

Research Note

Migration and health in the EU

by Philipa Mladovsky

Abstract:

From both the perspectives of European integration and human rights, migrant health and access to health care are important elements of national health policy. However, many EU Member States have not addressed, or have only recently begun to address this issue. Relatively little is known about the health of migrants. Measurement is challenging for a variety of technical and political reasons. The data that is available gives rise to a complex picture; the health of migrants and access issues vary across space, time, age, gender, across different countries of origin and type of migration. Disease specific mortality rates for certain conditions are higher for immigrants. Despite the fact that most migrants originate from countries with a substantially higher mortality rate than Europe, many studies have found that immigrant groups have similar or more favourable total mortality rates than native Europeans. However, the health advantage is confined to specific diseases. Furthermore, in many contexts the advantage disappears in the second generation and with increased duration of stay.

The possible reasons for inequalities in health care use between migrants and autochthonous populations are complicated. Data in some countries suggests that utilization of health services among migrants tends to be relatively low, with a greater reliance on emergency services. Particularly worrisome are the low rates of utilization of antenatal and paediatric care. Barriers to access are thought to include education, cultural differences, language difficulties, lack of complimentary voluntary health insurance and legal issues. The other major issue is quality of care and whether it is lower for migrants.

Across EU countries, attempts to incorporate the needs of migrant workers, in particular from non-EU Member States, into welfare systems have remained scattered and uncoordinated, although to some extent diversity in policy is to be expected. A country's approach to migrant health issues will depend on the type of migration and the overall welfare regime. Nevertheless, it seems there are many opportunities for learning across countries. In some countries (notably France), social analyses by ethnic origin are not routinely carried out both for cultural and administrative reasons. In others (such as Spain, Germany and Ireland), migrant health policy has only recently started to be proactively developed. In others (notably the Netherlands, UK and Sweden), policy regarding the health of migrants is already relatively developed.

The EU could play an important role in facilitating the development and transfer of evidence and information on migrant health policy. Topics identified as theoretically central and/or under-researched include: methodological problems of migrant health research; children and youth, particularly in terms of psychosocial health; sexuality, reproduction and family life; older migrants; access of illegal/undocumented migrants to health services; user involvement in the design and provision of services; 'linkages' between sender countries and receiver countries; preserving the health 'advantage' of some newly arrived migrants; analysis approaches to preventing and controlling TB and HIV/AIDS among migrants; multi-sectoral policy; and sharing of knowledge and data, and the improvement of data collection.

This Research Note has been produced for the European Commission by Philipa Mladovsky from the Health and Living Conditions Network of the European Observatory on the Social Situation and Demography. The views expressed are those of the author and do not necessarily represent those of the European Commission.

European Commission

Directorate-General "Employment, Social Affairs and Equal Opportunities"
Unit E1 - Social and Demographic Analysis

Manuscript completed in June 2007



European Commission

Migration and health in the EU^{1 2}

Executive summary

The 35 to 40 million foreign-born people in Europe continue to face difficulties in becoming a full part of the economic, cultural, social, and political lives of their adopted societies. This situation is undesirable from both the perspective of European integration and of human rights. The right to health obliges governments to ensure that “health facilities, goods and services are accessible to all, especially the most vulnerable or marginalized sections of the population, in law and in fact, without discrimination on any of the prohibited grounds” (General Comment 14, 2000) paragraph 12 (b).

This aim of this report is to review the literature on migrant health and access to health care in Europe. European reviews of the literature on immigrant health to date have focused on migrant mental health, the health of asylum seekers and refugees and the health of undocumented migrants, and as such we do not replicate these here.

Migrant health

Unlike in North America and Australia, European countries rarely collect health data by ethnic group (UK, Sweden and the Netherlands being exceptions). One difficulty in studying migrant health is defining the subject. At least five sub-categories of ‘migrants’ have been identified: students; economic migrants; asylum seekers; irregular migrants (or undocumented or clandestine); and displaced persons. However, it is still unclear how long before a group of people thought of as ‘migrants’ begin to simply constitute a socially or culturally distinct or ethnic group of residents. Also, different understandings of what it means to be a ‘migrant’ exist across Europe. Another difficulty is lack of data. The data that is available gives rise to a complex and dynamic picture. Many studies indicate that infectious diseases, including STIs, accidents, injuries, musculoskeletal disorders, violence and drug abuse all appear to disproportionately affect certain migrants groups compared to autochthonous European populations. These patterns are likely to be linked to increased exposure to risk factors, either in the country of origin and/or in European countries where migrants are forced to live and work in poor conditions.

Migrants are not necessarily disadvantaged in all areas of health though. Relatively low rates of low birth-weight have long been observed in migrant groups in the US and Europe. Many studies have shown that chronic diseases are less prevalent in some, though by no means all, migrant groups compared to autochthonous European (and North American) populations. It has been suggested that (self-) selective migration may play a role (Mackenbach et al., 2005). This is known as the ‘healthy migrant effect’. Such findings may be explained by a difference in timing between the health benefits and the health risks of migration (Mackenbach et al., 2005). Findings that immigrants are comparatively healthy and underutilize health services refute the simplistic assumption that immigrants represent a disproportionate burden on European health care systems. To be sure, the relative advantage does not translate across all countries and across all migrant groups. Also, the advantage may diminish over time (length of stay) or in subsequent generations.

In short, a review of the literature suggests that it is not useful to make generalisations about the health of migrants, since mortality and morbidity patterns vary across space, time, age, gender, disease, across different countries of origin and type of migration. Disaggregating mortality and morbidity data by cause, and by country of origin, is crucial.

Five explanations for the differences in health between ethnic groups have been identified (Stronks et al., 1999, Ingleby et al., 2005): genetic differences; cultural differences; socio-economic position; short-term migration history; and ethnic identity. In terms of more proximal determinants, varying patterns in risk factor prevalence (smoking, inactivity, alcohol consumption and so on) account in part for the differences in health between migrants and autochthonous populations. It seems that access and utilization of health services also plays a role.

¹ The views expressed are those of the author and do not necessarily represent those of the European Commission.

² A number of experts have contributed to this research note by providing country reports, for which the author is grateful. Their names and affiliations are listed in Annex 4.

Health care access and utilization

Most countries grant full equality of treatment to third country nationals after awarding them long-term or permanent residence status. So is access to health care still an issue? Data on this topic are relatively sparse, but several studies suggest migrants do experience unequal access to health care. One issue is that requirements for permanent status vary across Europe and obtaining this status may take several years (Holzmann et al., 2005). Secondly, undocumented migrants in many countries are not granted equality of treatment. Besides the legal barriers, migrants also face other specific difficulties in accessing health care. In clinical encounters, language and literacy are by far the most obvious cultural obstacles to providing good quality care. In addition to language, miscommunication and dissatisfaction stemming from cultural differences and expectations can also contribute to suboptimal care. Categories and concepts used by migrants to explain health problems may differ significantly from Western understandings, as the field of medical anthropology has long demonstrated. This suggests there is a major role for user involvement in the design of effective services for migrants. A lack of knowledge about the health care system may be a serious obstacle to access, sometimes even despite tailored publications and orientation services. Mistrust of service providers may be an important issue for some, particularly undocumented migrants fearing detection. In countries with complex registration systems for social health insurance, administration and bureaucracy is a major barrier. Barriers to health care may result in worse health outcomes, as is suggested by the relatively higher rate of avoidable mortality found among migrants in some studies, resulting in health inequalities. They also may result in increased consumption of more expensive emergency treatments.

Migrant health issues are not confined to the treatment and prevention of diseases. The needs of migrants in all aspects of health care may need to be considered by policy makers, including social work, long term care for older people, home care services, and youth services.

Certainly, migrants are likely to face different barriers/inequalities in different European countries. There are also difficulties with measuring utilization. Also, immigration may not always be the primary explanatory factor for differences in health care utilization, with income being an important confounding variable. Nevertheless, in countries with immigrant populations, it does seem that language-adapted and culture-sensitive programs are needed to decrease inequality in access for ethnic minority groups.

Measurement and indicators

Measurement of migrant health and health care utilization is challenging for a variety of technical and political reasons: medical research favours homogenous samples, resulting in ignorance about the effectiveness of treatments on ethnic minorities; recording ethnicity in clinical records can be perceived as discriminatory; ethnic minorities often have low response rates in epidemiological surveys; monitoring undocumented immigrants is difficult; information is not validated, and thus its accuracy is unknown; and immigrant mortality in the population may be underestimated in register-based studies because sizeable numbers of immigrants who subsequently leave their new homeland (the host country) fail to register this fact with the national registration authorities.

Several techniques have been developed to counter a lack of data on migrant health, for example linking datasets and developing algorithms to identify persons of ethnic origin by surname in registries.

If surveys do include migration variables, they mostly depend on a broad 'social science' definition of immigrant status, employing country of birth, parental country of birth and length of stay in the host country as indicators to identify this population. Conceptually, there are two main problems with this. Firstly, the paradigm incorporates important sub-categories of persons, such as refugees, who may experience specific non-random patterns of health and health care that differ to those of non-refugee immigrants. Secondly, the paradigm does not capture legal status which may affect access and utilization of health services, which in turn may also affect patterns of disease in a non-random manner (Loue and Bunce, 1999). To make these indicators relevant to health research, an understanding of the way immigration law relates to eligibility in accessing public services is important. This may become complex when legal criteria for the eligibility of immigration subcategories change over time (Loue and Bunce, 1999).

Reflecting these technical difficulties, but also due to political concerns, in most European countries there are very few, if any, national or European surveys currently available to measure the health of first and second generation migrants relative to the health of the native population. There are also generally low levels of reporting on migrant health. Exceptions include the Netherlands and to some

extent Sweden and the UK. Countries such as Belgium, Spain and Germany have only very recently started to introduce questions on migration in health surveys. New Member States, reflecting their relatively low levels of immigration, hardly include indicators of immigration in health surveys, but this may change in the future as numbers of immigrants are now increasing.

Policy

Across EU countries, attempts to incorporate the needs of migrant workers, in particular from non-EU member states (so-called third-country nationals), into the welfare systems have remained scattered and uncoordinated. In terms of Europe's policy response, it seems there is an increasing effort at supranationalization of migration policy. This has affected the upgrading of many national anti-discrimination policies, but at the same time, there is a concern that the focus of EC policy on the flexibility of the labour market may take precedence over concerns with social citizenship and the protection afforded by the welfare state (Schierup et al., 2006).

To some extent, however, diversity in policy is to be expected, since the way migrant health is approached from a policy perspective to some extent depends on the type of immigration affecting the country (Ingleby et al., 2005). A country's approach to migrant health issues will also depend on its overall welfare regime, with different nations responding to similar political challenges in idiosyncratic ways (Schierup et al., 2006). Furthermore, where migrant health policy is elaborated, implementation may not necessarily reflect this on the ground.

In France, social analyses by ethnic origin are not routinely carried out both for cultural and administrative reasons and migrant health policy has mainly focused on preventing the spread of infectious diseases. In Germany and Ireland, at the national level, the issue of migrant health and access to health care have also not yet been developed as a specific policy issue, though there is an increasing interest in tackling health inequalities. Politically, migration itself was a widely neglected policy area in Germany until very recently. In Italy, on the other hand, policy regarding the health of migrants is relatively developed, though how successful the government has been with implementation is not clear. At the central level, immigrant related health policy targets have been set since the 1990s. In the Netherlands, as early as 1997, the Dutch Scientific Foundation (NWO) set up a working party on culture and health, and a programme to stimulate research and care innovations in this area was launched. Indeed, the Netherlands stands out in Europe for its sustained and systematic attention to problems of migrant health, although a closer look at the current situation suggests there is a danger of these initiatives stagnating. In Spain, migrant health and health care issues have recently started to feature in national and regional plans for the integration of immigrants. The general Swedish national health policy aims to create social conditions that will ensure good health, on equal terms, for the entire population with a special emphasis on vulnerable groups such as immigrants, and the government has developed a multi-sectoral approach to coordinating services in a way that promotes health among newly arrived individuals. In the UK, health policy relating to migrants is largely integrated into a policy framework addressing health inequalities in general (dating from the 1980s) and health inequalities of 'black and minority ethnic' (BME) groups specifically. The Department of Health has commissioned a number of initiatives to generate or collate good practice in "race equality". However, as in most European countries, the lack of baseline data on ethnicity makes it difficult to evaluate the impact of such projects, which in turn makes it hard to identify good practice.

In light of this variability, there appears to be a significant role for the EU to play in facilitating the development and transfer of evidence and information on immigrant health policy. Portugal's presidency in 2007, which is expected to focus on immigration, may be a timely opportunity for further policy development on this issue.

Topics within migrant health that have been identified as theoretically central and/or under-researched in this and one other review (Ingleby et al., 2005) and concurrent possible policy considerations are listed below.

1. The methodological problems associated with migrant health research, indicating the need for: increased funding to develop research techniques; increased collaboration at the European level between national research centres; and increased attention paid to the methodological barriers to including data on migrants in national and European health surveys.
2. Nutritional and psychosocial problems among children and youth signaling the need for greater attention paid to multi-sectoral policies, particularly across health and education.

3. Problems relating to sexuality, reproduction and family life, suggesting the need for improved planning and provision of targeted preventive and curative sexual health services; ante and post natal care; and social services for vulnerable women.
4. The increasing importance of older migrants in the population and the resulting need to develop culturally appropriate long term care.
5. The access of illegal/undocumented migrants to health services is a major problem that is political as it is technical. There needs to be greater transparency in countries' approaches to responding to health and health care utilization inequalities experienced by this population, within the framework of human rights.
6. The need for increased user involvement in the design and provision of services among migrants resonates with many countries' more general attempts to improve patient empowerment by improving patient information, patient rights, choice, complaints procedures and participation, and could be integrated into these efforts.
7. 'Linkages' between sender countries and receiver countries could be explored to provide insights into health norms, culturally relevant methods of research and treatment, and the expectations and health beliefs of migrants.
8. Preserving the health 'advantage' of some newly arrived migrants could potentially be a very important preventative strategy, particularly in terms of chronic diseases; focusing on healthy diets and other lifestyle related factors through targeted programmes is a possible way forward.
9. The relative merits of 'vertical' versus integrated approaches to preventing and controlling TB and HIV/AIDS among migrants need to be explored. It may become apparent that integrated approaches are more effective both clinically and in terms of cost than vertical programmes (run at ports and borders for example).
10. Improving poor working conditions and health in the workplace is also a potentially political issue since poor conditions are often related to the exploitation of undocumented migrants. Nevertheless, multi-sectoral policies need to be developed to address this important area of migrant health.
11. The analysis and development of policies pertaining to the issues described above would be potentially greatly improved by increased EU coordination in: the comparison of policy approaches across Member States; sharing of data; and the improvement of data collection.

I. Background

The 35 to 40 million foreign-born people in Europe continue to face difficulties in becoming a full part of the economic, cultural, social, and political lives of their adopted societies. One conceptual framework used to explain why this situation is undesirable is that of European integration. Integration of immigrants is one of the key policy issues currently facing Europe (Papademetriou, 2006). For migrants, as with all vulnerable groups, illness exacerbates marginalisation and marginalisation exacerbates illness, creating a downward spiral (Ingleby et al., 2005). Access to healthcare should be seen as no less important than housing and education for the well-being, and thus the integration, of migrants (Ingleby et al., 2005). However, the European Commission has found that “While Member States identify immigrants among those particularly at risk of poverty and social exclusion, many countries still fail to provide in-depth analysis of the factors leading to this situation. Little attention is given to promoting access to resources, rights, goods and services, in particular to appropriate healthcare” (CEC, 2004):20.

A second conceptual framework is that of human rights (WHO, 2003). Overt or implicit discrimination violates one of the fundamental principles of human rights law and often lies at the root of poor health status. The right to health obliges governments to ensure that “health facilities, goods and services are accessible to all, especially the most vulnerable or marginalised sections of the population, in law and in fact, without discrimination on any of the prohibited grounds” (General Comment 14, 2000) paragraph 12 (b). In the context of health, these grounds are “race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status (including HIV/AIDS), sexual orientation, civil, political, social or other status” (General Comment 14, 2000): paragraph 18.

While the role of migration in the spread of epidemics has long been of interest in public health, relatively little is known about the health of migrants once they settle in host countries. This is particularly true of European countries. Unlike North America and Australia, most European countries rarely collect health data by migrant status or ethnic group (UK, Sweden and the Netherlands being exceptions) (see Annex 1). Rather, European countries tend to focus on socioeconomic group or occupational group, if measuring health inequalities at all. Measurement is challenging for a variety of technical and political reasons. The data that is available gives rise to a complex picture. Disease specific mortality rates for certain conditions are higher for immigrants. However, despite the fact that most migrants originate from countries with a substantially higher mortality rate than Europe, many studies have found that immigrant groups have similar or more *favourable* total mortality rates than native Europeans, known as the ‘health migrant effect’ (Mackenbach et al., 2005). However, the health advantage is confined to specific diseases. Furthermore, in many contexts the advantage disappears in the second generation and with increased duration of stay.

The possible reasons for inequalities between first and second generation immigrants and autochthonous populations are complicated, but utilization data in some countries suggests that these inequalities are unfair, since the utilization of health services among (first and second generation) immigrants tends to be relatively low for primary and/or specialist care, with a greater reliance on emergency services. Particularly worrisome are the low rates of utilization of antenatal, paediatric care and preventive services.

Barriers to access are thought to include education, cultural differences, language difficulties, lack of complimentary voluntary health insurance (eg in France) and legal issues (immigration status). The other major issue is quality of care and whether it is lower for migrants. Measurement of this is particularly difficult (Healy and Mckee, 2004).

Policy on immigrant health has not been significantly developed in most European countries. This is partly due to the lack of data on which to base policy. It is also due to the complexity of the issue. Determinants of health and therefore health care needs may vary between immigrant groups (by origin and by type of immigrant) (see Box 1 for a description of types of migration). These categories need to be further disaggregated by gender, age and socioeconomic status among other factors. Furthermore, immigrant health policy is necessarily a multisectoral issue: not only do health and other social welfare sectors need to be involved, but also the immigration legal framework. Traversing this is the need to distinguish between local, national and international strategies and the role of the private sector and NGOs vs state service providers. Finally, it may be difficult to transfer policies between countries, since policy responses are determined by the broader politics of the immigration debate in the country. For example, whether the country pursues a multiculturalism (eg UK) or an assimilationist (eg France) approach will determine how explicit the immigrant health policy is.

Box. 1 Definitions of types of 'migrants'

Students: a large group which includes people of any age moving to another country for the purpose of full time study.

Economic migrants: people leaving their usual place of residence to improve their quality of life. This may include long-term migrants or short-term seasonal workers. Frontier worker are migrants who retain their usual country of residence but work in a neighbouring state returning daily or weekly.

Asylum seekers: people with a fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, who enter a country and claim asylum under the 1951 Geneva Convention. Once the fear has been proven to be well founded, the claimant is granted refugee status.

Irregular migrants (or undocumented or clandestine): migrants without legal status owing to illegal entry or the expiry of their visa.

Displaced persons: people fleeing an armed conflict or escaping natural or man-made disasters or their effects. This term primarily covers persons displaced within the borders of their country of origin (i.e. internally displaced persons) who would not come under the 1951 Geneva Convention.

Source: Nygren-Krug, H (Ed). International Migration, Health & Human Rights. 2003
http://www.who.int/hhr/activities/en/intl_migration_hhr.pdf in (Health Protection Agency, 2006).

A major issue is access to health care by the large number of undocumented migrants in Europe. This is underreported in the health policy literature and as such we are unable to comment extensively on the issue. One reason for the paucity of information is the lack of data. Another reason is the policy dilemma caused by the discord between countries' increasing reliance on this population to support large, low-wage, informal, flexible labour markets on one hand, and their declared ideals of citizenship and institutionalized forms of welfare provision (Schierup et al., 2006).

II. The scope of this policy report

We aim to provide a comprehensive review of the literature on the topic of migrant health and access to health care in Europe. This builds on and significantly develops the work of several previous reviews that we have identified (these do not necessarily focus on Europe); (Ingleby et al., 2005); (McKay L et al., 2003); (WHO, 2003); (Carballo and Mboup, 2005). The subject of 'migrant health and access to health care' has enormous breadth, and a literature review could take many directions. In order to avoid this becoming unmanageable, we have set clear parameters for the scope of this report.

European reviews of the literature on immigrant health to date have focused on certain sub-topics, and as such we do not replicate this work here. Therefore, we have decided not to explore migrant mental health issues in depth in this report since European level reviews on this topic have already been published - for example see (Carta et al., 2005). There is a very large literature and body of research on this which would merit a separate report. In summary this suggests that migrants have relatively high rates of schizophrenia, suicide, alcohol and drug abuse; poor access of psychiatric facilities; and high risk of anxiety and depression. Due to the different conditions of migration concerning variables such as: motivation to migrate (e.g. settlement, refugees, gastarbeiters); distance of the host culture; ability to develop mediating structures; and legal residential status, it is impossible to consider "migrants" as a homogeneous group concerning the risk for mental illness (Carta et al., 2005). Children and adolescents are a particularly vulnerable group. First and subsequent generations may experience developmental problems and problems linked to discrimination and strained ethnic relations, linking to further problems in educational attainment. (Ingleby et al., 2005).

We have integrated the issue of health of asylum seekers and refugees into the general discussion on immigrant health and access to health care. This subject has received a great deal of focused attention elsewhere, with recent reviews of European policy being published – see for example (Romero-Ortuno, 2004, Watters, 2001, Watters and Ingleby, 2004, Watters et al., 2003, Norredam et al., 2006, Foubister and Worz, 2006, Ingleby, 2004).

The subject of undocumented migrants is also not covered in depth, although an illustrative case study is provided in Box 2 in section 7. The Platform for International Cooperation on Undocumented Migrants (PICUM)'s project "Access to health care for undocumented migrants", co-funded by the European Commission (DG Employment, Social Affairs and Equal Opportunities), has published several reviews of European policy in this area.

There are also at least two further topics that are related to migrant health and access to health care, but are distinctly separate. For completeness, we mention them here, but do not discuss them in this report:

- Patient mobility within the EU and related to this, the portability of health insurance among migrants. See (Bertinato et al., 2005) and (Holzmann et al., 2005) respectively for a discussion of these issues.
- The effect of migration on human resources of health and “brain drain” in developing countries. See WHO’s latest World Health Report (WHO, 2006) for a discussion of this.

III. What constitutes a ‘migrant’?

One difficulty in studying migrant health is defining the subject. There are many sub-categories of ‘migrants’ (see Box 1). Also, it is unclear how long before a group of people thought of as ‘migrants’ begin to simply constitute a socially or culturally distinct or ethnic group of residents (eg ‘black British’) (Landman and Cruickshank, 2001).

Also, different understandings of what it means to be a ‘migrant’ exist across Europe. For example, in Germany there is no national consensus on what exactly constitutes a ‘migrant’. Thus, ‘migrants’ include first, second and third generation ‘migrants’, ie persons who are either born abroad or who are descendents of parents or grand-parents born abroad, who may or may not be naturalised (i.e. have adopted German citizenship), and whose ethnic origin may or may not be other than German (e.g. so-called ‘Spaetaussiedler’ from Eastern European countries are ethnically German). Recently, a definition of the term ‘migrant’ was suggested as (1) both parents born outside Germany, or (2) person not living in Germany since birth with at least one parent born abroad, or (3) first language other than German (Schenk L et al., 2006).

In the Netherlands the notion of ‘migrant’ is replaced with the word ‘allochtonen’, used to describe persons from foreign descent. Literally, the word refers to the Greek words *allos* (different) and *chthonos* (country). ‘Allochtonen’ are all persons who have at least one parent born outside the Netherlands. A distinction is made between persons who themselves are born outside the Netherlands (first generation) and persons who are born in the Netherlands with one parent born outside the Netherlands (second generation). In contrast with the ‘allochtonen’ are the ‘autochtonen’, persons who have both parents born in the Netherlands regardless of where they themselves are born. Generally, a further distinction is made between western and non-western ‘allochtonen’. Non-western are those persons who have at least one parent from Turkey, Africa, Latin-America and Asia (with an exception of Indonesia and Japan). Western are those persons with at least one parent from Europe (Turkey is not included), Israel, the US, Oceania, and Indonesia and Japan (who on basis of their socio-economic status and cultural position are considered western ‘allochtonen’). To determine the ethnicity of second generation ‘allochtonen’, the country of birth of the mother is conclusive, except when this is the Netherlands, in which case the country of birth of the father is conclusive.

