

VULNERABILITY and RESILIENCE

Thematic Discussion Paper

2nd Global Consultation on Migrant Health: Resetting the agenda

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DEVELOPING CAPACITIES IN MIGRATION MANAGEMENT

Abstract

This thematic paper examines migration health from the perspectives of vulnerability and resilience, proposing a conceptual model for migrant populations that seeks to better understand and manage health vulnerabilities of migrant populations through resilience-enhancing approaches. It then applies the model to the key elements of the 2010 Global Consultation on Migrant Health Operational Framework: monitoring migrant health, policy-legal frameworks, migrant sensitive health systems, and partnerships/multi-country frameworks.

Developing a migration health vulnerability and resilience model

We seek to provide a clearer understanding of health vulnerabilities and resilience of migrant populations through developing a 'migration health vulnerability and resilience model'. The model is based on a social determinants of health approach. The role played by social determinants of health was recognised in the 1948 Constitution of the World Health Organisation (WHO), and extensive research conducted particularly from the 1970s onwards highlighted the importance of social determinants of health, demonstrating the persistence of large inequalities in health between and within societies (1-4). A variety of theories have been invoked to explain this phenomenon (5, 6). Some emphasise the physical and psychological toll of poverty and inequality on individuals and communities, leading to hazardous exposures and psychosocial stress that, in turn, predispose to greater vulnerability to poor health (3, 7). Other approaches focus more on the 'social production of disease' following a political economy perspective, arguing that the structural causes of inequality should be given primacy, even if not exclusively (8-11). Another theoretical approach is 'ecosocial theory'. This emphasises the importance of exposures over the entire life course, seeking to integrate biological, ecological and social factors throughout an individual's lifetime as determinants of their health (5).

The theories on social determinants of health have been brought together in various ways, of which the most widely used is the 'main determinants of health' image developed by Dahlgren and Whitehead (12). This depicts the individual and their micro-level features; surrounded by a meso-level layer of lifestyles, social and community networks, living and working conditions; and a macro-level layer of socioeconomic, cultural and environmental conditions.

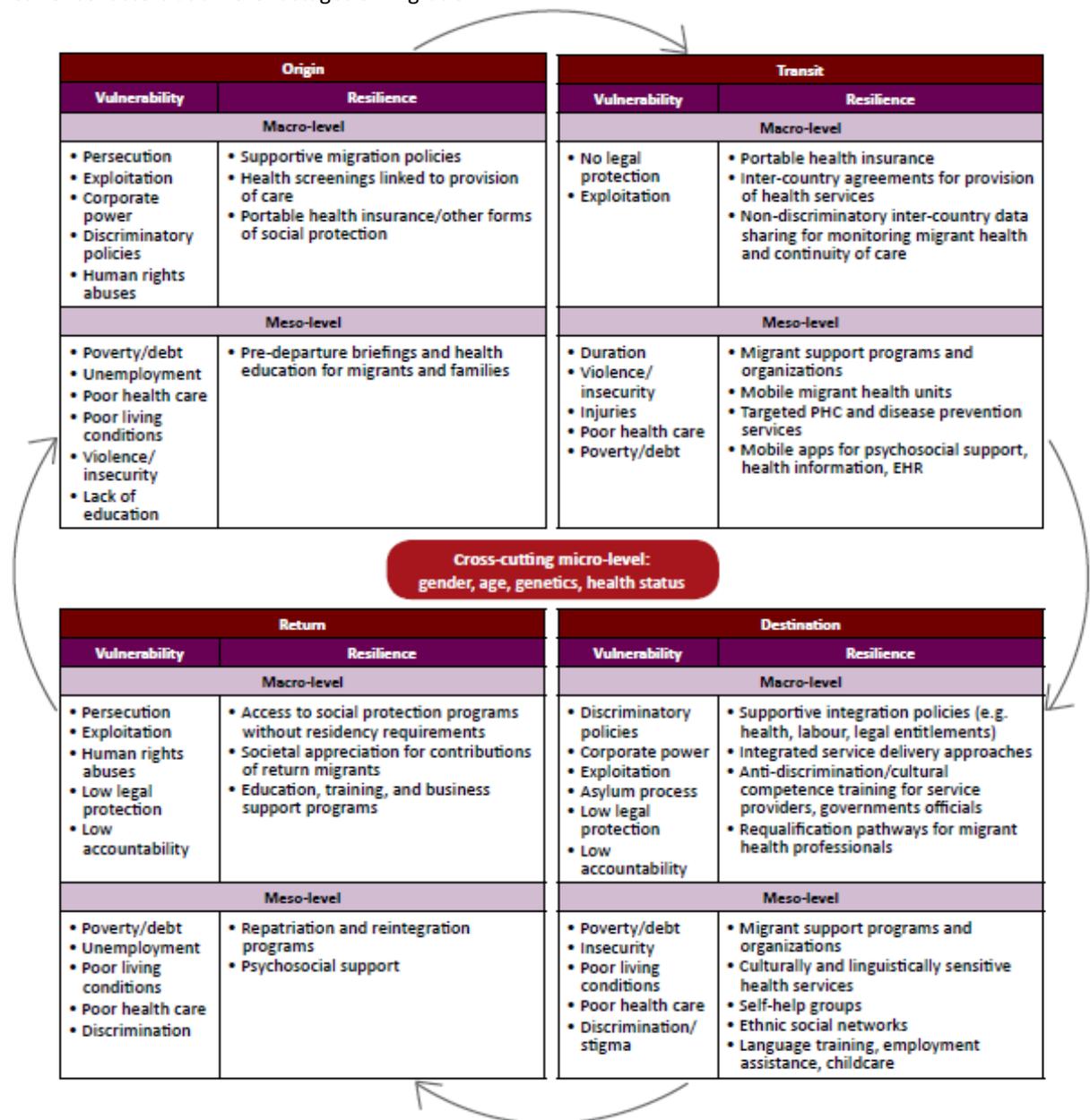
The 'migration health vulnerability and resilience model' is presented in Figure 1. It broadly follows Dahlgren and Whitehead's model of concentric circles of micro, meso and macro-level influences (12), with the migrant at the centre, and which has also been applied elsewhere to migration (13). These influences vary over time, as the migrant moves through successive phases of migration, from their country of origin to their destination, reflecting the heterogeneity of the migration process and migrant populations. The model indicates how social determinants of health can be both negative and positive, such as through increasing health vulnerability or supporting resilience. It must be recognised that the majority of migrants (including forced migrants experiencing highly traumatic events) do not experience adverse health effects, including mental disorders. Factors such as better initial health, supportive networks in transit or on arrival, and access to medical care can support resilience. Indicative examples of vulnerability and resilience factors are shown in Figure 1.

