HEALTH EVIDENCE NETWORK SYNTHESIS REPORT **46**

How do variations in definitions of "migrant" and their application influence the access of migrants to health care services?

Ailish Hannigan | Patrick O'Donnell | Mary O'Keeffe | Anne MacFarlane

World Health Organization
REGIONAL OFFICE FOR Europe

This HEN – the Health Evidence Network – synthesis report is the result of a cross-divisional effort in the Regional Office between the Public Health Aspects of Migration in Europe (PHAME) project of the Migration and Health programme in the Division of Policy and Governance for Health and Well-being and the Evidence and Information for Policy-making Unit in the Division of Information, Evidence, Research and Innovation.

The Health Evidence Network

HEN is an information service for public health decision-makers in the WHO European Region, in action since 2003 and initiated and coordinated by the WHO Regional Office for Europe under the umbrella of the European Health Information Initiative (a multipartner network coordinating all health information activities in the European Region).

HEN supports public health decision-makers to use the best available evidence in their own decision-making and aims to ensure links between evidence, health policies and improvements in public health. The HEN synthesis report series provides summaries of what is known about the policy issue, the gaps in the evidence and the areas of debate. Based on the synthesized evidence, HEN proposes policy options, not recommendations, for further consideration of policy-makers to formulate their own recommendations and policies within their national context.

The Health Evidence Network and the Migration and Health programme of the WHO Regional Office for Europe

At the fifth meeting of the WHO European Advisory Committee on Health Research (EACHR), which took place in July 2004, EACHR agreed to form a subcommittee on migration and health to review the strategic framework of the work of WHO Regional Office for Europe on migration and health, and to commission a series of HEN synthesis reports targeting policy-makers. In 2015, three HEN reports were published, tackling the challenges of three distinct migrant groups: irregular migrants, labour migrants, and refugees and asylum seekers. In 2016, three new HEN reports are being published, aimed at synthesizing the available evidence in order to improve policy-makers' understanding of the following specific issues related to migration: maternal health, mental health and the public health implications of the different definitions available for migrants.

The various HEN reports on migration and health have been used as the evidence base for the development of the Strategy and Action Plan for Refugee and Migrant Health in the WHO European Region.

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HEN Health Evidence Network
EVIDENCE FOR DECISION-MAKERS

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Abstract

Variations in definitions used for "migrant" and for different groups of migrants in different areas can affect health system policies and migrant access to health care. This systematic review explored this issue using evidence from academic peer-reviewed and grey literature in 169 publications in English or Russian from 2010 to 2015 that focused on primary care or both primary and secondary care (including screening services and emergency departments). There is currently no universally accepted definition for migrant at an international level and the heterogeneity of definitions used limits comparability of routinely collected data. Legal status was one of the most significant factors determining access to affordable and adequate health services for migrants in a country. Identifying preferred terms for migrants, seeking consensus on important migration-related variables for collection across health information systems and progressing towards universal access to health care across the WHO European Region are recommended as policy options.

Keywords

EMIGRANTS AND IMMIGRANTS, HEALTH SERVICES ACCESSIBILITY, HEALTH SERVICES NEEDS AND DEMAND, HEALTH CARE DISPARITIES, TRANSIENTS AND MIGRANTS

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ABBREVIATIONS

EMN	European Migration Network
EU	European Union
HEN	Health Evidence Network
IOM	International Organization for Migration
MIPEX	Migrant Integration Policy Index
OECD	Organisation for Economic Co-operation and Development
SOPHIE	Evaluating the Impact of Structural Policies on Health Inequalities and their Social Determinants, and Fostering Change (project)
UNHCR	United Nations High Commissioner for Refugees

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FOREWORD

We live in an increasingly diverse world in which migration is both a current issue and one for the years to come. The growth in migrant numbers arriving in Europe creates challenges that require a rapid humanitarian response and put pressure on health systems.

To address this priority, the WHO Regional Office for Europe established the Public Health Aspects of Migration in Europe (PHAME) project in 2012 with the financial support of the Ministry of Health of Italy, which is developing into a programme in 2016 with the aims of (i) providing ad hoc technical assistance to Member States of the WHO European Region, (ii) strengthening health information and available evidence on this, (iii) promoting advocacy and sharing of information among Member States and partners, and (iv) supporting migration-sensitive health policy development. The overall PHAME programme objectives would be to strengthen health system capacities in order to meet the health needs of mixed influxes of refugees and migrants, and of host populations; promote immediate health intervention; ensure migrant-sensitive health policies; improve the quality of the health services delivered; and optimize use of health structures and resources in host countries.

A high level meeting to discuss strengthening of cooperation between countries and regions brought together 50 countries from three different regions and a great diversity of United Nations agencies and international organizations in November 2015. The outcome document, "Stepping up action on refugee and migrant health. Towards a WHO European framework for collaborative action", summarized the policy and strategic implications of the public health priorities, challenges and needs identified through the meeting discussions for European national health policies and systems.

It has often been noted that the health of refugees and migrants is generally similar to that of their host populations. However, the physical and psychological effects of leaving their home countries and the long arduous journeys they undertake increase their overall health risks and may worsen their health conditions.

In 2014, the European Advisory Committee on Health Research recommended that the Secretariat commission a series of Health Evidence Network (HEN) synthesis reports with the aim of supporting public health policy-makers to use the best available evidence

in their own decision-making. The HEN synthesis reports summarize what is known about the policy issue, the gaps in evidence, the areas of debate and the policy options.

In 2015, three HEN synthesis reports were published focusing on access to and quality of health services among irregular migrants, labour migrants, and refugees and asylum seekers. These reports identified the need for additional research and evidence, the development of evidence-informed policies on migrant health and new approaches to improving migrants' health outcomes. The HEN reports built an evidence base for the development and implementation of the strategy and action plan on refugee and migrant health in the WHO European Region, to be submitted for Member States' approval at the 66th session of the WHO Regional Committee for Europe.

The HEN series on refugee and migrant health now focuses on specific issues including maternal health, mental health and the definitions of migrants in the context of public health, which will provide decision-makers with health system policy options on migrant health to support them in working towards better health for migrants in the WHO European Region.

Zsuzsanna Jakab
WHO Regional Director for Europe

SUMMARY

The issue

There is increasing attention in the public domain, health service sector and academic communities as to how variations in the definitions used for different groups of migrants in different areas affect health system policies and access to health care for migrants. This variation and its consequences are problematic given WHO policies promoting universal health coverage for all migrants in the WHO European Region and are related to the multisectoral nature of migration. Intersectoral cooperation is needed in designing migration policies to ensure coherence among definitions and addressing both health system capacity and the social determinants of health. Systematic analysis of the following three issues is required to underpin such cooperation and policy-making: the heterogeneity of terms in use, how the application of definitions influences migrant access to and utilization of health care, and how the application of definitions influences collection of health information data and impacts provision of an evidence base to inform good public health policy-making.

The synthesis question

The objective of this report is to synthesize findings from a systematic review of the available academic and grey literature in English and Russian to address the following question: "How do variations in definitions of 'migrant' and their application influence the access of migrants to health care services?"

Types of evidence

Evidence was obtained from analysis of 169 publications in English or Russian from 2010 to 2015 that focused on primary care or both primary and secondary care (including screening services and emergency departments): 148 (88%) based on empirical research, eight glossaries and 13 factual accounts of health care entitlements. The publications contained data collected from 1990 to 2015 and covered 39 of the 53 Member States of the WHO European Region.