In this report, which focuses mostly on economic migrants, we use the terms ‘migrant’ and ‘immigrant’ interchangeably, to refer to persons not born in the country they currently permanently live in. This is a very simplistic definition, employed as a starting point for the discussion. Clarifications are made throughout where appropriate.

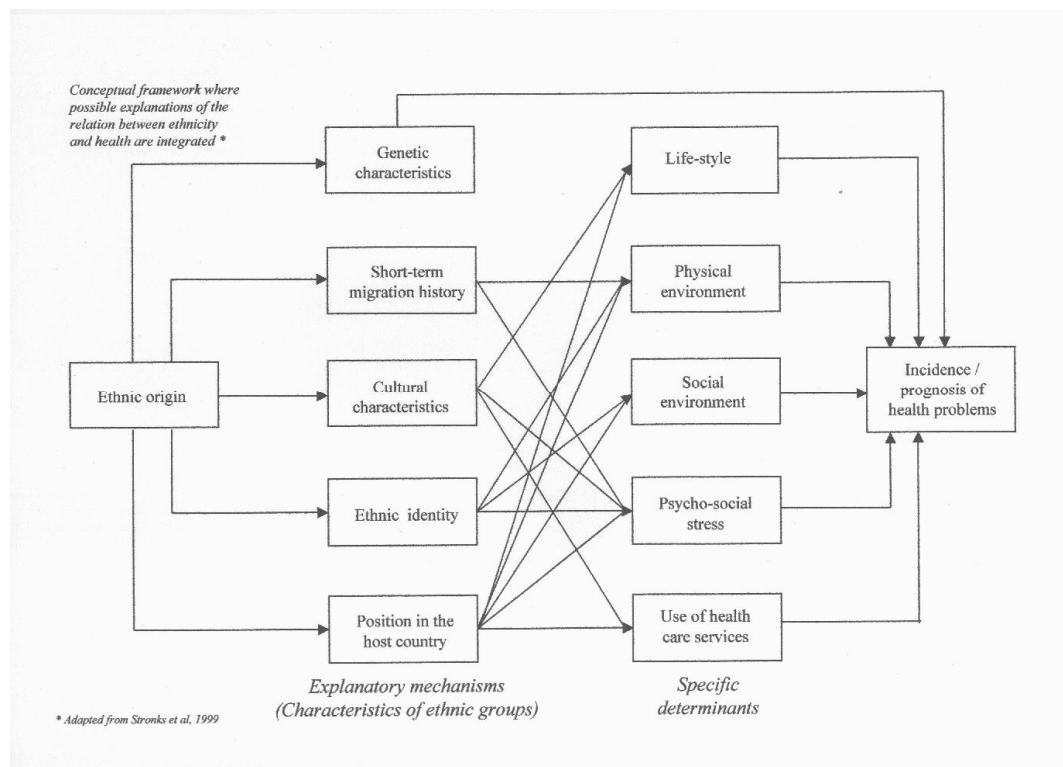
IV. Migrant health trends

Five main ways of explaining differences in health between ethnic groups have been identified (Stronks et al., 1999, Ingleby et al., 2005)

1. Genetic differences
2. Cultural differences
3. Socio-economic position
4. Short-term migration history
5. Ethnic identity

This has been expressed in the following diagram:

Figure: 1 Conceptual framework for determinants of migrant health



Source: (Ingleby et al., 2005)

However, it is not useful to try to make generalisations about the health care needs and utilization of migrants in general, since the health of migrants and access issues vary across space, time, age, gender, across different countries of origin and type of migration. For example, it is well known that African Americans have a lower life expectancy than Caucasians in North America (Sen, 1999). However, first generation immigrants do not experience health inequalities in the same way as minority groups residing in a country over several generations. For example, in the US, analysis of the 2000 and 2001 National Health Interview Surveys (NHIS) revealed that African-born blacks have *better* health as measured by self-rated health, activity limitation, and limitation due to hypertension compared to U.S.-born *blacks and whites* (Read et al., 2005). Such findings illustrate that disaggregating health data on ethnic minorities is crucial.

Echoing the American example, despite the fact that most migrants originate from countries with a substantially higher mortality rate than Europe, and once settled in Europe they tend to belong to the lowest socio-economic strata, many studies have found that immigrant groups in Europe have similar or more favourable total mortality rates than the native population. In the UK, compared to the national average, Caribbean-born people had significantly better all cause mortality and South Asian and East African-born were no different (Landman and Cruickshank, 2001). In France, migrants also experience lower mortality than the local-born population; health benefits are particularly noticeable in Mediterranean men, especially for affluence-related diseases such as cancer and cardiovascular diseases (Darmon and Khlal, 2001).

It has been suggested that (self-) selective migration may play a role (Mackenbach et al., 2005). This is known as the 'healthy migrant effect'. Such findings may be explained by a difference in timing between the health benefits and the health risks of migration (Mackenbach et al., 2005)³. Findings that

³

Authors of study of immigrants from Mediterranean countries to Germany in the German Socio-economic Panel dispute the 'healthy migrant' theory (Razum and Rohrmann, 2002). They argue that in order to uphold this theory, immigrants' mortality risk would increase with time under observation. However, they find no evidence for a mortality increase with time under observation, suggesting that in Germany at least, the healthy migrant effect is not primarily due to (self-) selection. They suggest the initial mortality advantage could be due to international differences in mortality patterns. A late entry bias does contribute to the persisting mortality advantage of older immigrants: if migrants are enrolled in a study years after immigration, sick or socio-economically unsuccessful individuals may already have returned to their countries of origin.

immigrants are comparatively healthy and underutilize health services refute the simplistic assumption that immigrants represent a disproportionate burden on European health care systems.

To be sure, the relative advantage does not translate across all countries and across all migrant groups. In a Dutch study, compared with native Dutch men, overall mortality was higher among Turkish, Surinamese and Antillean/Aruban males, but lower among Moroccan males. Among females, inequalities in mortality were small. In general, mortality differences were influenced by socio-economic and marital status. Also, most minority groups had a high mortality at young ages and low mortality at older ages, a high mortality from ill-defined conditions (which is related to mortality abroad), infectious diseases and external causes, and a low mortality from neoplasms. Cardiovascular disease mortality was low among Moroccan males and high among Surinamese males and females. Homicide mortality was elevated in all groups (Bos et al., 2004). For total avoidable mortality⁴, there is also a slightly elevated risk for migrant populations in the Netherlands, suggesting that migrants underutilize services (Stirbu et al., 2006a). In another Dutch study using a different indicator, the overall picture changes though; life expectancy in Amsterdam is lowest among residents of Dutch descent (73.3 yr for males and 79.1 yr for females) and highest among those of Mediterranean origin (Morocco, Turkey and Southern Europe) (77.6 yr for males and 86.1 yr for females) (Uitenbroek and Verhoeff, 2002).

These findings suggest that disaggregating mortality and morbidity data by cause, and by country of origin, is crucial if policy makers are to gain a clearer picture of what areas of health care need to be developed in order to meet migrants' needs. A more detailed look at the European evidence is provided below. While a comprehensive literature review is beyond the scope of this report, the following section on migrant health trends aims to provide an overview of the main issues and discussion points.

Chronic diseases

Vascular diseases

In the UK, compared to representative samples of the general population much *lower* rates of coronary heart disease deaths have been reported among the Caribbean-born and West African populations, while *higher* rates have been reported for the South Asian and East African born populations, controlling for social class (Landman and Cruickshank, 2001, Balarajan, 1995, Balarajan and Raleigh, 1997) (Sharma et al., 1999).

It is unclear why some immigrants but not others experience lower CHD mortality than the general population. One Swedish study has investigated whether rates of CHD mortality persist from the country of birth or are a result of migration. It was found that for countries with high CHD mortality, such as Finland and Hungary, the risk was lower among immigrants in Sweden than in their country of birth. For low-risk countries in South Europe, the risk was higher in immigrants in Sweden than in South Europe (Gadd et al., 2006). This suggests that as well as country of origin, acculturation can have positive or negative effect on CHD mortality. This is supported by a British study which found that circulatory disease mortality in Caribbean migrants increased with increasing duration of residence and age at migration, (Harding, 2004). Prevalence of risk factors for heart disease have also found to be higher among some migrant groups than the native population (Landman and Cruickshank, 2001) (Wandell et al., 2004) (Dotevall et al., 2000), while other ethnic minority groups appear to have lower rates of hypertension, for example Turks and Moroccans in the Netherlands (Agyemang et al., 2006).

One explanation for these complex patterns may be that first generation migrants may benefit from healthier dietary patterns than the host population. For example, in northern Europe, migrants from southern Europe and North Africa report dietary practices consistent with the typical Mediterranean diet, which is renowned for its positive effects on health (Darmon and Khlat, 2001). This effect may be lost over time as immigrants acculturate to less healthy diets in host countries (Antecol and Bedard, 2006) (Goel et al., 2004). Dietary health benefits may also be lost in the second generation; in the UK, offspring of former migrants appear to adopt British dietary patterns, increasing fat and reducing

⁴ The selection of conditions considered avoidable was based on the original list of Rutstein et al (Rutstein et al., 1976) further enlarged by Tobias and Jackson (Tobias and Jackson, 2001). The authors concentrated on the role of the curative medical services, i.e. secondary and tertiary levels of care. They included all conditions for which current evidence shows that death could be avoided by applying modern treatment, but excluded conditions for which the outcome largely depends on primary prevention and for which curative medical care is able to play only a limited role to avoid death.

vegetable, fruit and pulse consumption compared with first generation migrants (Landman and Cruickshank, 2001).

The reasons for changing diet may be multi-faceted. Several studies on BMI in children among immigrant groups in Europe come from Germany and Austria, focusing on first or second generation Turkish and former Yugoslav populations, among whom the prevalence of overweight and obesity has been found to be relatively high (Will et al., 2005) (Kirchengast and Schober, 2006). Biosocial and cultural factors are discussed as causes of these observations, including a high energy diet and reduced physical activity characterized by long periods watching TV, particularly among post-menarcheal girls, and the fact that neither the migrant children and adolescents themselves nor their parents were worried about their high weight status. The authors speculate this may be because overweight is culturally positively interpreted and associated with the middle and upper classes in the migrants' country of origin (Kirchengast and Schober, 2006).

The complex interplay between risk factors and culture therefore needs to be taken into account when formulating interventions aimed at reducing CVD.

Cancers

Studies on cancer rates in migrants are much more common in north America and Australia than in Europe. Nevertheless, a similar broad pattern can be observed in all three continents, namely that immigrants from low cancer incidence countries generally have lower incidence and mortality rates for most types of cancer than the local population (Singh and Miller, 2004).

In the UK, there are fewer lung and breast cancer deaths among Caribbean, South Asian- and East African-born adults than among the British born population (Landman and Cruickshank, 2001, Harding and Rosato, 1999). In France, it was found that, adjusting for important confounding factors such as social status and area of residence, North African migrants had lower risks for most cancer sites, but higher risks for certain cancers, such as of the nasopharynx and bladder, compared to the local population (Bouchardy et al., 1996). South-east Asian migrants had lower risks of cancer of the oral cavity, other pharynx, colon, rectum, larynx, lung (among males only), bladder, nervous system, breast and prostate but a higher risk of cancer of the nasopharynx, stomach, liver, gallbladder, lung (in females only), and cervix (Bouchardy et al., 1994). These cancer patterns were consistent with the cancer patterns in North Africa and South East Asia respectively.

It is argued that even with a change in environment, early-life exposure in their native countries to etiological agents and retention of traditional lifestyles, can influence the specific cancer patterns of migrants (Bouchardy et al., 1995). For example, in France, North African men smoke as heavily as the local-born of the same occupational categories, and yet their mortality rates from lung cancer are notably lower. Such a paradox may be the result of a synergy between different phenomena such as the selection of the fittest applicants for immigration and the maintenance of other healthy lifestyles from the countries of origin (Darmon and Khlai, 2001).

However, it has been found that rates of some cancers in migrants from low incidence countries tend to increase and converge with the local population over time (MacKay, 2003) (Zeeb et al., 2002). It has also been found that immigrants experience an increase in cancer risk over generations (Maskarinec, 2000). These two points are borne out by a Dutch study (Stirbu et al., 2006b) where, overall, in a large number of cancers, migrants had more than 50% lower risk of death but mortality rates for all cancers combined were higher among second generation migrants, among those with younger age at migration, and those with longer duration of residence. The generally low cancer mortality rates among migrants showed some degree of convergence but did not yet reach the levels of the native Dutch population. The concern is that current levels of cancer mortality among migrants will gradually increase in future years if no specific preventive measurements are taken (Stirbu et al., 2006b).

Hormonal factors, including estrogens, insulin, and growth factors, may offer an explanatory mechanism how increasing caloric intake, decreasing physical activity, changes in nutrients and increasing height and BMI affect increasing breast cancer risk among migrants over time / generations (Maskarinec, 2000). High prevalence of cervical cancer may be associated with an increased risk of contracting STIs (Boon et al., 2005) and lower rates of screening (Holland et al., 2006, Webb et al., 2004).

Infectious diseases

TB

According to the theory of the epidemiological transition, the industrialised world has passed through and left behind the era of pandemics, with chronic diseases taking their place as the primary public health challenge. However, in developed and developing countries alike, this optimism is being challenged by (1) emergence of new infectious diseases; (2) re-emergence of old infectious diseases; and (3) persistence of intractable infectious diseases.

Resurging TB in low incidence countries can be explained by the gradually increasing relative and absolute importance of the importation of latent tuberculosis infection and tuberculosis from other countries. In most EU countries, between 1998 and 2004 there has been an increase in the proportion of cases of foreign origin from 30% to 40%, since the average annual decrease in the numbers of cases was more marked in nationals than in cases of foreign origin (EuroTB, 2006). For example, in France 35% of new notified TB cases were observed in 2001 in persons of foreign nationality, while these represent 6% of the total population. Incidence was 6,2 /100 000 in French nationals and 57,2 /100 000 in foreign nationals. Analysis are performed by country of birth, which appear as a better indicator than nationality (Groupe de travail "tuberculose et migrants". Direction Generale de la Sante , Recommandations relatives a la lutte antituberculeuse chez les migrants en France)

In a few countries low-incidence EU countries, overall notification rates of cases of TB of foreign origin have been increasing, notably in the United Kingdom (EuroTB, 2006).

In light of this trend, the screening of immigrants for TB has become the subject of renewed attention in policy analysis. Approaches to screening immigrants to European countries for tuberculosis vary widely across Europe. For example, in some countries TB screening is a legal requirement (France and the Netherlands), in others not (England, Denmark, Spain) (Holland et al., 2006, Coker et al., 2004, Coker et al., 2006, Hayward et al., 2003). The reason for TB screening is ostensibly to prevent an increase in incidence and prevalence of TB in Europe, but the case for this is not clear (Coker et al., 2004). For example, in the Netherlands it has been found that most active tuberculosis infections appear sometime *after* immigration and high incidence in immigrant populations can persist a decade after immigration (van Burg et al., 2003). Thus screening before or on arrival would not necessarily prevent onward transmission.

Transmission rates between immigrant groups and the autochthonous population vary from country to country, since many different factors may influence the magnitude of active transmission. For example, in Denmark, transmission between Danes and Somalis, who represent 38.6% of all immigrants in Denmark and whose country of origin has one of the highest TB rates in the world, is nearly nonexistent (0.9%) (Lillebaek et al., 2001). Thus while those individuals in whom tuberculosis is identified early can benefit from treatment, little evidence exists to show that early detection of tuberculosis in foreign born individuals conveys appreciable public health benefit to those born in the host country, suggesting that prevention and treatment of TB could safely occur within the health system, rather than through 'vertical' programmes at national borders.

Practical problems such as treatment and follow-up in immigrants who have just arrived and are unsettled have also led to questions about the effectiveness of TB screening (Feil F. et al., 2004). Attendance rates for screening have been found to be lower and costs of screening higher in special 'vertical' TB screening schemes⁵ for new entrants as compared to screening of new entrants in a general primary care setting (Bothamley et al., 2002).

HIV/AIDS

In the past, homosexual sex and injecting drug use were the principle modes of transmission in Europe, but in the period 2001 to 2004 there was an increase of 50% or more in HIV cases of heterosexual transmission in at least three EU countries: United Kingdom (from 2,342 to 4,369), Sweden (from 143 to 259), and Portugal (from 921 to 1,411) (EuroHIV, 2005). In many countries, the increase in the proportion of heterosexually acquired cases of infection is associated with persons known to originate from countries with generalized HIV epidemics is high, but the importance of this varies across Europe - from 22% in Portugal to 71% in Belgium and Sweden (EuroHIV, 2005).

⁵ 'Vertical' programmes refers to programmes that are not integrated into the structures of the national health system.

In France, the incidence rate for HIV in migrants reported in 2003 (2.56 per 1000 population) is three times to the level for the French population (0.82 per 1000). The highest incidence rates are found in migrants originating in Haiti and in sub Saharan Africa, with rates of 31.18 and 10.32 per 1000 population respectively. In 2003, 32% of all new cases were diagnosed in migrants from Sub Saharan Africa. Migrants play a significant part in the rise in heterosexual transmission of the virus, 57% of which is concerning migrants; and to the feminization of the epidemic (in 2002 among women under 30 years old infected by heterosexual transmission, 75% are from sub Saharan Africa) (Ministere de la Sante, 2003).

This reinforces the need to ensure that prevention and care services are adapted to reach migrant populations in affected countries.

Because rising rates of HIV in many west European countries are related to new entrants, some countries screen new entrants for HIV and refuse entry to positive cases. Bulgaria, Belgium, some decentralized regions of Germany, Cyprus, Greece, Spain, Estonia, Latvia, Hungary all have requirements for HIV testing for immigration (Aidsmap, 2006). However, countries conducting mandatory screening and/or refusing entry to people living with HIV/AIDS do so despite the International Guidelines on HIV/AIDS and Human Rights (UNHCHR/UNAIDS, 1998): para 105 which stipulate that "[t]here is no public health rationale for restricting liberty of movement or choice of residence on the ground of HIV status." The UNHCR is strictly against mandatory testing and the exclusion of those infected with HIV from countries purely on the grounds of their HIV status (Spiegel P. B. and Nankoe, 2004).

Also, although countries refusing entry to immigrants infected with HIV would reduce their national burden of disease and future transmission, since the incidence of HIV is rising in non-immigrant groups in Europe (for example men who have sex with men and in the heterosexual population in the UK) screening immigrants alone would not be a sufficient measure to halt the spread of HIV/AIDS. Also, such a policy does little to address global burdens of disease, and may stigmatise those infected with HIV further, both in Europe and abroad. Furthermore, there is the danger that an HIV screening policy resulting in refusal to grant entry would simply result in illegal migration of people living with HIV/AIDS, worsening rather than improving the situation (Coker et al., 2004).

Accidents, injuries, disabilities

Employers often consider migrants to be too temporary to commit resources to training, and communication problems often reduce this possibility even further. Migrant workers, and in particular undocumented migrant workers, often accept these dangerous working conditions for fear of bringing attention to themselves and losing their jobs or being deported. Lack of familiarity with the country, the culture and the language also means that migrant workers are typically unaware of their rights (WHO, 2003).

Reflecting these poor health and safety conditions, immigrants in Europe are at increased risk of occupational accidents and fatalities (Bacciconi et al., 2006) (Ahonen and Benavides, 2006) (Elders et al., 2004). They may have a higher risk of hospitalisation both for road and home accidents compared to the native population (Farchi et al., 2005).

Musculoskeletal disorders are more common among immigrant groups than among Swedes of the same age group. This is associated with poor employment conditions (Akhavan et al., 2004). First- and second-generation immigrant women of reproductive age had an increased risk of limiting long-standing illness (LLSI), compared to their Swedish counterparts (Robertson et al., 2003).

New migrants are often forced to concentrate in poor areas of towns and cities and in substandard housing where overcrowding and inadequate sanitation are the norm. In post-industrial settings such as the Netherlands, Austria, France, Italy and Germany this has become a source of potential morbidity, including childhood accidents, for migrants of all ages (Braunschweig and Carballo, 2001).

Violence and drug abuse

Often living in deprived and impoverished areas, migrants are often at increased risk of mortality and morbidity from violence and drug abuse. For example, Surinamese, Moroccan, Turkish, and Antillean migrants in the Netherlands had respectively over 2, 3, 4, and 7 times greater risk of dying from homicide than the native Dutch population adjusting for age, marital status, region, degree of urbanization, and socio-economic status by sex (Bos, 2005).

Immigrant women may face extra barriers in protecting themselves from domestic violence, lacking language and culture-specific domestic violence support and advocacy as well as knowledge about host-country laws and resources (Sullivan et al., 2005, Schuster and Schwendke, 2005) (Bhuyan and Senturia, 2005).

In a Swedish national cohort, second-generation immigrants had two- to three fold higher age and sex-adjusted relative risks (RRs) for hospital admissions because of illicit drug use compared with the Swedish majority population with a limited variation between different ethnic groups (Hjern, 2004). Adverse socioeconomic living conditions explained much of this high risk. A German study has suggested that drug abuse preventive information programs must consider cultural differences and use concepts that are accepted and clearly associated with addictive behavior by immigrant populations, since perceptions of addiction vary across ethnic groups (Penka et al., 2003).

Sexual and reproductive health

Often younger and more fertile (bearing more children) than the native population, migrant women may have greater need for sexual and reproductive health services. For example, in a Spanish hospital, the case mix of the immigrant population differed from that of the autochthonous population due to pronounced age differences and a higher fertility rate. Thirty-three percent of immigrant admissions were for deliveries. The authors conclude that immigrants are rejuvenating the ageing native population and the role of gynecology-obstetrics and pediatrics needs to be increased (Cots et al., 2002). Access to contraception may be a problem for migrants (Wolff et al., 2005). The provision of such services needs to be modified to take account of their particular needs. This is illustrated by an Italian study which found that the risk of induced abortion is higher among legal immigrant women than among all residents and the spontaneous abortion ratio was also higher among the foreigners (Medda et al., 2002).

A study using German birth and death register data for 1980-1996 reports excess maternal mortality and mortality from abortions in non-German women, although both decreased during the study period, the latter largely disappearing in the second half. Still, inequity in maternal risk continued to exist, as indicated by marital status (non-married women experiencing greater risk). (Razum et al., 1999). Maternal risk, therefore was no longer determined by the simple distinction 'German' versus 'non-German', its association extending beyond nationality.

Studies from Italy and Spain suggest that migrants may be at higher risk of participating in sex work and increased exposure to STIs (Matteelli et al., 2003) and as such should be a priority target group for sexual health promotion (del Amo et al., 2005).

It should be noted that migrants are not necessarily disadvantaged in terms of risk factors for sexual and reproductive health issues. In the US, low rates of low birthweight (LBW) among foreign-born Latinas of low socioeconomic status (Rosenberg et al., 2005) and other immigrant groups (Singh and Miller, 2004) have long been observed and have been called the "epidemiologic paradox". Similar patterns are found in Europe: infants of North African immigrants are reported to have higher birthweights than their Belgian counterparts (Vahratian et al., 2004); compared with white Portuguese babies, mean birth weight of term babies of foreign-born African mothers was greater, and that of babies of Portugal-born African mothers was intermediate (Harding et al., 2006); in Spain no difference between the babies of immigrants and Spanish women was reported (Perez Cuadrado et al., 2004). These differences may be related to a combination of biologic factors and risk factors such as smoking (Harding et al., 2006) (Rosenberg et al., 2005).

