Possibilities and limitations of comparative research on international migration and health

by
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SUMMARY

The present study with the aim of supporting further extension and quality development of PROMINSTAT focuses on the following topics:

- review of key health challenges related to international migration based on the existing literature;
- availability and reliability of data, the overview of existing information systems in this field;
- review and quality assessment of the existing information in PROMINSTAT.

Health issues related to migration include communicable and non-communicable diseases, maternal and child health, work accidents, psychological problems. The migratory process as well as the economic and social conditions of migrants can have a negative impact on the health. Many health problems of migration relate to the specific features of health care utilisation.

The dilemmas related to migrants' health and health care data can be summarized as follows:

- medical research uses homogenous samples, where the specificity of ethnic minorities and migrants does not appear;
- migrants may have low response rates in epidemiological and social surveys;
- monitoring undocumented immigrants is difficult or even impossible;
- measuring equity and the impact of migrant’s situation in the quality of care is complicated;
- recording ethnicity in clinical records can be illegal or politically sensitive, perceived as a discriminatory practice;
- the language and terminology used in surveys may have different meaning for groups of migrants.

If we assess PROMINSTAT according to comprehensiveness and inclusiveness, the conclusions are controversial. The database offers a fair amount of datasets on different topics related to migration and health despite the scarce information in case of some individual countries. The main conclusion from the database analysis is that there is no real possibility for European cross sectional comparative studies in this field in the current context. To some degree this may be related to uneven reporting and coverage in the PROMINSTAT database and country reports, but it also reflects a more fundamental lack of quantitative comparative data on the health situation and health system utilisation of migrants.

There are two important sources that can provide stratified data satisfying the needs of migration research:

- nationally representative data from routine health records (or data on mortality) linked with other relevant sources of information on the country’s population;
- EU cross national surveys related to health and social issues, if the sampling is appropriate and there are markers for migration analysis.

The EU Member States’ efforts should be:
➢ to develop the organizational base responsible for the collection, processing and analysis of data, including the implementation of the EU cross-national surveys and further analysis of existing data related to migration and health;

➢ to establish the regulatory framework and allocate resources for appropriate system development (confidentiality, data linkage);

➢ to increase funding and collaboration at the European level between national research centres to develop research techniques with focus on methodological development to allow the inclusion of data on migrants in national and European information systems;

➢ to support building the evidence base for further development of targeted policies and interventions, to identify specific entry points for policy action and adequately monitor and evaluate programmes addressing health of the migrants.

From a migration research prospective, the crucial questions of the future EU health survey system are the sampling methodology and the size. As for the meta-database a close, transparent and sustainable cooperation of PROMINSTAT country partners is a prerequisite for quality development.
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1. Introduction

Migration and health is a specialised field of interdisciplinary research, which focuses on the well-being of mobile populations, including long-term immigrants, temporary labour migrants, irregular migrants, and trafficked persons, through all phases of the migration process: pre-departure, during transit, upon arrival, in the host communities and upon return. The patterns of migration have impact on individual health and on health in both the sending and receiving communities.

What is the current situation regarding the measurement of health of migrants in Europe? Can we use the existing information systems to monitor migration-related health issues in the EU? This paper provides a brief overview and gives some suggestions for improvements.

The knowledge on the relationship between migration and health tends to be limited by the lack of information on the issue in most countries. Few European countries systematically gather information on the health of migrants. Current health recording systems are not designed to identify people by migration status.

There is a clear need from policy, health and social services and research prospective for comprehensive data on

- Migration policies and health
- Migration and its impact on the epidemiological situation in sending and host countries
- Lifestyles, health behaviour and health of migrants
- Migration and psychosocial health and well-being
- Migration and physical health, including communicable diseases, non-communicable diseases and illness, child and adolescent health, reproductive and sexual health, accidents, injuries, occupational health
- Migrants’ health assessments
- Migration health assistance and advice
- Access to and availability of health services and insurance
- International tourist mobility and health
- Migration of health professionals

This list is far to be full and exhaustive (for instance, it does not include the very broad issue of social and economic determinants of health or the questions related to disability)

Research on migration and health and even public administration information systems have gathered an extensive but inconsistent body of evidence on plausible topics and dimensions, key areas for addressing the gaps with policies and actions. PROMINSTAT focusing on country reports, database development and thematic studies is a unique knowledge base in this area, by its nature stimulating interdisciplinary approaches of analysis.
The present study with the aim of supporting further extension and quality development of PROMINSTAT focuses on the following topics:

- Review of key health challenges related to international migration based on the existing literature
- Availability and reliability of data, the overview of existing information systems in this field
- Review and quality assessment of the existing information in PROMINSTAT
- Conclusions and recommendations

2. Review of key health challenges related to international migration

In this chapter we look on key health challenges in order to determine indicators on which data should be available. This brief overview is based on a literature review of the Migration Health Department of the International Organization of Migration commissioned by WHO and our additional literature research.\(^1\)

2.1 Health issues of the process of migration

A wide range of health issues are connected to migration. It includes communicable and non-communicable diseases, maternal and child health, work accidents, psychological problems. The migratory process as well as the economic and social conditions of migrants can have a negative impact on the health. Many of health problems of migration relates to the specific features of health care utilisation. The health of migrants might have significant social and economic consequences for host countries as well.

The migration process is, even in the best possible circumstances, a stressful event, and as such places a migrant at increased risk of morbidity. Social, economic, cultural and linguistic barriers may pose obstacles both to migrants seeking health services and to the service providers.

Migrants are not necessarily disadvantaged in all aspects of health. Many studies have shown that chronic diseases are less prevalent in some migrant groups compared to host European populations. This is known as the ‘healthy migrant effect’, what can be explained partly by (self-) selectivity of migration process. Another reason relates to a difference in timing between the health benefits and the health risks of migration: the advantage may diminish over time or in next generations.

The healthy immigrant effect is in fact on the basis of the literature a consequence of several health and social factors. Many immigrants arrive from regions of the world where lifestyle-associated risk factors contributing to chronic diseases, particularly obesity, inactivity and diet, are less prevalent than those observed in the developed world. European countries that have complex immigration selection processes often search for younger and better educated immigrants, who may also be better able than older, less healthy immigrants to cope successfully with the physical, psychological and sociological challenges of immigration. Immigration medical requirements and

\(^1\) On the directions of research with regard to health and migrations see Ingleby 2006.
screening for chronic diseases may deny admission to individuals with existing illness or support self-selection of healthier individuals.

For several conditions and illnesses, many migrants, for example, on arrival, display better health indicators than the host population. Examples of this include body mass index, dietary practices, some STIs, the use of health services and self-reported health status. Longitudinal studies in some major receiving countries suggest that over time these advantages decrease and migrants begin to assume the characteristics of the host populations. Studies on this effect in Europe are limited but there is growing evidence of the healthy migrant effect in several conditions.

One has to be very careful to make generalizations about the health of migrants. Mortality and morbidity patterns vary across residence, time, age, gender, type of disease, different countries of origin and type of migration.

The following explanations for the differences in health between ethnic groups have been identified

- genetic differences;
- cultural differences;
- socioeconomic position;
- short term migration history;
- ethnic identity.

In terms of determinants, varying patterns in risk factor prevalence (smoking, inactivity, alcohol consumption and so on) are also important explanatory factors for the specific features of migrant's health.

2.2 Epidemiological aspects

2.2.1 Communicable diseases

Communicable and infectious diseases like tuberculosis, AIDS, vaccine preventable diseases and several parasitic diseases in migrant populations is a rising issue. Screening for infectious diseases in migrants arriving in Europe varies according to national practice. Some nations require mandatory health assessments before departure in the country of origin or upon arrival, others arrange for voluntary evaluation after admission. Also, the screening protocols differ widely among European countries.

Communicable diseases which are exceptional, unusual in the host population, can generate significant concern despite low occurrences. Additionally, controlling these infections in low incidence environments can require extensive training and support for health care and social sectors no longer used to encountering them. In the public opinion of a European country that has been recently sensitized to some of the potentially dramatic consequences of infections of epidemic potential (SARS, avian and pandemic influenza), the increased frequency of infectious diseases in the foreign-born can generate or support unreasonable concern and may further stigmatize some communities.

