, similar to the pension adequacy reports the first of which was prepared jointly by the Commission services and the Member States in 2012 (the next one is due in 2015). In-depth reports would enable the ISG to link information contained in JAF Health with further and detailed country specific analysis. This could give insights to the explanatory power and usefulness of the JAF framework and indicators.

Such work should be coordinated with the Working Party on Public Health at Senior Level (WPPHSL).

7.4. Guidance for data collection and indicator development

During the development of JAF Health and in its pilot phase process, new indicator needs were identified which should be addressed in the mid-term by Eurostat's plans for development of data collection in this area. As the data becomes available, the ISG could review the new indicators and decide on adding them to the JAF Health, and, if appropriate, also to the portfolio of the EU social indicators.

7.5. Regular review by the ISG

The JAF Health should be subject to regular reviews to take on board data and indicator developments. To further improve the quality of the JAF Health in the future, informal meetings with experts, similar to the one held in June 2014, could be held on demand and with the participation of Member States. Such meetings could be dedicated to a review of an individual dimension of the framework (e.g.: access or health status) or to indicator developmental work. This work shall not duplicate work delivered under the Expert Group on health systems performance assessment (HSPA), which is jointly chaired by the European Commission and Sweden.[28]

Also, once a more stable health data set becomes available, JAF Health, like other JAFs will be able to deliver time trends to be reviewed in the ISG meetings dedicated to health.

This work will take into account future review of the JAF methodology foreseen in the ISG Work Programme 2015. In this context, it shall work on alternative proposals for the visualisation of NAT indicators and of indicators with considerable gaps in the data coverage.

To this end, ISG will ask the SPC for a mandate to work on closing the data gaps and improving the current JAF Health, including its proposed indicators, illustration outputs and along the lines of work proposed in the following section 8 of this report,.

[28] Terms of reference for an expert group on health systems performance assessment, available from: http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2012945%202014%20INIT

8. NEXT STEPS

So far, the work has concentrated on the conceptual framework and on proposing and reviewing indicators in order to develop the JAF Health framework. In the future, next to agreement on proposed indicators, the ISG and the SPC could focus on testing and assessing the analytical value of the tool for policy makers and work on a proposal how to better visualise JAF Health results, taking into account problem of missing data observations and NAT indicators, which are not suitable for international comparisons.

To this end, the following activities are proposed:

In 2015:

- ***ISG*** to produce outputs for all the Member States accompanied by the short description of the results to be discussed and agreed with the Member States;

- ***ISG*** to provide an opinion on the underlying data based on which JAF health outputs were developed;

- ***ISG*** to develop a new, more precise concept of visualisation of JAF results for NAT indicators and indicators with considerable gaps in the data coverage

- ***ISG*** to select and review in detail indicators for development and to decide on possible involvement in this work of OECD, WHO and other experts or on convening a separate informal expert meeting with the participation of Member States.

- If requested by the SPC***, ISG*** to provide analytical input to the thematic in-depth review on health policies planned as one of the SPPM thematic in-depth reviews for 2015, to which WPPHSL could be invited to actively participate. It is proposed that this is done through quantitative analysis based on JAF Health, to be complemented by more in-depth qualitative assessment by the individual Member States. This will allow assessing how well JAF Health performs as a first-step screening exercise. Ideally the qualitative assessment should be followed by a more detailed national-level HSPA to confirm the identified by the JAF Health issues and contribute to a better understanding of what needs to be done to address them.

In 2016:

- ***First steps towards development of the efficiency dimension:*** in the context of the joint Commission-OECD project a methodological paper on measuring efficiency will be developed and discussed with the ISG. This paper would address the following conceptual and practical questions: who needs what efficiency measures and for what purpose (e.g., governments, providers, patients)? At what level can efficiency be measured (overall health system level vs. more specific health service/sectoral/disease-based level) and what is the use of efficiency measures at different levels? How to define and measure efficiency at different levels (including how to choose inputs and outputs and/or outcome measures)? How do European countries measure health system efficiency? What are the similarities and differences? What are the most advanced measures of efficiency in some countries? What data are required to construct different types of efficiency measures? What are the different methods that can be used for efficiency analysis, and what are their pros and

cons? What set of efficiency indicators are currently available in many/most European countries, and what set of indicators would require further developmental work?

