

HEALTH EVIDENCE NETWORK SYNTHESIS REPORT 45

What is the evidence on the reduction of inequalities in accessibility and quality of maternal health care delivery for migrants? A review of the existing evidence in the WHO European Region

Ines Keygnaert | Olena Ivanova | Aurore Guieu | An-Sofie Van Parys | Els Leye | Kristien Roelens



**World Health
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This HEN – the Health Evidence Network – synthesis report is the result of a cross-divisional effort in the Regional Office between 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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Abstract

The number of female migrants of childbearing age is rapidly increasing, which poses specific maternal health needs. Via a systematic academic literature review and a critical interpretive synthesis of policy frameworks, this review aimed to assess interventions and policies that work to improve the accessibility and the quality of maternal health care for migrants in the WHO European Region. The review demonstrated that most migrant women face poorer maternal health outcomes than non-migrant women throughout the WHO European Region. Identified risk factors are not only linked to pregnancy, childbirth and the postpartum period but also to events before conception. Migrant women's access to maternal health care is jeopardized by restricted entitlement and problems with familiarity, knowledgeability, acceptability, availability and affordability. Assuring universal access to care and providing culturally sensitive care will enhance access and quality of maternal health care and eventually improve migrant maternal health.

Keywords

MATERNAL HEALTH SERVICES, TRANSIENTS AND MIGRANTS, HEALTH SERVICES
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ABBREVIATIONS

AOR	adjusted odds ratio
CI	confidence interval
CIS	Commonwealth of Independent States
EU	European Union
HEN	Health Evidence Network
MIPEX	Migrant Integration Policy Index
NGO	nongovernmental organization
PHAME	Public Health Aspects of Migration in Europe (programme)
SOPHIE	Evaluating the Impact of Structural Policies on Health Inequalities and their Social Determinants, and Fostering Change (project)
SRH	sexual and reproductive health
UNFPA	United Nations Population Fund
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

A large and rapid influx of migrants in the WHO European Region poses public health concerns and requires an urgent and concerted response to ensure good health status for both migrants and host populations. The WHO estimates that 73 million migrants were living in the WHO European Region in early 2016, 52% of whom were women. In August 2015, the United Nations Population Fund (UNFPA) estimated that there were about 500 000 Syrian refugee women and girls of reproductive age in Turkey; of these, more than 30 000 were pregnant. While there may be specific issues with accessing health care for various migrant groups, maternal health care generates particular needs for both migrants and host populations.

The synthesis question

The objective of this report is to address the following question by way of a systematic review of available academic evidence and a critical interpretive synthesis of grey literature including policy frameworks: “What is the evidence on the reduction of inequalities in accessibility and quality of maternal health care delivery for migrants? A review of the existing evidence in the WHO European Region”.

Types of evidence

Evidence was generated from academic peer-reviewed literature published in English between 2000 and early 2016. In addition, a critical interpretative synthesis of grey literature was performed on migrant maternal health-related policy frameworks that is applicable to the WHO European Region or one of its member countries and published within the same time span in English, French, German or Russian, the four official languages of the WHO European Region, and also in Dutch, Spanish or Ukrainian as the composition of the author team allowed for these searches. Out of an initial database of 3632 sources, 325 academic papers and 121 policy documents were eventually assessed.

Results

Conditions during migration may create or increase vulnerability to ill health, with different migrant groups facing different health challenges and having varying success in accessing health and social services. Low socioeconomic position and irregular status increase these challenges. Factors that may limit access to services

include language and cultural differences and formal and informal institutional and structural barriers.

Compared with non-migrants, most migrant women still face poorer pregnancy outcomes, with a higher incidence of induced abortions, caesarean sections, instrumental deliveries and complications; however, current findings for low-birth-weight babies and pre-eclampsia differ by migrant group, generation and host country. Identified risk factors are not only linked to the stage of pregnancy, childbirth and the postpartum period but also to the preconception phase. Migrant women may fare well on some indications and less well on others, suggesting issues from preconception history and uneven access to ante- and postnatal services.

Entitlement to care is often restricted because of a woman's migration status and this may not be compatible with a human rights approach. Furthermore, access to maternal health care is jeopardized by problems of familiarity, comprehensibility, acceptability, availability and affordability. Financial barriers are a major concern and vary substantially from country to country and within a country depending on migrant status. Cultural elements and uncertainty about legal status often delay referral to health facilities. In addition, sexual violence and victimization, which are particularly associated with girls and women, may also make it harder to access care. The lack of legal frameworks preventing sexual violence and clarifying the migrant women's legal status often creates barriers to seeking help and health care.

While universal definitions of indicators for quality of maternal health care are still lacking, the need for culturally sensitive maternal care is widely evidenced. There are a number of tools and policies outlining good practices that could help to improve migrant maternal health when effectively implemented.

Policy considerations

In order to support policy-makers in strengthening or introducing specific policies regarding migrant maternal health care, the following areas are identified where migrant women may have specific risks or difficulties in accessing care, and potential policy options are outlined.

Poorer migrant maternal health

Compared with women in host countries, migrant women often have poorer maternal health and this is often related to risk factors that already precede and contextualize migrant maternal health, for example family planning,



health-seeking behaviour, gender-based violence and asylum procedures. Conditions during migration, low socioeconomic position and irregular status may all have a negative impact on maternal health. Policies that consider sexual and reproductive health (SRH) as an overall feature leading to good maternal health would help to reduce these early risk factors.

Legal entitlement to care

Entitlement to maternal health care varies among countries of the WHO European Region and with migrant status within a country; often neither the women nor the health professionals understand the current rights of the women. Assuring universal access to maternal health care would clarify the provision of care and could also be cost-effective for public health services.

Accessibility of maternal health care

This can be restricted by barriers of comprehension, acceptability and availability. Culturally sensitive provision of language support and good educational aids will tackle some of these barriers.

Affordability

This is a major barrier to accessing care. Failure to access care prenatally often leads to more expensive emergency care as well as to unwanted pregnancy outcomes, and strategies such as promoting and investing in family planning can be a cost-effective way to improve migrant women's health and prevent unintended pregnancies.

Quality of care

Universal definitions of indicators of quality of care are still lacking but research is clear that culturally sensitive provision should be included among the indicators of good maternal health care.

The recent massive surge in migrants entering Europe poses extra challenges in providing maternal health care to newly arrived migrants, migrants in transit and those aiming to stay longer regardless of the legal status they have. This accentuates the need for the development and application of common indicators on migration and health to inform good policy decision-making across the WHO European Region.





1. INTRODUCTION

1.1. Background

The marked increase in refugees, asylum seekers and migrants to the WHO European Region in recent years has focused attention on both individual and public health issues and on the need for a concerted response to ensure good health status for both migrants and host populations.

The overarching term “migrant” covers a number of subgroups, often with differing health needs and barriers to health. At the international level, no universally accepted definition of migrant exists and the legal and social contexts that shape definitions of migrants, refugees and asylum seekers are debated. 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 (1). The International Organization for Migration 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” (2). An asylum seeker is an individual who is seeking international protection. In countries with individualized procedures, an asylum seeker is someone whose claim has not yet been finally decided on by the country in which he or she has submitted it. Not every asylum seeker will ultimately be recognized as a refugee, but every refugee is initially an asylum seeker (3). An irregular migrant is a person whose current residence status is characterized by nonconformity with the immigration laws of the receiving country, regardless of their mode of entry. (NB. The terms irregular migrant and undocumented migrant are synonymous and this HEN report will use the former.) Irregular migrants constitute a particularly vulnerable group because they may have limited access to the health care and/or other public services available to legally recognized international migrants and may face specific barriers to accessing the care that is available for them (4).

Regardless of the legal and administrative challenges in differentiating between refugees, asylum seekers and migrants, all people have health rights afforded by the Universal Declaration of Human Rights (5) and the International Covenant on Social, Economic and Cultural Rights (6). In line with the framework of the World Health Assembly resolution 61.17 in 2008, the attention of Member States should be focused on ensuring equitable access to health promotion, disease prevention and care for migrants (7). However, entitlement to health care and ease of access

can be subordinated to the legal status of the refugee or migrant (with legal status, applying for legal status and without legal status (8)). This report uses the general term migrant to refer to all of these subgroups but will discuss areas where access can be impacted by identifying a migrant as part of a subgroup and by barriers such as language/communication issues and awareness of entitlements.

WHO estimates that 73 million migrants were living in the WHO European Region in early 2016, 52% of whom were women (9). The most recent Eurostat figures show that in 2013 the European Union (EU) alone received 3.4 million migrants from non-EU countries (47% of whom were women), against 1.8 million in 2008 (10,11), with a peak in asylum applications (12). The massive increase in migration to the Region highlights the need to identify best practices and engage in cross-national political dialogues on migration.

Pressure on health systems from the vastly increased flow of migrants varies within countries of the WHO European Region depending on whether they are a reception country such as Turkey, a transit country such as Greece or a destination country such as Germany. After five years of conflict in the Syrian Arab Republic, Turkey is hosting the second largest contingent of Syrian refugees; in August 2015, there were 484 750 Syrian women and girls of reproductive age in Turkey, of whom 34 320 were pregnant (13). The eastern European and central Asian regions lie on the crossroads of active migratory paths, with significant migration from, within and through the region. The available data show that the Russian Federation currently hosts around 13–17 million registered and irregular migrants from central Asia, Ukraine and the Republic of Moldova (14) and there are around 1 120 000 temporary labour migrants in Kazakhstan (15,16).

Conditions during migration may create or increase vulnerability to ill health, with different migrant groups facing different health challenges and having varying success in accessing health and social services. Low socioeconomic position and irregular status increase these challenges. Factors that may limit access to services include language and cultural differences and formal and informal institutional and structural barriers.

Nearly 54% of all international migrants residing in eastern Europe and central Asia are women (world average is 48%) (15). Recent data show that women also represent a growing proportion of migrant workers who travel to Kazakhstan and the Russian Federation, primarily from other countries of the Commonwealth of Independent States (CIS) (15–17). Consequently, maternal health care is a significant issue in provision of health care to migrants of all types.



In 2010, WHO stated that reproductive health included “the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant” (18). Maternal health as defined by WHO covers the health of women during pregnancy, childbirth and the postpartum period, linking this directly to broader health aspects that precede and/or contextualize maternal health such as family planning and other risk factors (19). Both the Millennium Development Goals and more recently the Sustainable Development Goals call upon states to ensure universal access to SRH including maternal health care, to improve maternal health and to reduce maternal mortality, specifically addressing the vulnerability of migrants (19). There are still great disparities among and within countries in the WHO European Region in assuring universal access to SRH and reducing maternal mortality for all their populations (20–22). Maternal mortality tends to be higher in women living in rural areas and among poorer communities (23). These disparities are more notable for migrant women, who have been found to have higher rates of maternal complications and mortality, and worse perinatal health outcomes than in the host population (24,25).

Migrant maternal health can be adversely influenced by several risk factors that are related to being migrants, for example poor living conditions, unemployment, need to support families and poverty. Other adverse outcomes can be infections such as sexually transmitted infections, HIV infection and tuberculosis, and dangers such as trafficking, sex work or forced labour.

This report considers the available evidence comparing maternal health of migrants with that of host populations in the WHO European Region and also that indicating differences between different groups of migrants. Areas considered include risk factors for poor maternal health, women’s rights to access health care and factors that impact access.

1.2. Methodology

1.2.1. Sources for the review

Academic peer-reviewed literature was found by searching the databases of PubMed and Web of Science for publications in English between 2000 and the end of 2015. A specific Cochrane Library search on maternal health and population terms was performed. Grey literature was examined manually for migrant maternal health-related topics including policy frameworks that are applicable to the WHO European Region or one of its member countries and published within the same

time span in English, French, German or Russian, the four official WHO languages, and also in Dutch, Spanish or Ukrainian as the composition of the author team allowed for these searches. Websites of WHO and the United Nations (UNHCR, UNFPA, United Nations Women, United Nations Development Programme) were checked for the complete WHO European Region. Given the different geopolitical constellations, the search was divided into the EU Member States and the non-EU countries, taking where possible CIS, the Eastern Partnership and the Black Sea Synergy into account. For the EU specifically, the websites of the European Parliament, the European Commission and the European Council were screened on inclusion criteria. Finally for all countries, a search was carried out on Google, Google Scholar, the SOPHIE project (Evaluating the Impact of Structural Policies on Health Inequalities and their Social Determinants, and Fostering Change), the Migrant Integration Policy Index (MIPEX) and the Public Health Aspects of Migration in Europe programme (PHAME) as well as the websites of the national ministries of health. Field recommendations on migrant health practices were searched by assessing websites and newsletters of major nongovernmental organizations (NGOs) and networks working in the field of health and/or migration (e.g. European Council on Refugees and Exiles, International Planned Parenthood Federation) as well as the prior HEN reports.

1.2.2. Data extraction

A first selection of academic papers was made based on the title of the papers. Because of the heterogeneity in the type of studies, quality was assessed based on the relevance of the research question and scope. Inclusion criteria for academic literature were studies published between 2000 and 2015, in English with full text available and dealing with maternal health and migrants in the WHO European Region.

Annex 1 outlines the databases searched and the review methodology, based on the PRISMA statement (26).

The systematic literature review identified 3340 studies after removal of duplicates. After screening the abstracts and snowball-searching of reference lists in the included papers, 325 academic studies were used. Of 292 grey sources, 121 policy documents were finally included.