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2 Kennedy et al. 2006.
2.2.2 Non-communicable diseases

Non-communicable diseases and illnesses can be inequitably distributed among migrants. Prior to migration, access to and use of preventive or therapeutic medical services may not have been available to poor or otherwise vulnerable migrants in less developed regions of the world.

Genetic and biological factors can result in some migrant populations being at higher risk of chronic diseases and illnesses when compared to the host population. If these maladies have been historically rare or uncommon, their significance may not be appreciated and / or there may not be diagnostic or therapeutic intervention services that are available.

Following arrival, health promotional or preventive services may not be available or accessible because of linguistic or cultural barriers, or as migrants are not recognized as groups with specific risks. Additionally, poverty and social isolation may limit the use of preventive health services by those most vulnerable, particularly irregular migrant communities.

2.2.3 Mental health

Psychological stress may also contribute to the problems migrants face. Deprivation, employment difficulties and problems of cultural and social adaptation deserve attention.

Many migrants are separated from their families, some for extended periods of time. Isolation and separation are more common in irregular migrant communities, but temporary migrant workers also share these characteristics. Prolonged separation from the loved ones is associated with mental and psychosocial illness as well as risk taking behaviours that have adverse health outcomes. Substance abuse, high risk sexual activity and violence occur with greater frequency among migrants who are exposed to long periods of separation or isolation. Women and girls, particularly if they are separated from family support structures and safe environments, may be subject to gender-based violence.

Mental and psychosocial health concerns have been reported for different migrant populations, including high rates of alcohol and drug abuse, depression, anxiety, and schizophrenia. Traumatic experiences prior to departure or during the migration process, such as armed conflict, hunger, physical or sexual abuses, can pose a heavy burden on a migrant's mental well-being. Once uprooted from their culture, migrants may suffer a sense of loss, particularly in the case of forced migration: loss of home, separation from family and community networks, and the loss of sense of belonging. Following arrival, a variety of factors may increase psychosocial vulnerability and hinder successful integration, such as cultural differences, language barriers, discrimination and social exclusion and unemployment. Migrants in an irregular situation often live for prolonged periods in a state of uncertainty about their fate and have limited access to services. These factors combine to make mental and psychosocial illness a major health concern for many migrants in Europe.8

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It is important to note that the recognition, diagnosis and management of mental illnesses and psychosocial problems are highly dependent upon the linguistic and cultural competency of the health care sector at the host country. Where these services are deficient or lacking the true incidence of mental disorders might be significantly underreported. Studies on utilization of mental health services by migrants demonstrate variations in service provision between European locations.

### 2.3 Maternal, child, reproductive and sexual health

Migrant children and children born into migrant families are at increased risk of several adverse health outcomes. The stresses of migration and seeking asylum, particularly in communities that have been traumatized or forcibly displaced can result in the early development of mental and psychosocial illnesses. Many are related to the lack of access to preventive and promotional health and dental care, others resulting from poverty and exclusion. Once again the most vulnerable are irregular migrants, and those in single parent families, particularly single parent families headed by women. As noted elsewhere, children born to migrant families from the tropical and developing world are at increased risk of travel associated disease and illnesses in the context of travel to their place of origin to visit friends and families.

Maternal and child health, reproductive health and sexual health represent important challenges for some migrant populations. For irregular migrants and other vulnerable groups accessing prenatal care is a major public health issue. Studies in some EU nations indicate divergent outcomes for pregnancy. In some locations and for some populations the outcomes are similar to those observed in the host population while at other sites and for some migrant communities the complications of pregnancy occur more frequently in the latter.7

Poverty and marginalization can limit access to reproductive health services for migrants. Ensuring that migrants have early access to these services including prevention and health promotion, screening and diagnostic care as well as prenatal and obstetrical services will reduce risks of adverse outcomes.

Sexually transmitted diseases including HIV in certain migrant populations are of concern in some EU countries. Migrants originating from global regions of high HIV prevalence may represent populations at increased risk of exposure to HIV infection after arrival.8

Migration also creates situations where cultural and ethnic reproductive and sexual health practices and norms may challenge or conflict with those in the host community. Access to and use of contraception at the new home may differ significantly from patterns at the place of origin. In addition, migrants from religious or culturally conservative environments may find traditional approaches to sexuality and behaviour challenged by their new place of residence. All of these factors may affect stress and family health in some migrant communities in both adult relationships and at the parental-child level.

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7 Gagnon et al. 2003.
8 Matic et al. 2006.
Recognition and management of reproductive and sexual health issues require cultural competency of health care providers that may not be part of current medical education programmes in Europe.

2.4 Occupational health, safety at the workplace

Migrants are often placed at increased risk of work-related or occupational illness, injury or even death. Limited language skills can affect training and uptake of occupational health information while employment in informal employment situations may pose additional risks. In this latter category, trafficked and smuggled migrants are also exposed to violence, trauma and restricted access to health care services. Female migrants trafficked or coerced into situations of forced labour or sexual exploitation may be at increased risk of work-related illness and injury due to their vulnerability and exposure to gender-based violence.

Migrants are often employed for only low-skilled jobs that also mean they are often confined to high risk and irregular occupational settings. The fact that they come into them with little previous experience and receive little training and safety support means that they are often exposed to health problems and accidents associated with low-skilled jobs.

For all migrants, limited language skills and lack of knowledge of or experience with occupational health and safety practices can affect workplace health risks. There is some evidence that foreign-born workers are at increased risk of on the job injury compared to host population workers. If they are injured at or because of work, migrants, particularly irregular migrants working without work permit, may not be aware of the requirements regarding injury reporting to occupational health authorities. Additionally, they may be unaware of or not have access to care, compensation or rehabilitation. As such, occupational health injuries among migrants may be significantly underreported.

2.5 Accessibility of health services

Access to health care is fundamental to maintaining and improving the health of migrant populations. Those at greatest disadvantage continue to be irregular migrants, working in an illegal or semi-legal way in the hosting country. Depending on location, services may be limited by the migrants’ status and right of residence.

Not only linguistic and cultural barriers impact on migrants’ access to health services. Often there is a lack of information on available services. The lack of awareness and training on the part of health care officials regarding migration health issues and the lack of understanding the specific needs of migrants might also play a role as well as high expectations coupled with a lack of trust on the part of migrants. The increasing diversity of modern migrants often exceeds the capacity of health care delivery systems.

According to current research results the main barriers to the accessibility of health services for migrants are based on the following:

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obtaining permanent resident status may take several years during which time full access to care may be denied;

- complicated and rigid health insurance system;
- health services are not granted equally to undocumented migrants and they are fearing detection;
- language problems, cultural differences and also the lack of knowledge about the health system may be obstacles in providing care and other health related contacts at appropriate quality.

Health care systems of host countries may not recognise migrants’ personal health history and beliefs about health. Language, religion and rituals can influence whether the migrant may want to use health services. Availability of health services is significantly lower for immigrants than for other population groups. Inequalities have been found in particular in

- screening and vaccination;
- primary care;
- hospital inpatient and outpatient services;
- dental care;
- access to sexual and reproductive health services;
- mental health services;
- long-term care.

Under-utilisation of health care may result in worse health outcomes, i.e. a relatively higher rate of avoidable mortality or more frequent self-medication.

3. Migration of health professionals

In the last decade we can observe acceleration in the movement of health professionals within the EU as well as from less to more developed countries. Its magnitude and composition by country of origin is new, with potentially problematic impacts on health care systems and health development in the sending countries. One of the implications of the demand for nursing staff has been the voluntary „downgrading“ of professionals in order to meet the needs of recruitment drives. An important new phenomenon is the growing number of elderly migrant health care workers, caring for elderly people in the informal economy.

Migration and international recruitment of health workers have a special importance to primary health care. Primary health care systems in Central and Eastern Europe are understaffed and vulnerable to out-flow of personnel to urban areas and to other countries. From the other side the developed European countries are dependent on internationally recruited staff.\(^\text{12}\)

Improvement of data collection and research on the migration of health workers is an important challenge. The current evidence-base on the trends and patterns is fragmented. The challenges involved in data collection and analysis are compounded by a lack of consistency in definition of relevant data items among countries.\(^\text{13}\)

\(^\text{12}\) Dubois et al. 2006.

\(^\text{13}\) See: Dussault et al. 2009.
Ideally international migration of health personnel should be monitored by gathering data on the annual number of health workers moving from one country to another. Few European countries have accurate, complete and timely data on the number of nationals working abroad or leaving the country.