Results

There is no universally accepted definition for migrant at an international level. This is reflected in the empirical studies included in this review, with a wide range of terms used to describe the study population, including country of origin, length

of stay, legal status, citizenship, residency, reason for migration, first language and parental country of birth. The terms migrant and immigrant are used as broad overarching terms and are often used interchangeably without source references. The terms refugee and asylum seeker are more likely to be defined with international standardized references. Of the 148 empirical studies, 32% provided no clear definition of their study population; 20% either gave a source for their definition or used a country-specific reference; and the remaining 47% used project-specific working definitions, with considerable heterogeneity in the definitions used for the same group across studies, overlapping definitions for different groups and terminology used interchangeably even within the same study.

Legal status emerged as one of the most significant factors in the degree of access to affordable and adequate health services offered to migrants in a country. Even for migrants with legal status, some Member States of the WHO European Region provide the same access as for the general population, while others restrict access depending on the length of stay and type of residency permit. Eligibility to health care for asylum seekers also varies widely, with some Member States providing the same access as for the general population while others providing only emergency care. Entitlement to health care for asylum seekers also varies by age of the asylum seeker, time taken to process the application, and their income or assets.

The heterogeneity of definitions used limits the comparability of routinely collected data in health information systems across the WHO European Region. Without common criteria for sampling and inclusion of migrants, comparison of migrant health across Member States is challenging; yet issues such as disease surveillance, identifying subgroups of migrants at risk of poorer health outcomes and targeting public health interventions can only be tackled with a good evidence base.

Policy considerations

Effective policy-making requires a good evidence base, and further research areas that would provide such a base include (i) analysis of grey literature and national legislation from WHO European Region Member States with languages other than English and Russian to clarify the heterogeneity of legal frameworks; (ii) assessment of the impact of austerity policies and the increasing number of migrants; (iii) examination of the issue of noncommunicable diseases in migrant populations and the impact on public health of ignoring these; and (iv) identification of interventions that will have impact on removing barriers to access and delivery of health care for multiple migrant groups, irrespective of their definition or of movement of individuals between groups.

The main policy options suggested from the review for consideration by the WHO European Region Member States are:

- development of a list of preferred terms relating to migrants based on a shared understanding of these terms;
- involvement of migrants in the development of intersectoral systems that collect sensitive data on migration and for migrant-sensitive health services;
- initiation of routine collection in national health information systems of data on an agreed set of variables relating to migration, such as country of birth, length of residence, legal status, purpose of migration and previous country of residence;
- monitoring and analysis of data on access to and delivery of health care to migrants based on these migration-related variables and social determinants of health;
- provision of health care, free of charge, for the diagnosis and treatment of communicable diseases, including primary and emergency health care; and
- incorporation of the needs of migrants into all aspects of health services and provision for all migrants of the same access to health care as for the general population, regardless of the definition used.

1. INTRODUCTION

1.1. Background

Migration has always happened, being driven by a variety of reasons including work, education, family reunification and fleeing from disasters and conflict. Because migration is studied in a number of disciplines, including geography, history, law and health sciences, the concept of "migrant", and the terminology used to describe migrants, is very diverse. A major problem in sourcing evidence to support public health policies is related to the wide variation in definitions that have been developed and their inconsistent use.

Migration into the WHO European Region accounted for nearly 70% of population growth between 2005 and 2010, and 73 million migrants were estimated to be living in the Region in 2015, making up nearly 8% of the total population (1). Over 589 000 refugees and migrants crossed the Mediterranean Sea to reach Europe in 2015 alone, and 3095 died trying to do so (2). The health problems of these refugees and migrants are similar to those of the resident populations of the WHO European Region; however, the dangerous journeys undertaken can have an impact on their health and resilience and worsen the health of those with chronic diseases (3). In line with the framework of World Health Assembly resolution 61.17 in 2008 (4), the attention of Member States should be focused on ensuring equitable access to health promotion, disease prevention and care for migrants (5). This emphasis on equitable access, and the specific importance of universal health coverage, was regarded as essential for public health responses in 2008, well before the current large increase in migration flow into the WHO European Region (6).

The language and terms that are used to define migrants have become increasingly significant in both the public domain and the media, particularly intensifying sensitivities concerning people who are moving from their usual country of residence *freely* (e.g. migrating for work or education) and people who are moving because they are *forced* (e.g. seeking protection from natural disasters, conflict or persecution). There are complex debates underway about the legal and social contexts that shape definitions and their use. For example, the United Nations High Commissioner for Refugees (UNHCR) emphasizes that refugees are a separate category to migrants because they are fleeing persecution and require international protection (7). Others question this distinction, emphasizing the multiple factors that can force people to migrate other than conflict, such as poverty, water shortages, climate change and pollution (8).

Variations in definitions used for migrant groups have significant implications from a public health perspective as they can affect entitlements to health care in different countries; for example, provision of health screening for infectious diseases and chronic conditions varies across countries by migrant subgroups (9). Irregular migrants may not be entitled to any care in some countries and to emergency care only in others (10). Even when migrants are officially eligible for health care, there is evidence that they can still experience challenges in accessing health care services, for example if out-of-pocket payments are required. Service providers equally report challenges in delivering care to them, for example if professional interpreting services are lacking (10–15).

The heterogeneity of concepts and definitions of migrant is also a barrier to advancing the evidence base for public health care policies (16,17). Comparability of data routinely collected in health information systems and for public health research is limited because of the diversity of terminology in use across studies (17). Current categorizations of migrants (and ethnic minorities) in public health research tend to be crude because of the interplay between the researcher's understanding of the substantive matter (e.g. what is a migrant?) and restrictions imposed by the available data (e.g. what kind of information is being gathered to explore "migrant health" issues?) (18).

This review systematically examines the implications of heterogeneity in definitions used for migrant groups for two aspects: entitlement and access to health care in different countries in accordance with legal frameworks and health system governance and the evidence base regarding the specific needs of different migrant groups that could be used to improve access to health care. This review uses the term migrant as a broad category encompassing all who migrate from their usual country of residence for any reason, forced or voluntary, in order to address the question: "How do variations in definitions of the term 'migrant' and their application influence the access of migrants to health care services?"

1.2. Methodology

1.2.1. Sources for this review

Six databases (Academic Search Complete, Cochrane Library, EconLit, Medline, Social Sciences Full Text and Web of Science) were searched for empirical research, published between 2005 and 2015, on access and delivery of health care to migrants in Member States of the WHO European Region. Studies published in either English

or Russian were included. Russian was chosen as well as English since almost 300 million people in 16 of 53 countries of the WHO European Region speak Russian as either their native language or on a regular basis, and publications originating from these countries are often published only in Russian (19). Non-empirical research, editorials and commentaries were excluded.

Searches of the following 11 websites were conducted to identify relevant empirical research, glossaries of definitions and information on health care entitlements from the grey literature (see Annex 1): European Commission Directorate-General for Migration and Home Affairs, European Observatory on Health Systems and Policies, European Union (EU) Agency for Fundamental Rights, the European Website on Integration, Eurostat (the EU Statistical Office), Health Evidence Network (HEN), International Organization for Migration (IOM), Migrant Integration Policy Index (MIPEX), Organisation for Economic Co-operation and Development (OECD), the SOPHIE project (Evaluating the Impact of Structural Policies on Health Inequalities and their Social Determinants, and Fostering Change) and UNHCR.