However, while immigrants in the US may have lower rates of preterm delivery and low birth weight infants, they also have higher rates of pregnancy related risk factors amenable to medical intervention, indicating the need for improved prenatal care in this group (Reed et al., 2005). In the Netherlands, migrant women experienced a higher risk of death from maternity-related conditions (Stirbu et al., 2006a). Women of foreign origin, especially from sub-Saharan Africa, have a higher risk of perinatal mortality than native Swedish women (Essen et al., 2000). The differences in mortality could not be explained by risk factors and suggest that women and newborns from sub-Saharan Africa should be given more intense surveillance on all levels of perinatal care.

This section on migrant health trends has provided an overview of the main issues and discussion points. The resulting picture is complex and dynamic. Infectious diseases, including STIs, accidents, injuries, musculoskeletal disorders, violence and drug abuse all appear to disproportionately affect migrants groups compared to autochthonous European populations. These patterns are likely to be linked to increased exposure to risk factors, either in the country of origin and/or in European countries

where migrants are forced to live and work in poor conditions. Migrants are not necessarily disadvantaged in all areas health though. Relatively low rates of low birth rate have long been observed in migrant groups in the US and Europe. It is also important to note that many studies have shown that chronic diseases are less prevalent in some, though by no means all, migrant groups compared to autochthonous European (and North American) populations. However, this advantage may diminish over time (length of stay) or in subsequent generations. Varying patterns in risk factor prevalence (smoking, inactivity, alcohol consumption and so on) account in part for these differences. Genetic, environmental and socioeconomic factors are also likely to be important. Finally, it seems that access and utilization of health services also plays a role. This is the subject of the next subsection.

V. Health services – access and utilization

In the USA, foreign-born noncitizen children were 4 times more likely than children from native families to lack health insurance coverage (Huang et al., 2006). Unlike in the US, generally speaking, health services are (almost) free at the point of use in the EU. Most countries grant full equality of treatment to third country nationals after awarding them long-term or permanent residence status. So is access still an issue? Data on this topic are relatively sparse, but several studies suggest migrants do experience unequal access to health care. In the UK, the use of hospital outpatient and inpatient services was significantly lower for children and young people from all minority ethnic groups compared with the white population (Cooper et al., 1998). In Germany, it was found that the native population utilized health care facilities and preventive programmes (e. g. screening programmes) more frequently than immigrants. Furthermore, Germans reported higher levels of satisfaction with health care and a higher level of knowledge about several diseases as compared to immigrants (Zeeb et al., 2004). Adults in minority populations in Sweden use less dental care despite having greater needs of dental treatment than the majority population (Hjern and Grindefjord, 2000). Several studies have shown relatively low utilization of prevention programmes (Axelsson et al., 2006, Newell et al., 1998, Norredam et al., 1999, Bell et al., 1999) and out-of-hours primary care (Free et al., 1999). The results of the Second Dutch national Survey of General Practice by NIVEL and RIVM report that immigrants make less use of preventive public health programmes (vaccination against influenza, cervical cancer screening), relative to the native population (RIVM, 2006a). In Belgium, access to preventive care was examined by comparing the proportion of persons aged 25 or above who were vaccinated for tetanus, influenza and rubella, screened for cardiovascular risk factors, screened for early detection of breast and cervix cancer and had HIV-related knowledge and screening (Anson, 2001). Native Belgians had better access to preventive health care than did immigrants from Morocco and Turkey. Significant differences were observed after controlling for socio-demographic characteristics. Another study of Flanders showed that Turkish and Moroccan migrants use less preventive health care: they are less vaccinated against influenza, and have their blood pressure, cholesterol and blood sugar checked less and are also less active in early breast and cervical cancer detection (Levecque et al., 2006).

Why is access to health care a problem for migrant groups? One issue is that requirements for permanent status vary across Europe and obtaining this status may take several years (Holzmann et al., 2005). Secondly, undocumented migrants in many countries are not granted equality of treatment (see Box 2). These points suggest that access to health services is likely to be an issue for many migrants. Besides the legal barriers, migrants also face other specific difficulties in accessing health care. In clinical encounters, language and literacy are by far the most obvious cultural obstacle to providing care (Wilson et al., 2005, Zanchetta and Poureslami, 2006), impacting adherence to medicine (Westberg and Sorensen, 2005). A common response on the side of the health system is to provide translators. Where the state does not make such services available, NGOs may fill the gap. Alternatively, migrants may have to rely on members of their family or friends that are bilingual, although this raises issues of privacy (Ingleby et al 2005). One interesting solution extrinsic to the health system is to tailor the content of language lessons to immigrants' likely health needs (Taylor et al., 2005). In addition to language, miscommunication and dissatisfaction stemming from cultural differences and expectations can also contribute to suboptimal care (Sheridan, 2006, Rhodes et al., 2003, Baarnhielm and Ekblad, 2000, Webster, 1997) (Eshiett and Parry, 2003).

Furthermore, categories and concepts used by migrants to explain health problems may differ significantly from Western understandings, as the field of medical anthropology has long demonstrated. For example, a German study found that Turkish immigrants' concept of treatment is more directed to drugs than among German patients. The former requested medication more intensively and were more convinced of the medicaments' effectiveness than German patients were

(von Ferber et al., 2003). This suggests there is a major role for user involvement in the design of effective services for migrants. There is also a role for health care providers to develop training in culturally sensitive care. Some countries employ health mediators / communicators to overcome this problem (for example see the paragraph on the Netherlands in the section on national policies below). A lack of knowledge about the health care system may be a serious obstacle to access, sometimes even despite tailored publications and orientation services⁶. Mistrust of service providers may be an important issue for some, particularly undocumented migrants fearing detection. In countries with complex registration systems for social health insurance, such as France, administration and bureaucracy is a major barrier. Language-adapted and culture-sensitive programs are needed to decrease inequality in access for ethnic minority groups (Bader et al., 2006), such as tailored web based health information (Changrani and Gany, 2005).

Even though a country may provide (almost) free access to health care services, individuals belonging to immigrant groups may not be aware of them (Lindesay et al., 1997). Acculturation influences health beliefs and preventive health behaviors. For example, in one study, time spent in the United States was associated with a greater number of mammograms and clinical breast exams controlling for a range of factors including morbidity, health insurance, physician's recommendation, and physical exams, suggesting that ethnically-specific health beliefs may change over time (Brown et al., 2006).

Barriers may result in delaying care, resulting in health inequalities but also the increased consumption of more expensive emergency treatments, as demonstrated by a studies in Madrid (Sanz et al., 2000), Lund in Sweden (Sundquist, 1993), and Copenhagen (Norredam et al., 2004) for example. In Copenhagen, a study found that persons born in Somalia, Turkey, and ex-Yugoslavia had higher utilization rates of emergency room than Danish-born residents. All other non-Western-born residents had utilization rates similar to Danish-born residents (Norredam et al., 2004). The authors suggest that higher utilization rates among some immigrant groups may be explained by: (a) disparities in health (such as higher prevalence of accidents); (b) a lack of knowledge about the Danish healthcare system; and/or (c) barriers to seeking primary care including language, fear of discrimination, and low satisfaction with primary care. Barriers may also result in self-medication, again potentially causing inequalities and increased costs to the health system.

Barriers to health care may also result in worse health outcomes, as is suggested by the relatively higher rate of avoidable mortality among immigrants than among native Dutch (Stirbu et al., 2006a). In Sweden, on the other hand, the national census reveal few indications of inequity reflected in the mortality outcome of medical care between immigrants and native Swedes (Westerling and Rosen, 2002).

Certainly, migrants are likely to face different barriers/inequalities in different European countries. For example, in a Danish study, there was no overall effect of ethnicity on duration of hospital stay and consequently the utilisation patterns of inpatient care seem to reflect equal care for equal needs (Krasnik et al., 2002). In a Spanish hospital, on the other hand, the mean cost of discharge of immigrants from low-income countries was 30% lower than that for the remaining discharges (Cots et al., 2002). After adjusting for age, case mix and severity, length of stay among the immigrant population was still significantly shorter, suggesting unequal treatment for equal need.

There are also difficulties with measuring utilization, as illustrated by contradictory research findings. Studies such as (Stronks et al., 2001) and the Dutch report, *The Future Exploration Public Health* (RIVM, 2006b) conclude that immigrants make less visits to medical specialists and hospitals (respectively 40 % and 30 % less in comparison with the Dutch). However, other research (the results of the Second Dutch national Survey of General Practice by NIVEL and RIVM) (RIVM, 2006a) reports that immigrants have *more* contact with health care providers such as medical specialists and general practitioners. Issues relating to data collection are discussed further below.

Also, immigration may not always be the primary explanatory factor for differences in health care utilization. For example, in a Swedish study, income explains much of the differential in health care expenditure between immigrants and native born populations, suggesting that immigration alone is not a primary determinant of health care utilization in that case (Beckman et al., 2004).

⁶ A good example of such a brochure comes from the Portuguese government
www.acime.gov.pt/docs/Publicacoes/brochingl/EmigPort_Ingles.pdf

Long term care

Migrant health issues are not confined to the treatment and prevention of diseases. The needs of migrants in all aspects of health care may need to be considered by policy makers, including social work, long term care for older people, home care services and youth services (Ingleby et al., 2005). In this section we look into one of these, long term care for older people.

In the course of demographic change in Europe, the number of older migrants can be expected to increase, causing the population of older people to become more ethnically varied. This needs to be taken into account when planning services for older people in the future, since the older migrant population is likely to have worse health. For example, in Sweden, immigration was associated with poorer health status and higher scores for impaired instrumental activities of daily living (IADL) as compared to the native born population in the years prior to and after retirement. This association remained after adjustment for socioeconomic status (Pudaric et al., 2003). Immigrants may also have a different perception of aging than the locally born (Torres, 2003) and therefore require tailored services. Research from Germany is addressing these issues of aging migrants populations (Schopf and Naegele, 2005) (Mohammadzadeh and Tempel, 2005) (Dietzel-Papakyriakou, 2005) (Raven and Huismann, 2000). A qualitative study of the care of migrants with dementia found that on the side of the migrants, patients and caregivers, the low level of education, poor skills in the host language as well as factors related to tradition and religion hindered better care. On the provider side, there was insufficient adaptation of the care given by existing counselling and care structures to specifically meet the needs of older migrants (Raven and Huismann, 2000).

At the same time, older migrants cannot automatically be regarded as helpless or isolated since they have superior family help networks (Schopf and Naegele, 2005). Also, many migrants may migrate again (Rendall and Ball, 2004) and therefore not require long term care services in the host country.

VI. Measurement / indicators

Measurement of migrant health and health care utilization is challenging for a variety of technical reasons: medical research favours homogenous samples, resulting in ignorance about the effectiveness of treatments on ethnic minorities; recording ethnicity in clinical records can be perceived as discriminatory; ethnic minorities often have low response rates in epidemiological surveys; and monitoring undocumented immigrants is difficult. A further problem is that when studies are conducted they are often confined to 'grey literature' (internal and unpublished reports) (Ingleby et al., 2005). Problems relating to specific surveys are elaborated in Annex 1.

Measuring the health of migrant or ethnic groups can also be politically sensitive, and could be perceived as unsound or even racist (Bhopal, 1997).

Annexes 1 and 3 suggest that in most European countries there are very few, if any, national or European surveys currently available to measure the health of first and second generation migrants relative to the health of the native population. Exceptions include some countries with high levels of immigration: Netherlands and to some extent Sweden and the UK. Countries such as Belgium, Spain and Germany have only very recently started to introduce questions on migration in health surveys. New Member States, reflecting their relatively low levels of immigration, hardly include indicators of immigration in health surveys, but this may change in the future as numbers of immigrants are now increasing. Generally low levels of reporting on migrant health (see Annex 2) reflects countries' paucity of data, again with a few exceptions.

Notably, in France, in its report on 'vulnerability' in France and its effects on health, the French High Committee for Public Health (Haut Comité de la Santé Publique, 1998) highlighted the almost total absence of data on the health of migrants, and French citizens who are second generation migrants. It points out that analyses by ethnic origin are not routinely carried out both for cultural and administrative reasons, and epidemiological data only rarely refer to ethnic origin or nationality. It has also been argued that the paucity of information concerning migrant's health and related costs most probably stems from concerns that it might be used to their detriment (Darmon and Khlat, 2001)⁷.

⁷ The statistical offices in France are planning some surveys relating to migrant health in 2007. These include: a survey on aging of migrants (French national Insurance Fund); a survey on "trajectories and migrants" to be carried out by INSEE in 2008; and an additional survey in collaboration with INED on population who have migrants parents (second generation migrants). To launch this survey the INED (Institut National d'Etudes Demographiques) had to obtain the

Few analyses of routine data relating to the health of migrants have been conducted in Germany (Zeeb and Razum, 2006) since most data sources do not provide information on the origin of migrants. Some sources contain the nationality of persons registered but this information does not allow identification of migrants who have taken up German citizenship. Using nationality data only to identify immigrants would be particularly problematic when researching the health of second-generation migrants that have become citizens (Spallek et al., 2006) or when conducting research into the effect of obtaining citizenship on health care utilization (De Alba et al., 2005). The Robert Koch Institute in Germany aims to develop standards which ensure migrant-sensitive epidemiological research, provide a uniform framework for data collection and analysis, and make different data sources comparable (Schenk and Neuhauser, 2005).

If they do include migration variables, most surveys depend on a broad 'social science' definition of immigrant status, employing country of birth, parental country of birth and length of stay in the host country as indicators to identify this population. Conceptually, there are two main problems with this. Firstly, the paradigm incorporates important sub-categories of persons, such as refugees, who may experience specific non-random patterns of health and health care that differ to those of non-refugee immigrants. Secondly, the paradigm does not capture legal status which may affect access and utilization of health services, which in turn may also affect patterns of disease in a non-random manner (Loue and Bunce, 1999). Employing an immigration law paradigm by including indicators such as citizenship status, residency status, documentation and so on is therefore important in studies of health care access and utilization. Furthermore, to make these indicators relevant to health research, an understanding of the way immigration law relates to eligibility in accessing public services is important – ie a public benefit law paradigm. This may become complex when legal criteria for the eligibility of immigration subcategories change over time (Loue and Bunce, 1999).

There are also technical difficulties with such data. Birthplace information in registries is not validated, and thus its accuracy is unknown. Also, birthplace information may be missing for a substantial proportion of patients (Lin et al., 2002). For example, in the population-based Surveillance, Epidemiology, and End Results (SEER) program only 67% of patients diagnosed in the period 1988 to 1996 had complete birthplace information in the registries and completeness of the birthplace variable in the registries examined was not random but varied according to characteristics such as ethnicity, patient age, year of diagnosis, and hospital teaching status, ownership status, and size (Lin et al., 2002), creating the potential for bias in statistical analysis using the data.

Epidemiological research on migrants often also encounters other methodological problems, including: differences among studies with regard to the definition of the term "migrant"; difficulties in identifying migrants among the study participants; and low participation rates of migrants in epidemiological studies (Schenk and Neuhauser, 2005) (Carlsson et al., 2006).

A major issue relating to participation rates is the large number of undocumented migrants in Europe. This population is typically not captured in national surveys, meaning that researchers must rely small-scale targeted studies in order to understand their situation.

Immigrant mortality in the population may be underestimated in register-based studies, making it difficult to carry out comparisons of the mortality of different ethnic groups. This is because sizeable numbers of immigrants who subsequently leave their new homeland (the host country) fail to register this fact with the national registration authorities (there are incentives not to do so) (Weitoft et al., 1999). A Swedish study has demonstrated this underestimation by comparing the relative risk of death of immigrants registered in (a) all nationally registered persons in the census and immigration records and (b) income and social benefits records. While using income records had the disadvantage of substantially reducing the number of people included in the study, it did ensure only those resident in the country were included. The results demonstrated that the relative death rates for immigrants born outside northern Europe increased considerably when income records were used. In several groups (males born in Southern Europe, former Yugoslavia and Turkey and Asian and African women) the relative reduced risk found using records of all nationally registered persons disappeared (Weitoft et al., 1999).

National surveillance of risk factors for high mortality diseases may not capture immigrant groups. Taking diet as an example, the Diet and Nutrition Surveys and the National Food Surveys in the UK have not measured food and nutrient consumption or nutritional or health status in representative

samples of minority ethnic groups or households (Landman and Cruickshank, 2001). Even specific comparative studies have limitations. For example, a multi-site study of West Africa, the Caribbean and its migrants to Britain found the highest total energy intake and the percentage of energy from total fat amongst rural Cameroonians with the lowest intakes in Manchester (Mennen et al., 2001). This was contrary to the hypothesis that carbohydrate intake increased, while (saturated) fat intake decreased, from rural Cameroon to the UK. The paradoxical finding may be attributable to differential under-reporting or, more likely, to unmeasured physical activity (Landman and Cruickshank, 2001). Data from smaller studies within the UK must also be interpreted with caution as they give conflicting information about dietary fat consumption (Landman and Cruickshank, 2001). For example, one review found mean percentage energy from fat ranged from 36-60% in 14 studies conducted among diverse subjects of varying defined South Asian origin (Bush H, 1997).

Several techniques have been developed to counter a lack of data on migrant health. In the USA, it has been possible to conduct large scale studies by examining billing records of persons hospitalized and linking the zip code of each patient's residence to corresponding data from the 2000 U.S. Census to obtain covariates not present in the billing records. Using logistic models, the researchers were able to evaluate the risk of hospitalization for heart disease, stroke and diabetes by country of origin (Muennig et al., 2004). Researchers can also get around a lack of data problem by developing computer programmes such as algorithms to identify persons of ethnic origin by surname in registries (Spallek et al., 2006) (Yavari et al., 2005) (Razum et al., 2001). Another source of data is disability pension records (Osterberg and Gustafsson, 2006).

Measuring equity in quality of care is particularly challenging, with little or no data comparing migrant and native clinical outcomes, or quality of care by ethnic group (Bhopal, 1997). Qualitative measures of satisfaction are perhaps the most suitable alternative here.

VII. Policy

European level policy and institutions⁸

The Treaty of Amsterdam of 1997 established for the first time Community competence for immigration and asylum, with the Tampere European Council of 1999 continuing the momentum. In 2000, the EC (European Community) officially revoked its 'zero immigration' policy of the 1980s and 1990s, calling for an increase of third country labour immigration (CEC, 2000). In June 2000 the Council adopted a Directive combating discrimination on grounds of racial or ethnic origin, applied to the fields of employment, training, social protection, including health and social security, education and the supply of goods and services, including housing (Council of the EU, 2000). Under the European common objectives to combat poverty and social exclusion adopted in December 2002 emphasis was placed on the need to tackle the specific social risks experienced by immigrants. In an analysis of the National Action Plans for Social Inclusion for 2003-2005, health is highlighted by the EC as an area in need of increased attention: "a more determined action is needed. While Member States identify immigrants among those particularly at risk of poverty and social exclusion, many countries still fail to provide in-depth analysis of the factors leading to this situation. Little attention is given to promoting access to resources, rights, goods and services, in particular to appropriate healthcare" (CEC, 2004):20. Other important recent policy documents relating to migrant health include:

- Policy Plan on Legal Migration (CEC 2005)
- The European Council Presidency conclusions from December 2006 (Council of the EU 2007)
- The Community action programme to combat social exclusion 2002-2006, which has now become part of PROGRESS – the Community Programme for Employment and Social Solidarity 2007-2013 (European Parliament and the Council of the European Union 2006)
- Revised common objectives for the social protection and social inclusion process of the European Council (European Council 2006)
- Creation of an High Level Advisory Group on the social integration of ethnic minorities and their full labour market inclusion (European Commission 2006)

⁸ For a summary of international legal and policy instruments and mechanisms relevant to health and migration see Annex II in (WHO, 2003)

These developments inform EC policy in the area of immigrant health and access to health care. They also represent an increasing supranationalization of migration policy. These have affected the upgrading of many national anti-discrimination policies, but at the same time, there is a concern that the focus of EC policy on the flexibility of the labour market may take precedence over concerns with social citizenship and the protection afforded by the welfare state (Schierup et al., 2006). Health policy represents an opportunity for EU Member States to ensure that the obligations of migrants to their host countries are matched by the provision of rights by those host countries. The International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families of 1990 confers on all migrant workers and members of their families, regular and irregular migrants alike, the right to emergency medical care. The reluctance of most European states to ratify the Convention on the Rights of Migrants suggests that Europe still has a long way to go in ensuring these rights⁹.

Two organisations that work on migrant issues at a European, or international level recently came together to develop their work on migrant health; IMISCOE (International Migration, Integration and Social Cohesion); and IOM, the International organization for Migration. The IMISCOE/IOM European Survey on Migration and Health was established in 2003 as part of a Network of Excellence in the domain of International Migration, Integration and Social Cohesion. Other activities include plans to develop a network on *Health and social care for migrants and ethnic minorities in Europe*¹⁰. Also at Utrecht University, the Health and Social Care for Migrants and Ethnic Minorities in Europe (HOME) project, planned for June 2007 – June 2011, is aimed at increasing the quality and coherence of European research on this topic¹¹.

Another European organisation focusing on migrant health is the International Centre for Migration and Health is a Swiss-based non-profit institution that was established in 1995. Its mandate is to work on research, training and policy advocacy in all areas related to migration and health.

The Platform for International Cooperation on Undocumented Migrants (PICUM)'s project "Access to health care for undocumented migrants", co-funded by the European Commission (DG Employment, Social Affairs and Equal Opportunities), is another organization working in this area.

National level policy

The way migrant health is approached from a policy perspective to some extent depends on the type of immigration affecting the country. In Sweden recent immigrants have been mostly refugees and the concept of 'traumatisation' arguably therefore features prominently in discussions about migrant health; in the UK ex-colonial immigration means the issue of racism has dominated; in the Netherlands, racism is a secondary issue to the idea of 'cultural differences' (Ingleby et al., 2005). A country's approach to migrant health issues will also depend on its overall welfare regime, with different nations responding to similar political challenges in idiosyncratic ways (Schierup et al., 2006).

Across EU countries, attempts to incorporate the needs of migrant workers, in particular from non-EU member states, into the welfare systems have remained scattered and uncoordinated. Among the 2006 National Action Plans for Social Inclusion, the synthesis report indicates that only Spain, France, Malta and Slovenia specifically report actions to improve the health of immigrants (CEC 2007): 49. Annex 2 also suggests that reporting on the subject of migrant health and health care access is limited. Most countries grant full equality of treatment to third country nationals only after awarding them long-term or permanent residence status. The requirements for permanent status vary across Europe. The Scandinavian countries grant migrant workers permanent status after only two years. Other EU countries require longer resident periods (Holzmann et al., 2005). However, the EU Directive 109/2003 calls for member countries to grant permanent status and full "social citizenship" after five years of residence, thereby attempting to coordinate access rights of immigrants from nonmember states across the EU. Service provision for undocumented migrants is a controversial issue and the approaches of different EU countries are highly variable, as illustrated in Box 2. Most countries do provide emergency health services to undocumented migrants, as a bare minimum. Most European countries also provide services related to treatment and control of infectious diseases to all migrants free-of-charge, whether they are documented or not. To the extent that national health systems fail to address the needs of migrants, some of the gaps are covered by the NGO and charitable sector.

⁹ It has been argued that the Convention does not go far enough, since it fails to provide that irregular migrants should benefit from disease prevention measures such as early diagnosis and medical follow-up (WHO, 2003).

¹⁰ See <http://www.imiscoe.org/news/newsletters/documents/GrantsforresearchonMigrantHealth.pdf>

¹¹ See <http://www.uu.nl/uupublish/onderzoek/onderzoekcentra/ercomer/projects/project/45037/main.html>

However, in their review of four national policies pertaining to migrant health, Ingleby et al (2005) argue that in the long run, exclusionary policies prove costly and inefficient, for example due to the effect of overloading emergency services with simple cases, dramatically reducing the cost effectiveness of care.

Due to space constraints, we do not in this report detail EU countries' specific legal frameworks for entitlement to health care by documented and undocumented migrants. Most countries provide this information on national health service or immigration web sites. Rather, in this section, we detail the existing policy frameworks of selected EU countries in relation to migrant health.