There are a few specific studies on this issue and various synthesis reports, like the 2008 OECD report "Looming Health Crisis" which has a chapter on the migration on health care workers, presenting some statistical information. Also, the WHO is developing a code of practice in this field. There is not yet consensus among WHO member states on the type and scope of data to be collected and the type of information exchange.

4. Legal framework

4.1 International legal framework

Article 25 of the Universal Declaration of Human Rights (UDHR)\(^\text{14}\) and Article 12 of the International Covenant on Social, Economic and Cultural Rights (ICESCR)\(^\text{15}\) are only two examples of articles recognizing the right to health at an international level. They both belong to international instruments, which recognize the right to health as a fundamental human right, and extend protection to non-citizens as well as citizens.

Other international instruments spread across different branches of laws, such as Human Rights Law, Refugees Law, International Humanitarian Law and Labour Law, and address the right to health of specific categories of people involved in migration. An example of a core human right instrument is the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (MWC).\(^\text{16}\) Article 28 recognizes the right to emergency medical treatment to all migrant workers and members of their families, regardless of whether their stay or employment is irregular. In recognizing only necessary emergency medical treatment, however, the MWC fails to guarantee access to preventive medical treatment such as early diagnosis and medical follow-up, not to mention the fact that a few countries in the European Region have ratified it.

4.2 European legal framework

Important European instruments, such as the European Convention on Social and Medical Assistance and the European Social Charter and revised Charter, explicitly require that nationals of one Contracting Party lawfully present on the territory of another be afforded medical assistance on terms equal to those of nationals of the second Party. The European Court of Human Rights' case-law have outlined that the denial of health care to irregular migrants may also amount to an infringement of this right. Article 3 has also been invoked to prevent migrants who are ill from being expelled to countries of origin or third countries with inadequate health care facilities. Further, according to the European Court of Human Rights' case law, a state's failure to provide effective access to health care for irregular migrants can also constitute a


\(^{15}\) http://www2.ohchr.org/english/law/cescr.htm

\(^{16}\) http://www.bayefsky.com/treaties/mwc.php
violation of Articles 2 (Right to life) and/or 8 (Right to respect for private and family life).

4.3 National level

Competence to act in the field of public health and health care services is still primarily a national matter. Further, the responsibility to ensure access to quality health care in the EU lies with the Member States. Nevertheless, direct EU influence is increasing. There have been efforts within the EU to mainstream health issues into policy areas such as social protection and employment in line with the provision of Article 152 of the EU Treaty. Furthermore, there have been attempts to extend the EU's influence over health services and social regulation in relation to the European single market and to trade issues. Additionally, the European Court of Justice has, in various cases brought before it relating to the four freedoms of the single European market (people, goods, services and capital), decided that health issues are not exclusively national matters. Lastly, Article 137 of the EU Treaty also acknowledges direct Community competence within the field of health, although it only allows for action that supports or completes measures being already taken by Member States.

5. Availability and reliability of data related to migration and health

5.1 Definitions

The complexity of creating a database on the health of migrants is largely related to the theoretical and practical, data collection level difficulties of the definitions.

Driven by a combination of social, economic, geo-political, demographic and environmental factors the scope and scale of migration continue to grow rapidly. This process brings changes not only in the number but also in the nature and diversity of those who migrate, each of which may be differentially affected or subject to health problems. Patterns of migration continue to change according to the origin and destination of migrants. Migration in Europe involves a diverse population including migrants in regular and irregular situation, intending a long or short term stay, students, victims of trafficking, asylum seekers, refugees, and displaced persons or returnees.

The term "migrant" is generally understood as covering “A person who moves to a country other than that of his or her usual residence […] so that the country of destination effectively becomes his or her new country of usual residence.” This is the recommendation of the UN and of EUROSTAT for international migration statistics. Here, the wide concept of migration is used according to PROMINSTAT thematic study standards including second generation migrants. In health issues the analysis is based on WHO definitions.

Many sources including published literature, reports and statistics commonly refer to "immigrants" or "migrants" as if they were a uniform population of foreign born

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residents residing within or attempting to enter a European country. In fact, the demographics have become much more complex, particularly during the past two decades. This complexity is directly and indirectly related to many of the health issues and concerns of this population.

The application of the demographic descriptors immigrant and migrant, definitions related to the process of leaving one’s nation of birth and moving into another one with the purpose of settlement, are traditionally associated with a defined residence status. Such status normally confers rights, including access to social and medical services, and obligations that are comparable to those of citizens born in the country.

Population-based statistics in some sources may be represented in terms of citizenship rather than country of birth. In those situations, migrants who do not have citizenship and who may lack access to some rights and services yet who are residents may not be reported. Representing population statistics by country of birth, rather than citizenship can offer a more complete picture of the demographics and impact of migrant populations.

Migrants who obtain permanent residence or citizenship are frequently included in administrative and health statistics as part of the national population. However, several migration related economic and social factors, including aspects of their lifestyles and behaviour and many health related influences associated with migration can persist long after permanent residence or citizenship is attained. In the case of some biological and genetic determinants of health, as well as for certain behavioural influences, effects may extend over generations. It is also not clearly conceptualised when a group ceases to be defined as migrant and when it begins to constitute simply a culturally distinct or ethnic group of residents.

5.2 Data sources suitable for international research on migrant’s health

The data availability and the possibilities of comparative data have different characteristics at national and European levels.

At the national level, health information flow starts with the data registered on an individual fiche that comprises medical information and some general information about the person – like gender, age, health insurance number, personal identification number, or residence, etc. The information is collected by the health sector (hospitals, general practitioners offices, therapeutic ambulatories, pathology laboratories, etc). The data collected is reported to a central or regional level; the exact way of how the system is organised differs from one country to another. Health data on individuals is aggregated at different levels in the system which leads to the development of indicators corresponding to the local, regional or national level. It should be noted that the regular information collected on the medical file rarely includes relevant information related to migrant status, such as place of birth, ethnicity or citizenship.

The information flow is usually similar to the mortality registries, where personal data is collected on personal fiches and reported at a regional and then national level. Special regulations in force at national and EU levels make the security encryption of medical records mandatory, ensuring the confidentiality and protection of personal data. Depending on the level of development of the information systems there is the possibility to link data from the health databases with other general data sources on population, which comprises information on place of birth, ethnicity, citizenship, etc.
The linkages could make available health data stratified by migrant status that can be used to measure specific characteristics in health by migration.

Specific data on health and migration can be provided by health interview surveys, where information on health-related issues is regularly collected by means of interviews in a representative sample of the population. If migration-related indicators are introduced in the population surveys (i.e. health interview surveys) then data on health and determinants of health can be stratified by migration if the sample size is large enough. By signing the World Health Assembly Resolution on Social Determinants of Health, international organizations and member states globally have shown commitment to ensuring better monitoring in the area of health inequities. This Resolution calls on the need to “develop, make use of, and if necessary improve health information systems and research capacity in order to monitor and measure the health of national populations, with disaggregated data such as age, gender, ethnicity, race, caste, occupation, education, income and employment ...so that health inequities can be detected and the impact of policies on health equity measured”20.

The most recent Communication from the Commission of the European Communities “Solidarity in Health: Reducing Health Inequalities in the EU” stresses the importance of ‘improving the data and knowledge base and mechanisms for measuring, monitoring and evaluation and reporting’. The EU level actions include support for ‘the further development and collection of data and health inequalities indicators by sex, age, socio-economic status and geographic dimension. This is a window of opportunity for migration research. At the same time, in close collaboration with the Commission, Member States should aim to establish a common set of indicators to monitor health inequalities and to be able to identify and prioritize areas of improvement and best practices.

Many countries and international organizations already collect and analyze data on the health of migrants. However, the possibilities for regular analysis of migration and health are available only in some countries. The process of identification and analysis of health inequalities related to international migration and the socio-economic determinants of migrant’s health is mainly based on various sources and dispersed within different information systems. The indicators that can be used to measure and describe migrant’s health are not routinely provided in a comparable manner across the EU. Sometimes existing data is underutilized. The availability of data for analyzing health and migration at national and EU level varies widely by Member States and depends mainly on the level of development of the health and the migration data collection systems (both very complex issues) and on the availability of national health surveys and studies.