1.2.2. Data extraction

Annex 1 outlines the databases and websites searched and the review methodology, based on the PRISMA statement (20).

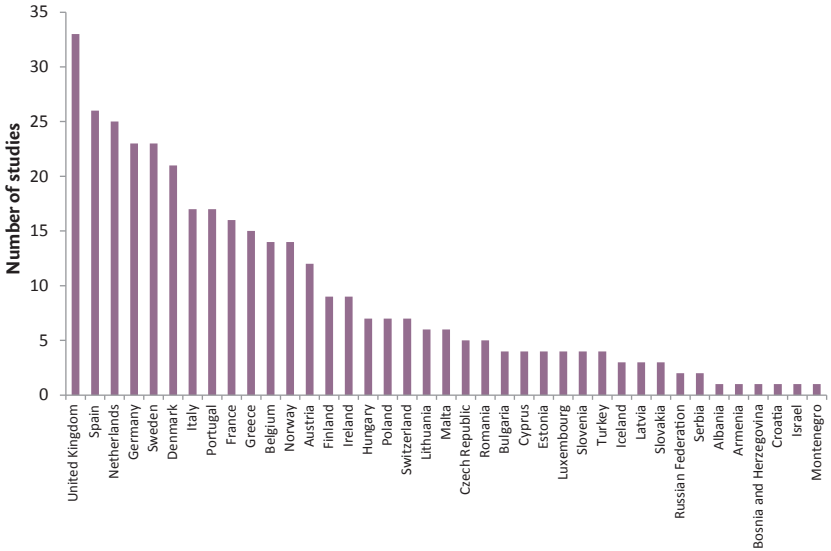
Initially, 460 relevant publications were identified, containing data collected from 1990 to 2015. These were reduced to 169 published between 2010 and 2015 and focusing on primary care or both primary and secondary care (including screening services and emergency departments) (11,13,16,21–186); 148 (88%) were based on empirical research, eight were glossaries and 13 were factual accounts of health care entitlements. Almost half (49%) of the 148 empirical studies on primary care also included information on secondary care settings. The level of evidence from the 148 studies based on empirical research was assessed as moderate (see Annex 1).

Data extracted from the 169 studies included the time period of the study, geographical location, named migrant group, definition of the group (if given), study design, aims and objectives, setting (primary and/or secondary care), information on entitlement to health care, and any recommendations or comment by the authors on the use of definitions of migrants.

Data were found for 39 of the 53 countries in the WHO European Region (Fig. 1), with the following countries not represented: Andorra, Azerbaijan, Belarus,

Georgia, Kazakhstan, Kyrgyzstan, Monaco, the Republic of Moldova, San Marino, Tajikistan, the former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine and Uzbekistan.

Fig. 1 Distribution of studies included in the review across the WHO European Region



2. RESULTS

2.1. Definition of a migrant

An analysis of glossaries of definitions from the grey literature revealed no universally accepted definition for migrant at an international level, with definitions varying by length of stay in a country, documentation/residency or reason for migration. The IOM has acknowledged that no universally accepted definition exists and has stated that "the term migrant was usually understood to cover all cases where the decision to migrate was taken freely by the individual concerned for reasons of 'personal convenience' and without intervention of an external compelling factor" **(168)**. Within organizations such as the United Nations, definitions have changed over time. In 1953, the United Nations *Recommendations on statistics of international migration* defined permanent immigrants as "non-residents (both nationals and aliens) arriving with the intention to remain for a period exceeding one year"; the revised Recommendations in 1998 removed the reference to length of stay and defined an international migrant as "any person who changes his/her country of usual residence" **(172)**. The word alien, meaning not a citizen, is commonly used in national legislation dealing with citizenship and residence (e.g. the 1935 Alien Act in Ireland or more recently the 1998 Alien Act in Estonia). The UNHCR distinguishes between the causes of migration and refers to migrants only in the context of those who choose to move and are not forced to move because of a direct threat of persecution or death **(170,173)**. At a European level, the European Migration Network (EMN) (see Case study 1) refers to residency and length of stay, defining a migrant in the EU context either as someone who establishes their usual residence in an EU Member State for at least 12 months, having previously been usually resident in another Member State or non-EU country, or as someone having previously been usually resident in a Member State who ceases to have their usual residence in that State for a period of at least 12 months **(171)**.

Case study 1. **An intervention to standardize migration-related terms in use across the EU and share information on migration**

A common EU asylum and migration policy requires the exchange of information across Member States on all aspects of migration and this means that data need to be comparable and terms used consistently. The EMN was established in 2008 with the main objective of improving the consistency and comparability of information on migration. The development of a glossary of terms for

Case study 1. contd

concepts related to asylum and migration was considered vital to achieving this objective. The glossary, the third version of which was published in 2011, contains almost 400 migration-related terms, the majority of which are valid across all EU and European Economic Area Member States and Switzerland (171). The glossary is multilingual and multidisciplinary, focusing on legal concepts across the EU, together with national and global contexts. It provides a list of preferred terms related to migration for legislators, policy-makers and practitioners across the EU to help to ensure consistency of use of terms based on a shared understanding and comparability of information.

The EMN also facilitates sharing of information across Member States on many aspects of migration, for example EMN national contact points have requested and shared information on practices across Member States for health screening of migrants (182), including for tuberculosis (183), for medical treatment for asylum seekers (181) and for migrant access to social security and health care (175).

2.2. Heterogeneity of definitions in the included studies

The lack of an international consensus on the definition of a migrant is reflected in the empirical studies included in this review, with a wide range of terms used to describe the study population (Fig. 2).

Fig. 2 Terms used to describe the study population

Of the 148 empirical studies, 48 (32%) provided no clear definition of the study population and 30 (20%) referenced the source of their definition (e.g. the UNHCR, IOM, EU) or used country-specific references. The remaining 70 studies (47%) used project-specific working definitions, the majority (71%) of which included country of origin or place of birth in their definition of the study population. A minority of project-specific working definitions also used length of stay (17%), parental country of birth (16%), legal status (10%), residency (9%), reason for migration (7%), citizenship (6%) and first language (4%) in their definition of the study population..

There was considerable heterogeneity in the definitions used for the same term across studies, along with overlapping definitions for different terms and terms used interchangeably even within the same study. Examples include migrants and immigrants both being defined as people residing outside their country of birth and the terms often being used interchangeably within studies; a definition of migrant that included other defined groups such as refugees and asylum seekers; and the terms undocumented, irregular and illegal being used interchangeably. The use of the term undocumented or irregular migrant rather than illegal migrant has been recommended by the United Nations since 1975 (169). More recently, there have been calls from the Council of Europe, the European Parliament and the European Commission to stop using the term illegal migrant when referring to irregular/undocumented migrants, given that "no human being is illegal" (169). This HEN report will use the term irregular (accepting that this is synonymous with undocumented).

The main focus of some studies was on ethnic or cultural minorities, which may include migrants who become part of established ethnic minorities in the countries they migrate to. It should be noted, however, that not all migrants are from ethnic minority groups and not all those from ethnic minority groups are migrants.

Some studies deliberately opted to use a broad definition (e.g. all persons residing outside their country of birth) in an attempt to answer the question of how migration status affects health and health service use of all migrants (24,174). Others, including the three 2015 HEN reports, acknowledged the lack of consensus on definitions and deliberately opted to use project-specific working definitions (10,14,15). As a migrant's circumstances change, he or she can also move between definitions, for example

- an asylum seeker becoming a refugee once the application has been approved;
- an asylum seeker becoming an irregular migrant if the application is denied (33,66,78);

- a migrant losing legal status and becoming irregular because of a change in financial circumstances (139); or
- a migrant who is given access to health care based on a defined length of stay and then extends that stay and loses access rights (50).