- ***ISG*** to select and review in detail indicators for development and to decide on possible involvement in this work of OECD, WHO and other experts or on convening a separate informal expert meeting with the participation of Member States.

In 2017:

- ***Development of country profiles*:** develop country profiles based on the joint work of Commission services with OECD in the context of the Efficiency project, as well as input from ISG/SPC and WPPHSL.

- ***ISG*** to select and review in detail indicators for development and to decide on possible involvement in this work of OECD, WHO and other experts or on convening a separate informal expert meeting with the participation of Member States.

9. CONCLUSIONS

The Joint Assessment Framework on Health developed by the ISG with the support of the Commission services[29], has been strongly conditioned upon the state of play in terms of data availability and data quality in the area of health. The development of the assessment framework has resulted in a thorough review of the existing health data and the identification of significant data gaps, limited data quality and further indicator development needs, which will allow a more robust and solid quantitative base for such a framework in the future. Therefore, it has to be kept in mind that missing data, comparability problems and lack of appropriate indicators to fully assess health systems across the different dimensions constrain the explanatory power of the framework for the time being. Therefore, the results must be interpreted with caution.

At the same time, it should be considered that the development of JAF Health has been an important step in developing further the monitoring of the health strand of the SPC work, but it is necessarily work in progress and should be further improved as new data become available. In this context, the outcome of the work is to be seen as a progress towards a more robust framework, once the highlighted areas for future data and indicators' development are indeed improved.

The conceptual framework of JAF Health reflects a broad health system definition, recognising that population health is also influenced by other sectors and allows for identification and coordination of policies to jointly address health concerns by applying the health in all policies approach. In addition, it includes wider socio-economic determinants that could be modified by different social policies. However, its main purpose and central thematic blocks of population health, access, quality and resources and cross-cutting equity concerns could point to health policy issues and usefully guide thematic work in the area of health. The latter could be complemented by the methodologies and tools to be developed by the HSPA expert group, which in turn could benefit from the JAF Health conceptual framework and the related developmental indicator work.

[29] This process was led by DG EMPL and EUROSTAT and with due consultation of DG SANCO and DG ECFIN.

JAF Health allows indicators to be presented in a logical framework and could become the basis for a more ambitious coverage of health systems as part of the SPC monitoring of social protection in the EU. Therefore, it should be highlighted that the identified areas for data and indicators development are an important outcome of this review alongside the definition of the framework as such.

However, the future use of the JAF Health in the European Semester would need to be evaluated at a later stage, taking into due account the comments of the Member States and the developments in data availability as well as developments in the European Semester process.

ANNEX 1: AN OVERVIEW OF HEALTH INDICATORS USED IN THE EUROPEAN SEMESTER 2014

In the course of the European Semester 2014, a number of Staff Working Documents (SWD) discussed aspects for which the indicators contained in JAF Health are useful, such as:

- Health outcomes in the SWDs for BG, HR, HU, LT, LV, RO and SK
- Public health spending in the SWDs for DE, HR, IE, LV
- Accessibility of health care in the SWDs for BG, ES, HU, LV, PL, SK
- Healthy life styles in SWDs for MT and SK
- Health promotion and disease prevention in the SWD for LV
- Cancer screening the SWD for MT.

However, several SWDs make references to indicators, which are not part of the JAF Health such as number of general practitioners (MT, PL) and number of hospital beds/bed occupancy rate (CZ, SK). [30]

As a result of the European Semester 2014, the number of health-related country specific recommendations (CSRs) increased from 11 to 16, as compared to 2013. The Council decided to continue all health CSRs issues in 2013 to the following member states: AT, BG, CZ, DE, ES, FI, FR, MT, PL, RO, SK. New CSRs were issued for 5 countries: HR, IE, LV, PT, SI.