2. RESULTS

2.1. Evidence on poor migrant maternal health

Migration has been shown to be a specific health risk factor or health determinant in itself (27–32), but the impact clearly will depend on the type of migration, the stresses of the migration journey and health care in transit and in destination countries. Health disparities may occur between migrants and women born in host countries and also between groups of migrants. While most studies have shown poorer maternal and perinatal health outcomes in migrant women, some studies reported improved perinatal outcomes in immigrant populations in spite of increased demographic and socioeconomic risk factors. Findings of better maternal health in migrants compared with non-migrants are often explained by the protective influence of family networks or informal social support during pregnancy and/or by healthier behaviours compared with the non-migrant population (e.g. less alcohol, tobacco) (33–40). This maternal “healthy migrant effect” (41) tends, however, to fade with increasing time spent in the host country because of issues such as a fall in socioeconomic status. However, the healthy migrant effect still remains a country of origin- and outcome-specific phenomenon (34,42–45). Similarly, migrant women may fare well on some indications and less well on others, which could suggest uneven access to ante- and postnatal services. For example, in Belgium, it has been found that Moroccan and Turkish migrant women gave birth to babies with a low birth weight less frequently than did non-migrant women (46) but these women were also more at risk of diabetes and fetal macrosomia (42,43,46,47).

2.1.1. Pregnancy outcome

There are still great disparities among and within countries in the WHO European Region in ensuring universal access to care for SRH and in maternal mortality rates, and these disparities are more notable for migrant women (24,25). Compared with non-migrants, migrant women have been demonstrated to have poorer pregnancy outcomes, with a higher incidence of induced abortions, caesarean sections, instrumental deliveries and complications; current findings for lower birth weight and pre-eclampsia differ by migrant group, generation and host country (46,48–50). Migrant women in the EU have been found to have worse perinatal health outcomes than non-migrant women (24,25). In a Swedish study, African immigrants had 18 times more risk of neonatal deaths compared with Swedish mothers (51). In the Russian Federation, almost 50% of pregnancies in

migrant women ended in abortion. Miscarriages and stillbirths occurred in 10%, which the authors of the study attributed to hard work or unavailability of health services (17). In the capital region, migrant women were 1.4 times more likely to have complications during birth than their non-migrant counterparts (52).

However, studies on pregnancy outcomes have varied in the outcomes that have been identified, which may reflect the heterogeneity in the women themselves in terms of country of origin and reason for migration and the host countries in which they gave birth. Two studies indicated that recent immigrants were more likely to have better outcomes in terms of low-birth-weight babies and preterm births than women born in the receiving country (53,54) while another study found no such correlation (40). Other authors have observed an increased preterm delivery rate in migrant women (38,42,55,56) that varied with ethnic group; for example an odds ratio of 3.54 in African women in Italy and a 1.8 percentage point increased risk in African women compared with host women in Portugal (55,56). In Norway, the risk of pre-eclampsia was lower in migrants relative to Norwegian women but increased by length of residence in Norway (57).

2.1.2. Maternal mortality

Migrant women in general have higher infant and maternal mortality rates than host women (24,47,48,58–60). A recent meta-analysis showed that migrant women in western European countries had a doubled risk (pooled risk ratio, 2.00; 95% confidence interval (CI), 1.72–2.33) of dying during or after pregnancy compared with host women (61). Migrant women had a (nonsignificantly) higher risk of dying from direct rather than indirect causes, which suggests a possible link with obstetric care (61). Even in countries with universal access to health care (e.g. Sweden, Norway, Portugal), these health disparities continue to exist (62). However, this is not a simple situation in that while perinatal mortality may be higher in migrant women than host women it may still be lower than that in the women's country of origin (63) and it may vary among different migrant groups (64,65).

In a Swedish study, the rate of suboptimal factors likely to result in potentially avoidable perinatal death was significantly higher among African immigrants, who had increased risk for antenatal deaths (6 times), intrapartum deaths (13 times) and neonatal deaths (18 times) compared with Swedish mothers (51). The most common factors were delay in seeking health care, mothers refusing caesarean sections, insufficient surveillance of intrauterine growth restriction, inadequate medication, misinterpretation of cardiotocography and interpersonal



miscommunication (51). Another Swedish study demonstrated that suboptimal care factors, major and minor, were present in more than two thirds of maternal deaths. Those related to migration were associated with miscommunication, lack of professional interpreters, and limited knowledge about rare diseases and pregnancy complications (62).

Data from eastern Europe and central Asia also demonstrate that maternal mortality is often determined by the migrant status of women. In Kyrgyzstan in 2013, 26% of registered maternal deaths were in migrants who did not attend for antenatal care and were admitted to the obstetric department in severe conditions (66). In the Republic of Moldova, an analysis of causes of maternal mortality in 2008 demonstrated that about 47% were socially determined – around 13% attributed to migration and 27% to women's work abroad, which implied occasional or seasonal work and the potential for harmful or dangerous conditions (67,68).

2.2. Risk factors for poor migrant maternal health

2.2.1. Individual and interpersonal factors

Migrant maternal health can be adversely influenced by several factors that are related to being migrants, such as poor living conditions, unemployment, need to support families and poverty. These expose women to a range of risks, including infections such as sexually transmitted infections, HIV and tuberculosis (21,25,69–71), and dangers such as trafficking, sex work or forced labour, where risks of sexual violence, sexually transmitted infections and unwanted pregnancy increase (71–73).

In the preconception phase, it has been shown that migrant women have less access to family planning and contraception (48) and a lower uptake of general gynaecological health care (25). A study of women in the Reproductive Health Survey in Georgia showed that migrant women were less likely than non-migrants to have been diagnosed with sexually transmitted infections but were more likely to have been diagnosed with pelvic inflammatory disease, indicating less access to treatment (74). Female migrants in central Asia have also been found to lack knowledge, awareness about and access to HIV services compared with male labour migrants and non-migrant citizens (75,76).

Chronic stress related to migration experiences, asylum procedures, precarious living conditions, heavy work during pregnancy and integration problems has been identified as a specific factor adversely affecting migrant maternal health (77–79).

A study in 2006 revealed that migrant status increased the risks and worsened the outcome of pregnancy in Georgia and found higher rates of hypochondria and depression among migrant women compared with the control population (80).

Two studies in Switzerland indicated that lack of legal documentation was a barrier to access to family planning services, leading to unintended pregnancies and delayed prenatal care (81,82). Compared with women who were legal residents of Geneva in 2008, irregular migrants had more unintended pregnancies and delayed prenatal care, used fewer preventive measures and were exposed to more violence during pregnancy (82). A study in 2015 examining the relationship between immigrant documentation and unintended pregnancy showed that, after adjusting for other significant predictors, women with irregular status had more unintended pregnancies (75.2% compared with 20.6% in women with documented status) (81).

Frequently cited risk factors for worse maternal health outcome in pregnant migrant women include low socioeconomic status, gestational diabetes mellitus/high body mass index, congenital factors, fetopelvic disproportion, language/communication barriers and inadequate antenatal care (whether or not linked to various regulatory restrictions on eligibility for access to health care) (24,34,36,62,82–87).

However, there is, at present, no general consensus on what personal risk factors make migrant women more susceptible to poorer maternal health compared with non-migrant women. For example, some authors showed that migrants were at increased risk for (daily) smoking during pregnancy (88) while others found migrants were less likely to use tobacco and alcohol in pregnancy (apart from single mothers, who used more psychoactive substances) (89). The literature is also mixed for sexual violence in the year before and after pregnancy, some studies showing more and others less prevalence among migrant populations than others (90–92).

2.2.2. Risk factors at community level

While it is often argued that sociodemographic characteristics determine maternal/perinatal outcomes, these background variables do not explain all the differences in morbidity/mortality for migrant mothers and their children compared with host country women and children (91), hinting at potential factors such as country of origin, ethnicity and/or cultural practices. For example, living in a deprived neighbourhood has been shown to have a negative impact on maternal health (36,58,93) but this does not affect all women alike, with migrant women and some



groups of foreign-born mothers having lower rates of low-birth-weight children, preterm birth and small for gestational age births than non-migrant women living in the same area (94).

Some cultural practices can provide support for maternal health while others can have a major negative impact, such as the practice of female genital mutilation. While its prevalence in the WHO European Region is still uncertain (95), it is clearly demonstrated that women who have undergone female genital mutilation suffer from a range of health issues (96–98) and are more likely to have perinatal complications such as induction of labour, fetal distress, slow/no cervical dilatation, prolonged second stage of labour, operative delivery and perinatal death (98–102); an increased risk of third-degree perineal tears (102,103); and more stillbirths (104).

2.2.3. Risk factors at organization and social levels

Other identified risk factors for poor maternal health in migrants are linked to organizational and societal aspects of dealing with migration. Organizational aspects will also be considered in section 2.4.

A study in Belgium and the Netherlands among 223 migrants found that they considered that the Belgian and Dutch asylum systems and migration laws forced them into a structural dependent situation, creating stress and insecurity, which had significant effects on their SRH (79).

There are also social factors that are risks for migrant maternal health, including sexual violence and exploitation, which are often linked to greater economic vulnerability in this population (105). While sexual violence affects SRH in general, consequences such as genital injuries, sexually transmitted infections and HIV infection, unwanted pregnancy, forced abortion, infertility and long-lasting mental ill health affect the mother and are potentially harmful to her children (106–115). Migrants of reproductive age in the WHO European Region are twice to three times more at risk of victimization than the general population, with migration-related professionals, other nationals in migration centres and workplace superiors constituting up to 25% of the perpetrators (106–108,116–121). Yet, the lack of legal frameworks preventing sexual violence against migrant women (107,122–124) and their (restricted) legal status often puts them at risk of further exploitation and abuse when seeking help in the aftermath of sexual victimization and inhibits their access to health care (21,106,107,118).

2.3. Entitlement to maternal health care

A number of frameworks exist that enshrine protection for the right to health care for migrant women (5,6,125). The International Bill of Human Rights (5) has been ratified by 50 out of 53 Member States of the WHO European Region. There have been a number of covenants from the United Nations that promote aspects of human rights (126–128), including recommendations for provision of services during pregnancy, delivery and postpartum adapted to migrant women's specific needs (127,128). The 1994 International Conference on Population and Development adopted for the first time a rights-based approach towards SRH, including maternal health (129). At regional level, the Council of Europe Parliamentary Assembly called on Member States to provide reproductive health care for refugee women (130) and further recognized the vulnerability of pregnant irregular migrants (131).

However, the analysis carried out for this report indicates that access to maternal health care in the WHO European Region is not as universal as these international frameworks would support, often being subordinate to more restrictive national laws, and research has highlighted that political attention to migrant health in general in the Region can be inspired by perceived health risks for the general population, notably in terms of infectious diseases (21). Within the EU, national variation in the rights to health is allowed by the Charter of Fundamental Rights despite all EU Member States having ratified the International Bill (132). At national level, although the right of access to care for pregnant migrants is often mentioned in legal frameworks on the right to reproductive and maternal care for migrants, in practice several countries tend to restrict access to “emergency care”, often without clearly defining “emergency”, creating uncertainty within countries and over time. In itself, restricting access to emergency health care only fails to meet the principle of nondiscrimination set out in Article 2 of the International Covenant on Economic, Social and Cultural Rights (126,133). In several countries (e.g. Greece, Italy and Croatia) this “emergency care” might cover delivery but not comprehensive access to ante- and postnatal care (30,134–138). Inclusion of pregnant women in a national framework does not, however, necessarily ensure their appropriate care; for example in Croatia pregnant women are recognized as vulnerable but the ordinance on health-specific needs was still not adopted in mid-2015 (136). The United Kingdom removed HIV treatment from its emergency care list in 2009, including for pregnant women and newborns (139). Since then, HIV has been included in the list of diseases for which there can be no charge for treatment in England and Scotland regardless of migrant status (140); however, treatment may be subject to payment in Northern Ireland and Wales (141). Moreover, national laws often



distinguish between migrant subgroups, a further breach to universality. Until 2013, irregular migrants in Sweden could not access care that “cannot wait” (including maternal, abortion and family planning care) without co-payment, while asylum seekers could (142). In Malta, access to health care has been free for pregnant migrants since 2005 based on nonbinding provisions, but at May 2015 this access still remained unguaranteed by law (143). The situation in Spain is an example of issues of access to care (Case study 1). Recently, the European Parliament recognized that access to care, and notably to reproductive care, for irregular migrant women widely differs from one Member State to another (149).

Case study 1. Spain

Royal Decree-Law 16/2012 (“Urgent measures to guarantee the sustainability of the National Health System and improve the quality and safety of services”) modified Law 16/2003 (“Cohesion and quality of the national health system”) with the aim of tackling public expenditure on health at a time of deficit in government income. One of the three changes excluded undocumented migrants without insurance from services that previously had been available to all citizens and foreigners on Spanish territory and removed their right to a “health card” to access health services (144). Although Article 3 stated that pregnancy, delivery and postpartum care are exceptions, undocumented pregnant women in reality were often asked for an upfront payment or their passport to access care (145). A survey conducted by a network of civil society organizations showed that at least 78 undocumented women were denied access to peripartum care between January 2014 and July 2015 (146). This Decree-Law met with strong resistance (147) and in August 2015, the Ministry of Health proposed some modifications to improve access to health care (148).

Regional dynamics around universality of access to maternal health are, however, shifting. Within the EU, the Lisbon Treaty introduced the possibility for regionally binding public health legislation on well-being and health (133). At the same time, the Benelux (Belgium, the Netherlands and Luxembourg) and Mediterranean countries, which historically have a tradition of universal access, restricted access to maternal health care because of the financial crisis (41,139,150). In addition, the increasing “criminalization of migration” affects migrants’ realization of their right to health as it restricts their access (133). As a result, entitlement to care throughout the EU remains patchy (4,30,41,151).