The change from one defined group to another was noted in some studies and was usually based on self-report of change in status by a migrant, rather than a longitudinal study by the researchers of the same migrant over time.

Empirical studies focusing on asylum seekers and/or refugees were more likely to provide a reference for their definition than studies of other groups. In 18 of the 29 empirical studies (62%) focusing on asylum seekers and/or refugees such a reference was provided, compared with only 10% of the other empirical studies. The most common reference was to the UNHCR definition of an asylum seeker as someone who is seeking international protection or a refugee as someone who meets eligibility criteria for protection.

The UNHCR, IOM and EMN all make reference to the Geneva Convention Relating to the Status of Refugees (1951) in their definitions of refugee (187). However, the EMN defines an asylum seeker as a person who has made an application for protection under the Geneva Convention only, while the IOM uses a broader definition of an application for protection under relevant international and national instruments (e.g. a state can decide to grant asylum at its own discretion). The HEN report on the health status of refugees and asylum seekers observed that studies of refugees and/or asylum seekers commonly referenced a definition but some studies used the term refugee to denote refugee and asylum seeker, while others used the terms refugee and asylum seeker interchangeably or conflated the two (14).

2.3. How are access to and delivery of health care to migrants shaped by heterogeneity of definitions and their application?

The review has provided information on how placing migrants into a defined subgroup can have an impact on their entitlement to affordable and adequate health services and their ability to access these services. The effect of heterogeneity of definitions will be discussed in this section in terms of three categories that cover all types of migrant identified in this review and that were used in the recent

MIPEX study (186): migrants with legal status (a broader category than just labour migrants), those formally applying for legal status (asylum seekers) and those without legal status (irregular migrants). It will go on to discuss barriers that can have an impact on some migrant groups.

2.3.1. Access for migrants with legal status

Legal status emerges as one of the most important current determinants of social security and health care benefits for migrants in a country (84,135,180). If there were true universal health coverage, then migrants would have adequate benefits and their legal definition would not affect their health care. A study in 2014 by the EMN on the policy and practices of migrant access to social security and health care in 25 EU Member States reported that in many of them (Belgium, Czech Republic, Estonia, France, Hungary, Luxembourg, the Netherlands, Portugal, Slovakia, Slovenia, Spain and Sweden), third-country nationals could access health care benefits by providing evidence of any valid residence permit, regardless of the length of stay or type of permit (175). Other EU Member States provided access to health care depending on the type of residence permit, authorization of stay or visa (175); for example, third-country nationals in Bulgaria must have a long-term residence permit. The MIPEX summary of health care entitlements of migrants in 38 countries in 2015 reported wide discrepancies in entitlements for migrants based on legal status (186). Countries such as Belgium, France, the Netherlands, Sweden and Switzerland granted the same entitlements to migrants with legal status as for nationals, while central European countries with few migrants offered only limited entitlements. In the Russian Federation, official policies promoted voluntary medical insurance for migrants with legal status as a way to cover their health care needs (89). In Turkey, foreign nationals with legal status can join the national health insurance scheme only after one year of residence with a residence permit. For the first year of residence, people have to pay themselves for any health services (184).

2.3.2. Access for asylum seekers

Even when a common definition of asylum seeker is used, entitlement of asylum seekers to health care varies widely by country, with some countries, for example France, providing the same entitlements as for nationals and others, for example Estonia, providing emergency care only (182,186). In many countries, entitlements require that asylum seekers remain inside reception centres or designated areas (186). Entitlements can vary depending on the age of the asylum seeker, with some countries (e.g. Iceland, Norway and Sweden) providing the same access to health care services for asylum-seeking children as for children in the general

population (118). Entitlements can also vary by income or assets of the asylum seeker or the length of time taken to process the application for asylum (181). Entitlements can vary during the application process itself; for example in Germany, limited health care is provided in reception centres during the initial period between applying for asylum and formal acceptance of the application (82). Once the application for asylum has been processed and the person is considered an asylum seeker, access is granted to emergency medical care, treatment of painful conditions, vaccinations and care during pregnancy, childbirth and delivery. If asylum is granted, individuals receive a health insurance card and obtain access to health care services in the same way as the general population. Those who have waited four years for their application to be processed are treated in the same way as those who have been granted asylum (82), although this waiting period has increased from one year in 1994–1996 to three years in 1997–2006 and to four years since 2007.

2.3.3. Access for irregular migrants

Migrants can be irregular for a number of reasons (10):

- planning to seek asylum but not yet formally submitted an application;
- application for asylum has failed but deportation avoided;
- application for a residence permit/authorization to stay is still pending or has failed;
- overstayers from an authorized entry;
- loss of residence status through no longer meeting, or breaching, conditions of residence;
- unauthorized entry over national borders; or
- being born to parent(s) without documented status.

A study by the Centre on Migration Policy and Society in the United Kingdom reported on legal entitlements to health care of such irregular migrants in Europe in 2015. There was a legal entitlement to emergency health care in all 28 EU Member States although there was variation in how emergency care was defined and payment might be required in some instances (176). There is evidence of access tied to a variety of preconditions such as minimum duration of stay, proof of identity, destitution or staying in a detention centre (71,80,119,186). A study of migrant workers in the Russian Federation reported that health care was prohibitively expensive for migrants without a residency permit (123). An international aid agency that provides health care to vulnerable populations observed that the majority of their patients were irregular migrants or EU citizens who had lost their legal status in the host country (Case study 2): one in five of the patients reported having been denied access to health care by health care providers in the previous year (148).

Observers for the agency also recorded irregular migrants being refused treatment or reported to the police when they presented for treatment at the emergency departments of public hospitals in Turkey (184).

Case study 2. Impact of heterogeneity of definitions on access to health care of vulnerable migrants

Médecins du Monde (Doctors of the World) is an international aid organization that has been working to improve access to health care and protection for vulnerable populations since 1980. A report by the agency in 2013 (148) presented data on 8412 patients attending its clinics in 14 cities across seven European countries (Belgium, France, Germany, Greece, the Netherlands, Spain, the United Kingdom): 50% were irregular migrants from non-EU countries, 11% were EU citizens who had lost their legal status through lack of financial resources and/or no health care insurance (mostly commonly after three months of residence in the host country) and 23% had requested asylum at any time or planned to do so. Only 5% of those who applied for asylum had been granted refugee status. Of these patients:

- 77% reported at least one barrier in accessing health care, most commonly lack of knowledge or administrative obstacles;
- 20% reported having been denied health care by a health care provider in the past year;
- 81% had no prospect of accessing health care without paying the full cost;
- 52% of patients seen by a doctor had at least one chronic disease;
- 42% of patients seen by a doctor had at least one acute disease; and
- 63% were considered by the physicians as requiring a necessary treatment, defined as "a treatment really needed by the patient to prevent their condition from getting much worse".