Considerable obstacles lie in the way of developing information systems on the health of migrants. Some relate to the content and structure of current health databases; others concern the difficulties and costs of creating and maintaining comprehensive databases. Furthermore, public health databases (e.g. those maintained by countries) may themselves lack connections with one another. Other problems include the need to create longitudinal records.

Health and migration researchers encounter privacy and confidentiality issues at various stages of research, from sampling and data gathering, to data processing and analysis, to data storage, data dissemination, and the publication of research

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20 Sixty-second World Health Assembly, 22 May 2009
results. Researchers and data base managers need to be aware of and understand the range of privacy and confidentiality concerns in health research to adequately protect the privacy interests as well as the confidentiality of personal health data. However, a future legal development at European level is needed, offering a fair framework for ethical research with real opportunities for data linkage.

According to recent publications, the dilemmas related to migrants’ health and health care data can be summarized as follows:21

- Medical research uses homogenous samples, where the specificity of ethnic minorities and migrants does not appear,
- Migrants may have low response rates in epidemiological and social surveys
- Monitoring undocumented immigrants is difficult, even impossible
- Measuring equity and the impact of migrant’s situation in the quality of care is complicated
- Recording ethnicity in clinical records can be illegal or politically sensitive, perceived as a discriminatory practice
- The language and terminology used in surveys may have different meaning for groups of migrants.

The main advantage of using targeted survey data over administrative data on migrants, mortality records and other registers is that they allow health indicators to be examined in relation to a number of dimensions of socio-economic status. Further, available European survey data contain a large scale of indicators on health and are not restricted to a specific health outcome, such as mortality. But immigrant populations in Europe (except for some countries) are of limited size so with insufficient frequency and often underrepresented in general population samples, and too young to make any stable estimates of immigrant life expectancy.

The different groups of migrants, such as students, economic migrants, asylum seekers or irregular migrants are likely to have specific patterns of epidemiological situation and health care utilisation. This is also an important argument in favour of specific targeted surveys.

The main source for identification and measurement of health of the population at an EU level is provided by data collected through the European Cross-national Surveys. However, their use for analyzing migrant’s health issues is limited because of low frequency of migrants in the sampling practice. Data on health status (especially morbidity and disability) and in access and use of health care as well as on health-related behaviour (such as: smoking, physical activity, intake of vegetables and fruits) are collected at a national level through the health interview surveys (HIS). The HIS data are collected on different years depending on the country, starting from 1996 to 2003;

The national level surveys incorporate EU health modules which enable comparability of data at an EU level, resulting in the EU cross-national health surveys. The EU cross-national health surveys are based on interviews or both, interviews and examination. By using a common set of questions and methodologies to analyze the collected information, the EU cross–national surveys aim to provide data that is compatible and comparable between countries. From the organizational point of view, the European Health Survey System (EHSS)22 was developed under

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21 See Mladovsky P.: Migrant health in the EU. Eurohealth vol 13. No.1 9-12
22 http://ec.europa.eu/health/ph_information/dissemination/reporting/ehss_en.htm
the EUROSTAT (ESTAT) and the Directorate General Health and Consumer Protection (SANCO). The aim of EHSS is to bring together the different health and health related surveys taking place at the EU level for different purposes and by a variety of actors under a single framework. The EHSS activities are coordinated by a Steering Committee (SANCO, ESTAT, member experts, when relevant other DG’s or EU bodies) with the main task of making recommendations concerning the development and implementation of the EHSS instruments and tools.

From the perspective of analyzing migration and health, four cross-national surveys established at an EU level have the potential to provide more relevant data and indicators:

The European Union Statistics on Income and Living Conditions (EU-SILC)\(^\text{23}\) is one of the cross-national surveys that have been developed by EUROSTAT. The starting date for the EU-SILC instrument under a framework Regulation was 2004 for the EU-15 (with the exception of Germany, the Netherlands and the United Kingdom, which had derogations until 2005), as well as for Estonia, Norway and Iceland. The 10 new Member States with the exception of Estonia started in 2005. The instrument has also been implemented in Bulgaria, Romania as of 2007. EU-SILC covers the representative sample of the adult population aged 16 years and over and contains questions that can be used to analyse inequalities in areas like: self-rated general health, chronic illness and conditions, activity limitations and unmet need for medical care. Because information on migrant’s status is also collected the data can be stratified by migration.

The European Health Interview Survey (EHIS)\(^\text{24}\) is a cross-national survey that was developed by EUROSTAT with the main objective of monitoring the health status and health care use in EU Member States. One of its objectives is also the “analysis of social (in)equality in health and access to health services”. It comprises of a set of modules that aim to ensure a harmonized measure of a wide variety of indicators in health status, health care use and socio-economic status. The whole questionnaire is almost finished and when applied uniformly across Member States it will deliver comparable results between all Member States.

The Survey of Health, Ageing and Retirement in Europe (SHARE)\(^\text{25}\) is a multidisciplinary and cross-national panel database which contains questions on physical health, behaviour risks, cognitive function, mental health and health care as well as on socio-economic status and social support variables for individuals aged 50 or over. Eleven countries contributed to the 2004 baseline study and 15 participated in a second wave of data collection in 2006-07 with 16 due to participate in 2008-09. The survey is based on a pre-established methodology and a rigorous procedure harmonized across countries. It provides health data for a specific age group stratified by socio-economic status and allows comparisons of socio-economic determinants of health and health inequalities between and within countries. This survey system has a very low present value but an important future potential for migration research.

\(^{23}\) http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/eu_silc


\(^{25}\) http://www.share-project.org/t3/share/index.php?id=60
The European Community Household Panel (ECHP)\(^{26}\) is a survey based on a standardised questionnaire that involves annual interviewing of a representative panel of households and individuals in each country, covering a wide range of topics: income, health, education, housing, demographics and employment characteristic, etc. The total duration of the ECHP was 8 years, running from 1994 to 2001. In the first wave, i.e. in 1994, a sample of some 60,500 nationally represented households - i.e. approximately 130,000 adults aged 16 years and over - were interviewed in the then 12 Member States. Austria (1995) and Finland (1996) have joined the project since then. Data for Sweden is available as of 1997, and has been derived from the Swedish Living Conditions Survey and transformed into ECHP format.

<table>
<thead>
<tr>
<th>Health indicator</th>
<th>ECHP</th>
<th>EU-SILC</th>
<th>SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most subjective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-assessed health (very good, … very bad)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chronic illness/condition</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Limited activities</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Symptoms</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Depression scale</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Activities of daily living</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Diagnosed conditions</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Body mass index (reported)</td>
<td>X(^a)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Physical measurements (grip strength, walking speed)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Source: Bobak, Martin: Health Inequalities in Europe. Data Availability and Methodological Issues in Central and Eastern European Countries. UCL. 2009

SHARE is the richest survey with respect to information on health, but it covers only the population aged over 50, and has smaller samples from each country. Therefore the applicability of SHARE in migration issues is very limited.

The three most subjective variables are available in all three surveys. The advantage of these indicators is that they provide a global assessment of health in general that is informative for all types of migrant populations. In the future we can expect an increasing importance of subjective measures of general health in survey analyses with respect to migration.

The EUROBAROMETER\(^{27}\) is devised to explore opinions for a limited number of topics each year. It is collecting information on life-style, living and working conditions through questionnaires developed by DG Health and Consumer’s Protection as well as face-to-face interviews in participants’ homes.


\(^{27}\) [http://ec.europa.eu/public_opinion/index_en.htm](http://ec.europa.eu/public_opinion/index_en.htm)
Indicators related to health behaviours, like smoking or alcohol consumption, are calculated from data obtained in the health surveys and the Eurobarometer interviews (such as: “regular daily smokers in the population, %, age +15” or “pure alcohol consumption, liters per capita”).

The survey-based measures of health status and of health care access and use can be subject to potential limitations due to cultural biases, recall biases, different coverage of the population and issues related to the representativeness of the survey.

ECHP and SHARE are panels of longitudinal character. EU-SILC is both an annual cross-section and a smaller rotating panel (usually over four years). The health module of EU-SILC constitutes the Minimum European Health Module (MEHM) of the European Health Survey System (EHSS). EHSS is in fact an initiative of the DG-SANCO and EUROSTAT to improve a comparability of health survey data within the EU. In addition to the MEHM it will conduct periodic European Special Health Interview Surveys and is compiling a database of Health Interview Surveys and Health Examination Surveys. These are potential important new opportunities for future analysis of the health of migrants throughout Europe. This assumption requires a further examination of EU policies in this field.