Drawing on the thinking of Dahlgren and Whitehead, we see the health of the migrant as determined by the circumstances in which they live and work including the influence of events across the life course. Thus, the health needs of migrants are a product of:

- micro-level factors such as genetic inheritance, age (e.g. under-fives, adolescents, and older populations all experience different vulnerabilities) and gender (including both biological differences but also discrimination and gender-based violence)
- meso-level factors such as living conditions, income, life events, sources of support, and social inclusion/exclusion
- macro-level factors such as systems of governance, labour market policies, social and economic policies, migrant-hostile political discourse, and culture.

Some of these factors continue to act during the migration process while some are in the past, and thus unable to be addressed for those now migrating. This highlights the importance of measures such as effective development assistance to reduce vulnerability in populations affected by threats that can be anticipated, such as political tensions leading to persecution and armed conflict (2, 14). It is thus necessary to address these inter-related political, environmental, economic, social and cultural determinants if we are to improve people's health, and help prevent or reduce adverse influences on health in the future (15). It is also important to recognise that health differences in migrant groups do not necessarily disappear when social determinants (e.g. socio-economic status) are controlled. Instead, such determinants act not just as confounders but also as mediators influencing health outcomes on the causal pathways between migration status and health.

Figure 1: Vulnerability and resilience model of concentric layers of micro, meso and macro-level vulnerability and resilience factors at different stages of migration



Migrant health vulnerabilities

Adverse individual, meso and macro level factors, each creating vulnerabilities among migrants, act during the classic phases of migration (origin-pre migration, transit-migration, destination-post migration, return). These different phases of migration are associated with specific vulnerabilities that can influence subsequent health outcomes. Thus, health problems already present at the pre-migration phase (e.g. endemicity of disease, availability of health services, living with chronic disease, exposure to traumatic events) may impair health during migration, which may in turn exacerbated by physical/psychological trauma, injury, or deprivation during the process of migration. All these factors may influence health on settlement in the destination country, which themselves may be worsened by post-migration experiences (e.g. deprivation, lack of services, lack of protection, broken social networks) (16).

Different migratory phases are associated with distinct physical health issues, influenced by the type, duration and methods of migration (17). Behavioural, environmental, genetic, biological, socio-economic and cultural factors can influence the manifestation of physical illnesses in migrating individuals and populations, and can be compounded by migration-specific factors (17). Those experiencing complex emergencies, such as conflict-related displacement, are often especially vulnerable, for example, to increased risk of infectious diseases due to lack of access to clean water, sanitation, nutrition, shelter and health care (18-20). Children and elderly people who have been forced to migrate are especially vulnerable to malnutrition and related illnesses, and may have come from settings where immunisation programmes were sub-optimal (21). Migrants from those middle-income countries afflicted by conflict have benefited from functioning health systems that have allowed them to survive with chronic conditions such as heart disease, chronic respiratory diseases and diabetes (18) but are now vulnerable to lack of life-sustaining medicines – particularly older people. Women who lack of access to essential reproductive health services are at risk for unwanted pregnancies, maternal and infant mortality, and sexually transmitted infections. Women and children are also extremely vulnerable to sexual abuse, physical abuse, slavery, and other assorted forms of violence (22).