The HEN report on the health status of irregular (undocumented) migrants concluded that they mostly have access only to emergency care across the WHO European Region (10). Some EU Member States, however, also provide certain specialist services, including care for infectious diseases such as tuberculosis and HIV, and maternity care. Entitlement also varied by age, with children generally having more extensive entitlements than adults. Eight Member States (Estonia, France, Greece, Italy, Portugal, Romania, Spain and Sweden) give the same health care entitlements to children with irregular status, either with their parents or unaccompanied, as for children who are nationals of that country (176). A large

EU comparative study focused on the way the label of "irregular migrant" impacts on access to and delivery of health care and found that, in the main, health care providers try to adopt a pragmatic approach to ensure that irregular migrants receive some care irrespective of their legal entitlements (48,120). Some services and professionals were reported to treat irregular migrants free of charge, despite legal restrictions, or allowed for flexibility for migrants complying with administrative procedures (120). Service providers did, however, consider that irregular migrants received substandard care because their lack of health insurance inhibited a range of clinical actions including referrals to specialists and laboratory tests (66).

Changing status (e.g. asylum seekers who are denied asylum and become irregular) can also impact on continued access to treatment. A study of asylum seekers with HIV in the United Kingdom in 2015 reported that general practitioners often continued to provide care even when an application for asylum had been refused, but that continued access to secondary care was more challenging, with some asylum seekers losing access to or having to pay for specialist HIV clinics once their application had been refused (78). This study demonstrated a sequence of events affecting access to health-related services that occurred along a timeline related to the definition of the migrant's status. The European Centre for Disease Prevention and Control reported on interviews with experts in EU Member States on the health needs of irregular migrants and those seeking asylum and how to address them in relation to the prevention and control of communicable diseases (185). One of their recommendations was universal access to health care, free of charge, for the diagnosis and treatment of communicable diseases, including for primary and emergency health care (185).

2.3.4. Health screening of migrants

Health screening of third-country nationals entering a country varies widely by host country, from no mandatory health screening recommended prior to or on arrival in Spain to mandatory screening in Norway for all apart from nationals from the European Economic Area (182). Several countries waive the cost of screening for specific diseases (e.g. tuberculosis and HIV) for refugees and those in need of international protection but screening can lead to exclusion from migration for other categories of migrant (180). For example, those entering Cyprus for employment purposes are screened for tuberculosis, hepatitis B and C, HIV and syphilis, and those who screen positive for any one of these infectious diseases must leave the country (182). All those who require a work permit in the Russian Federation are required to undergo compulsory screening for a number of infectious diseases such as HIV

and tuberculosis (89). In 2015, the Russian Federation expanded the categories of migrants who need to seek work permits to include all those who plan to work for an individual in addition to those working for an organization. In 11 EU Member States (Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Lithuania, Luxembourg, Romania, Slovakia and Slovenia), irregular migrants are not entitled to access screening or treatment for any infectious diseases (176).

2.3.5. Changes resulting from austerity policies and increasing number of migrants

There is emerging evidence of recent changes to definitions and their application altering access to and delivery of health care for migrants in the context of austerity in Europe and increasing numbers of migrants (124). A change of legislation in Denmark in 2011, for example, resulted in immigrants residing in Denmark for seven years or more having to pay a charge if they needed to use an interpreter service in primary and secondary care (125). The broad definition of "foreign born" for immigrants in Denmark may not, therefore, identify this potential barrier to health care access for the subgroup who are required to pay for interpreters based on their length of residency. Austerity policies have also meant that entitlements for migrants have been reduced in countries such as Greece, Portugal and Spain (186). The Spanish national health system was characterized by universal access for all citizens and foreigners on Spanish territory until 2012, when legal changes linked rights to health care with social insurance and a "health card", thus limiting access to health care for irregular migrants (114,122).

With increasing numbers of refugees from the Syrian Arab Republic in Turkey, a new legislative arrangement was put in place in 2014 for these refugees. Under this arrangement, hospital-based medical examinations, treatment bills and medicine cost-sharing by refugees from the Syrian Arab Republic are covered by the Prime Minister's Disaster and Emergency Management Authority. However, a report by an international aid agency suggested that the length of time taken for this authority to make payments results in pharmacists refusing to supply free medicine to Syrian refugees (184).

2.3.6. Factors influencing delivery of health care to migrants

Even when access is guaranteed under legislation, many barriers have been identified. Language and communication problems and lack of a social network can also act as barriers (10), as can opening hours and distance to services (166). Simple lack of awareness of health service entitlements by migrants and health

providers may also impact on use (15,180). Administrative procedures can prevent migrants from using their entitlements (186), such as the need for documentation or where discretionary decisions are made by service providers, for example on what constitutes an emergency requiring care. Health care providers are often unsure about entitlements of migrants to health services (47,120) and report the need for clear guidelines on entitlements (13). In some countries (Croatia, Germany, Slovenia, Sweden and the United Kingdom), health care providers are required to report irregular migrants to the authorities, and those providing care can be legally sanctioned in countries such as Croatia, Germany, Greece and Turkey (186).

Access to health care, health care use or perceptions of care can also vary by migration-related variables such as country of origin of the migrant (30,42, 52,54,55,58,71,101,109,116,128,136,159,177), reason for migration (180), whether the migrant is accompanied by family members (177,180) and host country (69,159). For example, a study across all EU and OECD countries on indicators of immigrant integration reported that differences between foreign-born and native-born people in self-reported unmet medical needs were observed mostly in central and eastern European countries (e.g. Estonia and Poland) but also in countries that host large numbers of refugees (e.g. Sweden) (177).

2.3.7. Migrant-sensitive health systems

A number of studies have highlighted the importance of migrant-sensitive health systems that aim to consciously and systematically incorporate the needs of multiple subgroups of migrants into all aspects of health services. A study of the views and values of health care providers working in different health care contexts in 16 European countries was carried out to establish what constitutes good practice in health care for all migrants regardless of definition (96). There was general consensus on the need for culturally sensitive health care systems with empowerment of and respect towards migrants. There was also consensus that the health care system should be accessible to migrants on the same terms as for the general population, regardless of migrants' status, and on the importance of recording and monitoring data on migrant health (96). MIPEX described the best health care scenario as one where migrants have the same coverage as nationals in law and in practice, with health care providers informed of these entitlements and allowed to serve all residents. All residents should be able to receive information in various languages and through cultural mediators (186), as language and communication problems and lack of a social network can also act as barriers (10). The involvement of migrants in the development of migrant-sensitive health systems that deliberately and systematically incorporate the needs of migrants into

all aspects of their services has been emphasized by both the European Centre for Disease Prevention and Control and WHO (137,179), with recommendations to use community-based participatory action research methods to focus on topics of importance to migrant communities and to develop culturally sensitive health information systems.

2.4. How are collection and analyses of migrant health data affected by heterogeneity of definitions and their application?

The heterogeneity of definitions used for migrants limits effective comparison of routinely collected data in health information systems across countries and impacts identification of at-risk groups and targeting of public health interventions. For example:

- difficulties in collection of disease surveillance data and identification of at-risk groups impact implementation and evaluation of infectious disease services for migrant populations (e.g. HIV, see Case study 3);
- effective targeting of public health interventions is harder if a broad definition of migrant is used, which can mask or minimize differences between migrant status and health or health use indicators;
- associations between migrant subgroups and social determinants of health are difficult to identify;
- pragmatic project-specific definitions may shape perceptions of migrant groups; and
- reviews of evidence regarding access to and delivery of health care to migrants to support policy recommendations can be limited by definition heterogeneity.