Box. 2 Undocumented migrants and access to health care

The experiences of France and England demonstrate different approaches to the question of social rights for irregular migrants, with significant implications for public health and human rights:

Beginning with the passage of the Loi of 1893, France has more than a century-long tradition of guaranteeing free access to health care to underserved communities, regardless of their legal status

or nationality. In 1999, the French legislature passed the *Couverture Maladie Universelle* (CMU) which aimed to provide equal access to health care to all economically deprived people. The CMU conditions access to health care on stable and regular residence, thereby excluding irregular migrants from its benefits coverage. Irregular migrants' access to free consultations, treatments, and prescriptions was nonetheless maintained through the *Aide Médicale de l'Etat* (AME). A change in the law in 2002, however, requires the beneficiaries of the AME to contribute toward the expense of their treatment which some fear will dissuade irregular migrants from seeking medical help exacerbating their vulnerability. Faced with strong criticism, the government has for the time being suspended the implementation of the AME reform. Despite this acknowledgement of the government's responsibility to provide health care to irregular migrants, many obstacles prevent their access in practice: poor publicity and low awareness in the migrant community; fear of deportation; complex procedures; and heavy demand placed on hospital resources.

England has taken a different approach by not explicitly addressing irregular migrants' right to health care in its legislation. Eligibility for England's National Health Service (NHS) is predicated on whether a person is "ordinarily resident" in the United Kingdom. As "overseas visitors", irregular migrants must in principle bear the costs of hospital services and are entitled to limited treatment under the NHS. Moreover, in respect of non-emergency treatment, general practitioners have discretion when deciding whether they will provide treatment through the NHS or on a private payment basis. Most irregular migrants cannot afford to pay as a private client might otherwise be able to do.

The French and English experiences with irregular migration vary widely in their political and legal manifestations. However, irregular migrants' access to health care is inadequate in each system.

While French law stigmatizes irregular migrants by permitting access only through a complex, targeted scheme, English law makes access to health care uncertain by remaining silent on the issue.

Source for box: Sylvie Da Lomba, Fundamental social rights for irregular migrants: a case study of irregular migrants' right to health care in France and England, University of Leicester, U.K., paper delivered to conference titled Irregular Migration And Human Rights Conference, 29 June 2003, adapted from (WHO, 2003).

In **France** health policy specifically targeted at improving the health of migrants is not developed and has primarily focused on the prevention of infectious diseases, particularly HIV/AIDS and TB. For example, there is a national programme for combating HIV/AIDS in the migrant population which focuses on better access to testing and counselling programmes, the development of prevention strategies for reducing the incidence of the disease, improved access to care and better adherence, and combating of stigmatization. More generally it is suggested that access to care should be improved and that specific prevention programmes will be necessary to address migrants' health needs. The HIV national programme outlines the policy framework needed to develop regional PH programme (Ministere de la Sante, 2003). It indicates that indicators and targets are needed at regional level.

The French High Committee for Public Health (Haut Comité de la Santé Publique, 1998) has pointed out that social analyses by ethnic origin are not routinely carried out both for cultural and administrative reasons.

In **Germany**, at the national level, the issue of migrant health and access to health care has not yet been developed as a specific policy issue and has also mainly focused on preventing the spread of

infectious diseases. Politically, migration itself was a widely neglected policy area until very recently, as Germany 'officially' did not perceive itself as a country where people legitimately migrate to ('Deutschland ist kein Einwanderungsland' ('Germany is not an immigration country') was the long-standing *credo* of the Christian-democratic Party, CDU, representing the conservative political mainstream). However, awareness for the neglect of migration issues and the lack of integration of migrant communities has become an increasingly popular topic with recent governments (since 1998) and has continued to be on the agenda since. This, to some extent, also extends to the issues of migrants' health. For example, the Commissioner of Migration, Refugees and Integration published a handbook on best practice models in the field of 'Health and Integration' in November 2006 (see Annex 2 for further government publications on this topic). Also, the Federal Centre for Health Education (BZgA) develops educational material aimed at informing migrants from various backgrounds on topics that are culturally sensitive, such as family planning (access to contraception including the 'morning after pill') and prevention of sexually transmitted diseases). These materials are distributed through local organisations, health care providers, self-help groups, migrant organisations etc involved in migrant health (Berrut S. et al., 2006). However, these policy initiatives are recent and on the national level, the picture is fragmented, partly reflecting the nature of the German health system that tends to delegate responsibilities to the regional and local level. There are some opportunities on the horizon to advance the issue; for the first time, a National Integration Plan is being developed and is expected to be completed by mid 2007¹² but health is not currently specifically listed as an identifiable part of the integration strategy. The plan will cover a number of areas that affect health status and access to health care (e.g. language skills, education and training, employment, integration in the community, sport, media, international dimensions of research, civil society, gender related aspects of migration).

In **Ireland**, there is currently no specific health policy relating to migrant health, though the Health Services Executive (HSE) is currently developing the HSE Intercultural Strategy which may include migrants as a target group. The strategy is currently in the consultation phase and is due to be published in May 2007. It will propose key actions to ensure equal access to health services for ethnic minority groups in Ireland.

Otherwise, the Irish government has several policy initiatives relating to health inequalities in general. For example, the HSE has also established a national equality programme to provide leadership across the HSE in this area¹³. The HSE has also included in its three year Corporate Plan (2005-2008) an explicit commitment to equality, and work has commenced on developing a national equality framework for the health services. The HSE will also work to implement the health related provisions of the National Action Plan Against Racism in response to the health needs of Ireland's increasingly ethnically diverse population.

A specific target to improve the health of asylum seekers/refugees and Travellers (the latter group constituting Ireland's largest ethnic minority) was proposed by the Working Group on the National Anti Poverty Strategy and Health (Institute of Public Health in Ireland, 2001). This target states that the gap in life expectancy between the Travelling community and the whole population should be reduced by at least 10% by 2007 and that the life expectancy and health status of Travellers, asylum seekers and refugees should be monitored so that targets can be set for asylum seekers and refugees and reviewed and revised for Travellers by 2003¹⁴.

In **Italy**, policy regarding the health of migrants is relatively developed, though how successful the government has been with implementation is not clear. At the central level, public health care policy is set by the National Healthcare Plan (PSN)¹⁵. Immigrant related health policy targets have been set since the 1990s. Particularly, PSN 1998-2000 stated in the general objectives regarding immigrants to guarantee uniform access to medical and health assistance in the whole national territory in compliance with the current legislation and to extend the vaccination guaranteed to the Italian population also to immigrants. Moreover, provisions were made to establish a special programme for the health of immigrants, "*Salute degli immigrati*". The 2001-2003 plan sets general aspirational

¹² See <http://www.bundesregierung.de/Webs/Breg/DE/Bundesregierung/BeauftragtefuerIntegration/NationalerIntegrationsplan/nationaler-integrationsplan.html>

¹³ See <http://www.equality.ie/index.asp?locID=109&docID=410>

¹⁴ The target was subsequently recognised within government policy in Quality and Fairness - A Health System for You: Health Strategy (Dept. of Health & Children, 2001): Actions specified under 'Objective 3: Health inequalities are reduced'.

¹⁵ See www.ministerosalute.it/normativa/sezNormativa.jsp?label=psn

targets for different groups of frail people: older people, immigrants, drug addicts, children and adolescents, people suffering from mental disease, prisoners. Main targets were the following:

- to guarantee uniform access to medical and health assistance in the whole national territory in compliance with the current legislation;
- to increase vaccination levels of coverage of immigrant children to as to be equal to the Italian population levels;
- to improve the administrative health information system on immigrants registered with SSN (National Health Service - Servizio Sanitario Nazionale) and registration rates of foreigners with a regular permit of stay;
- at the regional level, regions should indicate and plan how to guarantee essential and continued care to irregular immigrants;
- at the local level ASL (Azienda Sanitaria Locale - Local health offices) should promote information campaign for both immigrants and educational programmes for the health care personnel;
- a target of a 10% reduction in voluntary abortion rates among immigrant women was set for the three years of validity of the plan.

More recently, the PSN 2003-2005 introduced a solidarity pact between citizens, healthcare workers, public institutions, voluntary associations, the European Union and the international community. A fundamental target of this PSN is to introduce more equity in the availability of health care services for the different categories of needy people. The Plan states that it is necessary that groups who have the capability to represent themselves and voice their needs are not favoured over those groups who lack this capacity. Among vulnerable groups particular attention is given immigrants, nomads and homeless, three groups whose memberships often overlap.

The issue of narrowing the structural and quality gap between the healthcare services provided in different Italian regions is still a priority in national health planning for the years 2006 to 2008. In the underlying principles of the 2006-2008 NHP it is reiterated that the task of the plan is to “promote the equity of the system, understood not as the capacity to give everyone everything but to provide what is necessary, overcoming social and regional inequalities.” Guaranteeing uniform “Essential Levels of Care”(LEA – *Livelli Essenziali di Assistenza*) has a central role. Following previous plans, the new PSN reiterates the need to pursue more incisively the objective of equity and of balancing the availability of resources with population health needs. This is to be pursued by defining procedures for detecting the lack of uniformity and inequalities in the demand and supply of services across regions, taking differences in demographic, social and economic structure of the population of each region and the effect of those differences (in terms of demand) into account, guaranteeing access to prevention, diagnostic, care and rehabilitation activities above all for the less wealthy sectors of the population. For immigrants main policy targets are the following:

- to increase prevention programmes among adolescents and young adults;
- to promote incidence and prevalence studies for HIV infections, evaluating barriers in access to prevention and care of HIV and other STIs;
- to reduce the growth rate of voluntary abortion rates and promote responsible parenting activities;
- to promote education programmes in cooperation with volunteer and non-profit organisations active in Italy;
- to activate interventions for banning female genital mutilation practices; promoting educational programmes, educating health care personnel operating within immigrants communities at risk;
- to prevent work injuries which affect predominantly immigrants workers;
- to evacuate illegal drug addiction problems among Roma communities;
- to increase SSN enrollment rates among the Roma population.

Currently, regional plans are not uniform and variable. At the local level, provincial, ASL and municipal administrations have introduced new programmes for immigrant health and social care, although these initiatives are often not integrated or coordinated. Generally targets for policy are not used at the central level. At the regional level progress indicators are often used for targeting (eg in the Umbria Region indicators on vaccine coverage are used to monitor child immunization policies).

In the **Netherlands**, as early as 1997, the Dutch Scientific Foundation (NWO) established a working party on culture and health to stimulate research and care innovations in this area. In 2000, the Council for Public Health and Health Care (RvZ) published two reports highlighting the health and health care accessibility problems of migrants and ethnic minorities (RVZ, 2000a, RVZ, 2000b). In response, the Minister of Health established a Project Group to work out a strategy for 'interculturalising' health care. As part of these plans, a four-year Action Plan for intercultural mental health was approved, to be supervised by the coordinating agency for mental health services (GGZ Nederland). At the same time an 'intercultural mental health centre of expertise' called MIKADO was set up, with financing guaranteed until 2007 (Ingleby et al., 2005). Another important milestone was the publication by the central body for medical research (ZonMw) of a report summarising 163 projects which had been set up under the programme 'Culture and Health' (Van der Veen et al., 2003) in (Ingleby et al., 2005). In 2004 two major conferences took place: one on the Action Plan for Intercultural Mental Health (Nederland, 2004), and another on 'Migrant Health in Europe' (Bruijnzeels, 2004).

While the Netherlands stands out in Europe for its sustained and systematic attention to problems of migrant health, there is currently a danger of these initiatives stagnating. The 'Culture and Health' programme and the Action Plan both ended in 2004, and the present government has distanced itself from the active policy on interculturalisation announced by the previous Minister of Health in 2000, following a new approach in which the onus is placed on migrants to adapt to Dutch society (Ingleby et al., 2005). In 2005 the former Minister of Health, Welfare and Sport concluded that there are several good functioning programs, and no additional government policies would be needed relating to health of and/or access to health care by immigrants. Reasons were that immigrants are able to find their way in the health care system (GPs are visited more often in comparison with the Dutch), and that in some cases their health is better in comparison with the Dutch (e.g. higher life expectation among some immigrant groups). The Minister assumed that differences between immigrants and Dutch will reduce by themselves as time goes by when immigrants get accustomed to live in the Netherlands (Hoogervorst, letter to the Second Chamber, immigrants in health care, 2005¹⁶). Recently, however, it was concluded by the Secretary of the State of Health, that at least with respect to older immigrants, new programmes may be needed to improve care for the immigrant older people, e.g. because it cannot be automatically assumed anymore that the children will take care of their aged parents (speech by the Secretary of the State of Health, Clemence Ross-van Dorp, 9 October, 2006¹⁷).

Specific programmes include: *Immigrant health promoters* (in Dutch called 'health promoters in own language and culture') who give patients information in their own language and they mediate between care provider and immigrant. Health promoters work in different sections, examples in the practice together with GPs or for Local Community Health Services. Their activities are coordinated by the NIGZ (Netherlands Institute for Health Promotion and Disease Prevention), contracted by the Dutch government. A *free interpreter service* (in almost 100 languages) is also available for most health care providers such as GPs and doctors and nurses in hospitals.

More targeted government policies include The *Community Health Service for Asylum seekers* (in Dutch: MOA), an organization of health care services for asylum seekers. The health care services that are available for asylum seekers are very similar to the services available to all other residents of the Netherlands. The Central Agency for the Reception of Asylum Seekers (in Dutch: COA) has contracted health services and a health care insurer to provide these health services. The health care insurer, in turn, has contracted health care providers, including general practitioners, pharmacists, dentists, physiotherapists, obstetricians, hospitals, mental health care providers and home care services. Health services for asylum seekers such as health education, child health care, infectious disease control, and hygiene and safety inspections are provided. The Central Agency for the Reception of Asylum Seekers has the same responsibilities for preventive care and the public health care objectives as the local community health services: to monitor, protect and promote public health¹⁸.

With respect to *illegal immigrants* a special law (in Dutch: Koppelingswet) was made in 1998, which made it impossible for illegal immigrants to apply for a health insurance. The former Minister of Health, Welfare and Sport, explicitly stated that an uninsured patient has a right to medical care even when his/her life is not in danger. Despite this, care providers may opt for health care only for patients

¹⁶ http://www.minvws.nl/images/2424205_tcm19-101892.pdf

¹⁷ <http://www.informelezorg.info/eiz/docs/pdf/toespraakrossinterculturalisatie.pdf>

¹⁸ For more information see: http://www.ggdkenisnet.nl/kennisnet/uploaddb/download_object.asp?atoom=19877&VolgNr=0

whose life is in danger or when public health is endangered. Until now, medical care providers (such as GPs) are entitled to reimbursements from a special fund, but this may change in the future.

In **Spain**, migrant health and health care issues feature in national and regional plans for the integration of immigrants. The government recently approved the Citizenship and Integration Strategic Plan 2007-2010¹⁹. It targets the whole population (autochthonous and immigrant population) and aims at promoting social cohesion through policies based on equality of opportunity and equality of rights and duties. The Plan's budget amounts to 2,005,017,091 euros. The budget for the Health objectives represents only 3.58% of the total budget of the Plan. The Plan defines twelve priority areas (welcome, education, employment, housing, social services, health care, childhood and adolescence, women, equal treatment, participation, public awareness, and co-development), but special focus is put on education, welcome and integration policies, and employment. The Plan is based on three principles: equality, citizenship and interculturality. Among the 10 main objectives the following relate to health:

- Adapt public policies, especially those in education, employment, social services, health and housing, to better meet the needs of the immigrant population.
- The specific goals within the health area are:
 - guarantee the right to health protection of the immigrant population;
 - better identify the socio-sanitary needs of the immigrant population;
 - provide special training of health professionals to better meet the needs of the immigrant population.

Most of the Autonomous Regions (except for Asturias, Valencia, Galicia) have developed regional Immigration Plans. Health and health care of the immigrant population is included among the priority areas of action in all of the plans. Given that the existence of health inequalities and of barriers to access is assumed (in most of the cases without sound scientific evidence), the plans incorporate the goals of reducing health inequalities and ensuring equal access to health care among the immigrant population. These goals are aspirational. For example, in the Immigration Plan of the Basque Country 2003-2005 aims for the provision of health care to the immigrant population to be in conditions similar to those of the rest of the Basque residents. The main objectives of the Plan regarding health and health care are:

- interventions to promote immigrants' knowledge about the access and organization of the Basque Health System;
- provide health professionals with specific knowledge related to the provision of health services to the immigrant population, and especially to immigrant women;
- develop health prevention and promotion programmes targeting immigrant population;
- promote the collaboration among various public and private (non-for-profit) institutions and associations in order to guarantee the comprehensive intercultural communication;
- adapt access to and provision of health care services to the characteristics of the immigrants.

The general **Swedish** national health policy from 2003 aims to create social conditions that will ensure good health, on equal terms, for the entire population with a special emphasis on vulnerable groups such as immigrants. Government agencies involved in the lives of immigrants during their establishment in the country – dealing with health and social support, education, employment, integration, immigration services – have agreed on a common policy document (Integrationsverket, 2004). The document aims at coordinating services in a way that promotes health among the newly arrived individuals (asylum seekers and others) during their first 2-5 years in Sweden.

Sweden is part of the 'Equal' project on recruiting 'health communicators' guiding immigrants in the health care system. The communicators are supposed to bridge the cultural gap that is understood to be between the system and its foreign-born users. They are also a tool for promoting healthy lifestyles among immigrants and in that way reducing the over representation of health problems within the group. The communicators are supposed to increase the capacity of efficiency and reduce the high costs that are associated with immigrants' usage of health and medical care.

¹⁹

See <http://www.mtas.es/migraciones/Integracion/PlanEstrategico/Docs/160207pecitextocompleto.pdf>

There are also special programs for asylum seekers and their access to health care in all county councils (the agency responsible for medical care), but no common information on what they include.

In the **United Kingdom**, policy related explicitly to migrant health focuses either on the control of communicable diseases, as reflected in the recent report by the Health Protection Agency (Health Protection Agency, 2006), or on health and access to health care of refugees and asylum seekers. Efforts have been made by the Department of Health (DH) to improve services for refugees and asylum seekers for example by: establishing an 'Asylum Seeker Co-ordination Team' (ASCT); supporting HARP, the Health for Asylum Seekers and Refugees Portal run by public sector researchers; improving patient-held records; and designing resource packs to help local health authorities meet the needs of this vulnerable group. The National Health Service publishes an introduction to its services in 35 languages and provides an extensive translation service. Generally speaking though, the government's approach to service provision to this group has become more restrictive, for example with legislation introduced in 2004 to limit access to health care of failed asylum seekers.

Health policy relating to migrants is otherwise largely integrated into a policy framework addressing health inequalities in general, and health inequalities of 'black and minority ethnic' (BME) groups specifically²⁰. This policy framework has its origins in the Black Report, published by the Department of Health in 1980. After a period of neglect under the Thatcher government, the issue of health inequalities was again taken up by Sir Donald Acheson's *Independent Inquiry into Inequalities in Health* (1998), a key putting a strong emphasis on the effects of wider inequalities, poverty and social exclusion on health inequalities. The Acheson Inquiry made three recommendations for reducing ethnic health inequalities. These were that:

- policies on reducing socio-economic inequalities should consider the needs of BME groups;
- services should be sensitive to the needs of BME groups and promote awareness of their health risks;
- the needs of BME groups should be specifically considered in planning and providing health care.

Following this, twelve departments signed up to cross-government work on health inequalities in the Treasury's *Tackling Health Inequalities: A Programme for Action* (2003). However, to date, the main policy targets have focused on socio-economic class and area deprivation, rather than ethnic inequalities.

The government's commitments to improving health service use by BME groups are laid out in the DH's *Race Equality Scheme 2005-2008*. The most action on ethnic inequalities is taking place in mental health services. The government has set specific goals under the Delivering Racial Equality (DRE) initiative. This commits PCTs (Primary Care Trusts) to providing race equality training in their mental health services, and appointing race equality leads and community development workers.

The DH has commissioned a number of initiatives to generate or collate good practice in race equality, such as *Pacesetters*, *Race for Health* and the *NHS Specialist Library for Ethnicity and Health*, tackling problems such as barriers to access, language and cultural competence. However, the lack of baseline data on ethnicity makes it difficult to evaluate the impact of such projects, which in turn makes it hard to identify good practice.

In terms of the effect of recent extensive health sector reforms in England, critics have expressed concerns that BME and other deprived groups may not benefit from the 'choice' initiative and have called for the reforms to be examined for their overall impact on equalities.

Regarding, data collection, the DH's Quality of Outcome Framework recently introduced a small financial incentive to GP practices that have complete ethnicity data on their patient profiles (currently the collection of ethnicity data is only mandatory in secondary care). The Commission for Racial Equality (CRE) has recommended that the Department of Health accelerates its implementation of ethnic monitoring. The planned electronic patient record system will be a key tool for implementing this. In addition, the Audit Commission has highlighted the need to understand better how evidence can be used to bring about change in racial equality. The London Health Observatory has produced a tool to guide NHS bodies in using ethnic data for health impact assessment.

²⁰

The following summary of policy initiatives relating to health and BME is based on a recent government 'Postnote', 'Ethnicity and health' (Parliamentary Office of Science and Technology, 2007); see <http://www.parliament.uk/documents/upload/postpn276.pdf>

The broader context of BME initiatives in the DH and NHS is the Race Relations Amendment Act (2000), which states that all public bodies have a legal obligation to outlaw racial discrimination and promote equal opportunities by:

- producing a Racial Equality Scheme;
- carrying out a Race Equality Impact Assessment on all new and proposed policies;
- monitoring outcomes by ethnic group.

However, a King's Fund review of 300 PCTs found that a third did not comply with the Act.

VIII. Conclusion and recommendations

From both the perspectives of European integration (Ingleby et al., 2005) and human rights (WHO, 2003), migrant health and access to health care are vital elements of national health policy. However, the European Commission has found that "While Member States identify immigrants among those particularly at risk of poverty and social exclusion, many countries still fail to provide in-depth analysis of the factors leading to this situation. Little attention is given to promoting access to resources, rights, goods and services, in particular to appropriate healthcare" (CEC, 2004):20.

Relatively little is known about the health of migrants once they settle in host countries. This is particularly true of European countries. Measurement is challenging for a variety of technical and political reasons. The data that *is* available gives rise to a complex picture; it is not useful to try to make generalisations about the health care needs and utilization of migrants, since the health of migrants and access issues vary across space, time, age, gender, across different countries of origin and type of migration. However, despite the fact that most migrants originate from countries with a substantially higher mortality rate than Europe, many studies have found that immigrant groups have similar or more *favourable* total mortality rates than native Europeans. However, the health advantage is confined to specific, mostly chronic, diseases. Disease specific mortality rates for certain conditions, particularly infectious diseases, injuries and violence, are higher for immigrants. Mental illness also disproportionately affects migrants, a topic which is not covered in depth in this report. Furthermore, in many contexts the advantage disappears in the second generation and with increased duration of stay.

The possible reasons for inequalities between first and second generation immigrants and autochthonous populations are complicated, but utilization data in some countries suggests that these inequalities are unfair, since the utilization of health services among (first and second generation) immigrants has been found by studies in various country contexts to be relatively low for preventative, hospital, primary, antenatal and paediatric care care, with a greater reliance on emergency services.

Barriers to access are thought to include education, cultural differences, language difficulties, lack of complimentary voluntary health insurance (eg in France) and legal issues (immigration status). The other major issue is quality of care and whether it is lower for immigrants. Measurement of this is particularly difficult. All of these barriers to care are intensified in the case of undocumented migrants.

Across EU countries, attempts to incorporate the needs of migrant workers, in particular from non-EU member states (so-called third-country nationals), into the welfare systems have remained scattered and uncoordinated. This has led a review of migrant health policy in four European countries to point out that "people in each country struggle to re-invent the wheel, in relative ignorance of what is going on in the rest of Europe" (Ingleby et al 2005):5. In terms of Europe's policy response, it seems there is an increasing effort at supranationalization of migration policy. This has affected the upgrading of many national anti-discrimination policies, but at the same time, there is a concern that the focus of EC policy on the flexibility of the labour market may take precedence over concerns with social citizenship and the protection afforded by the welfare state (Schierup et al., 2006).