5.3 EU policies on data collection in Public Health

One of the European Commission's aims is to produce comparable information on health and health-related behaviour of the population, on diseases and on health systems. Most of the actions supported by the Programme of Community Action in the Field of Public Health (2003-2008) were related to the development of indicators, leading to recommendations either for indicators for various health topics or for improvements in the collection of data relating to these indicators. This development sets new standards on the health issues in the EU, however the latest developments related to new EU data collections cannot be reflected in the PROMINSTAT database.

The European Community Health Indicators (ECHI) shortlist, which includes over 80 indicators, has been developed within the EU Public Health Programme (2003-2008) as a priority list for data harmonization among EU countries. ‘Harmonization’ refers to uniformity of indicator definition as well as of underlying data collection. The shortlist indicators were selected by expert panels to represent a core set of ‘the most important public health items, from a general policy maker’s point of view’.

The objective is to complete the European Community Health Indicators list that will serve as a basis for the European health information and knowledge system, including their operational definitions. The ECHI project under the Health Monitoring Programme has developed a comprehensive list of indicators, in close co-operation with many of the other projects under the programme.

According to the EU public health strategy documents it is impossible to collect data and produce ECHI indicators without a good basis in the form of EU instruments to gather such information. The EU action focuses on improving the quality and the comparability of these instruments (health surveys, disease registers, hospital activity, health accounts, etc.) to make it easier for Member States, European networks and ECHI to compare and analyse information.
The most promising development from migrant’s health prospective is the new European Health Interview Survey.

The European Core Health Interview Survey (ECHIS) is the basic survey of the European Health Survey System (EHSS). The survey system might take various forms in different countries, but in all Member States the common elements could be: the annual Mini European Health Module (MEHM), this would be the annual component of the ECHIS, providing the data needed annually for the European Structural Indicators in the field of health, such as the Healthy Life Years (HLY) as well as other modules such as a European Module on Health Status (EMHS), a European Survey Module on Determinants of Health (ESMD) and a European Survey Module on Care (ESMC).

According to EU documents, the ECHIS, together with DG Health and Consumer Protection’s European Special Health Interview Survey (ESHIS) will constitute the European Health Interview Survey (EHIS). From DG Health’s and Consumer Protection’s point of view, the EHIS thus consists of five components:

1. The European Core Health Interview Survey (ECHIS):
   - the annual Mini European Health Module (MEHM)
   - the European module on health status (ECMHS)
   - the European Health Determinants Module (EHDM)
   - the European Health Care Module (EHCM)
   - the European Background Module (EBM).
   This component will be handled by the European Statistical System (ESS).

2. A complementary set of European Special Health Interview Surveys (ESHIS). The complementary surveys may look at different subjects or thematic areas, such as nutrition, adolescents, mental health, musculoskeletal diseases, respiratory diseases, drug addiction, mental health, chronic diseases, use of health services, self-medication, limitation of functions, reproductive health, etc. However, for reasons of comparability and in order to improve overall coordination, these surveys should at least include the MEHM and preferably one or more of the ECHIS modules. Technical co-ordination in this area should be improved.

3. In the context of the complementary set of European Special Health Interview Surveys (ESHIS), a specific attention will be focused on the development of survey instruments covering three important topics:
   - coverage of functional topics in Europe as set out in the ICF (International Classification of Functions);
   - modules on mental health and on QOL (quality of life) indicators which define, for both these fields, appropriate instruments within the DG Health and Consumer Protection Working Party on Mental Health;
   - the key indicator ‘Extent and patterns of drug use among the general population’ following the European Model Questionnaire (EMQ) developed by the European Monitoring Centre for Drug and Drug Addiction

4. A European Health Examination Survey (EHES) carried out on a sub-sample of individuals selected for an HIS in order to meet certain design and procedural requirements if the ongoing feasibility study gives a favourable opinion.
5. Some auxiliary modules focusing on the opinion of citizens on health-related problems or serving as an auxiliary tool in certain circumstances (gaps in the HLY indicator) could, where appropriate, be implemented, using the European Commission Eurobarometer survey or, in certain cases and where possible, other European surveys such as the Labour Force Survey, etc. Synergies and frameworks shared with other international surveys need to be defined (e.g. EPIC, World Health Survey, etc.).

From a migration research prospective the crucial question of the future EU health survey system is the sampling methodology and the size.

6. Review of the existing information on the basis of PROMINSTAT

The data situation on international migration and health for countries participating in PROMINSTAT is characterized by a large variation in terms of quantity, quality and availability of data, definitions, and coverage of the key indicators. Despite all the conceptual, methodological and practical dilemmas of collecting and analyzing information on migration and health PROMINSTAT creates a new situation, offering a broad scale of opportunities for innovative approaches in this complex area of knowledge.

The following sections on the basis of our own review test the PROMINSTAT database from health prospective with special emphasis on comprehensiveness. Inclusiveness and quality.

6.1 Methodology of reviewing PROMINSTAT database from a health prospective

Identifying and selecting the maximum of relevant datasets was a critical stage in our analytical process. In order to confirm and supplement our research, we asked for feedback from project partners.

The databases of our analysis must be relevant to the topic of international migration and health in terms of their coverage and content. The datasets included in PROMINSTAT cover different time periods, use different subject headings and provide different amounts of relevant information. Consequently each has different specific strengths and weaknesses.

We invited our counterparts in the quality assessment process to comment on two documents.

In an Excel chart we tried to list as much health relevant datasets as we could find in PROMINSTAT for each country. We gave the following information on each dataset according to the categories elaborated in our analysis

- data source
- health relevance of surveys
- health relevance of other types of datasets

We asked colleagues to check if we managed to collect all relevant datasets, insert those we failed to identify, cross out any that is not relevant and make comments on their usefulness. It was also possible to change the source and relevance of datasets (from the drop-down lists).
In addition, with a second document, we compared the PROMINSTAT database and country reports. In a questionnaire, we asked some countries to give their comments on the differences between country reports and the PROMINSTAT database.

6.2 Results of the quality assessment

Summarising the results of this additional research among project partners, we can conclude the following:

- We received comments on the usefulness of each/some of the listed databases which helped us to determine or change their health relevance category.
- According to the suggestions of PROMINSTAT partners we had to delete a couple of datasets from our list. The reason of deciding so in most of the cases was a methodological problem related to the representativeness of data on migrants.
- We were informed about datasets missing from our list or datasets to be added soon in PROMINSTAT.
- Usually we were provided with detailed information on differences between country report and PROMINSTAT database. It occurred that databases were not described in PROMINSTAT due to lack of time and human resources, but usually the differences between the country reports and PROMINSTAT had methodological reasons.
- In some cases we got additional information on the data situation on health in the given country or about future datasets under preparation.

Involving PROMINSTAT partners to verify and assess the quality of the included datasets contributed significantly to the precision and sensitivity of our analysis. Our experience also provides some pointers for future activities:

- creating precise research questions and identifying the appropriate datasets to answer those questions,
- matching key databases to the questions being asked and not necessarily trawling all available databases merely because they exist.
- adopting a pragmatic and flexible approach which allows a continual review of how and where to best find appropriate datasets,
- having a fair understanding of the existing database.