Case study 3. The impact of heterogeneity of definitions on HIV surveillance

HIV is a major public health concern in Europe, with migrant populations representing a significant and growing proportion of reported cases of AIDS and HIV (137). The European Centre for Disease Prevention and Control reported on a literature review and findings from an expert panel on improving HIV data comparability in migrant populations (137). Its report acknowledged that there is no universally accepted definition of a migrant, with the term not used at all in some European countries and in others having different meanings related to country of birth, citizenship, residency and legal status. It was recommended

Case study 3. contd

that surveillance and research studies provide a clear definition of the study population in their reporting; that country of birth was a useful indicator but that data on other migration-related variables should be collected, including length of residence, legal status, purpose of migration and previous country of residence; that such data collection and management should be conducted in a culturally sensitive manner; and that community participation in research design and implementation is critical.

Using a broad definition of migrant or immigrant only (i.e. all persons residing outside their country of birth) can mask or minimize associations between migrant status and health or health use indicators (24). Using a definition that combines two or more defined groups can have a similar effect; for example, use of the IOM definition of forced migration as "a migratory movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes" resulted in irregular immigrants, who were mostly "former asylum seekers with rejected requests", being combined as a group with those currently seeking asylum in a study in Switzerland (33). Both groups had lower preventive primary care scores than the host population, but the scores of asylum seekers (mostly unemployed men) were lower than those of the irregular migrants (mostly employed women from Latin America). A HEN report on asylum seekers and refugees (14) reported that few studies acknowledged that asylum seekers and refugees are a heterogeneous group with a wide variety of experiences, backgrounds, health needs and health behaviours, and it identified only one study that systematically sought differences in disease prevalence between the groups (188).

Social determinants of health are cross-cutting predictors of access to and use of health care, such as age (27,39,40,121,177,180), level of education (177,180), gender (30,44,60,63,121,128,136,145,146,159,177,180), first language (21,121,131,150) and ethnicity (11,102,107,116). The importance of data collection and subgroup analysis by migration-related variables and/or social determinants to understand differences in health care access and delivery for the diverse population of migrants was frequently highlighted in the studies reviewed (24,52,64,177–179).

Using a project-specific working definition can be considered pragmatic for the purposes of a study, but it can also shape information and perceptions about migrant health by emphasizing negative aspects and differences between migrant and host populations. For example, in a United Kingdom study about new arrivals and infectious disease screening (31), the researchers deliberately sought information

only about new migrant groups from countries with high disease prevalence, which meant that evidence about new migrants from western European countries was not included in their analysis. In a Norwegian study about community pharmacists' experiences of delivering care to immigrants, the researchers told the pharmacists not to consider immigrants from any northern European country because of ethnic as well as health and societal similarities (35). These studies indicate how project-specific working definitions of migrants may create a false image of subgroups of migrants and mask examples of healthy practices among migrants.

Reviews of the evidence that underpins policy recommendations for access to and delivery of health care to migrants are limited by the heterogeneity of definitions used. A systematic review of health service utilization and barriers to accessing care for asylum seekers (36) used the UNHCR definition of refugees but acknowledged that relevant studies may have been excluded because of incorrect or inexplicit use of the correct legal terminology related to asylum seekers. The variety of definitions used also impacts on the comparability of evidence across reviews; for example, one systematic review of health service utilization and barriers to accessing care for asylum seekers searched for the terms asylum seeker, refugee claimant or forced migrant (36) while another did not include forced migrant as a search term (11). Similarly, a systematic review of migrants' utilization of health care in Europe specifically excluded refugees and asylum seekers (76).

3. DISCUSSION

3.1. Strengths and limitations of the review

This report is not a straightforward review of evidence for interventions for a specific health problem; rather it is an analysis of *terminology in use* in academic and grey literature in order to explore the consequences of this heterogeneity for public health, with attention to access to and delivery of affordable and adequate health care services to migrants. The parameters of the review included:

- the range of terms for migrant that are in use;
- whether a definition was given for the migrant population of interest and whether definitions provided were referenced or not;
- how variations in definitions and their application influenced migrants' access to and utilization of health care;
- how variations in definitions and their applications shaped comparability of data from health information systems and the evidence base on access and delivery of health care to migrants; and
- any interventions that could be identified to standardize terms related to migration in a public health context.

This systematic analysis of the heterogeneity of definitions used for migrants is carried out at a time when there are growing concerns across academic, health care and public domains about issues of migration. A strength of this review is the breadth of English and Russian literature that was systematically searched (initially 406 publications identified), covering 39 of the 53 Member States of the WHO European Region. No published empirical data were available from 14 Member States and data were limited from others, particularly countries in central Asia.

Because the initial search resulted in a very large dataset, decisions were taken to refine the focus of the analysis to ensure that it was conducted in accordance with best practice for systematic reviews in the time available, and evidence was drawn from 169 publications in the academic and grey literature covering the period from 2010 to 2015. Grey literature was restricted to reports with original empirical data, glossaries of terminology and reports with information on eligibility of migrants for health care. There was no chain searching of references in the grey literature or peer-reviewed articles included in the review. There was a specific focus on

literature covering primary health care, although almost half of the 148 empirical studies also included secondary care. Furthermore, no new themes emerged from the data as the analysis progressed.

The level of evidence from included publications was assessed as moderate (189–192). Some quantitative studies were limited by the lack of a comparison group of non-migrants, poor response rates or lack of adjustment for potential confounders. Some qualitative studies were limited by lack of detail on analysis or not critically examining the role of the researcher and any potential biases.

While the majority of the included publications contained information about the terminology in use, comment or analysis around issues of definition was less common. Information on the issue of definitions was only found in English language grey literature and peer-reviewed literature. Some of the available data were therefore not analysed in their original (native) languages and there are complexities involved in the process of comparing translated terms and definitions rather than analysing all data in their original language. In addition, the publications analysed for this review had little specific information on health policies and interventions relating to standardizing definitions on migration across the WHO European Region.

Most studies contained some data regarding barriers to health care access and delivery, and several barriers could be identified as common across migrant subpopulations, including language barriers, cultural differences and gender issues.

The review question relates strongly to the legislative and regulatory framework of each Member State. Examining the academic and grey literature is one important aspect of identifying evidence, particularly with regards to applications and consequences in practice. However, it would be valuable to conduct a systematic analysis of national legislation in the Member States, in their native languages, to be able to map comparable terms and regulations about access to health care.

There was also emerging evidence of the impact of austerity policies and the increasing numbers of migrants into the WHO European Region on eligibility for health care, making affordability another significant, and potentially increasing, barrier to accessing care. While these are clearly highly significant in terms of both the migrants' access to care and the provision of public health care to the whole population, this review did not analyse them in depth as they were not the primary focus of the review question.

3.2. Impact of definition use on health care access and public health policy

3.2.1. Variation in definitions among studies

A major finding from this review is that there is no universally accepted definition of migrant, and policy-makers, practitioners, international agencies and researchers use multiple terms to describe migrant populations.

One third of the included studies did not provide a clear definition of the migrant population of interest. Others used the terms migrant and immigrant as broad terms, often using them interchangeably without source references. Varying definitions in use refer to citizenship, residence, length of stay in the country, country of origin, parental country of birth, legal status or first language. The terms refugee and asylum seeker are more likely to be used with international references. There are some examples of efforts to provide recommendations on preferred terms related to migration, such as those of the EMN, and there are recommendations on avoiding the use of the term illegal to describe irregular migrants.

In the absence of a universally accepted definition of migrant, researchers often take a pragmatic approach and generate a project-specific working definition of the population of interest. While this is helpful for the individual study, it limits comparability across the evidence base.