The CSRs issues were very heterogeneous and touching on a very wide range of thematic areas. The following can be identified:

- Most CSRs stem from fiscal sustainability considerations (AT, DE, ES, FR, IE, MT, PL, PT, SK) and MSs are asked to increase cost-effectiveness of their systems.
- CSRs for BG, LV and RO are based on access problems and MSs are invited to improve access. ES is asked to maintain access for vulnerable groups. However, for BG the need to improve access is not any longer included in the CSR.
- CSRs for FR, HR and SI ask for short-term savings in relation to excessive budget procedure.
- FI CSR relates to reforms of the local and regional administration.

More CSRs identify a **particular area for reform** (those underlined are newly introduced)[31]:

- hospital care (BG, CZ, HR, PT, SK)

[30] During the 2013 development process of JAF Health these indicators were discussed, however they were not upheld.

[31] At the same time some particular areas are not any longer mentioned for AT (care coordination), DE (care coordination) and RO (hospital care and primary care).

- strengthen primary care (BG, MT, SK)
- pharmaceutical spending (ES, FR, IE)
- better care coordination (ES)
- financial management (BG, IE)
- e-Health (IE)
- informal payments (RO).

ANNEX 2: AGENDA OF THE JAF HEALTH EXPERT MEETING

EUROPEAN COMMISSION
DG Employment, Social Affairs and Inclusion

Europe 2020: Social Policies
Social Protection and Activation Systems

Expert Meeting to discuss the Joint Assessment Framework on Health

20th June 2014

Brussels, Rue Joseph II 27

Meeting Room J-27 07/059

Morning Session Chair: Rudi Van Dam, ISG Vice-Chair

10:00 - 10:10	Welcome and introduction from ISG and the Commission
10:10 –10:25	JAF Health – policy context and presentation of the framework
	Ralf Jacob and Kasia Jurczak, DG EMPL, European Commission
10:25 – 10:35	Health data availability at the EU-level
	Pascal Wolff, EUROSTAT
10:35 – 10:45	Feedback from the Peer Review on the HSPA
	Peter Smith, Emeritus Professor, Imperial College London
10:45 – 11:15	Framework overview
	Irene Papanicolas, London School of Economics
11:15 – 11:45	Outcomes
	Owen Smith and Timothy Johnston, World Bank
11:45 – 12:15	Access
	Peter Achterberg, RIVM
12:15-12:45	Quality

Niek Klazinga, University of Amsterdam

12:45 – 13:45 ***Lunch break***

Afternoon Session Chair: Volker Schmidt, ISG Vice-Chair

13:45 – 14:15 Resources

Peter Smith, Emeritus Professor, Imperial College London

14:15 – 14:45 Lifestyle

Jonas Finger, Robert Koch Institute

14:45 – 15:15 Equity

Eddy van Doorslaer, Erasmus University Rotterdam

15:15 – 16:15 Efficiency

Gaetan Lafortune, OECD

16:15 – 17:00 Further work

- How can other comparative frameworks of health systems performance contribute to the work of JAF Health?
- Priorities for data collection and indicator development

17:00 – 17:15 Next steps and close

ANNEX 3: PARTICIPANTS LIST JAF HEALTH

EUROPEAN COMMISSION
DG Employment, Social Affairs and Inclusion

Europe 2020: Social Policies
Social Protection and Activation Systems

Expert Meeting to review the Joint Assessment Framework on Health (JAF Health)