To some extent, however, diversity in policy is to be expected, since the way migrant health is approached from a policy perspective to some extent depends on the type of immigration affecting the country (Ingleby et al., 2005). A country's approach to migrant health issues will also depend on its overall welfare regime, with different nations responding to similar political challenges in idiosyncratic ways (Schierup et al., 2006). Furthermore, where migrant health policy is elaborated, implementation may not necessarily reflect this on the ground.

In France, social analyses by ethnic origin are not routinely carried out both for cultural and administrative reasons and migrant health policy has mainly focused on preventing the spread of infectious diseases. In Germany and Ireland, at the national level, the issue of migrant health and access to health care have also not yet been developed as a specific policy issue, though there is an increasing interest in tackling health inequalities. Politically, migration itself was a widely neglected policy area in Germany until very recently. In Italy, on the other hand, policy regarding the health of migrants is relatively developed, though how successful the government has been with implementation is not clear. At the central level, immigrant related health policy targets have been set since the 1990s. In the Netherlands, as early as 1997, the Dutch Scientific Foundation (NWO) set up a working party on culture and health, and a programme to stimulate research and care innovations in this area was launched. Indeed, the Netherlands stands out in Europe for its sustained and systematic attention to problems of migrant health, although a closer look at the current situation suggests there is a danger of these initiatives stagnating. In Spain, migrant health and health care issues have recently started to feature in national and regional plans for the integration of immigrants. The general Swedish national health policy aims to create social conditions that will ensure good health, on equal terms, for the entire population with a special emphasis on vulnerable groups such as immigrants, and the government has developed a multi-sectoral approach to coordinating services in a way that promotes health among newly arrived individuals. In the UK, health policy relating to migrants is largely integrated into a policy framework addressing health inequalities in general (dating from the 1980s) and health inequalities of 'black and minority ethnic' (BME) groups specifically. The Department of Health has commissioned a number of initiatives to generate or collate good practice in "race equality". However, as in most European countries, the lack of baseline data on ethnicity makes it difficult to evaluate the impact of such projects, which in turn makes it hard to identify good practice.

In light of this variability, there appears to be a significant role for the EU to play in facilitating the development and transfer of evidence and information on immigrant health policy. For example, there could be more focus on migrant health in national reports on strategies for social protection and social inclusion or in the peer review activities under the Community Programme for Employment and Social Solidarity (European Parliament and the Council of the European Union 2006). Portugal's presidency in 2007, which is expected to focus on immigration, may be a timely opportunity for further policy development on this issue.

Topics within migrant health that have been identified as theoretically central and/or under-researched in this and one other review (Ingleby et al., 2005) and concurrent possible policy considerations include:

1. The methodological problems associated with migrant health research, indicating the need for: increased funding to develop research techniques; increased collaboration at the European level between national research centres; and increased attention paid to the methodological barriers to including data on migrants in national and European health surveys.
2. Nutritional and psychosocial problems among children and youth signaling the need for greater attention paid to multi-sectoral policies, particularly across health and education.
3. Problems relating to sexuality, reproduction and family life, suggesting the need for improved planning and provision of targeted preventive and curative sexual health services; ante and post natal care; and social services for vulnerable women.
4. The increasing importance of older migrants in the population and the resulting need to develop culturally appropriate long term care.
5. The access of illegal/undocumented migrants to health services is a major problem that is political as it is technical. There needs to be greater transparency in countries' approaches to responding to health and health care utilization inequalities experienced by this population, within the framework of human rights.
6. The need for increased user involvement in the design and provision of services among migrants resonates with many countries' more general attempts to improve patient empowerment by improving patient information, patient rights, choice, complaints procedures and participation, and could be integrated into these efforts.
7. 'Linkages' between sender countries and receiver countries could be explored to provide insights into health norms, culturally relevant methods of research and treatment, and the expectations and health beliefs of migrants.

8. Preserving the health 'advantage' of some newly arrived migrants could potentially be a very important preventative strategy, particularly in terms of chronic diseases; focusing on healthy diets and other lifestyle related factors through targeted programmes is a possible way forward.
9. The relative merits of 'vertical' versus integrated approaches to preventing and controlling TB and HIV/AIDS among migrants need to be explored. It may become apparent that integrated approaches are more effective both clinically and in terms of cost than vertical programmes (run at ports and borders for example).
10. Improving poor working conditions and health in the workplace is also a potentially political issue since poor conditions are often related to the exploitation of undocumented migrants. Nevertheless, multi-sectoral policies need to be developed to address this important area of migrant health.
11. The analysis and development of policies pertaining to the issues described above would be potentially greatly improved by increased EU coordination in: the comparison of policy approaches across Member States; sharing of data; and the improvement of data collection.

References

- Agyemang, C., Ujcic-Voortman, J., Uitenbroek, D., Foets, M. and Droomers, M. (2006) 'Prevalence and management of hypertension among Turkish, Moroccan and native Dutch ethnic groups in Amsterdam, the Netherlands: The Amsterdam Health Monitor Survey', *J Hypertens*, 24, 2169-76.
- Ahonen, E. Q. and Benavides, F. G. (2006) 'Risk of fatal and non-fatal occupational injury in foreign workers in Spain', *J Epidemiol Community Health*, 60, 424-6.
- Aidsmap (2006) <http://www.aidsmap.com/en/docs/C92D5639-E779-44EC-B8F8-0CECCC23275A.asp>.
- Akhavan, S., Bildt, C. O., Franzen, E. C. and Wamala, S. (2004) 'Health in relation to unemployment and sick leave among immigrants in Sweden from a gender perspective', *J Immigr Health*, 6, 103-18.
- Anson, O. (2001) 'Inequality in the access to preventive health care: The case of immigrants in Belgium', *Archives Public Health*, 59, 265-279.
- Antecol, H. and Bedard, K. (2006) 'Unhealthy assimilation: why do immigrants converge to American health status levels?' *Demography*, 43, 337-60.
- Axelsson, A. B., Herlitz, J., Holmberg, S. and Thoren, A. B. (2006) 'A nationwide survey of CPR training in Sweden: foreign born and unemployed are not reached by training programmes', *Resuscitation*, 70, 90-7.
- Baarnhielm, S. and Ekblad, S. (2000) 'Turkish migrant women encountering health care in Stockholm: a qualitative study of somatization and illness meaning', *Cult Med Psychiatry*, 24, 431-52.
- Bacciconi, M., Patussi, V., Barbina, P., Calabresi, C., Gallieri, D., Coppola, N., Sarto, F., Falasca, P., Di Tommaso, F. and Falasca, G. (2006) '[Occupational accidents among immigrant women in the Italian North-Eastern regions (Veneto and Friuli Venezia Giulia)]', *Epidemiol Prev*, 30, 33-9.
- Bader, A., Musshausen, D., Sahin, F., Bezirkan, H. and Hochleitner, M. (2006) 'The Mosque Campaign: a cardiovascular prevention program for female Turkish immigrants', *Wien Klin Wochenschr*, 118, 217-23.
- Balarajan, R. (1995) 'Ethnicity and variations in the nation's health', *Health Trends*, 27, 114-9.
- Balarajan, R. and Raleigh, V. S. (1997) 'Patterns of mortality among Bangladeshis in England and Wales', *Ethn Health*, 2, 5-12.
- Beckman, A., Merlo, J., Lynch, J. W., Gerdtham, U. G., Lindstrom, M. and Lithman, T. (2004) 'Country of birth, socioeconomic position, and healthcare expenditure: a multilevel analysis of Malmö, Sweden', *J Epidemiol Community Health*, 58, 145-9.
- Bell, T. S., Branston, L. K., Newcombe, R. G. and Barton, G. R. (1999) 'Interventions to improve uptake of breast screening in inner city Cardiff general practices with ethnic minority lists', *Ethn Health*, 4, 277-84.
- Berrut S., Bluemel S. and Erath A. (2006) 'Beispiele der Aufklärungsarbeit im Bereich Migration. Ein Erfahrungsbericht aus der Medienentwicklung der Bundeszentrale fuer gesundheitliche Aufklärung. .' *Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz*, 49, 898-902.
- Bertinato, L., Busse, R., Fahy, N., Legido-Quigley, H., McKee, M., Palm, W., Passarani, I. and Ronfini, F. (2005) *Cross-Border Health Care in Europe*.
- Bhopal, R. (1997) 'Is research into ethnicity and health racist, unsound, or important science?' *Bmj*, 314, 1751-6.
- Bhuyan, R. and Senturia, K. (2005) 'Understanding domestic violence resource utilization and survivor solutions among immigrant and refugee women: introduction to the special issue', *J Interpers Violence*, 20, 895-901.
- Boon, M. E., Boon, L. M., de Bosschere, M. J., Verbruggen, B. S. and Kok, L. P. (2005) 'Koilocytosis and squamous (pre)neoplasia as detected in population-based cervical screening: practice and theory', *Eur J Gynaecol Oncol*, 26, 533-6.

- Bos, V., Kunst, A. E., Keij-Deerenberg, I. M., Garssen, J. and Mackenbach, J. P. (2004) 'Ethnic inequalities in age- and cause-specific mortality in The Netherlands', *Int J Epidemiol*, 33, 1112-9.
- Bos, V., Kunst, A. E., Garssen J., Mackenbach, J.P. (2005) 'Socioeconomic inequalities in mortality within ethnic groups in the Netherlands, 1995-2000', *J. Epidemiol. Community Health*, 59, 329-335.
- Bothamley, G. H., Rowan, J. P., Griffiths, C. J., Beeks, M., McDonald, M., Beasley, E., van den Bosch, C. and Feder, G. (2002) 'Screening for tuberculosis: the port of arrival scheme compared with screening in general practice and the homeless', *Thorax*, 57, 45-9.
- Bouchardy, C., Parkin, D. M. and Khlat, M. (1994) 'Cancer mortality among Chinese and South-East Asian migrants in France', *Int J Cancer*, 58, 638-43.
- Bouchardy, C., Parkin, D. M., Wanner, P. and Khlat, M. (1996) 'Cancer mortality among north African migrants in France', *Int J Epidemiol*, 25, 5-13.
- Bouchardy, C., Wanner, P. and Parkin, D. M. (1995) 'Cancer mortality among sub-Saharan African migrants in France', *Cancer Causes Control*, 6, 539-44.
- Braunschweig, S. and Carballo, M. (2001) *Health and Human Rights of Migrants*, ICMH.
- Brown, W. M., Consedine, N. S. and Magai, C. (2006) 'Time spent in the United States and breast cancer screening behaviors among ethnically diverse immigrant women: evidence for acculturation?' *J Immigr Minor Health*, 8, 347-58.
- Bruijnzeels, M. e. (2004) 'Migrant Health in Europe (conference abstracts)', *Ethnicity and Health*, 9.
- Bush H, W. R., Sharma S, Cruickshank K. (1997) *Opportunities for and barriers to good nutritional health in minority ethnic groups*, Health Education Authority, London.
- Carballo, M. and Mboup, M. (2005) *International migration and health: A paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration*.
- Carlsson, F., Merlo, J., Lindstrom, M., Ostergren, P. O. and Lithman, T. (2006) 'Representativity of a postal public health questionnaire survey in Sweden, with special reference to ethnic differences in participation', *Scand J Public Health*, 34, 132-9.
- Carta, M. G., Bernal, M., Hardoy, M. C. and Haro-Abad, J. M. (2005) 'Migration and mental health in Europe (the state of the mental health in Europe working group: appendix 1)', *Clin Pract Epidemiol Ment Health*, 1, 13.
- CEC (2000) *On a community integration policy, 757 final*, Commission of the European Communities, Brussels.
- CEC (2005) *Policy Plan on Legal Migration {SEC(2005)1680} /* COM/2005/0669 final */* Communication from the Commission
- CEC (2004) *Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions - First Annual Report on Migration and Integration COM/2004/0508 final*, Commission of the European Communities, Brussels.
- CEC (2007) *Commission staff working document, Joint Report on Social Protection and Social Inclusion, Supporting document, Brussels, 6.3.2007 SEC(2007) 329*, Commission of the European Communities, Brussels.
- Changrani, J. and Gany, F. (2005) 'Online cancer education and immigrants: effecting culturally appropriate websites', *J Cancer Educ*, 20, 183-6.
- Coker, R., Bell, A., Pitman, R., Zellweger, J. P., Haldal, E., Hayward, A., Skulberg, A., Bothamley, G., Whitfield, R., de Vries, G. and Watson, J. M. (2006) 'Tuberculosis screening in migrants in selected European countries shows wide disparities', *Eur Respir J*, 27, 801-7.
- Coker, R. J., Bell, A., Pitman, R., Hayward, A. and Watson, J. (2004) 'Screening programmes for tuberculosis in new entrants across Europe', *Int J Tuberc Lung Dis*, 8, 1022-6.

- Cooper, H., Smaje, C. and Arber, S. (1998) 'Use of health services by children and young people according to ethnicity and social class: secondary analysis of a national survey', *Bmj*, 317, 1047-51.
- Cots, F., Castells, X., Olle, C., Manzanera, R., Varela, J. and Vall, O. (2002) '[Profile of the hospital case mix of the immigrant population in Barcelona, Spain]', *Gac Sanit*, 16, 376-84.
- Council of the EU (2000). Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin Official Journal L 180 , 19/07/2000 p. 0022 - 0026
- Council of the EU (2007) *The European Council Presidency conclusions from December 2006* 16879/1/06, REV 1, CONCL 3
- Darmon, N. and Khatat, M. (2001) 'An overview of the health status of migrants in France, in relation to their dietary practices', *Public Health Nutr*, 4, 163-72.
- De Alba, I., Hubbell, F. A., McMullin, J. M., Sweningson, J. M. and Saitz, R. (2005) 'Impact of U.S. citizenship status on cancer screening among immigrant women', *J Gen Intern Med*, 20, 290-6.
- del Amo, J., Gonzalez, C., Losana, J., Clavo, P., Munoz, L., Ballesteros, J., Garcia-Saiz, A., Belza, M. J., Ortiz, M., Menendez, B., del Romero, J. and Bolmar, F. (2005) 'Influence of age and geographical origin in the prevalence of high risk human papillomavirus in migrant female sex workers in Spain', *Sex Transm Infect*, 81, 79-84.
- Dietzel-Papakyriakou, M. (2005) '[Potentials of elderly migrants]', *Z Gerontol Geriatr*, 38, 396-406.
- Dotevall, A., Rosengren, A., Lappas, G. and Wilhelmsen, L. (2000) 'Does immigration contribute to decreasing CHD incidence? Coronary risk factors among immigrants in Goteborg, Sweden', *J Intern Med*, 247, 331-9.
- Elders, L. A., Burdorf, A. and Ory, F. G. (2004) 'Ethnic differences in disability risk between Dutch and Turkish scaffolders', *J Occup Health*, 46, 391-7.
- Eshiett, M. U. and Parry, E. H. (2003) 'Migrants and health: a cultural dilemma', *Clin Med*, 3, 229-31.
- Essen, B., Hanson, B. S., Ostergren, P. O., Lindquist, P. G. and Gudmundsson, S. (2000) 'Increased perinatal mortality among sub-Saharan immigrants in a city-population in Sweden', *Acta Obstet Gynecol Scand*, 79, 737-43.
- EuroHIV (2005) <http://www.eurohiv.org/>.
- European Commission (2006) Rapid Press Release: Expert group to promote inclusion of ethnic minorities in the EU, IP/06/149 Brussels, 13 February
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/149&format=HTML&aged=0&language=EN&guiLanguage=en>
- European Council (2006). Revised common objectives of the European Council
http://ec.europa.eu/employment_social/social_inclusion/objectives_en.htm
- European Parliament and the Council of the European Union (2006) *Decision No 1672/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Community Programme for Employment and Social Solidarity — Progress* Official Journal L 315, 13/11/2006
- EuroTB (2006) <http://www.eurotb.org/>.
- Farchi, S., Giorgi Rossi, P., Chini, F., Baglio, G., Cacciani, L., Lori, G., Borgia, P. and Guasticchi, G. (2005) '[Injuries in immigrants from non-industrialized countries: analysis of emergency admissions in Lazio, Italy, in the year 2000]', *Ann Ig*, 17, 335-42.
- Feil F., Dreesman J. and Steffens I. (2004) 'Tuberculosis screening of Aussiedler at the Friedland border immigration centre, Germany.' *Eurosurveillance Weekly*, 8.
- Foubister, T. and Worz, M. (2006) 'Access to health care: Illegal immigrants and asylum seekers', *Euro Observer*, 8.
- Free, C., White, P., Shipman, C. and Dale, J. (1999) 'Access to and use of out-of-hours services by members of Vietnamese community groups in South London: a focus group study', *Fam Pract*, 16, 369-74.

- Gadd, M., Johansson, S. E., Sundquist, J. and Wandell, P. (2006) 'Are there differences in all-cause and coronary heart disease mortality between immigrants in Sweden and in their country of birth? A follow-up study of total populations', *BMC Public Health*, 6, 102.
- General Comment 14 (2000) *On the right to the highest attainable standard of health adopted by the Committee on Economic, Social and Cultural Rights in May 2000, E/C.12/2000/4, CESCR, 4 July*.
- Goel, M. S., McCarthy, E. P., Phillips, R. S. and Wee, C. C. (2004) 'Obesity among US immigrant subgroups by duration of residence', *Jama*, 292, 2860-7.
- Groupe de travail "tuberculose et migrants". (Direction Generale de la Sante , Recommandations relatives a la lutte antituberculeuse chez les migrants en France) 2005.
- Harding, S. (2004) 'Mortality of migrants from the Caribbean to England and Wales: effect of duration of residence', *Int J Epidemiol*, 33, 382-6.
- Harding, S. and Rosato, M. (1999) 'Cancer incidence among first generation Scottish, Irish, West Indian and South Asian migrants living in England and Wales', *Ethn Health*, 4, 83-92.
- Harding, S., Santana, P., Cruickshank, J. K. and Boroujerdi, M. (2006) 'Birth weights of black African babies of migrant and nonmigrant mothers compared with those of babies of European mothers in Portugal', *Ann Epidemiol*, 16, 572-9.
- Haut Comité de la Santé Publique (1998) *Etrangers et Français d'origine étrangère: La progression de la précarité en France et ses effets sur la Santé*, Rennes.
- Hayward, A. C., Darton, T., Van-Tam, J. N., Watson, J. M., Coker, R. and Schwoebel, V. (2003) 'Epidemiology and control of tuberculosis in Western European cities', *Int J Tuberc Lung Dis*, 7, 751-7.
- Health Protection Agency (2006) *Migrant Health. Infectious diseases in non-UK born populations in England, Wales and Northern Ireland. A baseline report*.
- Healy, J. and McKee, M. (2004) *Accessing health care : responding to diversity*, Oxford University Press, Oxford.
- Hjern, A. (2004) 'Illicit drug abuse in second-generation immigrants: a register study in a national cohort of Swedish residents', *Scand J Public Health*, 32, 40-6.
- Hjern, A. and Grindefjord, M. (2000) 'Dental health and access to dental care for ethnic minorities in Sweden', *Ethn Health*, 5, 23-32.
- Holland, W. W., Stewart, S. and Masseria, C. (2006) 'Policy Brief: Screening in Europe. European Observatory on Health Systems and Policies, Brussels'.
- Holzmann, R., Koettl, J. and Chernetsky, T. (2005) *Portability Regimes of Pension and Health Care. Benefits for International Migrants: An Analysis of Issues and Good Practices*.
- Huang, Z. J., Yu, S. M. and Ledsky, R. (2006) 'Health status and health service access and use among children in U.S. immigrant families', *Am J Public Health*, 96, 634-40.
- Ingleby, D., Chimienti, M., Hatziprokopiou, P., Ormond, M. and De Freitas, C. (2005) In *Social integration and mobility: education, housing and health. IMISCOE Cluster B5 State of the art report, Estudos para o Planeamento Regional e Urbano nº 67, Centro de Estudos Geográficos*(Eds, Fonseca L. and Malheiros J.) Lisbon, pp. 89-119.
- Ingleby, D. e. (2004) *Forced Migration and Mental Health: Rethinking the Care of Refugees and Displaced Persons*, Springer, New York.
- Integrationsverket (2004) 'Nationell samsyn kring hälsa och första tiden i Sverige. Norrköping: Integrationsverket. (Swedish Integration Board. National agreement on health and the first years in Sweden. Norrköping: Swedish Integration Board)'
- Kirchengast, S. and Schober, E. (2006) 'To be an immigrant: a risk factor for developing overweight and obesity during childhood and adolescence?' *J Biosoc Sci*, 38, 695-705.
- Krasnik, A., Norredam, M., Sorensen, T. M., Michaelsen, J. J., Nielsen, A. S. and Keiding, N. (2002) 'Effect of ethnic background on Danish hospital utilisation patterns', *Soc Sci Med*, 55, 1207-11.

- Landman, J. and Cruickshank, J. K. (2001) 'A review of ethnicity, health and nutrition-related diseases in relation to migration in the United Kingdom', *Public Health Nutr*, 4, 647-57.
- Levecque, K., Lodewyckx, I. and van den Eeden, S. (2006) 'Gezondheid en gezondheidszorg bij allochtonen in Vlaanderen.' *Brussels: the Support Point Policy relevant Research of Flanders*. Available at: http://statbel.fgov.be/studies/thesis_nl.asp?q=29.
- Lillebaek, T., Andersen, A. B., Bauer, J., Dirksen, A., Glismann, S., de Haas, P. and Kok-Jensen, A. (2001) 'Risk of Mycobacterium tuberculosis transmission in a low-incidence country due to immigration from high-incidence areas', *J Clin Microbiol*, 39, 855-61.
- Lin, S. S., Clarke, C. A., O'Malley, C. D. and Le, G. M. (2002) 'Studying cancer incidence and outcomes in immigrants: methodological concerns', *Am J Public Health*, 92, 1757-9.
- Lindesay, J., Jagger, C., Hibbett, M. J., Peet, S. M. and Moledina, F. (1997) 'Knowledge, uptake and availability of health and social services among Asian Gujarati and white elderly persons', *Ethn Health*, 2, 59-69.
- Loue, S. and Bunce, A. (1999) 'The assessment of immigration status in health research', *Vital Health Stat* 2, 1-115.
- Mackay, L., McIntyre, S., Ellaway, A. (2003) 'Migration and health: A review of the international literature', *MRC Social & Public Health Sciences Unit, Glasgow, Occasional Paper No 12*.
- Mackenbach, J. P., Bos, V., Garssen, M. J. and Kunst, A. E. (2005) '[Mortality among non-western migrants in The Netherlands]', *Ned Tijdschr Geneesk*, 149, 917-23.
- Maskarinec, G. (2000) 'Breast cancer--interaction between ethnicity and environment', *In Vivo*, 14, 115-23.
- Matteelli, A., Beltrame, A., Carvalho, A. C., Casalini, C., Forleo, M. A., Gulletta, M., El-Hamad, I., Pollara, C., Tedoldi, S., Carasi, S. and Carosi, G. (2003) 'Chlamydia trachomatis genital infection in migrant female sex workers in Italy', *Int J STD AIDS*, 14, 591-5.
- McKay L, Macintyre S. and Ellaway A. (2003) In *MRC Social & Public Health Sciences Unit. Occasional Paper No 12*.
- Medda, E., Baglio, G., Guasticchi, G. and Spinelli, A. (2002) '[Reproductive health of immigrant women in the Lazio region of Italy]', *Ann Ist Super Sanita*, 38, 357-65.
- Mennen, L. I., Jackson, M., Sharma, S., Mbanya, J. C., Cade, J., Walker, S., Riste, L., Wilks, R., Forrester, T., Balkau, B. and Cruickshank, K. (2001) 'Habitual diet in four populations of African origin: a descriptive paper on nutrient intakes in rural and urban Cameroon, Jamaica and Caribbean migrants in Britain', *Public Health Nutr*, 4, 765-72.
- Ministere de la Sante (2003) *Programme national de lutte contre le VIH/SIDA en direction des etrangers/migrants vivant en France 2004-2006*.
- Mohammadzadeh, Z. and Tempel, G. (2005) '[Senior migrants in Bremen: demographic structure, social condition and health status]', *Gesundheitswesen*, 67, 832-9.
- Muennig, P., Jia, H. and Khan, K. (2004) 'Hospitalization for heart disease, stroke, and diabetes mellitus among Indian-born persons: a small area analysis', *BMC Cardiovasc Disord*, 4, 19.
- Nederland, G. (2004) '1000 bloemen bloeien... tijd voor de oogst. Een overzicht van het Actieplan interculturalisatie 2001-2004. Utrecht: GGZ Nederland.'
- Newell, A., Sullivan, A., Halai, R. and Boag, F. (1998) 'Sexually transmitted diseases, cervical cytology and contraception in immigrants and refugees from the former Yugoslavia', *Venereology*, 11, 25-7.
- Norredam, M., Krasnik, A., Moller Sorensen, T., Keiding, N., Joost Michaelsen, J. and Sonne Nielsen, A. (2004) 'Emergency room utilization in Copenhagen: a comparison of immigrant groups and Danish-born residents', *Scand J Public Health*, 32, 53-9.
- Norredam, M., Krasnik, A. and Petersen, J. H. (1999) '[Access to Danish health care by immigrant women. Access to hospital care among immigrant women with breast cancer compared with Danish women]', *Ugeskr Laeger*, 161, 4385-8.