The same is seen in the non-EU countries in the Region: while some are trying to improve health outcomes and access to health care services for migrants, others are making their laws more restrictive. In many countries, there are variations in antenatal care and attended deliveries for the whole population that are related to rural locations, education, age and/or socioeconomic status. Migrants are often particularly vulnerable in this respect regardless of their entitlements. According to the Ukrainian Ministry of Health, no groups are formally excluded from reproductive health care services and information and there are no stated barriers to access. Pregnant women can receive antenatal care and delivery at any obstetric or outpatient department without medical documents related to their pregnancy (152). In Armenia, no groups are formally excluded from receiving reproductive health care; nevertheless, in practice the likelihood of migrants having poor socioeconomic status can limit their access (153). In Kazakhstan, medical care in acute disease is guaranteed for all migrant workers, whether regulated or unregulated. While no groups are excluded from reproductive and maternal health services, barriers to access include distance and requirement to have a formal proof of residency to receive antenatal care (153). For citizens of the CIS countries working and living in Kazakhstan, medical care is free and full, covering childbirth and emergency conditions during pregnancy, as well as ambulance and emergency care (154).

2.4. Accessibility of maternal health care

Both academic peer-reviewed literature and grey literature clearly demonstrate that migrant women face many significant and varied barriers in accessing maternal health care (35,41,70,82,155–158). Accessibility is a complex and multifaceted concept and can be considered both from the service user's perspective and from that of the service provider. Both groups can be unclear about what maternal health care can be provided. This section examines the different components that constitute comprehensive accessibility in order to identify core issues that need to be tackled by policy; these include familiarity, comprehensibility, affordability, availability, acceptability and physical accessibility.

2.4.1. Awareness of access rights by migrant women

Lack of information and communication difficulties hamper access to maternal health care in that familiarity with and comprehensibility of the complexity of health systems and rights can be hard to achieve for migrant women (25). On average, in western and southern Europe, only a quarter of migrants know their rights to access care and only half know how to navigate the health system (139).



Studies that examined antenatal care utilization by country of origin in the EU found that rates of late and/or inadequate antenatal care varied widely by country of birth, indicating that the situation is not alike for all migrant women (33,51,62,155–157,159–162). Predictors of inadequate antenatal care among migrant women were being younger than 20 years of age, multiparous, single, with poor or fair language proficiency, education of fewer than five years, an unplanned pregnancy and no health insurance (160).

Other factors identified as affecting utilization of antenatal care included pregnant women's attitudes, their perceptions of maternity care provision, differences in health expectations related to antenatal care, unawareness of the options available to migrants, reduced satisfaction with previous encounters with the system and cultural factors (e.g. not talking to men about female issues such as pregnancy-related health) (34,51,62,82,155–157,159–162). In the Netherlands, for example, the lack of information about reproductive health services and contraception combined with problems of paying for services and fear of deportation resulted in lacking or delayed pregnancy care (19% never received antenatal care), infrequent use of contraception and high abortion rates (64.9/1000) (163). Illustratively, the understanding of the health system is often better for migrant mothers at their second child (155–157).

Few sources provide data regarding awareness and availability of information on maternal health services among migrants in central and eastern Europe and central Asia, and some of these countries have the highest population maternal mortality ratios in the WHO European Region (164,165). For example, around 77–80% of all maternal deaths in Kyrgyzstan were registered in rural areas, where there are large numbers of labour migrants and where there may be limited availability of maternal health care and health education (166). A study of 123 migrant women in the capital of Kyrgyzstan showed that only 3% of pregnant women attended antenatal services, 82% of pregnant women suffered from different forms of anaemia and 23% had a hypertensive disorder (167). According to a study from the Moscow capital region of the Russian Federation, 76% of pregnancies among women from migrant families were unplanned and 56% of the women did not seek antenatal care (52). In the Russian city of Krasnoyarsk, 27.8% of migrant women never attended antenatal care services, and migrant women were more likely to suffer from anaemia and chronic diseases compared with local women (168).

2.4.2. Awareness of access rights by health professionals

The lack of familiarity and comprehensibility seen in service users is also reflected in that of health professionals, who often report difficulties in determining what level of service they can provide to which migrant groups. Potential negative health outcomes can stem from health practitioners opting for discretionary measures (27,30,169) or requesting pregnant migrants to provide proof of residence, insurance or resources even in the absence of such legal requirements (170). This has been observed, for example, in Belgium and Italy, where the distinction between free emergency care and paid-for primary care is sometimes poorly understood by practitioners (150,169).

2.4.3. Communication issues

Language and culture can be barriers to access to good maternal care and to good communications between service users and service providers (69,171,172). Language knowledge of pregnant migrants has been shown to directly affect the ways in which they were provided with maternal care; for example, non-proficiency in the host language has been associated with a poorer provision of antenatal care and of regional anaesthesia in Austria (173) and of analgesia in Sweden (174). Across the fragmentary available evidence for the Russian Federation, data suggest that migrant women experience discrimination and unequal treatment in health care facilities during pregnancy (17). In Estonia, Latvia and Lithuania, language of communication and information has been identified as one of the main problems influencing equal access to health care facilities for citizens and migrants (175).

Linguistic barriers intertwine with cultural ones. The understandings of body, health and health care as well as gender roles can vary among countries, regions and ethnicities, particularly when it comes to childbearing and parenting (79,170,176).

A study in 2006 investigated ethnicity-related factors contributing to substandard maternity care and severe maternal morbidity among 20 immigrant women in the Netherlands. Both the immigrant women and the reviewing obstetricians identified substandard care to have played a role in the development of complications in 15 of the women (49). The study concluded that communication by maternal health professionals would be improved through more sensitivity to social factors that affect immigrant women's health problems and that the women themselves should be supported with better communication and education about danger signs in pregnancy and information about their obstetric options. A similar conclusion that better access to care was linked to acculturation of migrant women was drawn



in a study that showed maternal mortality significantly decreasing over time for Turkish women in Germany (35).

Much medical training in Europe is focused on the individual rather than on an understanding of wider social structures that might impact on health (177). However, health care providers are advised to take into account issues that might result in mistrust between patients and practitioners (138), for example women talking to male health care providers about female issues such as pregnancy-related health (51,160–162). Moreover, migrants often develop specific resilience after migration, which means that difficulties with childbirth such as pain or feeling insecure are not easily shared with practitioners (178).

Looking at the specific issue of provision of maternal care for migrant women, most research strongly supports the need to provide a “safe space” (179) through the provision of culturally sensitive or culturally competent care (176,180). Culturally sensitive care requires specific training and guidelines for health care providers on cultural aspects of body and health, specific health risks related to migration (27,177) and harmful cultural practices directly impacting maternal health (99,181–183). It also includes involving migrants and their communities in health system planning and development (176) and facilitating interaction between patients and practitioners through the use of skilled interpreters and health system navigators (172). Implementing culturally sensitive care also requires addressing reported discrimination and racism expressed by some practitioners when interacting with migrants (142,177,184).

2.4.4. Affordability: financial barriers to access

The exclusion of migrants from legal frameworks on access to health services often means that these populations can only access care if they have the financial means to do so. The cost of care remains a “major barrier” for migrants throughout the WHO European Region (82) and has been identified as the main obstacle to accessing care by migrants themselves (185).

The situation regarding financial costs for maternal health care varies widely throughout the Region. For irregular migrants, child delivery in a hospital could have cost around €2500 in Sweden until 2013 but was provided free of cost in France (41,150). A Swedish 2013 health reform qualified delivery under care that cannot be deferred and so to be provided without cost (186); however, two years after passing the law, public authorities acknowledged that familiarity of the law among practitioners remained an issue (187). Differences can be observed not only

between countries but also within. In Spain, maternal health care is provided free of cost in some regions, such as Andalusia or Catalonia (150), while in Germany, some cities have developed specific funding mechanisms to facilitate access to care for irregular migrants (139). Even in countries with a good level of maternal health care, gaps in the system can occur (see Case study 2).

Case study 2. Variation in provision of maternal care in Belgium based on asylum status

A young woman who fled her country of origin after being raped arrived in Belgium pregnant and HIV positive. The Belgian Government includes pregnancy-related care as well as newborn care in the “+–list” and reimburses it within the asylum procedure; so both mother and baby were given antiretroviral treatment and the baby was given milk powder, all covered within the asylum-related costs. However, two years later her asylum claim was rejected. At this point, she had met a man who she liked but did not want to marry (yet) as she was wary of becoming too dependent on a man but became pregnant. Her appeal for asylum was refused; she became undocumented and had to leave the asylum reception centre. This change in status alters the health care available and its ease of access and creates a number of issues for this HIV-positive mother and her children. Emergency medical assistance is for life-threatening situations and is available to all, including undocumented migrants. A second procedure, “urgent medical care” grants access for undocumented migrants to health care that can, in principle, encompass preventive and curative health care, as well as drug prescriptions. However, access is provided by public social welfare centres and is a complex procedure that requires a certificate from a medical doctor and can vary in what it will cover from area to area. Provision of powder milk is not usually covered, which catches this mother between the risks of breastfeeding the new baby when she is HIV positive and the financial burden of purchasing powder milk. Some NGOs have a limited supply or she could consider moving to another city where the social welfare centre might be more generous. (Based on an interview carried out for a Belgium Health Care Knowledge Centre Report (169).)

In Romania, migrant women receive free health insurance during pregnancy and postpartum, even without income or when their income is lower than the minimum



wage (30,188). According to legislation in Slovenia, asylum seekers and irregular migrants have the same entitlements as local citizens. Emergency services as well as ante- and postnatal care, family planning and assistance for abortion are free (30). The opposite situation occurs in the Russian Federation, where in 2010 a new law was approved that limited the access of “temporary residing foreigners” to health care. They are entitled to emergency care but planned care and hospitalization are only accessible if they have insurance or pay fees. Only 10% of migrant women have access to free health services in the Russian Federation (189). Female migrants from central Asia in the Russian Federation have reported financial barriers to accessing medical care, including gynaecological care, and only 2–5% received free treatment (17). Because of a transition to insurance schemes and a new type of funding for health systems in the Russian Federation, pregnant migrant women are no longer entitled to free antenatal care and there are reported cases of requests for payment of fees for delivery in state hospitals (190). Findings from Georgia and from Bosnia and Herzegovina confirmed that financial barriers are a major concern for accessing SRH services for people living in poverty, including migrants (20). They related to costly transportation and out-of-pocket payments for services, including treatment of post-abortion complications, which are not covered by the state health insurance.

Making migrants pay for their care has consequences beyond directly barring them from accessing services. Migrants who cannot pay adversely affect their health providers’ income (3), in turn impacting practitioners’ motivations to provide care when they do not know if the costs will be covered (30,150,169).

Finally, it is important to consider maternal health costs for migrants in a broader context, taking into account the economic and financial crisis and the impact of austerity measures on public health expenses associated with providing access to care. In Greece, Spain and Portugal, cuts in public funding for health and social care have induced high health risks for the most vulnerable (191). The implementation of criteria for accessing care based on financial resources increased the pressure, notably financial, on NGOs providing health care for both the general population and for migrants (139,150,192,193).

2.4.5. Acceptability of maternal health care

A number of additional factors shape the health care experiences and health outcomes of migrant groups (29). Experiences of maternal health services, including levels of satisfaction, have been shown to be worse for migrant women than for the host population in a variety of countries and health care settings (34,91,155–157,160,194).

While the design and delivery of services are undoubtedly important, a number of socioeconomic, political and cultural processes are additional concerns in the acceptability of health care (35). Social networks are an enabling factor for all migrants to access care (172) but have been shown to be particularly critical for accessing antenatal care (178). Different expectations regarding antenatal care, disparate professional roles in the country of origin, communication difficulties during these encounters, lack of knowledge of migrant rights and inappropriate behaviour from health professionals may all play a role in acceptability. Direct and indirect discrimination is recognized as an important source of disparity in health care, but one that is difficult for health care professionals to acknowledge (155–157).

2.5. Availability of maternal health care: delivery of services

Frequently postulated determinants within delivery of maternal health that negatively impact on experiences and outcomes in migrant women include lack of supportive services to enable migrant women to effectively navigate the health system and exercise choice; failure to recognize and respond acceptably to the complex issues within some migrant women's lives (trauma, isolation, mobility, poverty); failure to recognize and develop initiatives to help to treat or prevent comorbidities, particularly those pertaining to mental health; variable levels of confidence and cultural competence among maternal health care practitioners; discrimination, stereotyping and insensitivity at provider and programme level; absence of continuity of care and inadequate follow-up in both ante- and postnatal periods; failure to appreciate the diversity of needs and circumstances among migrant populations; incoherent, inequitable and fluid rules regarding entitlement to care for some migrant groups, which present significant problems for health care providers; and reliance on short-term, ad hoc maternity-related initiatives that lack sustained funding and depend heavily on the commitment of particular individuals (34,35,91,117,155–157,160).

Potential facilitators are frequently related to issues of availability. A country-specific scoping review and stakeholder consultation in Germany, Canada and the United Kingdom examined how international migrant/minority maternal health might be improved (35). This study identified the need for increased availability of doulas from similar ethnocultural backgrounds, excellent pain relief for those desiring this, high-quality care during delivery and in critical situations, and provision of community-based organizations to act as health brokers for navigating the health



system and its interpretation. Some innovative delivery practices in the United Kingdom have improved access for women from migrant/minority backgrounds, with a number of specialist clinics for women affected by female genital mutilation and specialist midwives employed in many locations to provide personalized care to women from migrant/minority communities and their families (35).