20 June 2014, Brussels

Meeting room J27 07/59

List of participants

EXPERTS		
Peter	ACHTERBERG	RIVM
Robert	ANDERSON	EUROFOUND
Enrique	BERNAL-DELGADO	University of Aragon
Willem	DE HAAN	Ministry of Foreign Affairs, The Netherlands
Josep	FIGUERAS	European Observatory on Health Systems and Policies
Jonas	FINGER	Robert Koch Institute
Maria	HOFMARCHER	HealthSystemIntelligence
Timothy	JOHNSTON	World Bank
Niek	KLAZINGA	University of Amsterdam
Gaetan	LAFORTUNE	OECD
Pascal	MEEUS	INAMI
Irene	PAPANICOLAS	London School of Economics
Volker	SCHMIDT	Ministry of Social Affairs, Germany
Owen	SMITH	World Bank
Peter	SMITH	Imperial College London
Claudia	STEIN	WHO
Rudi	VAN DAM	Ministry of Social Security, Belgium

Eddy	VAN DOORSLAER	Erasmus School of Economics

EUROPEAN COMMISSION		
Santiago	CALVO-RAMOS	DG ECFIN/C2 Sustainability of public finances
Kornelia	KOZOVSKA	DG EMPL/01 Coordination and Planning, Inter-Institutional Relations
Magda	GRZEGORZEWSKA	DG EMPL/A2 Social Analysis
Ralf	JACOB	DG EMPL/D3 Social Protection
Kasia	JURCZAK	DG EMPL/D3 Social Protection
Sven	MATZKE	DG EMPL/D3 Social Protection
Boriana	GORANOVA	DG EMPL/D3 Social Protection
Stefaan	VAN DER BORGHT	DG RTD/E3 Public health
Silla	HAUKSDOTTIR	DG SANCO/C2 Health information
Federico	PAOLI	DG SANCO/D2 Healthcare systems
Dirk	VANDENSTEEN	DG SANCO/D2 Healthcare systems
Hartmut	BUCHOW	EUROSTAT/F5 Education, health and social protection
Jakub	HRKAL	EUROSTAT/F5 Education, health and social protection
Anke	WEBER	EUROSTAT/F5 Education, health and social protection
Pascal	WOLFF	EUROSTAT/F5 Education, health and social protection

ANNEX 4: DG ECFIN THEMATIC ASSESSMENT FRAMEWORK

Definition of individual indicators in health care (*Source: European Commission, DG ECFIN occasional papers***)**

Composite index	#	Individual indicator	Definition
Public expenditure index	1	Public current health expenditure (CHE) as % of GDP	General government and social security funds (HF.1) current expenditure (HC.1 - HC.9), including long-term nursing care (HC.3), but excluding social services of long-term care (HC.R.6.1) and capital investment in health (HC.R.1); If available, the projected 2010 GDP has been replaced by the real 2010 GDP.
	2	Projected increase in pp. of GDP over 2010-2060**	Projected increase in public expenditure on health care over 2010 - 2060 based on the "AWG reference scenario" and the "AWG risk scenario" in the Ageing Report 2012. The "AWG reference scenario" projects the impact of ageing and an income elasticity of health care demand of 1.1. on expenditure growth. The "AWG risk scenario" projects the impact of demographic and non-demographic drivers, such as income and techological changes and equalling an elasticity of health care demand of 1.3, on expenditure growth.
	3	ln per capita PPS	As definition 1, measured in purchasing power standard per capita
	4	Public CHE % of total current health expenditure	As definition 1, where total is defined as public and private expenditure on health, where private comprises of the categories: private sector (HF.2), rest of the world (HF.3) and not elsewhere classified (HF.0).
	5	Public CHE % of total government expenditure	Public CHE % of total government expenditure, based on the COFOG database.
Health status index	6	Life expectancy at age one for females	Life expectancy at age one for females.
	7	Life expectancy at age one for males	Life expectancy at age one for males.
	8	Amenable mortality	Standardized death rates for causes of death with amenable mortality per 100 000 inhabitants. Causes of death selected The selection based on AMIEHS (2011) and availability in Eurostat. In AMIEHS, causes of death were identified that can be considered 'amenable'. International classification of diseases (ICD) 10 codes: Human immunodeficiency virus [HIV] disease (B20-B24); Malignant neoplasm of colon (C18); Malignant neoplasm of breast (C50); Malignant neoplasm of cervix uteri (C53); Ischaemic heart diseases (I20-I25); Cerebrovascular diseases (I60-I69).
	9	Infant mortality rate per 1 000 life births	The infant mortality rate is the number of deaths of children under one year of age in a given year, expressed per 1 000 live births.
Hospital care index	10	Public hospital expenditure % of GDP	General government and social security funds (HF.1) expenditure on hospitals (HP.1), including general hospitals (HP.11), mental health and substance abuse hospitals (HP.12) and other specialty hospitals (HP.13), measured as % of GDP
	11	Public hospital expenditure % of public CHE	As definition 10, measured as % of public CHE.
	12	Acute hospital beds per 1 000 pop	Curative (Eurostat: HBED_CUR) care beds in hospitals (HP.1), excluding psychiatric care beds in hospitals (Eurostat: HBED_PSY), long-term care beds (HBED_LT), and other beds(HBED_OTH), measured per 1 000 inhabitants.
	13	Acute care bed occupancy rates	Number of acute care beds effectively occupied (beddays) in in-patient institutions divided by the number of available acute care beds and multiplied by 100.