6.3 Main results of the empirical analysis of PROMINSTAT from a health prospective.

The distribution of the type of information on international migration and health according to the standard types of data sources in PROMINSTAT is as follows:
Table 2  Type of datasets with health dimension

<table>
<thead>
<tr>
<th>Type of datasets</th>
<th>Number</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>43</td>
<td>11,0</td>
</tr>
<tr>
<td>Survey</td>
<td>275</td>
<td>70,5</td>
</tr>
<tr>
<td>Register</td>
<td>58</td>
<td>14,9</td>
</tr>
<tr>
<td>Census</td>
<td>14</td>
<td>3,6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>390</td>
<td>100</td>
</tr>
</tbody>
</table>

For our analysis we created a more detailed and specific classification of data sources. The distribution is as follows:

Table 3  Detailed types of data sources

<table>
<thead>
<tr>
<th>Detailed types of data sources</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistical sources on mortality</td>
<td>19</td>
<td>4,9</td>
</tr>
<tr>
<td>Morbidity registers and screenings</td>
<td>1</td>
<td>0,3</td>
</tr>
<tr>
<td>records of hospital care and outpatient care</td>
<td>7</td>
<td>1,8</td>
</tr>
<tr>
<td>records of health insurance</td>
<td>12</td>
<td>3,1</td>
</tr>
<tr>
<td>records of occupational health and work accidents</td>
<td>1</td>
<td>0,3</td>
</tr>
<tr>
<td>records of maternal and child health</td>
<td>21</td>
<td>5,4</td>
</tr>
<tr>
<td>Migration health assessments, screenings</td>
<td>1</td>
<td>0,3</td>
</tr>
<tr>
<td>Soc. sc. and epidemiological surveys</td>
<td>275</td>
<td>70,5</td>
</tr>
<tr>
<td>Data on intl. mobility of health professionals</td>
<td>1</td>
<td>0,3</td>
</tr>
<tr>
<td>Any other register</td>
<td>38</td>
<td>9,7</td>
</tr>
<tr>
<td>Census</td>
<td>14</td>
<td>3,6</td>
</tr>
<tr>
<td><strong>All datasets</strong></td>
<td>390</td>
<td>100,0</td>
</tr>
</tbody>
</table>

We can observe far the highest frequencies with the survey type information. Furthermore, surveys offer the most specific and differentiated information in our field at least concerning targeted research at a country level. In other terms most of the non-survey type information does not meet the requirements of migration research.

We examined through our own taxonomy the internal distribution of the surveys, according to the scientific field in question. The frequencies and percentages are as follows.
Table 4  Surveys according to the scientific field

<table>
<thead>
<tr>
<th>Number of datasets</th>
<th>Distribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys</td>
<td>all datasets</td>
</tr>
<tr>
<td>Target information on migration and health</td>
<td>1</td>
</tr>
<tr>
<td>Health research with clear migration dimension</td>
<td>15</td>
</tr>
<tr>
<td>Migration research with health indicator</td>
<td>5</td>
</tr>
<tr>
<td>Social research with health block (and migration dimension)</td>
<td>165</td>
</tr>
<tr>
<td>Marginal information on migration and health</td>
<td>89</td>
</tr>
<tr>
<td><strong>All surveys</strong></td>
<td><strong>275</strong></td>
</tr>
<tr>
<td>Not survey</td>
<td>115</td>
</tr>
<tr>
<td><strong>All datasets</strong></td>
<td><strong>390</strong></td>
</tr>
</tbody>
</table>

The outstanding weight of social research with health block and the rather limited number of health research with clear migration dimension has to be emphasized. This shocking disproportion needs further examination. The explanation might be related to the characteristics of PROMINSTAT. The hypothesis of the relative weak general focus of health sciences on migration cannot be excluded (certainly migrants’ health is on the periphery in the overall framework of health sciences).

Using similar categories, we also examined the health relevance of datasets other than surveys.

Table 5  The relevance of non survey type datasets

<table>
<thead>
<tr>
<th>Number of datasets</th>
<th>Distribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-surveys</td>
<td>all datasets</td>
</tr>
<tr>
<td>Target information on migrants’ health</td>
<td>2</td>
</tr>
<tr>
<td>Target information on health with migration dimension</td>
<td>55</td>
</tr>
<tr>
<td>Other datasets with important health information</td>
<td>31</td>
</tr>
<tr>
<td>Other datasets with partial or implicit health information</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total non-surveys</strong></td>
<td><strong>115</strong></td>
</tr>
<tr>
<td>Surveys</td>
<td>275</td>
</tr>
<tr>
<td><strong>All datasets</strong></td>
<td><strong>390</strong></td>
</tr>
</tbody>
</table>

We checked the numbers of the databases included in PROMINSTAT according to the given health related keywords.

Of the 390 described datasets one or more health related dataset keywords were assigned to 59. The distribution by the assigned keywords is as follows:\(^{28}\):

\(^{28}\) According to PROMINSTAT database on the 18th August, 2009.
Table 6  Health related dataset keywords

<table>
<thead>
<tr>
<th>Assigned keyword</th>
<th>Number</th>
<th>Distribution of datasets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickness / illness: sick / ill persons</td>
<td>48</td>
<td>44,0</td>
</tr>
<tr>
<td>Sickness / illness / health-related benefits / insurance</td>
<td>13</td>
<td>11,9</td>
</tr>
<tr>
<td>Disability / work accident-related benefits / insurance</td>
<td>12</td>
<td>11,0</td>
</tr>
<tr>
<td>Persons with incapacities</td>
<td>30</td>
<td>27,5</td>
</tr>
<tr>
<td>Work accidents</td>
<td>6</td>
<td>5,5</td>
</tr>
<tr>
<td>Together</td>
<td>109</td>
<td>100,0</td>
</tr>
<tr>
<td>All datasets with health-related keywords</td>
<td>59</td>
<td>184,7</td>
</tr>
</tbody>
</table>

Sixteen topic names were used describing the content of the information related to international migration and health. The frequency of the topics and their percentage is as follows:

Table 7  Content of the information related to migration and health

<table>
<thead>
<tr>
<th></th>
<th>No. of cases</th>
<th>Distribution of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration &amp; psychosocial health and well-being</td>
<td>112</td>
<td>10,2 30,4</td>
</tr>
<tr>
<td>Physical health - communicable diseases</td>
<td>13</td>
<td>1,2 3,5</td>
</tr>
<tr>
<td>Physical health – non-communicable diseases and illness</td>
<td>66</td>
<td>6 17,9</td>
</tr>
<tr>
<td>Physical health - child and adolescent health</td>
<td>19</td>
<td>1,7 5,2</td>
</tr>
<tr>
<td>Physical health - reproductive and sexual health</td>
<td>39</td>
<td>3,6 10,6</td>
</tr>
<tr>
<td>Physical health - accidents, injuries, occupational health</td>
<td>190</td>
<td>17,3 51,6</td>
</tr>
<tr>
<td>Migration health assessments</td>
<td>3</td>
<td>0,3 0,8</td>
</tr>
<tr>
<td>Migration health assistance and advice</td>
<td>91</td>
<td>8,3 24,7</td>
</tr>
<tr>
<td>Availability of health services and insurance</td>
<td>180</td>
<td>16,4 48,9</td>
</tr>
<tr>
<td>International tourist mobility and health</td>
<td>7</td>
<td>0,6 1,9</td>
</tr>
<tr>
<td>Migration of health professionals</td>
<td>4</td>
<td>0,4 1,1</td>
</tr>
<tr>
<td>Health behaviour</td>
<td>111</td>
<td>10,1 30,2</td>
</tr>
<tr>
<td>Physical health in general</td>
<td>233</td>
<td>21,2 63,3</td>
</tr>
<tr>
<td>Mortality statistics</td>
<td>30</td>
<td>2,7 8,2</td>
</tr>
<tr>
<td><strong>Total cases</strong></td>
<td>1098</td>
<td>100 298,4</td>
</tr>
</tbody>
</table>

Most frequent issues included in PROMINSTAT are different general mentions of physical health, availability of health services, accidents, injuries, occupational health and questions related to psychosocial health and well-being. Data on the migration of health professionals, migration health assessments and also international tourist mobility and health are practically missing from PROMINSTAT. This lack of information on the mobility of health professionals is a subject of an actual debate at the EU level and likely to be a weakness of the database. The low frequency of migration health assessments can be considered “natural”. There is no explanation
provided for the limited number of datasets on tourism and health. Generally speaking, the information of table 6 describes the characteristics of the database and not the structure and weight of the phenomenon in scientific research or in everyday life. The cross-sectional analysis throughout Europe is offered by European-wide surveys described in Chapter 5. Table 7 indicates the databases of PROMINSTAT countries offering the (often rather limited) opportunity of sound comparative research in different aspects of health and migration.