Where the medical infrastructure is less well developed or under stress, migrant women may be particularly vulnerable. For example, pregnant female migrants may have particular difficulty in accessing ante- and postnatal care in rural areas of Kyrgyzstan (153). Migrants in Georgia and Bosnia and Herzegovina have been found to face more unwanted and poorly spaced pregnancies and have higher rates of maternal mortality and morbidity through limited access to family planning services and a shortage of qualified health care providers (20,195). A sudden rapid influx of migrants can also stress the local health care system and make provision of maternal health care harder. This has been particularly difficult for some countries in the WHO European Region with the current large influx of migrants (Case study 3). Provision of emergency support can be effective when a local health system is simply overwhelmed by a rapid movement of people. For example, the UNFPA provided obstetrical kits for Ukrainian hospitals that had experienced such an overloading influx of women needing obstetric care; a total of 199 obstetrical kits were distributed by September 2015, which were used to assist in 7800 normal and 3200 complicated (caesarean section) deliveries at 47 hospitals in five eastern regions of Ukraine (200).

Case study 3. Provision of maternal health care to refugees, migrants and asylum seekers in Turkey

After five years of conflict in the Syrian Arab Republic, Turkey has become the country hosting the second largest contingent of Syrian refugees. In August 2015, this included 484 750 women and girls of reproductive age, of whom 34 320 were pregnant (13). A study conducted by the Turkish Disaster and Emergency Management Authority in 2014 noted that early pregnancies were becoming widespread within this population group, with pregnancies frequently occurring in girls aged 13 or 14 years (196). Access to family planning and maternal health for these migrants became a major public health concern.

In 2012, a United Nations interagency mission assessed the health needs of refugees in camps in southern Turkey and found that although refugees had

Case study 3. contd

been provided with some free health services there were notable gaps in the provision of care, including maternal care. The mission noted gaps in the provision of postpartum care and recording systems for ante- and postnatal care; health personnel needed capacity-building on specific reproductive needs of refugees; and all pregnancies were not fully monitored although all deliveries took place in hospitals (197). The Turkish Family Health and Planning Fund, along with United Nation agencies and other NGOs, has since advocated for a specific response to the health needs of female refugees, highlighting their family planning needs (198). The UNFPA's priorities for migrant maternal health in Turkey in 2015 included ensuring the availability of essential obstetric care to all Syrian refugees, counselling for reproductive health, and women-friendly spaces in and out of camps (199).

2.6. Quality of care

WHO defines quality of care as “the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care needs to be safe, effective, timely, efficient, equitable, and people-centred” (201). Some studies have found that differences in perinatal outcomes reflect suboptimal care and differential quality of care for migrant women compared with host women (51,65,155,157,159). Migrant women reported delays in receiving information about diagnosis and treatment. The women had problems identifying medically significant complications, presenting their complaints to health care providers effectively and taking an active role as patients (51,65,155,157,159). Even highly educated migrant women showed low health literacy skills in their interaction with doctors on maternal health issues (47,48,155,157,159,161). A study in Norway in 2013 identified a higher risk of perinatal death than for Norwegian mothers for Afghan (adjusted odds ratio (AOR), 4.01; 95% CI, 2.40–6.71), Somali (AOR 1.83; 95% CI, 1.44–2.34) and Sri Lankan (AOR 1.76; 95% CI, 1.36–2.27) women but a lower risk than in the woman's home country (e.g. 97 deaths per 1000 births for Afghan women in Afghanistan versus 24 deaths per 1000 births in Norway) (63). This would suggest that, while accessibility is an important factor, quality of health care is fundamental. Hence, it might be useful to change the focus from accessibility of health care to include ensuring the quality of care (155–157). The study in the



Netherlands, described above (49), also concluded that patients' perspectives are valuable as one of the tools to evaluate the quality of maternity/newborn care.

Little has been written on migrants' participation in the cultural enhancement of maternal health care within the WHO European Region. Literature is notably unanimous as to the need to systematize data collection on health inequities (176,202), the implementation of targeted interventions within health systems (203) and for their evaluation with participation of migrants (180). However, there is still little evidence of interventions that improved access to maternal health care services for migrant women.

2.6.1. Quality indicators

Quality of care is a multidimensional concept; consequently, a framework with important domains of measurement and pathways to achieve the desired health outcomes is required to identify suitable action points to improve quality of care (201).

Since 2004, a number of initiatives have developed quality indicators to assess and monitor quality of antenatal, intrapartum and postpartum maternal and newborn health care (204–211). Research indicates that pregnancy outcome measures are usually registered but national mechanisms to monitor quality of care are often lacking (209), and many settings and health systems still use their own quality indicators.

2.7. Methods to acquire data on health care provision

The provision of accurate information on maternal health and available rights and services and the facilitation of communication between patient and provider are indispensable first steps in ensuring access to maternal health care (155–157,170,179,180,212). All relevant information and education around SRH and maternal health should include a sociocultural dimension (213), whether it is produced for migrants or for health practitioners (31,169). There are some strategic frameworks that have been developed that will help in providing evidence to inform policy-making for migrant maternal health.

- The EN-HERA! Network (European Network for the Promotion of Sexual and Reproductive Health of Refugees, Asylum Seekers and Undocumented Migrants in Europe and beyond) was launched in 2009 with 39 participating countries throughout the WHO European Region (180). The Network has developed a

research agenda but also a strategic guidance framework with a self-assessment tool for policy-makers and for service providers. For both sections, the assessment covers fundamental issues (guiding principles) and programmatic issues (quality indicators). The six guiding principles are rights-based approach, participation, empowerment, gender balance, multidisciplinary and cross-sectoral approach. The quality indicators are evidence based and in line with international guidelines: confidentiality and privacy; availability, acceptability, affordability and accessibility; monitoring and evaluation; information and choice; and, finally, continuity of care.

- In 2004, a European initiative, the Migrant Friendly Hospital Project, published recommendations for health professionals working in hospitals (214). Migrant-friendly maternity care was conceptualized as encompassing physical and psychosocial care by professionals that was supportive in nature and specific to care provided during pregnancy, birth or after birth in or outside a hospital setting. A 112-item culturally sensitive questionnaire was developed that could be completed in 45 minutes by interview several months after birth and is currently available in English, French and Spanish (91). The questionnaire covers migration, health care services, obstetrics (current and past history), perceptions of care and sociodemography, plus themes such as access to care, information exchanges, perceptions of care, clinical risks and outcomes, and caregiver awareness and responsiveness. The questionnaire allows assessment of care within a setting and across countries and also contributes to measurement of the effectiveness of programmes to optimize migrant-sensitive maternity care and increase quality of care (91).



3. DISCUSSION

The conceptual framework in which the study was conducted combined a rights-based approach (151,170,215) with the socioecological model on health (216).

3.1. Strengths and limitations of the review

This review is based on an extensive review of academic literature as well as policy documents on migrant maternal health and specific risk factors that precede and contextualize migrant maternal health. The composition of the author team allowed for searching for evidence in English, French, German, Russian, Dutch, Spanish and Ukrainian. Yet, given the wide diversity of languages and cultures enriching the WHO European Region, important information in other languages could be missed.

Furthermore, the available research often deals with migrant groups that are most prominent in the host countries. The fact that there are no common indicators on migration background and no systematic evidence is gathered on maternal health creates difficulties in making comparisons across countries and across migrant groups (4,29,69,180,192).

Where data are available on maternal health issues, they often have a disease- and problem-oriented approach and focus on sexually transmitted diseases, maternal mortality and morbidity, and on supposedly culturally-induced phenomena (69,124,192).

Even though evidence is limited, there are several policy and practice recommendations available for improving migrant maternal health and more specifically the issues that have been addressed in this review (see below). Some barriers to accessing health care were consistently highlighted, including access rights and awareness of these, language problems, and cultural communication and expectations. This evidence suggests measures for improvement in both data collection and health care.

3.2. Policy options and implications

Currently, the WHO European Region is being challenged to address and accommodate a large influx of migrants generated by conflicts and disasters.

A number of directives and conventions refer to the specific concerns related to maternal health.

- The new WHO European Action Plan for Sexual and Reproductive Health and Rights for 2017–2021 is being prepared and negotiated, intending to provide a common framework for country-specific policy responses throughout the WHO European Region to reduce inequities in SRH, including improved maternal health for all and more specifically for vulnerable groups, including migrants (217).
- The recast of the European Directive on minimum standards for reception of asylum seekers (2013/33/EU) requests that EU Member States ensure “access to appropriate medical and psychological treatment or care for vulnerable groups”, with pregnant asylum-seeking women identified among those, and to take “appropriate measures that prevent gender-based violence including sexual assault and harassment” within reception centres and accommodation facilities (218).
- The Istanbul Convention of the Council of Europe on preventing and combating violence against women and domestic violence (215) entered into force in 2014 and has a full chapter dedicated to migrants and asylum seekers.
- The “Minimum initial service package for reproductive health in crisis situations” produced by the UNHCR provides guidelines on priority activities designed to prevent and manage the consequences of sexual violence, reduce HIV transmission, prevent excess maternal and newborn morbidity and mortality, and plan for comprehensive reproductive health services (219).
- A new project in Europe (SH-CAPAC) is designed to support countries under pressure from large migration influx in ensuring effective health care for migrants, including maternal health care (220).

This HEN report has identified a number of specific areas of migrant maternal health that could be targeted by policy-makers.

Poor migrant maternal health compared with host women

Conditions during migration, low socioeconomic position and irregular status may all have a negative impact on maternal health. Poorer maternal health in migrants compared with non-migrant women is often related to risk factors that precede a woman becoming pregnant, such as availability of family planning, health-seeking behaviours, gender-based violence and migration-related procedures, as well as the risks of the perinatal period. The impact of these risk factors can be reduced



by policies that encompass all aspects of a woman's SRH through outreach and education for migrant girls and women, and their families and communities. Health professionals, staff at reception centres and law-enforcement agencies also need to be made aware of the rights of women to health care and the issues of sexual violence and harmful cultural practices that can adversely affect their health and how to respond to these.

Entitlement to health care

Although almost all countries in the WHO European Region have committed to ensure the right to the highest attainable standard of (maternal) health for all, entitlement remains varied throughout the Region, with some countries restricting access to “emergency care” while others only cover delivery and not ante- or postnatal care. Alignment of national frameworks with international requirements to provide comprehensive maternal health care systematically for all would clarify the position for migrant women, their communities and health professionals. Many regulations and action plans already advise providing universal access to maternal health care. Simplifying and standardizing administrative procedures regarding provision of health care to migrants with varying legal status would also remove uncertainty among both service users and service providers as to the care available.

Accessibility of maternal health care

Accessibility is restricted by problems with familiarity, comprehensibility, acceptability and availability. Provision of information regarding the rights of migrant women to health care and a country's administrative procedures should occur through outreach to their communities, to reception centres, and to health professionals, who are often uncertain of what access is allowed. Such educational material should be provided in a culturally sensitive way. Provision of interpreters and other supportive services enable migrant women to effectively navigate health systems. Programmes to enhance cultural awareness among health professionals would improve their awareness of the diversity of needs and circumstances among migrant women and their families and reduce discrimination, stereotyping and insensitivity. Integration of maternal health care services for migrant women within general maternal health care would encourage continuity of care through to the postnatal period. The recent migrant crisis poses extra challenges in providing maternal health care to newly arrived migrants, migrants in transit and those aiming to stay longer regardless of their legal status.

Affordability

Affordability has been identified by migrants themselves as a major barrier to accessing care, yet failure to access care prenatally often leads to more expensive emergency care as well as to unwanted pregnancy outcomes. Strategies such as promoting and investing in family planning and maternal health care can be cost-effective for a country. Cross-country sharing of information on sustainable strategies for financing health care services for migrant women and their families would assist evidence-based health policy planning.

Quality of care

Although universal quality of maternal care indicators are still lacking, research strongly supports provision of culturally sensitive care as an indicator of good quality. Use of standardized and evidence-based quality indicators at all health facilities providing maternal health care would allow continual assessment of the quality of care provided. Similarly, quality of care would be enhanced by involving migrant women in the organization of their health care and by training of staff regarding issues such as intercultural communication, culturally sensitive care and specific female health risks in migrants. A health framework could help to coordinate the different actors providing care to all migrants; such a framework would allow assessment of specific care needs and drafting of action plans to provide such care and for generating culturally sensitive resource packages and training material.



4. CONCLUSIONS

The recent migration crisis in the WHO European Region has posed additional challenges in providing maternal health care to newly arrived migrants, migrants in transit and those aiming to stay longer regardless of issues of legal status. Many member countries have stresses within their health care system without the additional pressure of this humanitarian crisis and may lack the knowledge and infrastructure to provide the necessary health care particularly for women, where good maternal care is a significant factor in their and their children's health. The development and application of common indicators on migrants' maternal health across the WHO European Region would help countries in decision-making.

Migrants can be affected by social inequalities, and their migration journey may put their physical and mental well-being at risk. Migrants' health is also to a large extent determined by the availability, affordability, acceptability, accessibility and quality of services in the host country. This report discusses factors that are determinants of migrant maternal health. It raises the issue that good public health should promote access to health and social services for all migrants, irrespective of their legal status, for the common good of all.