Composite index	#	Individual indicator	Definition
Hospital care index	14	Average acute care length of stay in days	Average length of stay in curative care beds is calculated by dividing the number of days stayed (from the date of admission in an hospital or other in-patient institution) by the number of discharges during the year. It includes deaths in hospitals, but excludes same-day separations.
	15	% of day in total discharges	Hospital discharges for all diagnoses (ICD 10: All causes of diseases (A00-Z99) excluding V00-Y98); Day cases: Day care comprises patients that are formally admitted for receiving health care being discharge on the day of admission (Eurostat: hlth_co_disch3). An episode of care for a patient who stays overnight is classified as an in-patient case (Eurostat: hlth_co_disch1).
Ambulatory care index	16	Public ambulatory expenditure as % GDP	General government and social security funds (HF.1) expenditure on providers of ambulatory health care (HP.3) including offices of physicians (HP.31), dentists (HP.32), other health practitioners (HP.33), out-patient care centres (HP.34), medical and diagnostic laboratories (HP.35), providers of home health care services (HP.36) and other providers of ambulatory health care (HP.39), measured as % of public CHE.
	17	Public ambulatory as % of public CHE	As definition 17, measured as % of public CHE.
	18	Number of GPs per 100 000 inhabitants	Generalist medical practitioners (Eurostat: variable "GEN" in dataset "hlth_rs_spec") per 100 000 inhabitants.
	19	Share of GPs in all physicians	Share of generalist medical practitioners in all physicians.
	20	Ratio of nurses to physicians	Ratio of practicing nursing and caring professionals including midwives (Eurostat: hlth_rs_prsns) to the total number of practicing physicians
	21	Ratio of outpatient to inpatient contacts per capita	Ratio of the number of outpatient contacts with a physician (in a physician's office or at patient's home) excluding dentists consultations to the number of all hospital discharges (including day cases and inpatient cases, as defined in indicator 14).
Pharmaceutical spending index	22	Public outpatient pharmaceutical as % of GDP	Public outpatient pharmaceutical as % of public CHE, based on pharmaceuticals and other medical non-durables (HC.51) dispensed to out-patients. Data on pharmaceutical spending is not available for the inpatient sector for most of the EU Member States. In some countries (e.g. BG, CY, HU), outpatient pharmaceuticals may be also part of hospital expenditure.
	23	Public outpatient pharmaceutical as % of public CHE	As definition 23, but measured as % of public CHE.
	24	Public as % of total expenditure on outpatient pharmaceuticals	Public (definition 1) in total (definition 3) expenditure on pharmaceuticals (definition 20).
	25	In per capita PPS	As definition 22, measured in purchasing power standard per capita.
	26	Generic market shares in volume	Market shares in volume of generics in all pharmaceutical products consumed, 2010 or most recent data; Generics are therapeutic alternatives to originator medicines. They are as effective, but on average cheaper than the respective off-patent originals.
	27	Generic market shares in value	As definition 27, but measured in value.
Administrative spending index	28	As % of public GDP	Expenditure on health administration and health insurance (HC.7) as % of GDP.
	29	As % of public CHE	As definition 29, measured as % of public CHE.