3.2.2. Implications for access to and delivery of health care

Universal health coverage for all of a country's population regardless of status, an aspiration of WHO, is rarely available in Member States. In the absence of universal health coverage, legal status emerged as the most important determinant of social security and health care benefits for migrants in a country. There can also be a gap between access in terms of legal entitlement and formal access regulations and the actual ability of migrants to access health care. A number of studies called for the development of migrant-sensitive health systems that incorporate the needs of migrants into all aspects of health services and provide the same access to health care for migrants as for the general population. Expert opinion on the prevention and control of communicable diseases also recommends universal free access to health care for the diagnosis and treatment of infectious diseases, including to primary and emergency health care.

Studies that use project-specific working definitions or deliberately focus on only a subsection of a group (e.g. examination of infectious diseases in migrants but only focusing on the subgroup from countries with high disease prevalence) can also shape information and perceptions about migrant health by emphasizing negative aspects or masking examples of healthy practices.

This review shows that, currently, some Member States of the WHO European Region provide the same access to health care for migrants with legal status as for the general population; others restrict access depending on the length of stay and type of residency permit. Classification as an asylum seeker is also an important factor in eligibility to health care, although again what is provided and to whom varies widely, with some Member States providing the same access as for the general population while others provide emergency care only. Care may be restricted to those remaining in reception centres or designated areas or entitlement may vary with the age of the asylum seeker, the time taken to process the application or the income or assets of the asylum seeker. This shows that, even when the definition is clear, the level of access to health differs from country to country, for example as a consequence of the subsidiarity concept and the EU giving sole responsibility for design of health services to individual Member States (193).

Migrants, particularly those who lack documentation, often see the same barriers to health and health care as the more vulnerable sections of the host population (e.g. through poor living conditions, homelessness, unemployment, need to support families and poverty). Such irregular migrants are likely to be excluded from primary and secondary care but may have entitlement to certain services, such as emergency care, care for infectious diseases or child health care. Irregular migrants were reported to be legally entitled to emergency health care in all 28 EU Member States, although there was variation in how emergency care was defined and payment could be required in some instances. There is also evidence of access tied to a variety of preconditions such as minimum duration of stay, proof of identity, destitution or staying in a detention centre. There is some evidence of irregular migrants being denied access to necessary care.

Even when migrants are eligible for health care, access is not guaranteed or without challenges. Migrants are not always aware of their entitlement or are unable to overcome administrative barriers to access care. Health care providers are not always clear about eligibility although most reports indicate that they try to adopt a pragmatic approach, especially in countries with universal health care systems.

However, health care providers in some Member States are required to report irregular migrants and may be legally sanctioned for providing care.

Provision of screening highlights how the application of a definition matters from a public health perspective. Some Member States require compulsory screening for infectious diseases for those who require a work permit. Others deny access if a migrant seeking a work permit screens positive for some infectious diseases. There is also evidence of treatment for infectious diseases being discontinued or requiring payment when a migrant's status changes (e.g. from asylum seeker to irregular migrant). In resettlement of refugee and migrants, health authorities of the receiving country may require them to go through a full personal medical screening including for chronic diseases.

3.2.3. Implications for information systems and health research

The heterogeneity of definitions used limits the comparability of routinely collected data in health information systems across Member States of the WHO European Region. Without the same criteria for sampling and inclusion of migrants, it is difficult to identify subgroups of vulnerable migrants at risk of poorer outcomes or to target public health interventions across Member States. If health information systems of Member States collected data on a standardized set of variables related to migration (e.g. country of birth, length of residence, reason for migration, legal status and previous country of residence), this would facilitate data comparison and improve the quality of the evidence base for policy-makers. Data on migration-related variables may be regarded as sensitive and there are merits in involving migrants and all relevant sectors in the development of migrant-sensitive health information systems and services.

The use of broad definitions such as migrant and immigrant also suggests that migrant status in itself can be studied and used to explain differences in access to and delivery of health care. Following the WHO *Social determinants of health* (194) and studies with an intersectionality approach (18), it is clear that access to and delivery of health care are influenced by multiple and interacting factors and this needs to be taken into account to advance the public health aspects of migrant health. Agreement on a set of definitions would also support an approach to identify and address both health system gaps and social determinants of health in collaboration with other sectors such as ministries of interior, education, social affairs and employment.

3.3. Policy options and implications

Evidence-informed policy-making can only be achieved with data that allow comparison of evidence across studies and countries. Options for further research to support this aim include:

- analysis of grey literature and national legislation in the national languages of non-English-speaking countries in the WHO European Region;
- update of this review (e.g. after five years) to assess how definitions used for migrant subgroups have related to access and delivery of health care in a period of austerity policies and increasing numbers of migrants;
- examination of the issue of noncommunicable diseases in migrant populations and the impact on public health of ignoring these;
- identification of shared and differential barriers to access and delivery of health care across migrant subpopulations to identify interventions that could impact multiple groups irrespective of definitions; and
- examination of a longitudinal cohort of migrants to assess the interactions between migrants' changing status/definition and their eligibility to and utilization of health care over time.

The main policy options for consideration are:

- development of a list of preferred terms relating to migrants with a shared understanding of these terms to allow cross-comparisons of issues;
- involvement of migrants in cross-sectoral collaborations for the development of health information systems in the Region to collect sensitive data on migration, and for migrant-sensitive health services;
- initiation of routine collection in national health information systems of data on an agreed set of variables relating to migration;
- ongoing monitoring and analysis of data on access to and delivery of health care to migrants across the Region based on migration-related variables and social determinants of health;
- provision of health care, free of charge, for the diagnosis and treatment of communicable diseases, including primary and emergency health care; and
- incorporation of migrant health needs into all aspects of health services and provision of the same access to health care for all migrants as for the general population, regardless of definition.

4. CONCLUSIONS

This report examined the range of definitions used for migrants and migrant subgroups in health care literature. No universally accepted definition of migrant could be identified and, given the complexity of the concept, it may be hard to arrive at one. The analysis clearly indicated how the lack of clarity in definitions had a negative impact on data comparison and could have negative consequences for public perceptions of migrants and for public health policies.

Identifying preferred terms for migrants in the WHO European Region could be helpful, particularly at a time when there is a rapid increase in migrant numbers. Interventions that seek consensus on the routine collection of important migration-related variables across health information systems could also be helpful. Developing these interventions and the collection of sensitive migration-related data will benefit from the involvement of migrants. The best health care scenario for migrants has been described as all migrants having the same coverage as the host population in law and in practice, with health care providers informed of these entitlements and allowed to serve all residents. Clarifying terminology, while valuable, will not necessarily improve migrants' access to health care unless there is more coherence among policies to promote this goal and monitor its implementation across the WHO European Region.

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ANNEX 1. SEARCH STRATEGY

Databases and websites

The searches were performed in January and February 2016 and covered publications from 2005 to 2015 in English or Russian. The academic literature was searched using the databases of Academic Search Complete, Cochrane Library, EconLit, Medline, Social Sciences Full Text and Web of Science.

Searches of the following 11 websites were conducted to identify relevant empirical research, glossaries of definitions and information on health care entitlements from the grey literature: EU Agency for Fundamental Rights, European Commission Directorate-General for Migration and Home Affairs, European Observatory on Health Systems and Policies, European Website on Integration, Eurostat, HEN, IOM, MIPEX, OECD, SOPHIE project and UNHCR.