REFERENCES

1. Refugees and migrants: frequently asked questions. Geneva: United Nations Refugee Agency; 2016 (<http://www.unhcr.org/56e95c676.html>, accessed 3 June 2016).
2. Glossary on migration, 2nd edition. Geneva: International Organization for Migration; 2011 (<http://www.epim.info/wp-content/uploads/2011/01/iom.pdf>, accessed 3 June 2016).
3. Master glossary of terms. Geneva: United Nations Refugee Agency; 2006 (<http://www.refworld.org/pdfid/42ce7d444.pdf>, accessed 23 June 2016).
4. Access to health care for undocumented migrants in Europe. Brussels: Platform for International Cooperation on Undocumented Migrants; 2007.
5. Universal declaration of human rights. New York: United Nations; 1948 (General Assembly resolution 217 A (III)) (<http://www.un.org/Overview/rights.html>, accessed 23 June 2016).
6. International covenant on economic, social and cultural rights. New York: United Nations; 1966.
7. Sixty-first World Health Assembly. Health of migrants. Geneva: World Health Organization; 2008 (WHA61.17) (http://apps.who.int/gb/ebwha/pdf_files/A61/A61_R17-en.pdf, accessed 21 March 2016).
8. Huddleston T, Bilgili Ö, Joki A-L, Vankova Z. Migrant integration policy index 2015: integration policies, who benefits? Barcelona: Barcelona Centre for International Affairs and Migration Policy Group; 2015 (<http://mipex.eu/sites/default/files/downloads/files/mipex-2015-book-a5.pdf>, accessed 3 June 2016).
9. Migrant health in the European Region 2016. Copenhagen: WHO Regional Office for Europe; 2016 (<http://www.euro.who.int/en/health-topics/health-determinants/migration-and-health/migrant-health-in-the-european-region>, accessed 28 March 2016).
10. Migrants in Europe: a statistical portrait of the first and second generation. Luxembourg: Eurostat; 2011.

11. Migration and migrant population statistics. Luxembourg: Eurostat; 2015.
12. Asylum statistics, 2015. Luxembourg: Eurostat; 2015.
13. Regional situation report for Syria crisis. Amman, Jordan: United Nations Population Fund Regional Syria Response Hub; August 2015 (Issue 36; <http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA%20REGIONAL%20SITUATION%20REPORT%20FOR%20SYRIA%20CRISIS%20C%20ISSUE%2036%20AUGUST%202015.pdf>, accessed 22 April 2016).
14. Mosmuller H. Migrants turn Moscow into Europe's biggest city. *Moscow Times*. 2011, 20 April (<http://www.themoscowtimes.com/news/article/migrants-turn-moscow-into-europes-biggest-city/435371.html>, accessed 28 March 2016).
15. 2015–2020 Strategy for south-eastern Europe, eastern Europe and central Asia. Geneva: International Organization for Migration Office for South-Eastern Europe, Eastern Europe and Central Asia; 2014 (<https://www.iom.int/sites/default/files/country/docs/RO-Vienna-Regional-Strategy.pdf>, accessed 22 April 2016).
16. El-Bassel N, Gilbert L, Terlikbayeva A, West B, Bearman P, Wu E et al. Implications of mobility patterns and HIV risks for HIV prevention among migrant market vendors in Kazakhstan. *Am J Public Health*. 2011;101(6):1075–81.
17. Tyuryukanova EV, editor. *Zenshini-migranti iz stran SNG v Rossii* [Female migrants from CIS countries in Russia]. Moscow: MAX Press; 2011 (<https://www.hse.ru/pubs/share/direct/document/81010041>, accessed 28 March 2016).
18. *Measuring sexual health: conceptual and practical considerations and related indicators*. Geneva: World Health Organization; 2010.
19. *Health in 2015: from MDGs, Millennium Development Goals to SDGs, Sustainable Development Goals*. Geneva: World Health Organization; 2015.
20. Colombini M, Mayhew SH, Rechel B. Sexual and reproductive health in eastern Europe and central Asia: exploring vulnerable groups' needs and access to services. *EntreNous*. 2011;73:16–17.
21. Keygnaert I, Guieu A, Ooms G, Vettenburg N, Temmerman M, Roelens K. Sexual and reproductive health of migrants: does the EU care? *Health Policy*. 2014;114:215–25.

22. Shelter from the storm : a transformative agenda for women and girls in a crisis-prone world. UNFPA state of world population 2015. New York: United Nations Population Fund; 2015.
23. Maternal mortality. Geneva: World Health Organization; 2015 (<http://www.who.int/mediacentre/factsheets/fs348/en/>, accessed 5 April 2016).
24. European perinatal health report. The health and care of pregnant women and babies in Europe in 2010. Paris: EURO-PERISTAT; 2013 (<http://www.europeristat.com/reports/european-perinatal-health-report-2010.html>, accessed 28 March 2016).
25. Inequalities and multiple discrimination in access to and quality of healthcare. Vienna: European Union Agency for Fundamental Rights; 2013 (https://fra.europa.eu/sites/default/files/inequalities-discrimination-healthcare_en.pdf, accessed 28 March 2016).
26. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Ann Intern Med.* 2009;151(4):264–9.
27. Romero-Ortuño R. Access to health care for illegal immigrants in the EU: should we be concerned? *Eur J Health Law.* 2004;11:245–72.
28. Ingleby, D. Ethnicity, migration and the “social determinants of health” agenda. *Psychosoc Interv.* 2012;21:331–41.
29. Bhopal R. Chronic diseases in Europe’s migrant and ethnic minorities: challenges, solutions and a vision. *Eur J Public Health.* 2009;19(2):140–3.
30. HUMA network. Are undocumented migrants and asylum seekers entitled to access health care in the EU? A comparative overview in 16 countries. Madrid: Médicos del Mundo; 2010.
31. Sex work, migration, health: a report on the intersections of legislation and policies regarding sex work, migration and health in Europe. Amsterdam: TAMPEP; 2009.
32. Sebo P, Jackson Y, Haller DM, Gaspoz JM, Wolff H. Sexual and reproductive health behaviors of undocumented migrants in Geneva: a cross sectional study. *J Immigr Minor Health.* 2011;13:510–17.

- 
33. Sørbye IK, Daltveit AK, Sundby J, Vangen S. Preterm subtypes by immigrants' length of residence in Norway: a population-based study. *BMC Pregnancy Childbirth*. 2014;14:239.
 34. Almeida LM, Caldas J, Ayres-de-Campos D, Salcedo-Barrientos D, Dias S. Maternal healthcare in migrants: a systematic review. *Matern Child Health J*. 2013;17(8):1346–54.
 35. Higginbottom G, Reime B, Bharj K, Chowbey P, Ertan K, Foster-Boucher C et al. Migration and maternity: insights of context, health policy, and research evidence on experiences and outcomes from a three country preliminary study across Germany, Canada, and the United Kingdom. *Health Care Women Int*. 2013;34(11):936–65.
 36. Poeran J, Maas AF, Birnie E, Denktas S, Steegers EA, Bonsel GJ. Social deprivation and adverse perinatal outcomes among Western and non-Western pregnant women in a Dutch urban population. *Soc Sci Med*. 2013;83:42–9.
 37. Wahlberg A, Roost M, Haglund B, Högborg U, Essén B. Increased risk of severe maternal morbidity (near-miss) among immigrant women in Sweden: a population register-based study. *BJOG*. 2013;120:1605–12.
 38. Schaaf JM, Liem SM, Mol BW, Abu-Hanna A, Ravelli AC. Ethnic and racial disparities in the risk of preterm birth: a systematic review and meta-analysis. *Am J Perinatol*. 2013;30(6):433–50.
 39. Eggert J, Sundquist K. Socioeconomic factors, country of birth, and years in Sweden are associated with first birth fertility trends during the 1990s: a national cohort study. *Scand J Public Health*. 2006;34(5):504–14.
 40. Reime B, Ratner PA, Tomaselli-Reime SN, Kelly A, Schuecking BA, Wenzlaff P. The role of mediating factors in the association between social deprivation and low birth weight in Germany. *Soc Sci Med*. 2005;62(7):1731–44.
 41. Rechel B, Mladovsky P, Ingleby D, Mackenbach JP, McKee, M. Migration and health in an increasingly diverse Europe. *Lancet*. 2013;381:1235–45.
 42. Juárez SP, Ortiz-Barreda G, Agudelo-Suárez AA, Ronda-Pérez E. Revisiting the healthy migrant paradox in perinatal health outcomes through a scoping review in a recent host country. *J Immigr Minor Health*. 2015 (Epub ahead of print, PMID: 26601982).

43. Juárez SP, Revuelta-Eugercios BA. Too heavy, too late: investigating perinatal health outcomes in immigrants residing in Spain. A cross-sectional study (2009–2011). *J Epidemiol Community Health*. 2014;68(9):863–8.
44. Urquía ML, Frank JW, Glazier RH, Moineddin R, Matheson FI, Gagnon AJ. Neighborhood context and infant birthweight among recent immigrant mothers: a multilevel analysis. *Am J Public Health*. 2009;99(2):285–93.
45. Ray JG, Vermeulen MJ, Schull MJ, Singh G, Shah R, Redelmeir DA. Results of the Recent Immigrant Pregnancy and Perinatal Long-term Evaluation Study (RIPPLES). *CMAJ*. 2007;176(10):1419–26.
46. Jacquemyn Y, Benjahia N, Martens G, Yuksel H, Van Egmond K, Temmerman M. Pregnancy outcome of Moroccan and Turkish women in Belgium. *Clin Exp Obstet Gynecol*. 2012;39:181–5.
47. Reeske A, Kutschmann M, Razum O, Spallek J. Stillbirth differences according to regions of origin: an analysis of the German perinatal database, 2004–2007. *BMC Pregnancy Childbirth*. 2011;11:63.
48. Mladovsky P. Migration and health in the EU. London: European Observatory on the Social Situation and Demography; 2007 (Research note).
49. Jonkers M, Richters A, Zwart J, Öry F, van Roosmalen J. Severe maternal morbidity among immigrant women in the Netherlands: patients' perspectives. *Reprod Health Matters*. 2011;19(37):144–53.
50. Reeske A, Razum O. Maternal and child health: from conception to first birthday. In: Rechel B, Mladovsky P, Devillé W, Rijks B, Petrova-Benedict R, McKee M, editors. *Migration and health in the European Union*. Buckingham, UK: Open University Press; 2011:129–143.
51. Essén B, Bödker B, Sjöberg N-O, Langhoff-Roos J, Greisen G, Gudmundsson S et al. Are some perinatal deaths in immigrant groups linked to suboptimal perinatal care services? *BJOG*. 2002;109:677–82.
52. Albitsky V, Odinaeva N, Nechaeva, N. СОСТОЯНИЕ ЗДОРОВЬЯ ДЕТЕЙ ПЕРВОГО ГОДА ЖИЗНИ ИЗ СЕМЕЙ МИГРАНТОВ [Health condition of the first year infants in migrant families.] *Curr Pract*. 2006;5(4):5–7.

- 
53. Urquia ML, O'Campo PJ, Heaman MI. Revisiting the immigrant paradox in reproductive health: the roles of duration of residence and ethnicity. *Soc Sci Med.* 2012;74(10):1610–21.
 54. Kirby RS. Perinatal outcomes and nativity: does place of birth really influence infant health? *Birth.* 2011;38(4):354–6.
 55. Sosta E, Tomasoni LR, Frusca T, Triglia M, Pirali F, El Hamad I et al. Preterm delivery risk in migrants in Italy: an observational prospective study. *J Travel Med.* 2008;15(4):243–7.
 56. Harding S, Boroujerdi M, Santana P, Cruickshank J. Decline in, and lack of difference between, average birth weights among African and Portuguese babies in Portugal. *Int J Epidemiol.* 2006;35(2):270–6.
 57. Naimy Z, Grytten J, Monkerud L, Eskild A. The prevalence of pre-eclampsia in migrant relative to native Norwegian women: a population-based study. *BJOG.* 2015;122(6):859–65.
 58. Luque-Fernandez MA, Franco M, Gelaye B, Schomaker M, Gutierrez Garitano I, D'Este C et al. Unemployment and stillbirth risk among foreign-born and Spanish pregnant women in Spain, 2007–2010: a multilevel analysis study. *Eur J Epidemiol.* 2013;28:991–9.
 59. Gissler M, Alexander S, MacFarlane A, Small R, Stray-Pedersen B, Zeitlin J et al. Stillbirths and infant deaths among migrants in industrialized countries. *Acta Obstet Gynecol Scand.* 2009;88(2):134–48.
 60. Bernis C, Varea C, Bogin B, Gonzalez A. Labor management and mode of delivery among migrant and Spanish women: does the variability reflect differences in obstetric decisions according to ethnic origin? *Matern Child Health J.* 2013;17:918–27.
 61. Pedersen GS, Grøntved A, Mortensen LH, Andersen AM, Rich-Edwards J. Maternal mortality among migrants in western Europe: a meta-analysis. *Matern Child Health J.* 2014;18(7):1628–38.
 62. Esscher A, Haglund B, Högberg U, Essén B. Excess mortality in women of reproductive age from low-income countries: a Swedish national register study. *Eur J Public Health.* 2013;23(2):274–9.