Table 2: Overview of main results: country classification for potential reform areas in health based on Thematic Assessment Framework of DG ECFIN

	Health status (1)	Main spending areas of public health care				
		Hospital care (2)	Ambulatory care (3)	Pharmaceutical spending (4)	Administrative spending (5)	
BE	20	21	28	7	1	BE
BG	3	2	5	25	24	BG
CZ	10	1	20	14	8	CZ
DK	12	16	24	27	25	DK
DE	16	5	26	4	2	DE
EE	8	10	9	20	16	EE
IE	13	28	23	2	12	IE
EL	15	7	1	1	15	EL
ES	27	17	14	5	17	ES
FR	28	18	25	6	4	FR
HR	7	19	12	-	-	HR
IT	26	23	11	22	27	IT
CY	21	24	2	26	3	CY
LV	1	14	4	24	11	LV
LT	4	3	10	21	14	LT
LU	25	12	22	11	26	LU
HU	5	13	7	9	22	HU
MT	11	27	13	12	10	MT
NL	23	4	16	13	5	NL
AT	19	6	18	10	9	AT
PL	9	22	8	23	19	PL
PT	18	15	21	15	23	PT
RO	2	9	3	17	20	RO
SI	22	8	15	16	13	SI
SK	6	11	17	3	6	SK
FI	17	25	27	18	18	FI
SE	24	20	6	19	21	SE
UK	14	26	19	8	7	UK

Source: Commission services. Health indicators based on Eurostat and OECD health data.

Notes: Each composite index is calculated as a weighted average of the individual indicators, as explained above and specified in Annex 9. A higher ranking corresponds: in 1) to a worse health status; in 2) to a combination of higher hospital expenditure and lower hospital activity; in 3) to a combination of lower expenditure on ambulatory care, lower numbers of GPs per 100 000 inhabitants, lower ratio of GPs and nurses to physicians and lower outpatient activity; in 4) to a combination of higher expenditure on pharmaceuticals, higher pharmaceutical price levels and a lower share of generic medicines in volume; and in 5) to a higher expenditure on administration and insurance. All countries above the median (the threshold) in each of the indices are flagged in purple.

(1) Health status index composed of:
- Life expectancy at age 1 for females
- Life expectancy at age 1 for males
- Amenable mortality
- Infant mortality rate per 1 000 life births

(2) Hospital care index composed of:
- Public hospital expenditure as % of GDP
- Public hospital expenditure as % of public CHE
- Acute hospital beds per 1 000 pop
- Acute care bed occupancy rates
- Average acute care length of stay in days**
- % of day in total discharges

(3) Ambulatory care index composed of:
- Public ambulatory care expenditure as % of GDP
- Public exp. on ambulatory care as % of public CHE
- Number of GPs per 100 000 inhabitants
- Share of GPs in the number of physicians
- Ratio of nurses to physicians
- Ratio of outpatient to inpatient contacts per capita

(4) Pharmaceutical spending index composed of:
- Public outpatient pharmaceutical expenditure as % of GDP
- Public exp. on outpatient pharmaceuticals as % of public CHE
- Public as % of total expenditure on pharmaceuticals
- Expenditure in per capita PPS
- Generic market shares in volume

(5) Administrative spending index composed of:
- Public administrative expenditure as % of GDP
- Public exp. On administration and insurance as % of public CHE.

Source: European Commission (2014) Identifying fiscal sustainability challenges in the areas of pension, health care and long-term care policies, available from:
http://ec.europa.eu/economy_finance/publications/occasional_paper/2014/pdf/ocp201_en.pdf