Search protocol

A standard protocol was followed for study selection and data abstraction. Two review authors (POD and MOK) conducted the searches. After the removal of duplicates, the two authors then independently screened the titles and abstracts of studies for inclusion according to the eligibility criteria and relevance to the study questions. If no abstract was available, or when it was not clear if the study should be included, the full-text was retrieved and screened for relevance. Reasons for the inclusion or exclusion of studies were recorded by both authors. Disagreements on study eligibility were resolved by discussion and a consensus meeting of all review authors. Subsequently, full texts for the grey literature were screened for inclusion by all authors.

Data extracted from included studies included the time period of the study, geographical location, named migrant group, definition of the group (if given), study design, aims and objectives, setting (primary and/or secondary care), information on entitlement to health care and any recommendations or comment by the authors on the use of definitions of migrants.

Assessment of study quality was dictated by study design. The Newcastle–Ottawa Scale was used for assessing the quality of cohort or case–control studies (189). The Effective Public Health Practice Project quality assessment tool was used for

other quantitative studies (190). The Critical Appraisal Skills Programme checklist was used for qualitative studies (191). The Grading of Recommendations Assessment, Development and Evaluation scale for level of evidence (192) was used to assess the level of evidence of included studies. The level of evidence from the 148 studies based on empirical research was assessed as moderate.

The proportion of studies providing a clear reference or definition of the study population was calculated. A summary of terms used across studies was created. A synthesis of the evidence of how heterogeneity of definitions and their application shaped access to and delivery of health care was carried out.

Initially, 460 relevant publications were identified from the electronic database search and search of the grey literature for the period 2005–2015. Because of the number and the need to include the most up-to-date information on health care entitlements, analysis was restricted to 169 publications from 2010 to 2015 that focused on primary care or on both primary and secondary care settings (including screening services and emergency departments): 148 (88%) were based on empirical research (65 quantitative, 55 qualitative, 20 mixed methods, 8 literature, systematic, synthesis or scoping reviews) and the other 21 consisted of 8 glossaries of definitions and 13 factual accounts of health care entitlements.

A PRISMA flow diagram of included and excluded studies is given in Fig. A1.

Search terms

The following search terms were used.

Row 1: asylum* OR refugee* OR migrant* OR migrat* OR emigrant* OR emigrat* OR immigrant* OR nomad* OR foreigner* OR displaced OR stateless OR state-less OR noncitizen* OR non-citizen* OR outsider* OR newcomer* OR "newly arrived" OR "new arrival*" OR "recent entrant*" OR "non national" OR non-national (title)

Row 2: health* (abstract)

Row 3: Albania* OR Andorra* OR Armenia* OR Austria* OR Azerbaijan* OR Belarus* OR Belgium OR Belgian* OR Bosnia* OR Bulgaria* OR Croatia* OR Cyprus OR Cypriot* OR "Czech Republic*" OR Denmark OR Danish OR Estonia* OR Finland OR Finnish OR France OR French OR Europe* OR Georgia* OR German* OR Greece OR Greek* OR Hungar* OR Iceland* OR Ireland OR Irish* OR Israel* OR Italy OR

Italian* OR Kazakhstan* OR Kyrgyzstan* OR Latvia* OR Lithuania* OR Luxembourg* OR Macedonia* OR Malta OR Maltese* OR Marino* OR Moldova* OR Monaco* OR Montenegro* OR Netherlands OR Dutch OR Norway OR Norwegian* OR Poland OR Polish OR Portug* OR Romania* OR Russia* OR Serbia* OR Slovakia* OR Spain OR Spanish OR Sweden OR Swedish OR Switzerland OR Swiss* OR Tajikistan* OR Turk* OR Ukrain* OR "United Kingdom" OR England OR Scotland OR Scottish OR Wales OR Welsh OR Uzbekistan* (full text)

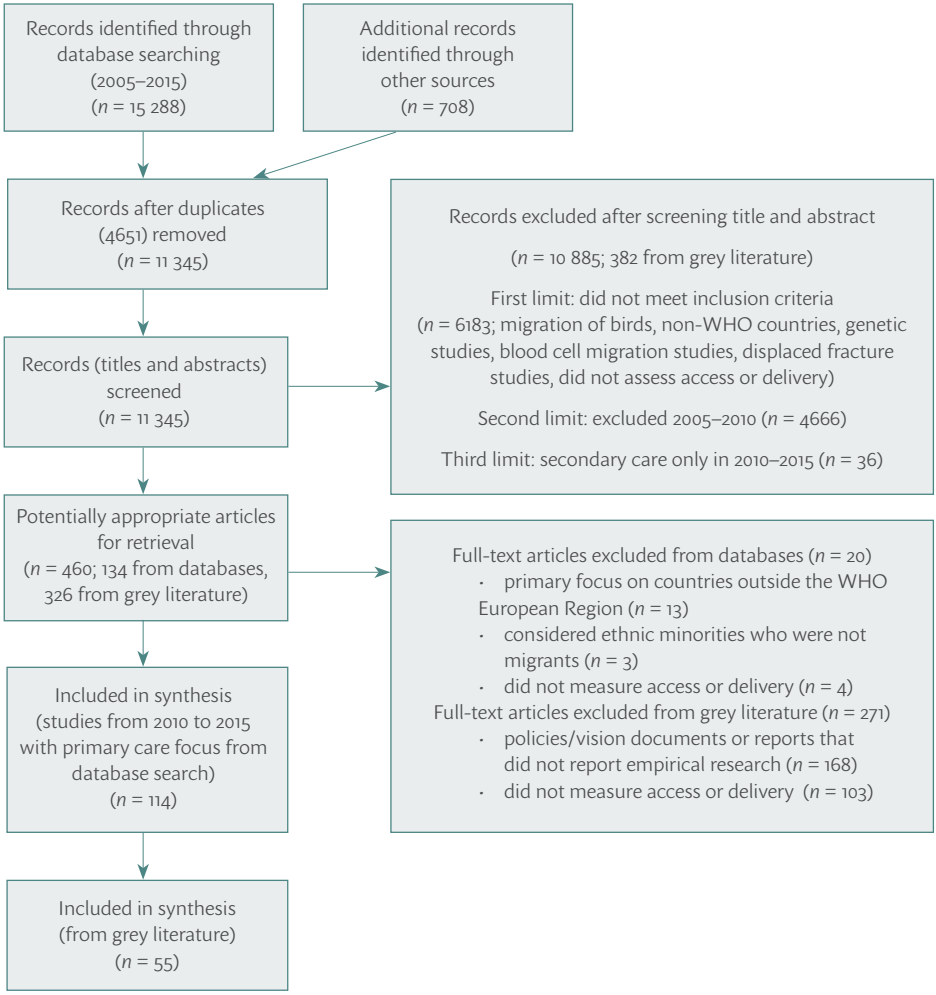
Number of results for databases

Academic Search Complete: 5124
Cochrane Library: 135
EconLit: 129
Medline: 6058
Social Sciences Full Text: 631
Web of Science: 3211

Number of results for websites

EU Agency for Fundamental Rights: 14
European Commission Directorate-General for Migration and Home Affairs: 196
European Observatory on Health Systems: 75
European Website on Integration: 10
Eurostat: 25
HEN: 26
HEN grey: 205
IOM: 46
MIPEX: 14
OECD: 50
SOPHIE: 22
UNHCR: 25

Fig. A1 Prisma flow chart



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