63. Naimy Z, Grytten J, Monkerud L, Eskild A. Perinatal mortality in non-western migrants in Norway as compared to their countries of birth and to Norwegian women. *BMC Public Health*. 2013;13:37.
64. van den Akker T, van Roosmalen J. Maternal mortality and severe morbidity in a migration perspective. *Best Pract Res Clin Obstet Gynaecol*. 2016;32:26–38.
65. Philibert M, Deneux-Tharaux C, Bouvier-Colle MH. Can excess maternal mortality among women of foreign nationality be explained by suboptimal obstetric care? *BJOG*. 2008;115(11):1411–18.
66. National review of the Kyrgyz Republic in the framework of the Beijing Declaration and platform for action. Bishkek: Ministry of Social Development of the Kyrgyz Republic; 2014 (<http://www2.unwomen.org/~media/field%20office%20eca/attachments/publications/2014/national%20reviewbeijing20.pdf?v=1&d=20150616T222504>, accessed 20 April 2016).
67. Evaluation report of the national development strategy 2008–2011. Chişinău: Ministry of Health of Moldova; 2008.
68. Extended migration profile of the Republic of Moldova. Geneva: International Organization for Migration; 2012 (http://www.iom.md/attachments/110_emp05_10.pdf, accessed 28 March 2016).
69. De Vito E, de Waure C, Specchia ML, Ricciardi W. Public health aspects of migrant health: a review of the evidence on health status for undocumented migrants in the European Region. Copenhagen: WHO Regional Office for Europe; 2015 (Health Evidence Network Synthesis Report 42).
70. Ismayilova L, Lee H-N, Shaw S, El-Bassel N, Gilbert L, Terlikbayeva A et al. Mental health and migration: depression, alcohol abuse, and access to health care among migrants in central Asia. *J Immigr Minor Health*. 2014;16(6):1138–48.
71. Platt L, Grenfell P, Fletcher A, Sorhaindo A, Jolley E, Rhodes T et al. Systematic review examining differences in HIV, sexually transmitted infections and health-related harms between migrant and non-migrant female sex workers. *Sex Transm Infect*. 2013;89:311–19.
72. Horbaty G, Gollob A, Daita S, Carballo M. Migration in central Asia and its possible implications for women and children. Geneva: International Centre for Migration and Health; 2006.

- 
73. Weine S, Golobof A, Bahromov M, Kashuba A, Kalandarov T, Jonbekov J et al. Female migrant sex workers in Moscow: gender and power factors and HIV risk. *Women Health*. 2013;53(1):56–73.
 74. Doliashvili K, Buckley CJ. Women’s sexual and reproductive health in post-socialist Georgia: does internal displacement matter? *Int Fam Plan Perspect*. 2008;34(1):21–9.
 75. Zhussupov B, McNutt L-A, Gilbert L, Terlikbayeva A, El-Bassel N. Migrant workers in Kazakhstan: gender differences in HIV knowledge and sexual risk behaviors. *AIDS Behav*. 2015;19(7):1298–1304.
 76. Zotova N, Agadjanian V. Sexual risks of central Asian migrant women in the context of the Russian HIV epidemic. Princeton, NJ: Princeton University; 2013 (<http://paa2014.princeton.edu/papers/141339>, accessed 28 March 2016).
 77. Bakken KS, Skjeldal OH, Stray-Pedersen B. Immigrants from conflict-zone countries: an observational comparison study of obstetric outcomes in a low-risk maternity ward in Norway. *BMC Pregnancy Childbirth*. 2015;5(15):163.
 78. Bollini P, Stotzer U, Wanner P. Pregnancy outcomes and migration in Switzerland: results from a focus group study. *Int J Public Health*. 2007;52(2):78–86.
 79. Keygnaert I, Vettenburg N, Roelens K, Temmerman M. Sexual health is dead in my body: participatory assessment of sexual health determinants by refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. *BMC Public Health*. 2014;14:416.
 80. Gogol KN, Gotsiridze EG, Guruli ZV, Kintraia NP, Tsaava FD. [The expectancy-stress factor in pregnant refugee women.] *Georgian Med News*. 2006;138:13–16 (in Russian).
 81. Casillas A, Bodenmann P, Epiney M, Gétaz L, Irion O, Gaspoz JM et al. The border of reproductive control: undocumented immigration as a risk factor for unintended pregnancy in Switzerland. *J Immigr Minor Health*. 2015;17(2):527–34.
 82. Wolff H, Epiney M, Lourenco AP, Costanza MC, Delieutraz-Marchand J, Andreoli N et al. Undocumented migrants lack access to pregnancy care and prevention. *BMC Public Health*. 2008;8:93.

83. Delnord M, Blondel B, Zeitlin J. What contributes to disparities in the preterm birth rate in European countries? *Curr Opin Obstet Gynecol.* 2015;27(2):133–42.
84. Merry L, Small R, Blondel B, Gagnon AJ. International migration and caesarean birth: a systematic review and meta-analysis. *BMC Pregnancy Childbirth.* 2013;13:27.
85. Binder P, Johnsdotter S, Essén B. Conceptualising the prevention of adverse obstetric outcomes among immigrants using the “three delays” framework in a high-income context. *Soc Sci Med.* 2012;75(12): 2028–36.
86. Melchiorre K, Sutherland GR, Liberati M, Bhide A, Thilaganathan B. Prevalence of maternal cardiac defects in women with high-resistance uterine artery Doppler indices. *Ultrasound Obstet Gynecol.* 2011;37(3):310–16.
87. Gagnon AJ, Zimbeck M, Zeitlin J for the ROAM Collaboration. Migration to western industrialised countries and perinatal health: a systematic review. *Soc Sci Med.* 2009;69(6):934–46.
88. Ergin I, Hassay H, Tanik F, Aslan G. Maternal age, educational level and migration: socio-economic determinants for smoking during pregnancy in a field study in Turkey. *BMC Pregnancy Childb.* 2010;10:325.
89. Melchior M, Chollet A, Glangeaud-Freudenthal N, Saurel-Cubizolles MJ, Dufourg MN, van der Waerden J et al. Tobacco and alcohol use in pregnancy in France: the role of migrant status – the nationally representative ELFE study. *Addict Behav.* 2015;51:65–71.
90. Wallach HS, Weingram Z, Avitan O. Attitudes toward domestic violence: a cultural perspective. *J Interpers Violence.* 2010;25(7):1284–97.
91. Gagnon AJ, DeBruyn R, Essén B for the ROAM Collaboration. Development of the Migrant Friendly Maternity Care Questionnaire (MFMCCQ) for migrants to western societies: an international Delphi consensus process. *BMC Pregnancy Childb.* 2014;10(14):200.
92. Stewart DE, Gagnon AJ, Merry LA, Dennis CL. Risk factors and health profiles of recent migrant women who experienced violence associated with pregnancy. *J Womens Health.* 2012;21(10):1100–6.
93. de Graaf JP, Steegers EA, Bonsel GJ. Inequalities in perinatal and maternal health. *Curr Opin Obstet Gynecol.* 2013;25(2):98–108.

- 
94. Zeitlin J, Combier E, Levallant M, Lasbeur L, Pilkington H, Charreire H et al. Neighbourhood socio-economic characteristics and the risk of preterm birth for migrant and non-migrant women: a study in a French district. *Paediatr Perinat Epidemiol.* 2011;25(4):347–56.
 95. Female genital mutilation in the European Union and Croatia. Report. Vilnius: European Institute for Gender Equality; 2013.
 96. Abdulcadir J, Pusztaszeri M, Vilarino R, Dubuisson JB, Vlastos AT. Clitoral neuroma after female genital mutilation/cutting: a rare but possible event. *J Sex Med.* 2012;9(4):1220–5.
 97. Andro A, Cambois E, Lesclingand M. Long-term consequences of female genital mutilation in a European context: self perceived health of FGM women compared to non-FGM women. *Soc Sci Med.* 2014;106:177–84.
 98. Lundberg PC, Gerezgiher A. Experiences from pregnancy and childbirth related to female genital mutilation among Eritrean immigrant women in Sweden. *Midwifery.* 2008;24(2):214–25.
 99. Johansen RE. Care for infibulated women giving birth in Norway: an anthropological analysis of health workers' management of a medically and culturally unfamiliar issue. *Med Anthropol Q.* 2006;20(4):516–44.
 100. Litorp H, Franck M, Almroth L. Female genital mutilation among antenatal care and contraceptive advice attendees in Sweden. *Acta Obstet Gynecol Scand.* 2008;87(7):716–22.
 101. Vangen S, Stoltenberg C, Johansen RE, Sundby J, Stray-Pedersen B. Perinatal complications among ethnic Somalis in Norway. *Acta Obstet Gynecol Scand.* 2002;81(4):317–22.
 102. Wuest S, Raio L, Wyssmueller D, Mueller MD, Stadlmayr W, Surbek DV et al. Effects of female genital mutilation on birth outcomes in Switzerland. *BJOG.* 2009;116(9):1204–9.
 103. Berggren V, Bergström S, Edberg AK. Being different and vulnerable: experiences of immigrant African women who have been circumcised and sought maternity care in Sweden. *J Transcult Nurs.* 2006;17(1):50–7.

104. Small R, Gagnon A, Gissler M, Zeitlin J, Bennis M, Glazier R et al. Somali women and their pregnancy outcomes postmigration: data from six receiving countries. *BJOG*. 2008;115(13):1630–40.
105. Azerbaijan: after more than 20 years, IDPs still urgently need policies to support full integration. Geneva: Internal Displacement Monitoring Centre; 2014 (<http://www.internal-displacement.org/assets/library/Europe/Azerbaijan/pdf/201403-eu-azerbaijan-overview-en.pdf>, accessed 28 March 2016).
106. Keygnaert I, Vettenburg N, Temmerman M. Hidden violence is silent rape: sexual and gender-based violence in refugees, asylum seekers and undocumented migrants in Belgium and the Netherlands. *Cult Health Sex*. 2012;14:505–20.
107. Keygnaert I, Dias SF, Degomme O, Devillé W, Kennedy P, Kováts A et al. Sexual and gender-based violence in the European asylum and reception sector: a perpetuum mobile? *Eur J Public Health*. 2015;25(1):90–6.
108. Kerimova J, Posner SF, Brown YT, Hillis S, Meikle S, Duerr A. High prevalence of self-reported forced sexual intercourse among internally displaced women in Azerbaijan. *Am J Public Health*. 2003;93(7):1067–70.
109. Hynes M, Cardozo BL. Sexual violence against refugee women. *J Womens Health Gen Based Med*. 2000;9:819–23.
110. Jina R, Thomas LS. Health consequences of sexual violence against women. *Best Pract Res Clin Obstet Gynaecol*. 2013;27:15–26.
111. Sommers MS, Brown KM, Buschur C, Everett JS, Fargo JD, Fisher BS et al. Injuries from intimate partner and sexual violence: significance and classification systems. *J Forensic Leg Med*. 2012;19:250–63.
112. Mason F, Lodrick Z. Psychological consequences of sexual assault. *Best Pract Res Clin Obstet Gynaecol*. 2013;27:27–37.
113. Cortina LM, Kubiak SP. Gender and posttraumatic stress: sexual violence as an explanation for women's increased risk. *J Abnorm Psychol*. 2006;115:753–9.
114. Nickerson A, Steenkamp M, Aerka IM, Salters-Pedneault K, Carper TL, Barnes JB et al. Prospective investigation of mental health following sexual assault. *Depress Anxiety*. 2013;30:444–50.

- 
115. Mersky JP, Topitzes J, Reynolds AJ. Unsafe at any age: linking childhood and adolescent maltreatment to delinquency and crime. *J Res Crime Delinq.* 2012;49:295–318.
 116. Sexual and gender-based violence against refugees, returnees and internally displaced persons: guidelines for prevention and response. Geneva: United Nations High Commissioner for Refugees; 2003.
 117. Violence and exploitation of undocumented migrant women: building strategies to end impunity. Brussels: Platform for International Cooperation on Undocumented Migrants ; 2010.
 118. Keygnaert I. Sexual violence and sexual health in refugees, asylum seekers and undocumented migrants in Europe and the European neighbourhood: determinants and desirable prevention. Ghent: ICRH-Ghent University; 2014.
 119. Dias S, Fraga S, Barros H. Interpersonal violence among immigrants in Portugal. *J Immigr Minor Health.* 2013;15(1):119–24.
 120. Arcel LT. Deliberate sexual torture of women in war: the case of Bosnia–Herzegovina. In: Shalev AY, Yehuda R, McFarlane AC, editors. *International handbook of human response to trauma.* New York: Springer; 2000:173–93.
 121. Blazek M. Migration, vulnerability and the complexity of violence: experiences of documented non-EU migrants in Slovakia. *Geoforum.* 2014;56:101–12.
 122. National actions plans on violence against women in the EU: EWL barometer. Brussels: European Women’s Lobby; 2011.
 123. Barometer on rape in the EU 2013. Brussels: European Women’s Lobby; 2013.
 124. Keygnaert I, Guieau A. What the eye doesn’t see: a critical interpretive synthesis of European policies addressing sexual violence in migrants. *Reprod Health Matters (Special issue sexual violence)* 2015;23(46):45–55.
 125. International covenant on civil and political rights. New York: United Nations; 1966.
 126. Convention relating to the status of refugee. New York: United Nations; 1951.
 127. General comment No 14: the right to the highest attainable standard of health. New York: United Nations Committee on Economic, Social and Cultural Rights; 2000 (E/C12/2000/4).