Table 8 European-wide data collection in surveys
(number of surveys described in PROMINSTAT)

| Survey                  | AT | BE | CH | CY | CZ | DE | DK | EE | ES | FI | FR | GB | GR | HU | IE | IT | LT | LU | MT | NL | NO | PL | PT | SE | SI | SK | Total |
|-------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| ESS                     | 3  | 2  | 3  | 1  | 2  | 3  | 3  | 2  | 3  | 3  | 2  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 2  | 65 |
| Eurobarometer           | 3  | 3  | 0  | 0  | 1  | 0  | 3  | 1  | 3  | 1  | 1  | 3  | 4  | 0  | 2  | 0  | 2  | 1  | 1  | 2  | 3  | 0  | 0  | 46 |
| HIS                     | 0  | 3  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 5  |
| LFS                     | 0  | 7  | 16 | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 1  | 4  | 0  | 0  | 0  | 0  | 1  | 3  | 1  | 0  | 2  | 0  | 1  | 1  | 2  | 1  | 1  | 43 |
| NORBALT                 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 8  |
| SHARE                   | 1  | 1  | 1  | 0  | 0  | 1  | 1  | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 10 |
| EU-SILC                 | 2  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3  | 2  | 7  |
| TUS                     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| Other survey            | 12 | 2  | 11 | 0  | 0  | 29 | 0  | 0  | 2  | 0  | 14 | 4  | 0  | 3  | 2  | 0  | 0  | 1  | 0  | 6  | 2  | 0  | 1  | 1  | 0  | 0  | 90 |
| Total                   | 21 | 18 | 31 | 1  | 3  | 44 | 5  | 5  | 10 | 4  | 19 | 14 | 4  | 7  | 8  | 7  | 2  | 8  | 5  | 0  | 14 | 7  | 5  | 10 | 14 | 6  | 3  | 275 |

Based on our quality assessment procedure we can summarise the overall situation with EU level relevant surveys as follows:

Table 9 EU-wide harmonised surveys in the PROMINSTAT countries

<table>
<thead>
<tr>
<th>Survey</th>
<th>Countries covered</th>
<th>Described in PROMINSTAT</th>
<th>Of those with health relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Social Survey (ESS)</td>
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<td>25</td>
<td>25</td>
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<tr>
<td>Eurobarometer</td>
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<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Health Interview Survey (HIS)</td>
<td>27</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>European Labour Force Survey (LFS)</td>
<td>27</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>NORBALT</td>
<td>3+4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Survey of Health, Ageing and Retirement in Europe (SHARE)</td>
<td>15</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>European Survey of Income and Living Conditions (EU-SILC)</td>
<td>27</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Time Use Survey</td>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The comprehensiveness and the inclusiveness of PROMINSTAT checked this way is quite satisfactory. There are 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 into health surveys. New Member States, reflecting their relatively low levels of immigration, rarely include indicators of immigration in health surveys, but this may change in the future as the numbers of immigrants to these countries are also increasing. For migration research the samples of the ESS or SHARE are just too small to give any useful information on migrants. Other surveys will provide only very general information as cell sizes for migrants will be too small for many of the more specific questions.

Finally, an overview is given on the sources of databases with health information within PROMINSTAT countries.
Migration health assessments

Migration of health professionals

Phys. health

Ph. heal.

Physical health in general

and interest of the national

The range of the mentioned data sources is between 2 and 35, which reflects the differences in the development of migration research by country but also due to the lack of the standardised methodology of reporting and to the different level of commitment and interest of the national counterparts. Our research reflects the state of content of PROMINSTAT in June 2009 and may include some bias. Nevertheless the basic conclusions remain the same.

Table 10 Sources of databases with health information by countries

| Statutory sources on mortality | AT | BE | CH | CY | CZ | DE | DK | EE | ES | FI | FR | GB | GR | HU | IE | IT | LT | LU | LV | MT | NL | NO | PL | PT | SE | SI | SK |
|------------------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Morbidity registers and screenings | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 19 |
| records of hospital care and outpatient care | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| records of health insurance | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| records of occupational health and work accidents | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| records of maternal and child health | 1 | 1 | 3 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | 21 |
| Migration health assessments, screenings | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Soc. sc. and epidemiological surveys | 2 | 1 | 8 | 3 | 1 | 3 | 4 | 4 | 5 | 5 | 1 | 0 | 1 | 4 | 1 | 9 | 7 | 8 | 7 | 2 | 8 | 5 | 0 | 1 | 4 | 7 | 5 | 10 | 1275 |
| Data on intl. mobility of health professionals | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Any other register | 2 | 0 | 2 | 0 | 1 | 5 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 4 | 0 | 38 |
| Census | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 14 |
| All datasets | 27 | 21 | 38 | 2 | 11 | 50 | 11 | 8 | 12 | 8 | 23 | 19 | 5 | 14 | 10 | 12 | 4 | 10 | 5 | 16 | 21 | 10 | 16 | 21 | 8 | 3 | 390 |

Table 11 Overview of information content related to migration and health in the different countries

| Physical health in general | AT | BE | CH | CY | CZ | DE | DK | EE | ES | FI | FR | GB | GR | HU | IE | IT | LT | LU | LV | MT | NL | NO | PL | PT | SE | SI | SK |
|----------------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Ph. heal. - accidents, injuries, occupational health | 11 | 12 | 23 | 1 | 8 | 27 | 6 | 6 | 5 | 11 | 14 | 4 | 10 | 9 | 8 | 2 | 4 | 3 | 1 | 13 | 14 | 5 | 12 | 11 | 5 | 2 | 233 |
| Availability of health services and insurance | 9 | 15 | 18 | 2 | 5 | 32 | 2 | 1 | 6 | 3 | 7 | 3 | 2 | 1 | 1 | 3 | 1 | 3 | 4 | 1 | 10 | 7 | 4 | 6 | 14 | 2 | 1 | 180 |
| Migr & psychosocial health and well being | 1 | 1 | 7 | 15 | 1 | 2 | 7 | 4 | 3 | 2 | 4 | 3 | 4 | 2 | 4 | 1 | 3 | 2 | 1 | 1 | 8 | 4 | 3 | 4 | 8 | 1 | 2 | 112 |
| Health behaviour | 7 | 13 | 0 | 2 | 14 | 2 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 2 | 2 | 8 | 5 | 2 | 4 | 6 | 1 | 1 | 111 |
| Migration health assistance and advice | 5 | 14 | 0 | 3 | 9 | 3 | 4 | 2 | 1 | 4 | 3 | 2 | 5 | 1 | 3 | 1 | 2 | 0 | 5 | 2 | 1 | 5 | 5 | 3 | 1 | 91 |
| Phys. health - non communicable diseases and illness | 8 | 6 | 7 | 1 | 0 | 2 | 2 | 4 | 2 | 0 | 1 | 4 | 1 | 2 | 4 | 1 | 0 | 0 | 2 | 0 | 4 | 1 | 1 | 5 | 5 | 2 | 1 | 66 |
| Phys. health - reproductive and sexual health | 3 | 4 | 7 | 0 | 2 | 0 | 2 | 3 | 1 | 1 | 2 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 1 | 1 | 3 | 1 | 1 | 1 | 0 | 1 | 0 | 39 |
| Mortality | 2 | 1 | 2 | 0 | 1 | 1 | 3 | 1 | 2 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 2 | 0 | 1 | 1 | 1 | 0 | 30 |
| Phys. health - child and adolescent health | 1 | 0 | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 1 | 0 | 1 | 1 | 0 | 0 | 19 |
| Phys. health - communicable diseases | 1 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 13 |
| International tourism mobility and health | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Migration of health professionals | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| Migration health assessments | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
The applicability of PROMINSTAT at indicator level was also tested. We selected from the Health for All Database of WHO indicators, which on the basis of literature review might be considered as markers of migrant’s health.

HFA-DB is a central database of independent, comparable and up-to-date basic health statistics. It has been a key source of information on health in the European Region since WHO/Europe launched it in the mid-1980s. It contains time series from 1970.

HFA-DB is updated biannually and contains about 600 indicators for the 53 Member States in the Region. The indicators cover:

- basic demographics;
- health status (mortality, morbidity, maternal health and child health);
- health determinants (such as lifestyle and environment)
- health care (resources and utilization)

We selected for testing:

- 12 mortality based indicators
- 18 indicators on morbidity, disability and hospital discharges
- 7 indicators on health care utilization
- 3 indicators on lifestyles
- 23 indicators on maternal and child health

In this study we present just some examples on the availability of databases with WHO HFA indicators reported to that organization on regular basis by each European country.

In PROMINSTAT 20 mortality databases contain information on the selected indicators.