- Norredam, M., Mygind, A. and Krasnik, A. (2006) 'Access to health care for asylum seekers in the European Union--a comparative study of country policies', *Eur J Public Health*, 16, 286-90.
- Osterberg, T. and Gustafsson, B. (2006) 'Disability pension among immigrants in Sweden', *Soc Sci Med*, 63, 805-16.
- Papademetriou, D. G. (2006) *Europe and its Immigrants in the 21st Century: A New Deal or a Continuing Dialogue of the Deaf?*, Migration Policy Institute.
- Parliamentary Office of Science and Technology, U. (2007) *Postnote: Ethnicity and health*.
- Penka, S., Krieg, S., Hunner, C. and Heinz, A. (2003) '[Different explanatory models for addictive behavior in Turkish and German youths in Germany: significance for prevention and treatment]', *Nervenarzt*, 74, 581-6.
- Perez Cuadrado, S., Munoz Avalos, N., Robledo Sanchez, A., Sanchez Fernandez, Y., Pallas Alonso, C. R. and de la Cruz Bertolo, J. (2004) '[Characteristics of immigrant women and their neonates]', *An Pediatr (Barc)*, 60, 3-8.
- Pudaric, S., Sundquist, J. and Johansson, S. E. (2003) 'Country of birth, instrumental activities of daily living, self-rated health and mortality: a Swedish population-based survey of people aged 55-74', *Soc Sci Med*, 56, 2493-503.
- Raven, U. and Huismann, A. (2000) '[The situation of foreign-born dementia patients and their families in the Federal Republic of Germany]', *Pflege*, 13, 187-96.
- Razum, O., Jahn, A., Blettner, M. and Reitmaier, P. (1999) 'Trends in maternal mortality ratio among women of German and non-German nationality in West Germany, 1980-1996', *Int J Epidemiol*, 28, 919-24.
- Razum, O. and Rohrmann, S. (2002) '[The healthy migrant effect: role of selection and late entry bias]', *Gesundheitswesen*, 64, 82-8.
- Razum, O., Zeeb, H. and Akgun, S. (2001) 'How useful is a name-based algorithm in health research among Turkish migrants in Germany?' *Trop Med Int Health*, 6, 654-61.
- Read, J. G., Emerson, M. O. and Tarlov, A. (2005) 'Implications of black immigrant health for U.S. racial disparities in health', *J Immigr Health*, 7, 205-12.
- Reed, M. M., Westfall, J. M., Bublitz, C., Battaglia, C. and Fickenscher, A. (2005) 'Birth outcomes in Colorado's undocumented immigrant population', *BMC Public Health*, 5, 100.
- Rendall, M. S. and Ball, D. J. (2004) 'Immigration, emigration and the ageing of the overseas-born population in the United Kingdom', *Popul Trends*, 18-27.
- Rhodes, P., Nocon, A. and Wright, J. (2003) 'Access to diabetes services: the experiences of Bangladeshi people in Bradford, UK', *Ethn Health*, 8, 171-88.
- RIVM (2006a) 'Dutch Health Care Performance Report'.
- RIVM (2006b) 'Future Exploration Public Health'.
- Robertson, E., Iglesias, E., Johansson, S. E. and Sundquist, J. (2003) 'Migration status and limiting long-standing illness: a longitudinal study of women of childbearing age in Sweden', *Eur J Public Health*, 13, 99-104.
- Romero-Ortuno, R. (2004) 'Access to health care for illegal immigrants in the EU: should we be concerned?' *European Journal of Health Law*, 11, 245-72.
- Rosenberg, T. J., Raggio, T. P. and Chiasson, M. A. (2005) 'A further examination of the "epidemiologic paradox": birth outcomes among Latinas', *J Natl Med Assoc*, 97, 550-6.
- Rutstein, D. D., Berenberg, W., Chalmers, T. C., Child, C. G., 3rd, Fishman, A. P. and Perrin, E. B. (1976) 'Measuring the quality of medical care. A clinical method', *N Engl J Med*, 294, 582-8.
- RVZ (2000a) 'Allochtone cliënten en geestelijke gezondheidszorg. Zoetermeer: Raad voor de Volksgezondheid en Zorg.'
- RVZ (2000b) 'Interculturalisatie van de gezondheidszorg. Zoetermeer: Raad voor de Volksgezondheid en Zorg.'

- Sanz, B., Torres, A. M. and Schumacher, R. (2000) '[Sociodemographic characteristics and use of health services by the immigrant population residing in a district of the Community of Madrid]', *Aten Primaria*, 26, 314-8.
- Schenk L et al. (2006) 'Mindestindikatorenatz zur Erfassung des Migrationsstatus. Empfehlungen fuer die epidemiologische Praxis.' *Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz*, 49, 853-860.
- Schenk, L. and Neuhauser, H. (2005) '[Methodological standards for migrant-sensitive epidemiological research]', *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 48, 279-86.
- Schierup, C.-U., Hansen, P. and Castles, S. (2006) *Migration, citizenship, and the European welfare state : a European dilemma*, Oxford University Press, Oxford.
- Schopf, C. and Naegle, G. (2005) '[Age and migration--an overview]', *Z Gerontol Geriatr*, 38, 384-95.
- Schuster, S. and Schwendke, A. (2005) '[Violence against women in the context of migration]', *Ther Umsch*, 62, 239-43.
- Sen, A. (1999) *Development as Freedom*, Oxford University Press.
- Sharma, S., Cade, J., Riste, L. and Cruickshank, K. (1999) 'Nutrient intake trends among African-Caribbeans in Britain: a migrant population and its second generation', *Public Health Nutr*, 2, 469-76.
- Sheridan, I. (2006) 'Treating the world without leaving your ED: opportunities to deliver culturally competent care', *Acad Emerg Med*, 13, 896-903.
- Singh, G. K. and Miller, B. A. (2004) 'Health, life expectancy, and mortality patterns among immigrant populations in the United States', *Can J Public Health*, 95, 114-21.
- Spallek, J., Kaatsch, P., Spix, C., Ulusoy, N., Zeeb, H. and Razum, O. (2006) '[Name-based identification of cases of Turkish origin in the childhood cancer registry in Mainz]', *Gesundheitswesen*, 68, 643-9.
- Spiegel P. B. and Nankoe, A. (2004) 'UNHCR, HIV/AIDS and refugees: lessons learned.' *Forced migration review* 19 February, 21-23.
- Stirbu, I., Kunst, A. E., Bos, V. and Mackenbach, J. P. (2006a) 'Differences in avoidable mortality between migrants and the native Dutch in The Netherlands', *BMC Public Health*, 6, 78.
- Stirbu, I., Kunst, A. E., Vlems, F. A., Visser, O., Bos, V., Deville, W., Nijhuis, H. G. and Coebergh, J. W. (2006b) 'Cancer mortality rates among first and second generation migrants in the Netherlands: Convergence toward the rates of the native Dutch population', *Int J Cancer*, 119, 2665-72.
- Stronks, K., Ravelli, A. C. and Reijneveld, S. A. (2001) 'Immigrants in the Netherlands: equal access for equal needs?' *J Epidemiol Community Health*, 55, 701-7.
- Stronks, K., Uniken Venema, P., Dahhan N. and Gunning-Schepers, L. (1999) 'Allochtoon, dus ongezond? Mogelijke verklaringen voor de samenhang tussen etniciteit en gezondheid geïntegreerd in een conceptueel model', *TSG*, 77, 33-40.
- Sullivan, M., Senturia, K., Negash, T., Shiu-Thornton, S. and Giday, B. (2005) '"For us it is like living in the dark": Ethiopian women's experiences with domestic violence', *J Interpers Violence*, 20, 922-40.
- Sundquist, J. (1993) 'Ethnicity as a risk factor for consultations in primary health care and out-patient care', *Scand J Prim Health Care*, 11, 169-73.
- Taylor, L. E., Taylor-Henley, S. and Doan, L. (2005) 'Older immigrants: language competencies and mental health', *Can J Commun Ment Health*, 24, 23-34.
- Tobias, M. and Jackson, G. (2001) 'Avoidable mortality in New Zealand, 1981-97', *Aust N Z J Public Health*, 25, 12-20.
- Torres, S. (2003) 'A preliminary empirical test of a culturally-relevant theoretical framework for the study of successful aging', *J Cross Cult Gerontol*, 18, 79-100.
- Uitenbroek, D. G. and Verhoeff, A. P. (2002) 'Life expectancy and mortality differences between migrant groups living in Amsterdam, The Netherlands', *Soc Sci Med*, 54, 1379-88.

- UNHCHR/UNAIDS (1998) *International Guidelines on HIV/AIDS and Human Rights*.
- Vahratian, A., Buekens, P., Delvaux, T., Boutsen, M., Wang, Y. and Kupper, L. L. (2004) 'Birthweight differences among infants of North African immigrants and Belgians in Belgium', *Eur J Public Health*, 14, 381-3.
- van Burg, J. L., Verver, S. and Borgdorff, M. W. (2003) 'The epidemiology of tuberculosis among asylum seekers in The Netherlands: implications for screening', *Int J Tuberc Lung Dis*, 7, 139-44.
- Van der Veen, E., C., , Schrijvers, E. and Redout, E. (2003) 'Bewijs voor verschil. Den Haag: ZonMw.'
- von Ferber, L., Koster, I. and Celayir-Erdogan, N. (2003) '[Turkish and German patients of general practitioners--diseases, drug expectations and drug prescriptions]', *Gesundheitswesen*, 65, 304-11.
- Wandell, P. E., Ponzer, S., Johansson, S. E., Sundquist, K. and Sundquist, J. (2004) 'Country of birth and body mass index: a national study of 2,000 immigrants in Sweden', *Eur J Epidemiol*, 19, 1005-10.
- Watters, C. (2001) 'Migration and mental health care in Europe: report of a preliminary mapping exercise', *Journal of Ethnic and Migration Studies*, 28, 153-172.
- Watters, C. and Ingleby, D. (2004) 'Locations of care: meeting the mental health and social care needs of refugees in Europe.' *International Journal of Law and Psychiatry*, 27, 549-570.
- Watters, C., Ingleby, D., Bernal, M., de Freitas, C., de Ruuk, N., van Leeuwen M. and Venkatesan S. (2003) *Good practices in mental health and social care for asylum seekers and refugees. Final Report for the European Commission (European Refugee Fund)*. Canterbury: University of Kent.
- Webb, R., Richardson, J., Esmail, A. and Pickles, A. (2004) 'Uptake for cervical screening by ethnicity and place-of-birth: a population-based cross-sectional study', *J Public Health (Oxf)*, 26, 293-6.
- Webster, R. (1997) 'The experiences and health care needs of Asian coronary patients and their partners. Methodological issues and preliminary findings', *Nurs Crit Care*, 2, 215-23.
- Weitoft, G. R., Gullberg, A., Hjern, A. and Rosen, M. (1999) 'Mortality statistics in immigrant research: method for adjusting underestimation of mortality', *Int J Epidemiol*, 28, 756-63.
- Westberg, S. M. and Sorensen, T. D. (2005) 'Pharmacy-related health disparities experienced by non-english-speaking patients: impact of pharmaceutical care', *J Am Pharm Assoc (Wash DC)*, 45, 48-54.
- Westerling, R. and Rosen, M. (2002) 'Avoidable' mortality among immigrants in Sweden', *Eur J Public Health*, 12, 279-86.
- WHO (2003) *International Migration, Health & Human Rights*, Health & Human Rights Publication Series Issue No.4, Geneva.
- WHO (2006) *The world health report 2006 - working together for health*, Geneva.
- Will, B., Zeeb, H. and Baune, B. T. (2005) 'Overweight and obesity at school entry among migrant and German children: a cross-sectional study', *BMC Public Health*, 5, 45.
- Wilson, E., Chen, A. H., Grumbach, K., Wang, F. and Fernandez, A. (2005) 'Effects of limited English proficiency and physician language on health care comprehension', *J Gen Intern Med*, 20, 800-6.
- Wolff, H., Stalder, H., Epiney, M., Walder, A., Irion, O. and Morabia, A. (2005) 'Health care and illegality: a survey of undocumented pregnant immigrants in Geneva', *Soc Sci Med*, 60, 2149-54.
- Yavari, P., Hislop, T. G. and Abanto, Z. (2005) 'Methodology to identify Iranian immigrants for epidemiological studies', *Asian Pac J Cancer Prev*, 6, 455-7.
- Zanchetta, M. S. and Poureslami, I. M. (2006) 'Health literacy within the reality of immigrants' culture and language', *Can J Public Health*, 97 Suppl 2, S26-30.

- Zeeb, H., Baune, B. T., Vollmer, W., Cremer, D. and Kramer, A. (2004) '[Health situation of and health service provided for adult migrants--a survey conducted during school admittance examinations]', *Gesundheitswesen*, 66, 76-84.
- Zeeb, H. and Razum, O. (2006) '[Epidemiological research on migrant health in Germany. An overview]', *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 49, 845-52.
- Zeeb, H., Razum, O., Blettner, M. and Stegmaier, C. (2002) 'Transition in cancer patterns among Turks residing in Germany', *Eur J Cancer*, 38, 705-11.

Annex 1: Official micro-level health and migration indicators collected in selected European countries

Country	Measurement tools	Health status indicators	Migration indicators	Technical issues relating to migration indicators
BE	1. National Health Survey, organized by the Scientific Institute of Public Health. National Health Surveys were organized in 1997.	Expenditure for health care Illness and chronic conditions Acute illness Accidents Physical activities Short-term functional disorders Long-term physical disorders Waiting list Medical consumption: Contacts with GP Contacts with a specialist Contacts with primary health care Contacts with a dentist Contacts with other health services Admission to hospital Drug use Vaccination Nutrition Maternal and infantile health Health perception Morbidity Health complaints (list of symptoms) Knowledge of/and behavior towards HIV/AIDS Social health Consumption of tobacco Consumption of others products Consumption of alcohol Physical activities Traumatism, accidents, violence and bites of dog Mental health: Satisfaction of the patients Prevention: Blood pressure Cholesterol Diabetes Health and sexuality Cancer screening: Breast cancer Cervical cancer	Place of birth Present nationality	Not known
	2. National Mortality Database		Place of birth Present nationality	
DE	1. Children and adolescent health survey (Kinder- und Jugendgesundheits survey), Robert-Koch-Institute (RKI), conducted between 2003-2006	Physical wellbeing and problems; acute and chronic illness; disability; health risks and accidents; mental health and behavioural issues; subjective health (quality of life); social networks and support networks; personal resources; nutrition, eating disorders, obesity; thyroid health and iodine supply; health behaviour and leisure activities; pharmaceuticals and vaccination; utilisation of medical services	Citizenship of respondent and of his/her parents; country of birth (respondent/parents); duration of residency; migrant status.	The survey was preceded by a one-year pre-test. This test analysed migrant-specific reasons for non-responding and field observations aimed at determining whether the sample of migrants represents the proportion and composition of migrants in the general population. There are multiple reasons for non-responding, some of which are specific to migrants, including language barriers, problems of accessing and identifying migrants (partly because migrants tend to be over-proportionately represented in urban populations and tend to be younger, both population groups are generally more difficult to reach), lack of interest in studies, which could be related to other

				reasons for not responding, such as uncertain resident status, related to this fear of health examination and its potentially negative consequences, fear of having to pay for the physical examination, as well as different concepts of health and illness.
	2. Telephonic Federal Health Survey (Telefonischer Bundes-Gesundheitssurvey) (RKI), 2002 onwards in several consecutive waves. The surveys have different foci each year.	4 th wave interviews included indicators such as: chronic illness (cardiovascular disease, hypertension, osteoporosis, arthritis, psoriasis, hepatitis, chronic back problems, diabetes); risk factors and behaviour; disease consequences; utilisation of health services; state of subjective health; physical impairment; knowledge of health and patient rights; information behaviour related to health topics; prevention; living, working and housing situation; socio-demographic data (incl. migrant background).	Country of birth of respondent (not parents), citizenship (not parents), year of naturalisation, age at migration, duration of stay/residency.	Migrants are systematically underrepresented as the survey only includes persons who sufficiently speak German and who were in possession of a landline phone (the proportion of people who only own a mobile phone is higher among migrants).
	3. Sexually Transmitted Diseases -Sentinel (RKI) 2003-2005	Collected information through regional health offices, specialist outpatient departments in hospitals and practices (gynaecology, dermatology, urology, facilities with an HIV focus) on sexually transmitted diseases, infection routes, sexual behaviour and drug consumption.	Country of origin, citizenship, migrant group, age of migration, duration of stay/residency and self-estimated level of command of German.	Not known.
	4. Microcensus (Federal Office of Statistics)	Questions on health are only included in the census every four years. Height and weight (body-mass index); smoking behaviour; morbidity, disability and accidents; and influenza vaccination.	New legislation was introduced in Jan 2005 allowing more precise sampling of data related to migration. Before 2005, only nationality (German vs non-German) was included. Current variables include nationality of the respondent, previous nationality (if applicable), nationality of parents, year of entry.	As above.
	5. Socio-economic panel	Satisfaction with health Childhood chronic and infectious illnesses Need and costs of social care Health insurance	Citizenship Country of birth Nationality Residence status Reason for migration Relatives living abroad	Not known
DK	General national "Survey on Health and Morbidity" published by The National Institute of Public Health (NIPH) o 1987 o 1994 o 2000 o 2005	<ul style="list-style-type: none"> Self-assessed health, Quality of life, functional capacity, DALY Reporting a chronic illness Limitations in daily activities, functional limitations Health related lifestyles: <ul style="list-style-type: none"> physical activity tobacco consumption alcohol consumption attitude towards health promotion medical check-ups nutrition Prevalence of eating disorders, allergies, suicide attempts, violence, and chronic pain House hygiene and health Child health Dental health 	Country of birth and parents country of birth included in 2005 and henceforth	<p>Response rates are lower for migrants. There are issues of validity.</p> <p>The number of respondents is often too low for analysis on individual countries of birth.</p>

EE	There are no surveys measuring both health and immigration.			
ES	1. National Health Survey 2003	<p>Health status:</p> <ul style="list-style-type: none"> • self-assessed health status • limitations in daily activities • chronic conditions and limitations in daily activities • risky life-styles <ul style="list-style-type: none"> - smoking habits - drinking habits • healthy behaviours <ul style="list-style-type: none"> - sleep - physical activity - eating habits • dental health status <p>Utilization:</p> <ul style="list-style-type: none"> • doctor visits, frequency, place, type of the visit, type of the doctor, travel and waiting time • dental visit, • days in hospital, type of hospitalisation; waiting lists, payment method • emergency services utilisation • medicine use over the • Inability to access health care 	<p>Citizenship (from 2003)</p> <p>Spanish citizens and foreign citizens coming from: the EU, other European country, Canada or the USA, other American country, an African country, an Asian country, or a country in Oceania.</p>	<p>In Spain, the nationals of most of the South- and Central-American countries can adopt the Spanish citizenship after two years of legal residence (the period is reduced to one year for <u>any</u> immigrant married to a Spanish citizen). In those cases, and given that no question about second citizenship is asked, it is possible that some "ex- (and relatively recent) immigrants" are also interviewed as Spanish citizens.</p>
	<p>2. Regional/municipal health surveys</p> <p>Eg. a) Catalan Health Survey 2006 (ESCA 2006)</p>	<p>As above.</p> <p>In the case of Catalan Health Survey (ESCA 2006) with the addition of: a question about if the interviewed felt he/she had been discriminated against by the health care system (similar questions are asked about labour discrimination, discrimination at home, or at a public place).</p>	<p>Some of the latest waves of the regional health surveys include a question on the citizenship of the interviewed.</p> <p>Catalan Health Survey 2006 (ESCA 2006) contains more detailed information:</p> <ul style="list-style-type: none"> ▪ Place of birth with 4 options: 1. municipality of residence; 2.Catalonia; 3. Spain; 4. Foreign-born ▪ Citizenship: Spanish; North Africa; Sub-Saharan Africa; South America and Caribbean Islands; East Asia and the Pacific; South Asia; Middle East; Central and Eastern Europe; EU; Other developed countries ▪ Year of arrival in Spain 	<p>As above.</p>

FI	There are no national or regional surveys measuring both health and immigration variables, though occasional health surveys focusing on immigrants only have been commissioned by the government.			
FR	1. INSEE (the National Institute of Statistics) population census surveys	Self assessed health Morbidity Access to health services Social insurance coverage	Country of origin Nationality Parental place of birth (only in 1999)	Not known.
	2. Survey on Health and Social Protection (<i>Enquête Santé Protection Sociale</i>) conducted by the National Research Institute, the National Statistics Office and the Institut de Recherche et de Documentation en Economie de la Santé: conducted biennially since 1988.	Various indicators related to health status, access to health	2002/03: Country of origin Nationality	As above.
IE	1. Census 2006 Administered every 5 years	Long-lasting conditions Limitations in daily activities, functional limitations	Since 2006: Place of birth Nationality Usual place of residence Usual place of residence one year ago Place of residence outside the Republic of Ireland for a continuous period of one year or more Ethnic or cultural background	Not known.
	2. Survey of Lifestyles, Attitudes, and Nutrition (SLAN) Cross sectional survey repeated at 4 yearly intervals	Eight sections in the questionnaire which cover general health (including self-reported height and weight), exercise, tobacco, illegal substances, accidents, household details and dietary habits.	Since 2006: Place of birth Start of residence in Ireland Ethnic or cultural background	As above.
	3. Quarterly National Household Survey	Consultation with GP or any other health appointment in last 2 weeks; on waiting list for any health procedures; length of time on waiting list; private health insurance; coverage by medical card; self assessed health; reporting a chronic illness	Nationality Citizenship	As above.
IT	Occasional surveys conducted by ISTAT, the Italian Institute of Statistics.	For example: 1. Voluntary abortion rate (2000, 2002, 2003) 2. Birth and fertility rate (at regional / municipal level) (2004)	Citizenship	Not known.
LT	Population census Every 10 years	Self reported health Health conditions Limitations in daily activities Disability	Nationality Citizenship Native language Place of birth	Not known.