128. General recommendation 24 on Article 12 (Women and health) of the convention on elimination of all forms of violence against women. New York: United Nations Committee on the Elimination of All Forms of Discrimination against Women; 1999.
129. Programme of action adopted at the International Conference on Population and Development, Cairo, 5–13 September 1994. New York: United Nations; 1994.
130. Parliamentary Assembly. Recommendation 1374 (1998) on the situation of refugee women in Europe. Brussels: Council of Europe; 1998.
131. Resolution 1509 (2006) on human rights of irregular migrants. Brussels: Council of Europe; 2006.
132. European Union. Charter of fundamental rights of the European Union (2000/C 364/01). Official J Eur Communities. 2000;43:C364.
133. Pace P. The right to health of migrants in Europe. In: Rechel B, Mladovsky P, Devillé W, Rijks B, Petrova-Benedict R, McKee M, editors. Migration and health in the European Union. Buckingham, UK: Open University Press; 2011:49–60.
134. Equihealth. Assessment report: the health situation at EU southern borders – migrant health, occupational health, and public health. Italy. Brussels: Regional Office for the European Economic Area, the European Union and NATO, Migration Health Division; 2013 (http://equi-health.eea.iom.int/images/SAR_Italy_final.pdf, accessed 28 March 2016).
135. Equihealth. Assessment report: the health situation at EU southern borders – migrant health, occupational health, and public health. Greece. Brussels: Regional Office for the European Economic Area, the European Union and NATO, Migration Health Division; 2013 (http://equi-health.eea.iom.int/images/SAR_Greece_final.pdf, accessed 28 March 2016).
136. Equihealth. Assessment report: the health situation at EU southern borders – migrant health, occupational health, and public health. Croatia. Brussels: Regional Office for the European Economic Area, the European Union and NATO, Migration Health Division; 2014 (http://equi-health.eea.iom.int/images/SAR_Croatia_final.pdf, accessed 28 March 2016).
137. Chiavarini M, Lanari D, Minelli L, Pieroni L, Salmasi L. Immigrant mothers and access to prenatal care: evidence from a regional population study in Italy. *BMJ Open* 2016;6.

- 
138. Macherey A-L. Legal report on access to health care in 12 countries. Madrid: Médicos del Mundo; 2015 (<https://mdmeuroblog.files.wordpress.com/2014/05/mdm-legal-report-on-access-to-healthcare-in-12-countries-3rd-june-2015.pdf>, accessed 28 March 2016).
 139. European Observatory, Médecins du Monde. Access to healthcare for undocumented migrants in 11 European countries, 2008. Paris: Médecins du Monde; 2009 (<http://www.epim.info/wp-content/uploads/2011/02/Access-to-healthcare-for-Undocumented-Migrants-in-11-EU-countries-2009.pdf>, accessed 28 March 2016).
 140. The National Health Service (Charges to Overseas Visitors) Regulations 2015. London: The Stationery Office; 2015 (Statutory Instrument 2015 No. 238; http://www.legislation.gov.uk/uksi/2015/238/pdfs/uksi_20150238_en.pdf, accessed 28 March 2016).
 141. Health charges for visitors and migrants: England Factsheet. London: Medical Protection Society; 2015. (<http://www.medicalprotection.org/docs/default-source/pdfs/factsheet-pdfs/england-factsheet-pdfs/health-charges-for-visitors-and-migrants.pdf?sfvrsn=4>, accessed 28 March 2016)
 142. Nkulu Kalenyagi FK, Hurtig AK, Ahlm C, Ahlberg BM. It is a challenge to do it the right way: an interpretive description of caregivers' experiences in caring for migrant patients in northern Sweden. *BMC Health Serv Res.* 2012;12:433.
 143. Equihealth. Assessment report: the health situation at EU southern borders – migrant health, occupational health, and public health. Malta. Brussels: Regional Office for the European Economic Area, the European Union and NATO, Migration Health Division; 2013 (http://equi-health.eea.iom.int/images/SAR_Malta_Final.pdf, accessed 28 March 2016).
 144. Ministerio de la Presidencia, Spain. Real Decreto-ley 16/2012, de 20 de abril, de medidas urgentes para garantizar la sostenibilidad del Sistema Nacional de Salud y mejorar la calidad y seguridad de sus prestaciones [Royal Decree-Law 16/2012, of 20 April, on urgent measures to guarantee the sustainability of the national health system and improve the quality and safety of its services]. *BOE [Official State Gazette]*. 2012;98:31278–31312.

145. Dos años de reforma sanitaria: más vidas humanas en riesgo [Two years of health reform: more human lives at risk]. Madrid: Médicos del Mundo; 2014 (https://www.medicosdelmundo.org/index.php/mod.documentos/mem.descargar/fichero.documentos_Impacto-Reforma-Sanitaria-Medicos-del-Mundo_3ecobdf9%232E%23pdf, accessed 28 March 2016).
146. REDER. Radiografía de la reforma sanitaria. La universalidad de la exclusión [Screening of the health reform. The universality of exclusion]. Madrid: Médicos del Mundo; 2015.
147. Derecho a curar: llamamiento a la acción contra la exclusión sanitaria de las personas inmigrantes en situación irregular [Right to heal: call to action against health exclusion of immigrants in an irregular situation]. Madrid: Médicos del Mundo; 2013 (<http://www.medicosdelmundo.es/derechoacurar/>, accessed 28 March 2016).
148. Alfonso Alonso recuerda que el Gobierno quiere armonizar la asistencia sanitaria que ofrecen las comunidades autónomas y establecer un control [Alfonso Alonso recalls that the government wants to harmonize the health care offered by the autonomous communities and establish control]. Madrid: Spanish Ministry of Health, Social Services and Equality; 2015, 25 August (Press release).
149. Resolution of 4 February 2014 on undocumented migrants in the European Union (2013/2115(INI)). Luxembourg: European Parliament; 2014.
150. Migrants in an irregular situation: access to healthcare in 10 European Union Member States. Vienna: European Union Agency for Fundamental Rights; 2011 (<http://fra.europa.eu/en/publication/2012/migrants-irregular-situation-access-healthcare-10-european-union-member-states>, accessed 28 March 2016).
151. Health care for undocumented migrants in the EU. Geneva: International Organization for Migration; 2009.
152. Всі переселенці отримують безкоштовну медичну допомогу у повному обсязі [All immigrants receive free medical care in full]. Kiev: Ministry of Health of Ukraine; 2014 (Press release; http://www.moz.gov.ua/ua/portal/pre_20140905_b.html, accessed 28 March 2016).
153. A review of progress in maternal health in eastern Europe and central Asia. New York: United Nations Population Fund; 2009.

- 
154. Ni V, Tonkobayeva A. Gender aspects of labour migration in the Republic of Kazakhstan: an expert evaluation 2012. Almaty: UN Women; 2012 (<http://www.unwomen-eeca.org/module/project/img/519.pdf>, accessed 28 March 2016).
 155. Almeida LM, Caldas JP, Ayres-de-Campos D, Dias S. Assessing maternal healthcare inequities among migrants: a qualitative study. *Cad Saude Publ.* 2014;30(2):333–40.
 156. Almeida LM, Casanova C, Caldas J, Ayres-de-Campos D, Dias S. Migrant women's perceptions of healthcare during pregnancy and early motherhood: addressing the social determinants of health. *J Immigr Minor Health.* 2014;16(4):719–23.
 157. Almeida LM, Santos CC, Caldas JP, Ayres-de-Campos D, Dias S. Obstetric care in a migrant population with free access to health care. *Int J Gynaecol Obstet.* 2014;126(3):244–7.
 158. A needs assessment of women migrant workers. Central Asia and Russia. New York: United Nations Development Fund for Women; 2009.
 159. Lauria L, Bonciani M, Spinelli A, Grandolfo ME. Inequalities in maternal care in Italy: the role of socioeconomic and migrant status. *Ann Ist Super Sanita.* 2013;49(2):209–18.
 160. Heaman M, Bayrampour H, Kingston D, Blondel B, Gissler M, Roth C et al. Migrant women's utilization of antenatal care: a systematic review. *Matern Child Health J.* 2013;17(5):816–36.
 161. Malin M, Gissler M. Maternal care and birth outcomes among ethnic minority women in Finland. *BMC Public Health.* 2009;9:84.
 162. Ny P, Dykes AK, Molin J, Dejin-Karlsson E. Utilisation of antenatal care by country of birth in a multi-ethnic population: a four-year community-based study in Malmö, Sweden. *Acta Obstet Gynecol Scand.* 2007;86(7):805–13.
 163. Schoevers MA, van den Muijsenbergh ME, Lagro-Janssen AL. Illegal female immigrants in the Netherlands have unmet needs in sexual and reproductive health. *J Psychosom Obstet Gynaecol.* 2010;31(4):256–64.

164. World Health Organization, United Nations Population Fund, World Bank Group, and United Nations Population Division Maternal Mortality Estimation Inter-Agency Group. Maternal mortality in 1990–2015. Geneva: World Health Organization; 2015
165. World population data sheet 2014. Washington, DC: Population Reference Bureau; 2014 (http://www.prb.org/pdf14/2014-world-population-data-sheet_eng.pdf, accessed 28 March 2016).
166. Kyrgyz Republic: Millennium Development Goals progress report. Bishkek: United Nations Development Programme; 2003.
167. Kupreeva E, Sarybaeva A. Оценка влияния внутренней миграции на состояние репродуктивного здоровья женщин [Evaluation of the influence of internal migration on women's reproductive health status]. Электронный научно – образовательный вестник Здоровье и образование в XXI веке (Health Educ Millennium). 2007;11:1.(Т.9).
168. Lee-Gee-Ru SY. Influence of migration processes on perinatal outcomes. J Mod Res Soc Probl. 2012;1.1 (9) (<http://sisp.nkras.ru/p-ru/issues/2012/1.1.pdf#page=101>, accessed 28 March 2016).
169. Roberfroid D, Dauvrin M, Keygnaert I, Desomer A, Kerstens B, Camberlin C et al. What health care for undocumented migrants in Belgium? Brussels: Belgium Health Care Knowledge Centre; 2015 (KCE Reports 257Cs. D/2015/10.273/110; https://kce.fgov.be/sites/default/files/page_documents/KCE_257C_Health_care_migrants_Synthesis.pdf, accessed 20 April 2016).
170. EN-HERA! Sexual and reproductive health and rights of refugees, asylum seekers and undocumented migrants: Report 1. Ghent: Academia Press; 2009.
171. Darling KEA, Gloor E, Ansermet-Pagot A, Vaucher P, Durieux-Paillard S, Bodenmann P et al. Suboptimal access to primary healthcare among street-based sex workers in southwest Switzerland. Postgrad Med J. 2013;89:371–5.
172. Bhatia R, Wallace P. Experiences of refugees and asylum seekers in general practice: a qualitative study, BMC Fam Pract. 2007;8:48.
173. Oberaigner W, Leitner H, Oberaigner K, Marth C, Pinzger G, Concin H et al. Migrants and obstetrics in Austria: applying a new questionnaire shows differences in obstetric care and outcome. Wien Klin Wochenschr. 2013;125:34–40.

- 
174. Hayes I, Enohumah K, McCaul C. Care of the migrant obstetric population, *Int J Obstet Anesth.* 2011;20:321–9.
 175. New immigrants in Estonia, Latvia and Lithuania. Tallinn: Legal Information Centre for Human Rights; 2010 (<http://www.epim.info/wp-content/uploads/2011/02/new-immigrants-in-Estonia-Latvia-and-Lithuania-LICHR.pdf>, accessed 28 March 2016).
 176. Maternal and child care for immigrant populations. Brussels: International Organization for Migration Liaison Office for Europe; 2009.
 177. Haith-Cooper M, Bradshaw G. Meeting the health and social care needs of pregnant asylum seekers; midwifery students' perspectives. Part 3 The pregnant woman within the global context; an inclusive model for midwifery education to address the needs of asylum seeking women in the UK. *Nurse Educ Today.* 2013;33:1045–60.
 178. Byrskog U, Olsson P, Essén B, Allvin MK. Violence and reproductive health preceding flight from war: accounts from Somali born women in Sweden. *BMC Public Health.* 2014;14:892.
 179. Equal rights, equal voices. Brussels: European Women's Lobby; 2007.
 180. EN-HERA! Sexual and reproductive health and rights of refugees, asylum seekers and undocumented migrants: a framework for the identification of good practices. Ghent: Academic Press; 2009.
 181. Cappon S, L'Ecluse C, Clays E, Tency I, Leye E. Female genital mutilation: knowledge, attitude and practices of Flemish midwives. *Midwifery.* 2015;31(3):e29–35.
 182. Surico D, Amadori R, Gastaldo LB, Tinelli R, Surico N. Female genital cutting: a survey among healthcare professionals in Italy. *J Obstet Gynaecol.* 2015;35(4):393–6.
 183. Widmark C, Tishelman C, Ahlberg BM. A study of Swedish midwives' encounters with infibulated African women in Sweden. *Midwifery.* 2002;18(2):113–25.
 184. Bischoff, A. Caring for migrant and minority patients in European hospitals: a review of effective interventions. Vienna: Ludwig Boltzmann Institute for the Sociology of Health and Medicine; 2003 (http://www.mfh-eu.net/public/files/mfh_literature_review.pdf, accessed 28 March 2016).