- 11 database on infant death (4 of them are registers and 7 counts).
- 4 database on perinatal (2 register and 2 counts)
- 9 datasets on external cause injury and poison (2 registers and 7 counts)
- 4 datasets on motor vehicle traffic accidents (all of them are counts)
- 10 datasets on suicide and self-inflicted injury (2 register and 8 counts).
- 1 dataset on selected alcohol related causes (count).

We demonstrate the availability of survey-based data in detail with two examples related to lifestyles:

Proportion (%) of regular daily smokers in the population, age 15+

Surveys:

- Health Interview Survey 1997, 2001, 2004 (HIS) BE
- Health Interview Survey (HIS) 2003 LV
- Estonian Health Interview Survey (EHIS) EE
- Microcensus (MC) 1997/4; 1999/3AT
- Survey of Health, Aging and Retirement in Europe, 50+ in Europe (SHARE 1) AT, BE, CH, DE, DK, ES, FR, GR, IT, NL, SE
- Microcensus 2005 DE
– The German Socio-Economic Panel (GSOEP) 2002 DE
– Living Conditions Survey - Health and Care SE
– Living Conditions Survey - Labour Market SE
– Living Conditions Survey - Physical Environment SE
– Living Conditions Survey - Social Relations SE
– Swiss Health Survey 1992, 1997, 2002 CH
– National Health Survey 2006 ES
– Austrian Health Survey 2006/2007

Census:
– Census of population and housing 1995 MT

Register:
– Medical Birth Register (MBR) FI (information only about the mother’s smoking habit)

Road traffic accidents involving alcohol per 100000 – no information
Persons killed or injured in road traffic accidents per 100000

Surveys:
– Swiss Health Survey 1992, 1997, 2002 CH
– 2004 European Union Statistics on Income and Living Conditions (EU-SILC) BE
– Health Interview Survey 1997 2001, 2004 (HIS) BE
– Microcensus (MC) 1997/4; 2007 (incl. Labour Force Survey) AT
– Microcensus 1999 2001 2002 2003 2004 2005 DE
– KiGGS - The German Health Survey for Children and Adolescents DE
– National Health Survey 2006 ES

Counts:
– Statistics of hospital cases (inpatients) HU
– Statistics of outpatient cases HU
– Reporting on juvenile defendants in penal proceedings completed with a valid judgement HU
– Statistics on causes of death LU
– Registration of deaths SI

If we assess PROMINSTAT on the basis of HFA indicators according to: comprehensiveness and inclusiveness, the conclusions are controversial. The database offers a fair amount of datasets on different topics related to migration and health despite the scarce information in case of some individual countries. There is no real possibility for European cross-sectional comparative studies in this field. The level of reporting to PROMINSTAT is uneven, has to be improved.

7. Conclusions and recommendations

7.1 Conclusion: The challenge of linking health information with relevant data on migration using comparable methodologies

As compared to the size, structure and trends of international migration in Europe, the existing research information on migrant’s health is underdeveloped, lacks
standardisation, functionality and in most of the cases the used methodology does not meet rigorous scientific requirements. The characteristics of PROMINSTAT database on international migration and health are influenced by this unsatisfactory real situation.

Much more effort is needed to ensure that systems are in place to reflect, as a matter of course the relationship between migration and health at information level in the European countries. The different EU community level cross cutting policies, the documents on social integration, migration and recent developments in public health information offer a solid base to meet future challenges and opportunities in this multidisciplinary field. The time is ripe to make the case to take practical steps to ensure that migration issues are part of the ongoing development process.

Although a lot of progress has been made during the last decade on measuring migrants' health, the data and information remains difficult to access. The available data is not analyzed on a regular basis or in a comparable way across the EU. Most of the health data that is regularly collected at national and EU levels do not include a migration aspect. Where information is available, there are differences between countries in the methodologies and definitions used in collecting the data, making comparative analyses impossible. However, the main challenge for many countries remains the stratification of health data by migration.

There are only a few countries in the EU that are already collecting and analyzing data on health of the migrants on a regular basis.

Based on the conclusions of the analysis the following recommendations offer pointers to decision makers and researchers on moving forward within the framework of existing opportunities in health information system development:

7.2 Advocacy tasks at a European level

<table>
<thead>
<tr>
<th>Recommendation 1: Health data collection systems should be adapted to include information on migrant’s status</th>
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</thead>
</table>

As mentioned before in this paper, there are two important sources that can provide stratified data satisfying the needs of migration research:

- nationally representative data from routine health records (or data on mortality) linked with other relevant sources of information on the country’s population, and
- EU cross national surveys related to health and social issues. If the sampling is appropriate and there are markers for migration analysis.

The regular national data collection systems can provide data on health and migration if at least one of the two different mechanisms is put in place:

1. Information regarding migration to be included in the health data collection. This approach could be applied by countries which are revising data collection systems, involving changes in the reporting forms within mortality and morbidity registries.

2. Health data by place of birth and country of origin to be obtained by ensuring linkages between the national health information system and other comprehensive information sources on the population (like censuses).
This approach could be undertaken by countries with well developed health data collection systems that are gathering good quality data on mortality and morbidity. Collected data should exist in a disaggregated form, on individual level these data linked with other sources on the population could be combined and so separate migrants.

**Recommendation 2: Coordination at an EU level is crucial**

This paper outlined existing EU initiatives, projects and expert experiences that contribute to the monitor of the health of the population in Europe from a migration research perspective. According to these findings, the regular monitoring and analysis of the migrants' health requires stronger EU leadership and technical collaboration with WHO and other relevant international organizations, in order to ensure the development of comprehensive and appropriate systems and indicators.

The EU level leadership in this process could help to close the monitoring gap between countries. Further support and work should be coordinated by the EU, to encourage agreement by all EU Member States on a core set of indicators and on standard definitions and methodologies to collect, process and analyze data.

The EU Member States efforts should be:

- To develop the organizational base responsible for the collection, processing and analysis of data, including the implementation of the EU cross-national surveys and further analysis of existing data related to migration and health;
- To establish the regulatory framework and allocate resources for appropriate systems development;(confidentiality, data linkage)
- To increase funding and collaboration at the European level between national research centres to develop research techniques with focus on methodological development to allow the inclusion of data on migrants in national and European information systems
- To support building the evidence base for further development of targeted policies and interventions; to identify specific entry points for policy action and adequately monitor and evaluate programmes addressing health of the migrants.

7. Health of migrants in PROMINSTAT: the way forward

There is a need to maintain and regularly update PROMINSTAT of completed and ongoing data collection and research on migration and health. Stakeholders (like EU, IOM, WHO, ILO, UNHCR or OECD) and potential users of data bases in this field should be involved in framing the conceptual questions, shaping the data base as it progresses and the presentation of its content. The key element and trigger for further development is the implementation of EU policies of data collection in this area.

The first stage in the process involves finding out the number of relevant studies and datasets that have been carried out in this particular area of interest. The present analysis is a step in this direction confirming a fair comprehensiveness of PROMINSTAT. It indicates the weaknesses in the reporting systems. A detailed review of studies should follow discussion between the researchers, commissioners and potential users of PROMINSTAT to determine the criteria for choosing which
datasets to include in the future, and the degree of information required about each item. Monitoring and studying health implications and consequences of migration require focus that goes beyond the legal bond of citizenship and the right to permanent residence.

There is a need for a common framework for comparative research on international health and migration. In particular, clarity of scope, exhaustive definitions, and the application of pre-set quality criteria to assess the value of the included information are just as essential, as regular updating.: A closer, transparent and sustainable cooperation of PROMINSTAT country partners is a prerequisite for quality development. The variation of data quality and appropriateness observed in our analysis may result in comparative research results being biased in the studies and hence in the recommendations and conclusions.

Over the last decade knowledge and understanding about ways to develop information base for analysing migration and health have significantly improved. The extreme complexity of the task and the increasing social and political importance of the issue at a European level require originality and creativity in the future, to build on existing experience while exploring new ways and solutions. The financial resources creating an adequate evidence base across Europe for tackling the challenge of migrant’s health are minimal compared to the vast amounts spent on health care. A better knowledge about the health of migrants and its social determinants provides opportunities for reshaping related areas of public policy and more optimistically to promote health and development in Europe. PROMINSTAT is an important trigger in this progress.
<table>
<thead>
<tr>
<th>Country</th>
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<th>Date of publication</th>
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<td>Audrey Lenoël, Ann Singleton, Olga Gora and Lynnmarie Sardinha</td>
<td>January 2010</td>
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