NL	<p>1. POLS (Permanent Research Life Situation) Administered every year and is a general survey including topics such as health, but also safety, leisure time, living- and working conditions.</p>	<p>The indicators of health are morbidity, self-assessed health, psychological health, risky lifestyles, BMI, medical consumption, limitations in daily activity, chronic diseases, and unhealthy behaviours. Questions about health care utilisation are included, such as visits to a health professional, number of days in hospital, and the use of public health preventions programmes such as screening.</p>	<p>Country of birth, country of birth mother, country of birth father.</p>	<p>1. Asking questions about country of birth of parents in order to define ethnicity, can cause confusion. For example, third generation of migrants, will appear in the same category as /native' Dutch, but for policy reasons may sometimes better be identified as 'migrant'. 2. Ethnicity is defined by country of birth, but in some cases different ethnic groups live in one country and may experience divergent health problems in the Netherlands. A solution to this is to ask persons to self-identify the ethnic group to which they belong. 3. Outcomes of different surveys cannot always be compared, even despite high levels of standardization. Until now there is still no general agreement to standardize questions across surveys. 3. Problems with the internal and external validity of surveys with regard to immigrants. For example, there is an underrepresentation of immigrants in surveys that use written questionnaires in Dutch. Also, it is questioned if used terminology in surveys (e.g. 'health') represents the same for immigrants as for the Dutch.</p>
	<p>2. <i>Local and National Health Monitor</i> consists of three different monitors: one that monitors <i>child and youth health</i>, one that monitors <i>public health</i> and one that monitors <i>elderly health</i>. The monitor is initiated, amongst others, by the Dutch Local Community Health Services (GGD Nederland) and the National Institute of Public Health and the Environment (RIVM). It is partly subsidized by the Ministry of Health, Welfare and Sport. The purpose of this monitor is to gather uniform data about determinants of health delivered by the local community health</p>	<p>The monitor of <i>child and youth health</i> (0-19 year): alcohol use, physical exercise, chronic diseases, physical limitations, drug use, self-assessed health, dental health, weight, length, smoking (by parents and by child), sexual behaviour, suicidal behaviour, food intake, vaccination influenza, use of medicine, accidents, criminal behaviour, child abuse, psychosocial problems, sleeping problems, language/speak development, interventions with regard to overweight. The monitor of <i>public health</i> (19-65 year) uses the following indicators: alcohol use, physical exercise, chronic diseases, loneliness, drug use, self-assessed health, dental health, weight, length, smoking, sexuality, food intake, use of sleep medicine, home violence, use of care (general practitioner, hospital, medical specialist, paramedical health services, informal care, preventive programmes (vaccination against influenza). The monitor of <i>elderly health</i> (> 65 year) includes the same indicators as the monitor of public health, though questions have been added (access to facilities for the elderly, autonomy).</p>	<p>The monitor of <i>child and youth health</i> (0-19 year): country of birth, country of birth mother, country of birth father, and self-assessed ethnic identity. It is possible to distinguish first generation immigrants. The monitor of <i>public health</i> (19-65 year): country of birth, country of birth mother, country of birth father, and self-assessed ethnic identity. It is possible to distinguish first generation immigrants.</p>	<p>As above.</p>

	services and the local home care services in order to evaluate (local) government policies. It is a continuing monitor as participating local community health services and home care service continually contribute their data in order to evaluate and compare.			
	3. The <i>Second Dutch national Survey of General Practice</i> is organized by a non-governmental influential organization NIVEL (Netherlands Institute for Health Services Research) which data is used by Dutch ministries. The last survey was held in 2000-2002 (but data is still used) and it was combined with a registration of data of 104 GPs. It is a survey on health issues only.	Quetelet index, self-assessed health, acute complaints, chronic diseases, limitations in daily activity, psychological health, risky lifestyle (smoking, use of alcohol, use of drugs, intake of food, physical exercise, under- overweight) and unhealthy behaviour. Questions about health care utilization are about visits to GPs, visits to other care providers, and days in hospital. Also included are questions about visits to alternative therapists.	Country of birth, country of birth mother, country of birth father. It is possible to distinguish first generation immigrants.	As above.
PL	National census	Disability	Declared ethnicity/nationality Citizenship Place of birth Last place of residence	A specific set a questions needs to be formulated in order to exclude the significant number of Polish circulatory migrants from the category 'immigrant'
SE	1. ULF: Annual surveys on living conditions. Statistics Sweden, i.e. the national statistical office.	Self-assessed health, medication, treatment, limitations in daily activity, means of assistance (e.g. wheelchair), use of social welfare services (e.g. home help), self-assessed needs of social welfare services, access to social welfare services and health care, health condition during the last 2 weeks, healthy behaviours/risky lifestyles (e.g. physical activity, smoking, diet). Question 67 A) Have you been in need of medical care during the last 3 months without seeking care? B) If yes, what was the main reason? 75 A) Have you been in need of dental care during the last 3 months without seeking care? B) If yes, what was the main reason?	Respondents are categorised as: <ul style="list-style-type: none"> • born outside the country (first generation immigrant) • born in the country but with both parents born outside the country (second generation) • born in the country but with one parent born outside the country or (second generation) • born in the country with both parents also born in the country (not immigrant) 	Not known.
	2. Folkhälsoenkäten: survey on public health. Swedish	Self-assessed health (physical, dental, mental) and disability, limitations in daily activities, medication contacts with health care providers, access to	Respondents are categorised by country of birth: Sweden, other	As above.

	National Institute of Public Health (SNIPH). SNIPH is a State agency under the Ministry of Health and Social Affairs.	health care, healthy behaviours/risky lifestyles (physical activity, diet, smoking, alcohol, drugs, gambling), experience of verbal or physical offences and threats, informal care work etc. Question 36 A) Have you been in need of dental care during the last 3 months without seeking care ? B) If yes, what were the reasons? (Also on not buying prescribed drugs and the reason for that, questions 30, 31.)	Nordic country, other European country, non-European country.	
UK	1. The General Household Survey, an annual cross sectional survey conducted by the National Statistics Office.	Self assessed health Long-standing illness, disability or infirmity Visit to doctor in last two weeks (National Health Service or paid for privately) Prescription Visit to nurse in last two weeks Visit to casualty Hospital treatment as day patient in last year Hospital treatment as in- patient in last year Children's' health (questions as above) Hearing difficulties Smoking Drinking	How many years have you /has(...) lived at this address? In what country were you/was (...) born? ... In what year did you (...) first arrive in the United Kingdom? ... In what country was your / (...)s' father born? In what country was your/ (...)s' mother born? What do you consider your national identity to be? To which of these ethnic groups do you consider you belong?	Regarding migrant related data in general, greater comparability of migration definitions and more immigration-related variables in survey, census and administrative data sources, are needed for the reconciliation of estimates across sources, for the reconciliation of migrant stocks and flows, for evaluation of social and economic impacts of migration, and for estimates of the approximate number and characteristics of persons entering the UK illegally or whose length of stay or employment activity extend beyond those authorised under their conditions of entry or stay.
	2. The British Household Panel Survey conducted annually since 1991 by the National Statistics Office	Disability Self Assessed Health Chronic conditions Limitations of daily activity and work Visits to GP Visits to hospital (in/outpatient) Private insurance Social care utilization Health check ups Smoking	Ethnic Group Nationality/Country of Birth Year of arrival in UK	As above
	3. The English Longitudinal Survey of Aging conducted biannually since 1998 by University College London, the Institute of Fiscal Studies and the National Centre for Social Research.	Subjective measures including self-reported general health, longstanding illness and limiting longstanding illness. Perceptions of presence of problems with eyesight, hearing or walking and, if appropriate, awareness of any eye disease and reasons for difficulty in walking. Chronic diseases and psychiatric problems ever diagnosed by a doctor (as recalled by respondent). For most of the diseases, there is a single question in each wave about receiving medication or other treatment. The respondent's change in memory and cognitive performance over the previous two years - only applies for those with a proxy informant. Falls, fractures sustained as a result of falls, and joint replacements. Symptoms pain, dizziness, respiratory symptoms, and urinary incontinence (see Self-completion and Psychosocial sections for data on symptoms of mental health). Disability and functioning including avoidance of activities, ability to do activities of daily living (ADL) and instrumental activities of daily living	Ethnic group Cultural background Country of birth Year of arrival	Three years of the Health Survey for England (HSE) were selected as the sampling frame: 1998, 1999 and 2001. These years were chosen because they were recent and could provide a sufficiently large sample size. ELSA used the core samples for these years, all of which were nationally representative. The HSE 1999 sample design also included a boost sample that represented ethnic minorities. Because of funding constraints, it was not possible to follow-up the boost sample and it was discarded.

		(IADLs), use of mobility aids. Receipt of formal and informal care in connection with these ADLs and IADLs. Health behaviours encompass current tobacco and alcohol consumption, and self-report of level of physical activity.		
	4. 1970 British Cohort Study conducted by the Centre for Longitudinal Studies at the Institution of Education. Surveys have been conducted at birth (1970), then again after ten, sixteen, twenty-six and twenty-nine years.	General health, long term health conditions, respiratory problems, mental health, seeing and hearing, other conditions, accidents/injuries, hospital admissions, smoking, drinking, diet, exercise, height and weight.	Ethnicity (based on 2001 census question)	Not known.
	5. Millennium Cohort Study funded by the ESRC conducted at birth (2000) and three years later.	Eyesight Hearing Alergies Long term conditions Limitations of daily activity Immunisations Accidents and injuries Hospital admission Emergency services utilization	Ethnic group	The sample design allowed for disproportionate representation of families living in areas of child poverty, in the smaller countries of the UK and in areas with high ethnic minority populations in England.
	6. Health Surveys for England and Scotland (annual)	'Core' topics <ul style="list-style-type: none"> • general health • smoking and drinking behaviour • blood pressure • height and weight • anthropometric measures • prescribed medication • fruit and vegetable consumption (since 2002) 'Non-Core' topics <ul style="list-style-type: none"> • cardiovascular disease • asthma and other respiratory diseases • lung function • atopic conditions • eating habits) • physical activity • accidents • generic health state measures EuroQol and SF-36 • disability • contraceptive use • older people - including care home residents • fruit and vegetable consumption • children, young people, and maternal health 	Ethnic origin Country of birth	The general household sampling method used in most years does not yield sufficient numbers of households from minority ethnic groups to analyse their responses separately. In 2004, the focus of the survey was the health of minority ethnic groups. Therefore, only half of the usual sample number of adults and children was selected in the usual way. This provided a representative sample of the whole population (including members of minority ethnic groups who happened to be included in this general sample), with whom the specific minority ethnic groups could be compared. The other part of the sample for the 2004 survey was a 'boost' sample designed to include additional interviews with members of the seven largest minority ethnic groups in England: Black Caribbean, Black African, Indian, Pakistani, Bangladeshi, Chinese and Irish.
	7. Census 2001	Limiting long term illness Self assessed health	The variables relating to immigrant stocks included in the UK Censuses are (i) country of birth, and (ii) ethnicity. A question on ethnicity was first asked in the 1991	A recent National Statistics Quality Review on International Migration Statistics has recommended that the inclusion of questions on (a) nationality/citizenship and, (b) year of entry to the UK, be considered for the

			Census 2. This question was further developed for the 2001 Census to include categories for people of mixed race, and this classification is now used as the standard for National Statistics outputs.	Census in 2011.
--	--	--	--	-----------------

Annex 2: Published reports on migration and health by (selected) EU country

Country	Published reports regarding migration and health
BE	<p>Reports</p> <ul style="list-style-type: none"> Anson O (2001). Inequality in the access to preventive health care: The case of immigrants in Belgium. <i>Archives Public Health</i>. 59: 265-279. Baeten M (2006). <i>Mensen zonder wettig verblijf en hun toegang tot gezondheidszorg in Brussel. Een verkennend onderzoek naar de gevolgte trajecten en ervaren knelpunten anno 2006</i>. Brussels: Free University Brussels. Available at: www.vub.ac.be/wetenschapswinkel/publicaties/2005-2006/thesis_MBaeten_MSf.pdf Bayingana K, Demarest S, Gisle L, Hesse E, Miermans PJ, Tafforeau J, Van Der Heyden J (2006). <i>Enquête de Santé par Interview, Belgique, 2004</i>. Brussels: Institut Scientifique de Santé Publique. Available at: http://www.iph.fgov.be/epidemio/epifr/index4.htm Demarest S, Leurquin P, Tafforeau J, Tellier V, Van Der Heyden J, Van Oyen H (1998). <i>La santé de la population en Belgique. Enquête de Santé par Interview, Belgique, 1997</i>. Brussels: Institut Scientifique de Santé Publique. Available at: http://www.iph.fgov.be/epidemio/epifr/index4.htm Gisle L, Buziarsist J, Van Der Heyden J, Demarest S, Miermans PJ, Sartor F, Van Oyen H, Tafforeau J (2002). <i>Enquête de Santé par Interview, Belgique, 2001</i>. Brussels: Institut Scientifique de Santé Publique. Available at: http://www.iph.fgov.be/epidemio/epifr/index4.htm Levecque K, Lodewyckx I, van den Eeden S (2006). <i>Gezondheid en gezondheidszorg bij allochtonen in Vlaanderen</i>. Brussels: the Support Point Policy relevant Research of Flanders. Available at: http://statbel.fgov.be/studies/thesis_nl.asp?q=29 Royal Decree of 12 December 1996 concerning urgent medical care. XXX, <i>België, Geen toegang tot de Belgische Gezondheidszorg 2004</i>. Brussels: Medicines Sans Frontieres. Available at: http://www.nl/pdf/belgische_proj.pdf XXX, <i>Gezondheidszorg voor asielzoekers 2006</i>. Brussels: medimmigrant Available at: http://www.medimmigrant.be/mm.toegang.nl.htm
DE	<p>Government reports:</p> <ul style="list-style-type: none"> Commissioned by the Government, the RKI (Robert-Koch-Institute) is currently working on its first report on 'Migration and health' compiling existing (but insufficient) data from various sources. This report is expected to be published in 2007. The report on health inequalities 'Armut, soziale Ungleichheit und Gesundheit. Beitrage zur Gesundheitsberichterstattung des Bundes' provided by the RKI on behalf of the Ministry of Health/ Government in 2005 includes a section on migration and health (p. 127-135). It uses the wider definition of 'migrant', specific data depend on the design of the study it refers to. Every two years the Commissioner for Migration, Refugees and Integration of the Government (Beauftragte fuer Migration, Fluechtlinge und Integration der Bundesregierung) publishes a report on migration (Auslaenderbericht, literally: foreigner report). The most recent report (6th) was published in June 2005 and contains a brief section on health and migration (p. 141-147). It uses the wider definition of 'migrant'. An expert committee formed by the Commissioner for Migration, Refugees and Integration ('Bundesweiter Arbeitskreis Migration und oeffentliche Gesundheit'), representing the range of social stakeholders involved in different aspects of health and health care of/for migrants. The 'Arbeitskreis' has published several handbooks and documentations, e.g. <ul style="list-style-type: none"> Bundesweiter Arbeitskreis Migration und oeffentliche Gesundheit (2003): <i>Gesunde Integration. Dokumentation der Fachtagung am 20. und 21. Februar 2003 in Berlin</i>. Beauftragte der Bundesregierung fuer Migration, Fluechtlinge und Integration (ed.). Bonn. Bundesweiter Arbeitskreis Migration und oeffentliche Gesundheit (2000): <i>Handbuch zum interkulturellen Arbeiten im Gesundheitsamt</i>. Beauftragte der Bundesregierung fuer Migration, Fluechtlinge und Integration (ed.). Bonn. There are a large number of individual reports, documentations of expert workshops and articles on specific topics that have been published on the local or regional level, e.g. <ul style="list-style-type: none"> Mashokoori K, Weth C, Gardemann J (1998): <i>Zur Gesundheitssituation der Fluechtlingskinder in Muenster. Gesundheitsberichte der Stadt Muenster 7</i>. (Report of the Town of Muenster, North Rhine-Westfalia, on the health of refugee children). Gesundheitsamt Rhein-Neckar-Kreis/Arbeitskreis Migration und Gesundheit (2003): <i>Frauen – Migration – Gesundheit. Dokumentation der Fachtagung, 22. Mai 2003</i>. Heidelberg: Gesundheitsamt Rhein-Neckar-Kreis. Hartlieb J (2002): <i>Erreichbarkeit von tuerkischen Migranten durch den oeffentlichen Gesundheitsdienst. Ein Projektdesign</i>. Fachbereich Gesundheit und Verbraucherschutz, Kreis Unna (based on a Master Thesis, University of Bielefeld). Krause B (2003): <i>Migrantinnen und Gesundheitssystem. Abschlussbericht</i>. Aachen: Katholische Fachhochschule NW (Report on access to health care for female migrants in the city of Aachen, as part of the research project 'Female migrants and the health system'). Brucks U and Wahl WB (2002): <i>Gesundheitsversorgung fuer Zuwanderinnen und Zuwanderern. Regionale Fallstudie Kiel, Luebeck, Neumuenster, Kreis Pinneberg</i>. Ministerium fuer Arbeit, Soziales, Gesundheit und Verbraucherschutz des Landes Schleswig-Holstein (ed.). Hamburg-Oldenswort: Institut fuer Arbeitspsychologie und Gesundheitsforschung. Ministerium fuer Frauen, Jugend, Familie und Gesundheit des Landes Nordrhein-Westfalen und Wissenschaftliches Institut der Aerzte Deutschlands (2000): <i>Gesundheit von Zuwanderern in Nordrhein-Westfalen. Sonderbericht im Rahmen der Gesundheitsberichterstattung Nordrhein-Westfalen</i>. Duesseldorf: Ministerium fuer Familie, Jugend, Frauen und Gesundheit NRW. Further literature on migration and health (until March 2004, 28 pages) can be found here http://www.loegd.nrw.de/1pdf_dokumente/1_allgemeine-dienste/tagungen/7-oegd-tagung/migration_bibliographie.pdf (compiled by the Institute of Public Health Services of North Rhine-Westfalia, loegd; also includes studies on children migrants and health, as well as migration and

	<p>addition).</p> <p>Other reports:</p> <ul style="list-style-type: none"> Borde T and David M (eds., 2003): Gut versorgt? Migrantinnen und Migranten im Gesundheits- und Sozialwesen. Frankfurt (M): Mabuse Verlag. <ul style="list-style-type: none"> Papers presented at the symposium 'Migrantinnen und Migranten in verschiedenen Versorgungsstrukturen in Deutschland' 2003 (Migrants in various forms of health care provision in Germany'), identifies gaps in health services for migrants in ambulatory, inpatient and psychosocial care; analyses the resources (in its wider sense) and needs of migrants and discusses models of national and international best practice. Meaning of 'migrant' covers the wide spectrum of migrants represented in Germany, its particular use differs between articles. Gardemann J (2002): Soziale Lage und Gesundheit. Zur Gesundheitssituation von Fluechtlingskindern. Bundesgesundheitsblatt – Gesundheitsforschung – Gesundheitsschutz 45 (11): 889-893. <ul style="list-style-type: none"> Report on the health of refugee children published at the 'Kompetenzzentrum Humanitaere Hilfe, Fachhochschule Muenster. Borde T, David M and Kantenich H (2002): Erwartungen und Zufriedenheit deutscher und tuerkischsprachiger Patientinnen im Krankenhaus – eine vergleichende Befragung in einer Berliner Frauenklinik. Gesundheitswesen 64 (8/9): 476-485. <ul style="list-style-type: none"> A comparative survey among German and Turkish speaking patients on their expectations towards and satisfaction with health care provided in a Women's Hospital in Berlin ('Turkish speaking' to my understanding does not indicate whether the person is a first or second generation migrant, as there are many women of Turkish origin who were born in Germany but have a limited command of the language). Schmeling-Kludas C, Froschlin R and A Boll-Klatt (2003): Stationaere psychosomatische Rehabilitation fuer tuerkische Migranten: Was ist realisierbar, was ist erreichbar? Rehabilitation 42 (6): 363-370. <ul style="list-style-type: none"> Analysis of medical records of Turkish patients receiving inpatient psychosomatic care. Borde T, Braun T and M David (in print): (Fehl-) Inanspruchnahme von klinischen Rettungsstellen. Eine Analyse unter besonderer Beruecksichtigung der Ethnizitaet der Patienten. Notfall- und Rettungsmedizin. <ul style="list-style-type: none"> Study on the appropriateness of utilisation of accident and emergency care in hospital with regard to patients' ethnicity.
DK	<p>Government reports:</p> <ul style="list-style-type: none"> A recent report from the National Board of Health ("Indvandereres sundhed og sygelighed – opgørelse af behandlingsrater (2002) blandt indvandrere." Sundhedsstyrelsen 2005: www.sst.dk) presents treatment frequencies for a number of diseases among selected immigrant groups. A recent government report based on data from two counties illustrates significant differences in disease patterns among different immigrant groups (Sundhedsstyrelsen: Etniske minoriteter – sygdom og brug af sundhedsvæsenet. Et registerstudie. 2006: www.sst.dk). The report differentiates between: Immigrants: Born abroad by parents that are both foreign citizens or born abroad; Immigrant descendants: Born in Denmark of parents which are both born abroad; Ethnic minority: Self reported inclusion on cultural-ethnic community other than Danish and European. A literature review by the National Institute for Public Health in 2005 identified a number of concerns regarding health of ethnic minorities in Denmark based on available Danish and Nordic studies. It also reviews methodological concerns. It concludes that there are concerns in terms of both low response rate and limited validity compared to other respondent groups. – "Sundhedsforhold blandt etniske minoriteter - en litteraturgennemgang Ditte Schläger, Niels Kr. Rasmussen, Mette Kjølner. Statens Institut for Folkesundhed, København december 2005". http://www.sifolkesundhed.dk/upload/Etniske_minoriteter_fuld.pdf <p>Other reports:</p> <ul style="list-style-type: none"> The National Institute for Public Health has established a literature database to facilitate literature searches on health for immigrants. A number of English language references are included: http://www.sifolkesundhed.dk/Forskning/Befolkningens%20sundhedstilstand/Etniske%20minoriteters%20sundhed/Litteraturdatabase/Database.aspx <ul style="list-style-type: none"> Norredam M, Mygind A, Krasnik A. Access to health care for asylum seekers in the European Union--a comparative study of country policies. Eur J Public Health. 2005 Oct 17; [Epub ahead of print] Nørredam, Marie, Nielsen, A.S. & Krasnik, A. (in print) "Adgang til sundhedsydelser for migranter". Paper submitted to Ugeskrift for Læger. (Danish Medical Association Journal) Deibjerg Kristensen L & Hjul Mandrup G. Flygtninge – fejler de noget? Ugeskr for Læger 2005;167(4):392-396. www.sst.dk (National Board of Health): Etniske minoriteter – sygdom og brug af sundhedsvæsenet Et registerstudie. Udarbejdet for Sundhedsstyrelsen af Nana Bro Folmann og Torben Jørgensen, Københavns Amts Forskningscenter for Forebyggelse og Sundhed. Elektronisk ISBN: 87-7676-292-0 Indvanderes kontakt til sundhedsvæsenet. Sundhedsforhold blandt indvandrere. I: Mogensen, G. V. & P.C. Matthiessen: Integration i Danmark omkring årtusindskiftet Forfatter(e): O. Ingerslev. Udgivelsessted: Aarhus: Aarhus Universitetsforlag. Udgivelsesår: 2000 Sundhedsforhold blandt etniske minoriteter - en litteraturgennemgang Ditte Schläger, Niels Kr. Rasmussen, Mette Kjølner. Statens Institut for Folkesundhed, København december 2005
EE	<p>Government reports:</p> <p>The following reports include ethnicity or nationality variables:</p> <ul style="list-style-type: none"> Survey - Health Behavior among Estonian Adult Population, 2004 Tallinn. http://www.sm.ee/est/HtmlPages/TKU_2004/\$file/TKU_2004.pdf Analysis of various surveys - Kunst A, Leinsalu M, Kasmel A, Habicht J. Social inequalities in health in Estonia. Main report. Tallinn: Estonian Ministry of Social Affairs; 2002 http://www.sm.ee/est/HtmlPages/kunst/\$file/kunst.pdf http://www.sm.ee/est/HtmlPages/kunstll/\$file/kunstll.pdf Patient satisfaction – Estonian Health Insurance Fund 2006 http://www.haigekassa.ee/haigekassa/uuringud/
ES	<p>Government reports</p> <p>Some regional and local authorities have elaborated or are currently drafting studies that analyze the health status and access to health care of the immigrant population in the Autonomous Region, the municipality or the city of residence (in the case of Madrid or Barcelona). Some examples are the following:</p> <ul style="list-style-type: none"> "Estudios de salud de la ciudad de Madrid 2005: Análisis de resultados relativos a la población inmigrante" (Studies