185. Chauvin P, Simonnot N, Douay C, Vanbiervliet F. Access to healthcare for people facing multiple vulnerability factors in 27 cities across 10 countries. Report on the social and medical data gathered in 2013 in eight European countries, Turkey and Canada. Paris: International Network of Médecins du Monde; 2014 (<https://mdmeuroblog.files.wordpress.com/2014/05/access-to-healthcare-27-cities-10-countries-doctors-of-the-world1.pdf>, accessed 28 March 2016).
186. Sveriges Riksdag. Law 2013:047 on health care to some foreigners who reside in Sweden without the necessary permits. Stockholm: Swedish Code of Statutes; 2013.
187. Care for undocumented migrants. A follow-up on the act concerning healthcare for people residing in Sweden without permission. Stockholm: Swedish Agency for Public Management; 2015 (<http://www.statskontoret.se/In-English/publications/2015---summaries-of-publications/care-for-undocumented-migrants.-a-follow-up-on-the-act-concerning-healthcare-for-people-residing-in-sweden-without-permission-201510/>, accessed 28 March 2016).
188. MIGHEALTHNET. State of the art report, Romania. Athens: Information Network on Good Practice in Health Care for Migrants and Minorities in Europe; 2009 (http://mighealth.net/ro/index.php/Pagina_principal%C4%83#Raport_-_15_Aprilie_2009, accessed 28 March 2016).
189. Tyuryukanova EV. Миграция и гендер. Трудовая миграция в России: медико-социальные и гендерные аспекты [Migration and gender. Labor migration in Russia: socio-medical and gender aspects]. Presentation at the Conference of the International Organization for Migration, Moscow, 26 October 2012.
190. Rocheva, A. Понаехали тут⁷ в роддомах России: исследование режима стратифицированного воспроизводства на примере киргизских мигрантов в Москве ["Ponaehali tyt" in the maternity houses of Russia: research of the stratified reproduction using an example of the Kyrgyz migrants in Moscow]. J Soc Pol Stud. 2014;3:367–80 (<http://demoscope.ru/weekly/2015/0635/analit01.php>, accessed 28 March 2016).
191. Karanikolos M, Mladovsky P, Cylus J, Thomson S, Basu S, Stuckler D et al. Financial crisis, austerity, and health in Europe. Lancet. 2013;381:1323–31.

- 
192. Simon J, Kiss N, Laszewska A, Mayer S. Public health aspects of migrant health: a review of the evidence on health status for labour migrants in the European Region. Copenhagen: WHO Regional Office for Europe; 2015 (Health Evidence Network Synthesis Report 43).
 193. Kentikelenis A, Karanikolos M, Papanicolas I, Basu S, McKee M, Stuckler D. Health effects of financial crisis: omens of a Greek tragedy. *Lancet*. 2011;378:1457–58.
 194. Balaam MC, Akerjordet K, Lyberg A, Kaiser B, Schoening E, Fredriksen AM et al. A qualitative review of migrant women's perceptions of their needs and experiences related to pregnancy and childbirth. *J Adv Nurs*. 2013;69(9):1919–30.
 195. Creel L. Meeting the reproductive health needs of displaced people. Washington, DC: Population Reference Bureau; 2002 (<http://www.prb.org/Publications/Reports/2002/MeetingtheReproductiveHealthNeedsOfDisplacedPeople.aspx>, accessed 28 March 2016).
 196. Syrian women in Turkey. Ankara: Prime Ministry Disaster and Emergency Management Authority; 2014.
 197. United Nations interagency health-needs-assessment mission southern Turkey 4–5 December 2012. Copenhagen: WHO Regional Office for Europe; 2012.
 198. Ulusoy Y. Examining health care resources for Syrian women in Turkey. *Hurriet Daily News*. 2014, 6 September.
 199. Women and girls in the Syria crisis: UNFPA response. Facts and figures. Amman, Jordan: United Nations Population Fund Regional Syria Response Hub; 2015.
 200. Ukraine humanitarian newsletter, Issue 1. New York: United Nations Population Fund; September 2015 (<http://www.unfpa.org.ua/files/articles/5/25/Ukraine%20Humanitarian%20Newsletter%20Sept2015.pdf>, accessed 28 March 2016).
 201. Tunçalp Ö, Were WM, MacLennan C, Oladapo OT, Gülmezoglu AM, Bahl R et al. Quality of care for pregnant women and newborns: the WHO vision. *BJOG*. 2015;122(8):1045–9.
 202. Rechel B, Mladovsky P, Devillé W, Monitoring migrant health in Europe: a narrative review of data collection practices. *Health Policy*. 2012;105:10–16.

203. Whitehead M. A typology of actions to tackle social inequalities in health. *J Epidemiol Community Health*. 2007;61:473–8.
204. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. *Lancet*. 2014;20;384(9948):1129–45.
205. Bollini P, Quack-Lötscher K. Guidelines-based indicators to measure quality of antenatal care. *J Eval Clin Pract*. 2013;19(6):1060–6.
206. Boulkedid R, Alberti C, Sibony O. Quality indicator development and implementation in maternity units. *Best Pract Res Clin Obstet Gynaecol*. 2013;27(4):609–19.
207. Boulkedid R, Sibony O, Goffinet F, Fauconnier A, Branger B, Alberti C et al. Quality indicators for continuous monitoring to improve maternal and infant health in maternity departments: a modified Delphi survey of an International Multidisciplinary Panel. *PLoS ONE* 2013;8(4):e60663.
208. Sprague AE, Dunn SI, Fell DB, Harrold J, Walker MC, Kelly S et al. Measuring quality in maternal-newborn care: developing a clinical dashboard. *J Obstet Gynaecol Can*. 2013;35(1):29–38.
209. Sibanda T, Fox R, Draycott TJ, Mahmood T, Richmond D, Simms RA. Intrapartum care quality indicators: a systematic approach for achieving consensus. *Eur J Obstet Gynecol Reprod Biol*. 2013;166(1):23–9.
210. Korst LM, Gregory KD, Lu MC, Reyes C, Hobel CJ, Chavez GF. A framework for the development of maternal quality of care indicators. *Matern Child Health J*. 2005;9(3):317–41.
211. Safe Motherhood and Reproductive Health Working Group. Maternal and newborn standards and indicators compendium, Washington, DC: CORE Group; 2004.
212. de Maesschalck S. Linguistic and cultural diversity in the consultation room. A tango between physicians and their ethnic minority [thesis]. Ghent: Faculty of Medicine and Health Sciences, Ghent University; 2012.
213. European Committee on Social Rights. Conclusions XIX-2 (2009 Germany) on Articles 3, 11, 12, 13 and 14 of the European Social Charter. Strasbourg: Council of Europe; 2010.

- 
214. MFH Project Group. The Amsterdam declaration towards migrant-friendly hospitals in an ethno-culturally diverse Europe. Brussels: European Commission (http://www.mfh-eu.net/public/files/european_recommendations/mfh_amsterdam_declaration_english.pdf, accessed 5 April 2016).
 215. Council of Europe Istanbul convention: action against violence against women and domestic violence. Strasbourg: Council of Europe; 2011 (Council of Europe Treaty Series No. 210; <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168008482e>, accessed 28 March 2016).
 216. Bronfenbrenner U. The ecology of human development: experiments by nature and design. Cambridge, MA: Harvard University Press; 1979.
 217. Lazdane G, Avery L. SRH and rights, well-being and equity for all. *Entre Nous*. 2015;85:8–11.
 218. Council of the European Union. Directive 2013/33/EU of 26 June 2013: Laying down standards for the reception of applicants for international protection (recast). *EUR-Lex*. 2013;L180/96.
 219. Minimum initial service package (MISP) for reproductive health in crisis situations: a distance learning module, New York: Women's Refugee Commission; 2011.
 220. SH-CAPAC [website]. Granada: Andalusian School of Public Health; 2016 (<http://www.easp.es/sh-capac/>, accessed 27 April 2016).

ANNEX 1. SEARCH STRATEGY

Databases and websites

The searches were performed in October and November 2015; a second round of searches was carried out after an external review in January and February 2016. The academic literature was searched using databases of PubMed and Web of Science and the Cochrane Library.

The critical interpretive synthesis of grey literature including policy frameworks used the websites (and newsletters when relevant) of WHO, the United Nations (UNHCR, UNFPA, United Nations Women, United Nations Development Programme), the European Parliament, the European Commission, the European Council, national ministries of health, major NGOs and networks working in the field of health and/or migration. A search was carried out on Google, Google Scholar, SOPHIE, MIPEX and PHAME for all countries.

Search terms

The academic literature was limited to sources providing information in English with full text available. In a first phase, academic literature was reviewed applying the PRISMA guidelines. All of the MESH terms/keywords listed below were checked in PubMed and Web of Science. Subsequently, the abstracts of the papers were read and papers that did not meet those criteria were excluded. Finally, snowball-searching of reference lists in the included papers was performed. Out of an initial database of 3340 articles, 325 academic papers were used.

The grey literature was searched for sources in English, French, German, Russian, Dutch, Spanish or Ukrainian.

Screening was conducted by the five authors on the basis of indicators for assessing the quality of health care provided to pregnant women, mothers and newborns in health facilities; and publications concerning maternal health quality indicators. Any disagreements were solved by a discussion and consultation with another reviewer if needed.



The following MeSH terms or keywords were used for searching the given databases.

Maternal health: family planning, contraception, pregnancy, unintended pregnancy, unwanted pregnancy, teenage pregnancy, childbirth, delivery, birth, attended births, hospital births, abortion, maternal health, newborn/neonatal/infant health, perinatal health (care), antenatal care, postpartum care, maternal morbidity/mortality, maternal death, perinatal death, neonatal death, stillbirth, skilled (birth) attendance, (pre-)eclampsia, low birth weight, preterm birth, gestational diabetes, anaemia, uterine rupture, severe postpartum haemorrhage, infant/newborn vaccination, breastfeeding, maternal health quality indicator(s), quality of care, maternal health care services, equity, accessibility, affordability, availability, comprehensibility, reliability, familiarity, reachability, usefulness.

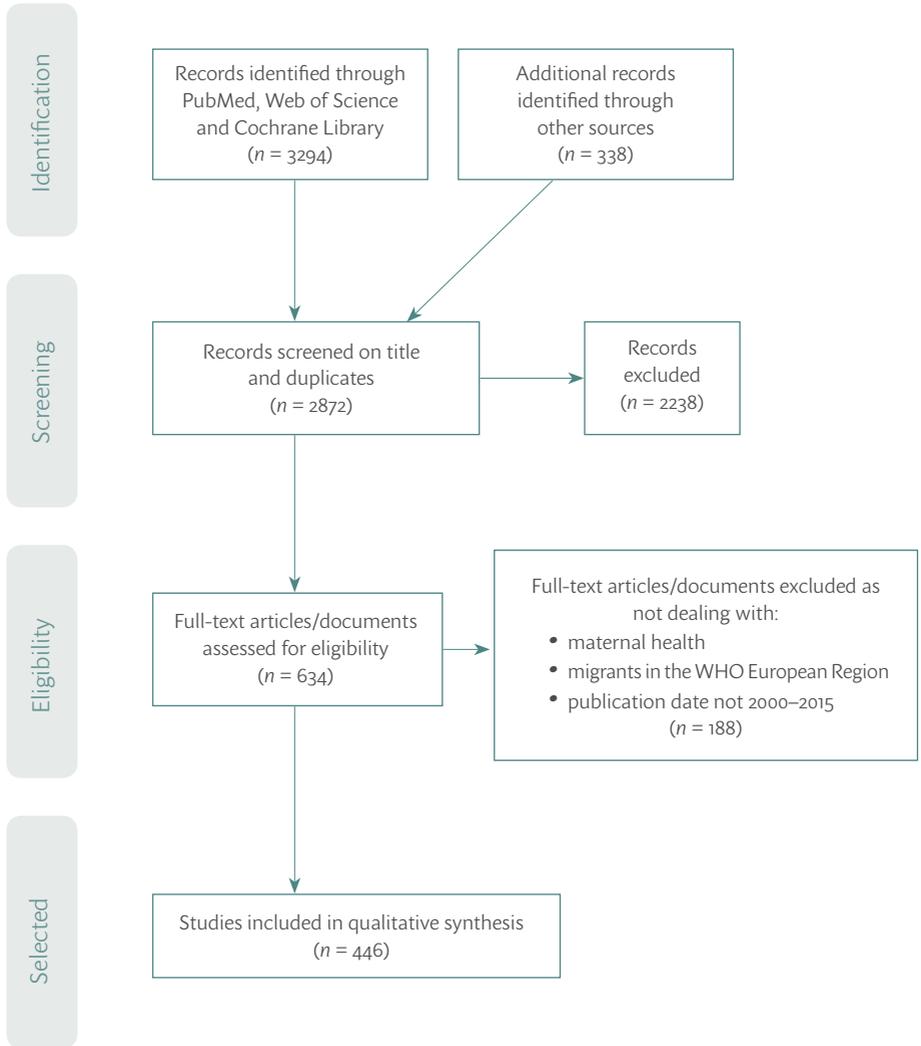
SRH risk factors: sexually transmitted infections/diseases, STI, HIV, HPV, hepatitis B, syphilis, testing, screening, treatment, prevention, physical violence, battering, sexual violence, sexual assault, sexual abuse, emotional/psychological abuse, sexual and gender-based violence, SGBV, domestic violence, family violence, intimate partner violence, trafficking, torture, female genital mutilation/cutting, FGM/C, honour related violence, forced marriages, child marriages, harmful cultural practices.

Target population: migrants, foreign-born, refugees, asylum seekers, undocumented migrants, regular migrants, irregular migrants, labour migrants, internally displaced populations.

Country search strategy: WHO European Region, European Union, Europe, eastern Europe, western Europe, southern Europe, central Asia, CIS region, USSR, post-Soviet countries, the 53 WHO European Region countries specifically (Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, the former Yugoslavian Republic of Macedonia, Turkey, Turkmenistan, Ukraine, the United Kingdom and Uzbekistan).

Fig. A1 illustrates the selection of studies.

Fig. A1 Selection of studies



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