	<p>of the Health of the population of Madrid 2005: An analysis of the results regarding the immigrant population). The report is not available, but the PPT presentation of the main findings can be downloaded from: http://www.munimadrid.es/UnidadWeb/Contenidos/Publicaciones/TemaSalud/EstudioInmigracionYSalud/Inmigrantes_y_Salud.pdf.</p> <ul style="list-style-type: none"> Department of Health of the Catalan Government (Generalitat de Catalonia): "Health Economics Studies". October 2006. A summary in English is available from: http://www.gencat/salut/estudiseconomiasalut. Chapter 4 of this book is dedicated to the impact of the increase in the immigrant population on the use of emergency care. The analysis is based on 165.267 foreign-born patients attended at Hospital del Mar (Barcelona) emergency department between 2002 and 2003.
FI	<p>Government reports</p> <p>Distinct reports on immigrant health and living conditions are available, but they do generally not allow for comparisons with Finnish original population. Some immigrant specific reports, see for example:</p> <ul style="list-style-type: none"> Immigrants living conditions in Finland 2002 (Russia, Estonia, Somalia and Vietnam). <i>Statistics Finland</i>, 2003. <i>Report by the Ministry of Labour on immigrant related costs (in Finnish)</i>. Ministry of Labour, May 2006. see also (English abstract): http://www.mol.fi/mol/fi/99_pdf/fi/06_tyoministerio/06_julkaisut/06_tutkimus/tpt296.pdf <p>The report includes information on the use of public services by immigrants in Finland. The Ministry of Labour assigned STAKES to explore adult immigrant population's use of health care services and institutional care, as well as the associated costs.</p> <ul style="list-style-type: none"> <i>Asko Rauta. Report on immigrants' need for mental health services and access to them</i>. Reports of the Ministry of Social Affairs and Health, Helsinki 2005 (summary in English).
FR	<p>Government reports</p> <p>Government reports referring to migrant health are rare and are focus on the control of communicable diseases, for instance reports on HIV/AIDS from the INVS (Institut de Veille Sanitaire). Some reports from the French Insurance Fund (Caisse Nationale d'Assurance Maladie) refer to migrants.</p> <p>A report by the 'Haut Comité de la Santé Publique' (1998) <i>Etrangers et Français d'origine étrangère: La progression de la précarité en France et ses effets sur la Santé.</i>, Rennes, highlighted the almost total absence of official French data on the health of migrants, and French citizens who are second generation migrants.</p> <p>Other reports</p> <ul style="list-style-type: none"> Marc Collet et al. Précarités, risque et santé- Enquête menée auprès des consultants de centres de soins gratuits. <i>Bulletin d'information en économie de la santé</i>, 2003;63. CREDES (CENTRE DE RECHERCHE, D'ÉTUDE ET DE DOCUMENTATION EN ÉCONOMIE DE LA SANTÉ) 2001 studied consultations at free of charge health care centres. Within that framework, health seeking behaviour of foreign national was examined, including asylum seekers and illegal migrants. Elements that were assessed included indicators such as duration of stay in France and country of origin. The survey showed that 50% of people accessing free of charge health care centres were foreigners. http://www.irdes.fr/Publications/Bulletins/QuestEco/pdf/qesnum63.pdf The charity <i>Medecins du Monde</i> conducts a yearly survey on "access to care" of vulnerable population. The last report published in 2006 showed in their 21 health, orientation and reception centres around France, out of 45,776 consultations, 89% patients were of foreign nationality, with 71% having no residency permit and 29% of them having asylum seeking status. http://www.medecinsdumonde.org/presse/dossierspresse/dp_acces_aux_soin2006 COMEDE (Comite Medical pour les Exiles) provides health services to 84,000 'foreign' patients per year. It supplies an activity report which outlines health status of clients. http://www.comede.org/UserFiles/File/Rapport_COMEDE_2005.pdf.pdf
IE	<p>Government reports</p> <p>None</p> <p>Other reports</p> <ul style="list-style-type: none"> Assessing the Health and Related Needs of Minority Ethnic Groups in Dublin's North Inner City – A case study of a community development approach to health needs assessment (Cairde, 2007) Community Development and Health Programme – An Intervention for Social Change (Cairde, 2007) Womens Health Unit, Northern Area Health Board, ERHA (2001) The Maternity Care Needs of Refugee and Asylum Seeking Women. Cairde: Listen!: The Experiences of Minority Ethnic Women Living with HIV. November 2003. Health Services Executive in conjunction with the Combat Poverty Agency: Food Poverty and Nutrition among Asylum Seekers in North West Ireland. Available from Combat Poverty Agency www.cpa.ie Merchant Quay Ireland: Drug Use Among New Communities: An Exploratory Study. Available from MQI www.mqi.ie NCCRI and Irish Health Services Management Institute: Cultural Diversity in the Irish Health Care Sector. 2002. Download in PDF format - size 1830 Kb. Public Health Alliance Ireland: Health in Ireland An Unequal State. 2004
IT	<p>Government reports:</p> <ul style="list-style-type: none"> The Ministry of Health usually reported in the last years some information on the health of / access to health care by immigrants in a chapter its "Annual report on the health conditions of the country". However, information is not systematically reported. The reported data were mostly taken from the literature and from <i>one-off</i> surveys conducted either by the <i>Istituto Superiore di Sanita'</i> (the scientific organisation of the Italian Ministry of Health) or by the national Institute of Statistics (Istat). <ul style="list-style-type: none"> For example results from two surveys on maternity and ante-natal care utilisation by immigrants, conducted in 1995-96 and 2000-01, were published by 'Istituto Superiore di Sanita' in 2003 (Rapporto Istitano n.3/4 2003, Rome). Assr (2006) (ed.) <i>"Immigrati e Assistenza Sanitaria"</i>, Monitor, vol. 5, n.18. Monitor is a review edited by Assr (Agenzia Per i Servizi Sanitari Regionali) based in Rome. Available (only in Italian) at: www.assr.it. The ASSR report follows a previous report of the Ministry of Health on inpatient rates of immigrants in Italy in 1998 (see Fortino A. Et al. "RAPPORTO NAZIONALE SUI RICOVERI OSPEDALIERI DEGLI STRANIERI IN ITALIA DATI SDO 1998" available in Italian at: http://www.ministerosalute.it/programmazione/resources/documenti/13ricoveristranieri.pdf). Information was provided at both national and regional level for the year 2004. The report contains an analysis of DRG data for both public and accredited private hospitals in all the twenty-one - considering separately the two provinces of

	<p>Trentino Alto-Adige Region - Italian Regions. Indicators of inpatient rates by immigrants in 2004 are reported for each region for the set of 25 main diagnostic categories (MDC). Moreover, hospital expenditures of immigrants for both day-hospital and longer (ordinary) stays are reported by region, by country of origin of immigrants and by main disease categories. Expenditures and inpatient rates are reported distinguishing between: inpatient care fully / partially / not at all charged to the public sector. Moreover, the report contains:</p> <ul style="list-style-type: none"> - a survey on the role of non-profit volunteer organisations in both monitoring and promoting the health conditions of immigrants in the country since the introduction of the Italian NHS; - a survey of the regional public health plans and policies for the immigrants; - a survey on the presence of immigrants working in the nursery sector; <p>the presentation of a reference Centre : "Health and immigration and the fight of diseases due to poverty", newly established by the actual Ministry of Health at the Scientific Research Institute "Istituto San Gallicano" (Rome-Italy).</p> <ul style="list-style-type: none"> • A report published in 2005 on immigrant health and health care services utilisation by immigrants in Bologna province. http://www.provincia.bologna.it/immigrazione/pdf/DossierSanita.pdf <p>Other reports:</p> <p>CARITAS/MIGRANTES, "Immigrazione , Dossier Statistico 2006- X V I Report on Immigration, Redazione Dossier Statistico Immigrazione Caritas/Migrantes, Roma (http://www.dossierimmigrazione.it/english/international.htm). This is one of the main sources of information on immigration in Italy. The <i>Dossier Statistico Immigrazione</i> (Statistical Dossier on Immigration) published every year by the organisation CARITAS (a main Catholic charity in Italy) collects all the available data on immigration, placing it in its national, regional and local context and discussing its various aspects and problems. It also contains analysis of the statistical data by major experts in the field, and tables summarising and illustrating the data. This initiative is part of the Equal project "The Image of Migrants in Italy in the media, civil society and the labour market" funded by the European Union and the Italian Ministry of Welfare, and has received support from the International Organisation for Migration (IOM) and the National Council for Economy and Labour (CNEL). Caritas reports contain statistics on both regular and irregular immigrants access to Caritas ambulatory care centers (which are present in many Italian municipalities and provide preventive and ambulatory care to immigrants), together with the prevalence rates of the main groups of diseases affecting patients treated by these centers. Moreover, occasional information is reported on specific critical issues affecting immigrants, such as prostitution related diseases, sexual and reproductive health, female genital mutilation practices etc. Unfortunately, contrary to the other statistics reported by Caritas for the presence and demographic characteristics of immigrants in Italy, the health and health care statistics do not usually distinguish between types of immigrants, like, e.g., between regular and irregular immigrants, as they are mostly based on information on the citizenship of foreigners.</p>
NL	<p>Government reports:</p> <p>Relevant Dutch research findings have been summarized in two large reports:</p> <ul style="list-style-type: none"> • <i>The Future Exploration Public Health</i> - a report on Dutch health, prevention and care • <i>Dutch Health Care Performance Report</i> - a report on the quality, access and costs of health care in the Netherlands. <p>Both reports are by the RIVM (National Institute of Public Health and the Environment) and administered by the Ministry of Health, Welfare and Sport, in order to evaluate and, if necessary, modify Dutch policy on health care. Both reports have a specific summary on research outcomes with respect to immigrants.</p> <p>Other reports:</p> <ul style="list-style-type: none"> • NR Bindran, The cardiovascular risk profile of Hindustani and Creole Surinamese in the Netherlands compared to white Dutch people, 2007. Amsterdam: Academic Medical Center. Based on the <i>SUNSET study (Surinamese in the Netherlands: study of health and ethnicity)</i>, a study by the Academic Medical Center/University of Amsterdam about the difference in cardiovascular risk profile between the Dutch and the Surinamese in the Netherlands. • <i>Immigrants and cancer. Social-cultural and epidemiological aspects</i> is a study by the charity foundation Dutch Cancer Society (KWF Kankerbestrijding) and was published in 2006. • The results of the <i>National Abortion Registration</i> by Nisso Group were published in 2005 include data on migrants. The Nisso Group also published '<i>The transference of information to immigrant abortion clients</i>' in 2006.
PL	None.
SE	<p>Government reports:</p> <ul style="list-style-type: none"> • A number of reports have been published by Statistics Sweden during the latest decades based on ULF data that include information on migrants: <ul style="list-style-type: none"> ◦ Statistics Sweden (2006). <i>Health and medical care 1980-2005</i>. Stockholm: Statistics Sweden. English summary on page 196 onwards. ◦ http://www.scb.se/statistik/_publikationer/LE0101_1980I05_BR_LE113SA0601.pdf ◦ Most recent report with special attention on immigrants: Statistics Sweden and The National Institute for Working Life (2002). <i>Integration towards Swedish Living Standards? Living Conditions of Immigrants to Sweden in the 1990s</i>. Stockholm: Statistics Sweden and The National Institute for Working Life. http://www.scb.se/statistik/LE/LE0101/2000I02/LE96SA0201.pdf ◦ A report is published based on the public health survey: <i>Hälsa på lika villkor (Health on equal terms)</i> since 2004. Latest report: Statens folkhälsoinstitut (2006). <i>Hälsa på lika villkor. Resultat från nationella folkhälsoenkäten 2005</i>. Stockholm: Statens folkhälsoinstitut. http://www.fhi.se/upload/ar2006/Rapporter/a20062Halsa_pa_likavillkor0605.pdf ◦ Public health policy report by SNIPH every 4th year, the first produced in 2005. ◦ <i>Folkhälsopolitisk rapport 2005</i> Latest report summary available in English: http://www.fhi.se/templates/Page_6725.aspx Swedish version available at: http://www.fhi.se/templates/Page_6719.aspx ◦ Public health report by the Board of Health and Welfare (BHW) in 1987, 1991, 1994, 1997, 2001 and 2005. The next is planned to 2008 (every 3rd or 4th year). Progress reports in between. BHW is a State agency under the Ministry of Health and Social Affairs. Website in English available at http://www.socialstyrelsen.se/en/ Article based on the latest report available at http://www.journalonline.tandf.co.uk/(2jhybnfetzikjcnmlpgsx445)/app/home/contribution.asp?referrer=parent&backto=issue,1,22;journal,9,60;linkingpublicationresults,1:102108,1 Persson et al. (2006) 'Health in Sweden: The National Public Health Report 2005.' In <i>Scandinavian Journal of Public Health</i> 2006;34:67:3-10. Swedish version available at: http://www.socialstyrelsen.se/NR/rdonlyres/7456A448-9F02-43F3-B776-D9CABC727A9/6169/20051114.pdf. • SNIPH (2002). <i>...som en kamel med två pucklar. Om homosexuella invandrare i Sverige</i>. Stockholm: SNIPH. On

	<p>being homosexual and immigrant. 21 persons were interviewed.</p> <ul style="list-style-type: none"> • D. SNIPH (2002). <i>The relevance of birthplace. The health of various immigrant groups in Sweden</i>. Stockholm: SNIPH. Report in Swedish, but summary in English available online: http://www.fhi.se/shop/material_pdf/relevance_summary0402(2).pdf • BHW (2000). <i>Different conditions - different health. A study of immigrants from Chile, Poland, Iran and Turkey</i>. Stockholm: BHW. Report in Swedish, but summary in English available online: http://www.socialstyrelsen.se/Publicerat/2000/3260/2000-3-3+Summary.htm • Integrationsverket (2005). <i>Rapport integration 2005</i>. Norrköping: Integrationsverket. Report from the Swedish Integration Board; a State agency. One section is devoted to public health referring both to own statistics and national statistics of SNIPH and Statistics Sweden. Special focus is on labour status, relating health to ability to work and access to work. • BHW (2003). <i>Psykiatrisk vård till vuxna asylsökande. Rapport till regeringen. (Psychiatric care of adult asylum seekers. Report directed to the government.)</i> Stockholm: BHW. • Ds 2002:32: <i>Welfare in Sweden: The Balance Sheet for the 1990s</i> Available online: http://www.sweden.gov.se/sb/d/574/a/17480 The report of the Welfare commission delivered to the government. <p>Other reports:</p> <ul style="list-style-type: none"> • Publications by the research group at Växjö University on "International migration and health" http://www.vxu.se/ivosa/forskn/vardvet/migration_halsa.xml • Gilani, Bahram N. (1996). <i>Äldre invandrare i Sverige : hälsa och sociala förhållanden : en litteraturstudie. (Older immigrants in Sweden: health and social conditions: a literature review)</i>. Rapportserie, Centrum för folkhälsovetenskap, Umeå universitet 1996:15. Umeå: Umeå universitet. • C. Karimi Moghari, Fereshteh (1998). <i>Hälsa, levnadsförhållanden och vårdkonsumtionen hos äldre iranier: en jämförande studie mellan svenskar och iranier i Linköping 1997. (Health, living conditions and care consumption among older Iranians: a comparative study between Swedes and Iranians in Linköping 1997)</i>. Linköping: Folkhälsovetenskapligt centrum. • Reports by local authority research units, for example: <ul style="list-style-type: none"> ○ Altvall, Helena (2000). <i>Äldre invandrades hälsa : rapport 13: Projekt Äldre och folkhälsa. (The health status of older immigrants)</i> Stockholm: Stiftelsen Stockholms läns äldrecentrum. ○ Appelquist, Irja (1995). <i>Invandrarnas hälsa i ett svenskt landsortslän : en studie av människor i arbetsför ålder (Immigrants' health conditions in a Swedish county: a study of a working age population)</i>. Skövde: Sektionen för samhällsmedicin, Skaraborgsinstitutet. • Publications by the research team on migration and health at the National institute for psychosocial medicine: English presentation on website: http://www.psykosocialmedicin.se/ipmen/start.htm
LT	<p>Government reports</p> <p>The Lithuanian Department of Statistics produces reports from the population census data. In these reports some of the data is presented by ethnicity and nationality. For example:</p> <ul style="list-style-type: none"> • Population by sex, Age, Ethnicity and Religion. Statistics Lithuania, Vilnius, 2002 (in Lithuanian and in English); • Disabled Persons; Statistics Lithuania, Vilnius, 2002 (in Lithuanian and in English). • Population by Education, Mother Tongue and Command of Other Languages. Statistics Lithuania, Vilnius, 2002 (in Lithuanian and in English).
UK	<p>Government reports</p> <p>Alexander, Ziggi (1999) The Department of Health study of Black, Asian and Ethnic Minority issues Rawaf Salman 1998 Assessing health needs of people from minority ethnic groups Sir Donald Acheson (1998) Independent Inquiry into Inequalities in Health DH (2001) Health Survey for England 1999: the health of minority ethnic groups Sproston, Kerry and Nazroo, James (Editors) (2002) Ethnic minority psychiatric illness rates in the community (EMPIRIC) - Quantitative Report Treasury (2003) Tackling Health Inequalities: A Programme for Action S. P. Sashidharan (2003) Inside Outside: Improving mental health services for black and minority ethnic communities in England National Centre for Social Research (2006) Health Survey for England 2004: Health of Ethnic Minorities - Full Report DH (2005) Practical guide to ethnic monitoring in the NHS and social care DH (2006) Mental Health Policy Implementation Guide: Community Development Workers for Black and Minority Ethnic Communities: Final Handbook DH (2006) The Department of Health's Race Equality Scheme</p>

Annex 3: Description of key EU surveys collecting health and migration information

Survey	Health indicators	Migration indicators	Technical issues relating to migration indicators
European Community Household Panel Survey (ECHP) "An annual panel survey based on a representative panel of households and individuals in each country [in the EU15], covering a wide range of topics: income, health, education, housing, demographics and employment characteristics."	<ul style="list-style-type: none"> Self-reported health indicators: <ul style="list-style-type: none"> Self perceived health Being hampered by daily activities Temporary reduction (last two weeks) of activity because of health problems Hospitalization in past 12 months Medical consultations in past 12 months Smoking Self-reported height and weight (to derive body mass index) 	<ul style="list-style-type: none"> LAST FOREIGN COUNTRY OF RESIDENCE BEFORE COMING TO PRESENT COUNTRY FOREIGN COUNTRY OF BIRTH CITIZENSHIP 	Sample permits analysis of cohorts of immigrants that reached Western Europe before the mid-1990s. Because of the arrival of new immigrants; non-random sample attrition; and the absence of refreshment samples, the cross-sectional representativeness of the ECHP tends to deteriorate over time, negatively affecting its utility for analyzing immigrant health. Last foreign country of residence and foreign country of birth data are unavailable for Germany, Netherlands and Spain. Citizenship data is unavailable for the UK.
European Union Statistics on Income and Living Conditions (EU-SILC) "Aims at collecting timely and comparable cross-sectional and longitudinal multidimensional microdata on income, poverty, social exclusion and living conditions."	<ul style="list-style-type: none"> Self-reported health indicators: <ul style="list-style-type: none"> Self perceived health Having a chronic illness or health problem Limited activity due to health problem in the past 6 months Smoking Self-reported height and weight (to derive body mass index) Other key variables: <ul style="list-style-type: none"> Unmet medical or dental care in past 12 months (on one or multiple occasions) Main reason for unmet medical/dental need (financial, waiting list, no time due to work/care responsibilities, fear or doctors/hospitals/ treatment, wanted to wait and see if problem improved on its own, did not know of a good doctor/ specialist, other reason) 	<ul style="list-style-type: none"> Country of birth Citizenship 	Limited sample size for migration analysis
Survey of Health, Ageing and Retirement in Europe (SHARE) "Multidisciplinary and cross-national survey on health, socio-economic status and social and family networks of individuals aged 50 or over."	<ul style="list-style-type: none"> Self-reported health indicators: <ul style="list-style-type: none"> Self perceived health Prevalence of chronic conditions (e.g., hypertension, diabetes, arthritis) Prevalence of cancer Experience of certain symptomatology in past 6 months (e.g., back or joint pain, cough, swollen legs, sleeping problems) Difficulty performing daily activities (ADL) and instrumental ADL Temporary reduction (last two weeks) of activity because of health problems Height and weight (to derive body mass index) Frequency of medication intake Smoking 	<ul style="list-style-type: none"> COUNTRY OF BIRTH YEAR CAME TO LIVE IN COUNTRY CITIZENSHIP COUNTRY 	Not known

	<ul style="list-style-type: none"> - Amount of physical activities performed per week ● Objective health indicators: <ul style="list-style-type: none"> - Walking speed - Grip strength 		
<p>European Core Health Interview Survey (ECHIS)</p> <p>This is the core component of the European Health Survey System (EHSS), and will start in 2007 in all EU Member states to be administered annually thereafter.</p> <p>The survey plan is still under construction, with the aim to take different forms in the different Member states, with some common elements.</p> <p>"The goals of European Health Survey System can be summarized as follows:</p> <p>identification of health problems;</p> <p>description of the health status and health needs of the population;</p> <p>estimation of the prevalence and distribution of health indicators; analysis of social (in)equality in health and access to health services; study healthcare consumption and its determinants, and preventive care; and study possible trends in health status, life style and healthcare services consumption among the population."</p>	<ul style="list-style-type: none"> ● Self-reported health indicators (in 2006 draft survey): <ul style="list-style-type: none"> - Self perceived health - Being hampered by daily activities - Temporary reduction (last six months) of activity because of health problems - Prevalence of chronic conditions (e.g., hypertension, diabetes, arthritis) - Health affecting work attendance - Self-reported height and weight (to derive body mass index) - Smoking - Difficulty performing daily activities - Amount of physical activities performed per week - Experiencing pain, discomfort, depression/ anxiety over the past 4 weeks Utilization variables: <ul style="list-style-type: none"> - How many visits to a medical doctor in the past year (GP & Specialist) - Inpatient and outpatient visits - How many visits to an alternative medical practitioner (e.g. acupuncturist) - Hospitalization (and type) in past year - Receipt of private and home care - Medication taken in past 2 weeks - Vaccinations received and date received - Last time blood pressure, blood sugar measured - Last time received a mammography / cervical smear test/ fecal occult blood test Access variables: <ul style="list-style-type: none"> - Waiting times - Unmet medical/ dental need Reason for unmet medical/ dental need 	Nationality; country of birth	Not known

Annex 4: Country experts

The following experts contributed to this research note by providing country reports:

Belgium – Dirk Corens and Maarten van Stiphout (Centre for Health Economics, Free University of Brussels); Bulgaria – Alexandrina Stoyanova (CRWE, University of Barcelona); Czech Republic – Martin Dlouhy (Czech Institute of Health Policy and Economics); Denmark – Karsten Vrangbaek (University of Copenhagen); Estonia – Triin Habicht (Health Economics Department, Estonian Health Insurance Fund) and Jarno Habicht (World Health Organization Country Office, Estonia); Finland – Jan Klavus (STAKES, Helsinki); France – Sandra Mounier-Jack (London School of Hygiene and Tropical Medicine); Germany – Stefanie Ettelt (London School of Hygiene and Tropical Medicine); Hungary – Roza Adany (School of Public Health, University of Debrecen); Ireland - Helen McAvoy (Institute of Public Health, Belfast); Italy - Margherita Giannoni-Mazzi (University of Perugia); Latvia - Daiga Behmane (University of Latvia); Lithuania - Skirmante Starkuviene (Dept of Social Medicine, Kaunas University of Medicine); Netherlands – Jeanine Suurmond (Dept. of Social Medicine, Academic Medical Centre, University of Amsterdam); Poland - Adam Kozierekiewicz (Health Information Systems Unit, Institute of Public Health of Jagiellonian University, Kraków); Romania - Victor Olsavszky (World Health Organization); Slovenia - Tit Albreht (Institute of Public Health of the Republic of Slovenia); Spain - Alexandrina Stoyanova (University of Barcelona); Sweden - Anna Melke (Göteborg University and the Vårdal Institute); Turkey - Omer Saka (Kings College London) and Nebibe Varol (London School of Economics and Political Science Health and Social Care).