Individuals may be especially vulnerable to mental disorders during certain phases of migration, and when engaged in certain types of migration, each of which may exacerbate existing vulnerabilities. Mental disorders come in many forms among migrants, with different types of disorder, range of symptoms and time to symptom manifestation since the flight phase. Several characteristics are associated with greater vulnerability to mental disorders in migrant populations. These include: female gender, older age, widowed/divorced marital status, lower education, lower socio-economic status, living conditions, cumulative trauma exposure and type of trauma, duration of forced migration, post-migratory detention and asylum processes, fluency in the required foreign language/s, occupation, family and household factors, and support systems (23-31). Psychological adaptive mechanisms, resources that are available or utilised, and degree of individual adjustment can influence resilience all influence mental health outcomes (32, 33).

The model also highlights the importance of meso and macro level factors influencing health vulnerabilities of migrant populations. For example, the lack of a legal frameworks and denial of rights can increase vulnerability through reduced access to protection and social support, such as for IDPs when compared with the greater legal protection provided for refugees. The power of companies and corporations and weak accountability and enforcement mechanism are linked with exploitative working conditions and consequently negative physical and mental health effects for labour migrants. Discrimination and stigma can increase stress and reduce access to health services. Populist responses to migration can also lead further social discrimination and restrictive government policies (34). Low and middle income countries hosting large numbers of migrants (e.g. IDPs or refugees) may have weak health systems and so struggle to meet their health needs or instead rely on parallel services provided by international agencies which can cause inequitable health care access between migrant and host populations.

Migrant health resilience

Resilience has been defined in different ways. At its heart, it is the ability to recover from shocks and overcome adversity (35). Current conceptualisation of resilience involves a multi-dimensional construct that includes individual capacities and social and environmental support(36). It is a dynamic phenomenon and one that can vary across cultures, age groups, and gender (36, 37). The ability of groups of individuals or populations to recover from hardship is termed as community resilience (38-40). There has been a continuing evolution of concepts of both individual and community resilience.

The role of resilience in producing health, especially mental health has been extensively researched among forced migrant groups, leading to its recognition as an important protective factor for psychosocial health among forced migrants (30, 32, 41). As with vulnerability, it varies according to certain individual characteristics, with older age, protracted displacement and on-going hardship decreasing resilience while better living/working conditions, being younger and having higher levels of support can enhance resilience and, ultimately, improve mental health (30, 42, 43).

Consistent with our multi-layered model, resilience of individuals and communities is also affected by a number of social, economic, cultural factors acting at the meso and macro levels (37). Understanding the role of resilience as a key protective or modifying factor between migration-related experiences and the development or exacerbation of poor health can aid the development of cost-effective interventions, and especially those that are non-medicalized and operate at the community-level (30). Examples include psychosocial support interventions such as self-help groups, safe spaces for meeting and discussions, and community empowerment programmes. Participants in a Canadian study of resilience among migrants and refugees highlighted the importance of services that are linguistically and culturally adapted, anti-discrimination training for service providers, and programs that educate about Canadian systems, culture and civic engagement (44). Good communication channels with families and home communities provides a critical foundation for migrants and the families they leave behind (45). And the Women's Refugee Commission has identified promising approaches to fostering reliance among Syrian refugee women, children, and youth with disabilities that take an assets-based approach to support that includes building individual skills, incorporating social programs, and ensuring access to safe and well-equipped physical spaces (46).

All of these models highlight the need for resilience-enhancing responses that are culturally appropriate and take account of the particular circumstances that prevail in any migration context. Such responses must, of course, be embedded in international law on migration, human rights, and the right to health (see below), recognising that the obligations that arise may need different strategies to achieve them. Too few people understand that, contrary to the populist rhetoric that refugees/asylum seekers increase the burden on the host country's health systems, migration typically makes a positive contribution to economic development. Improving access to care, providing preventive services and granting universal health coverage to refugee populations can produce savings on health expenditure (34). More could be achieved by emphasising prevention and health promotion rather than treatment; in other words, promoting resilience instead of focusing on vulnerability (47).

A well-managed, humane migration process can reduce vulnerability and enhance resilience and human and economic wellbeing for migrant groups and their families. Some destination countries, recognising the particular needs of migrants, have established systems that, at least for those with the appropriate status, can more easily access some services. However, negative perceptions of migrants, for example as vectors of disease, still prevail in many countries, and are often exacerbated in times of health or political crisis or economic austerity, with adverse consequences for the health of migrants (48). Contrary to these assumptions, extensive reviews have revealed little evidence of systemic association with migration and public health security threats from communicable diseases spreading to host communities (49). European agencies have acted to counter such scaremongering about migration and perceived risks of infectious disease (50, 51), while highlighting the broader health needs of migrant populations, including those factors that increase vulnerability and reduce resilience.

Applying the health vulnerability and resilience model

In this section we examine the extent to which vulnerabilities of migrant populations can be tackled, and resilience enhanced, by means of the 2010 Operational Framework (52). This Framework includes four priority action areas: policy-legal frameworks, partnerships/multi-country frameworks, migrant sensitive health systems and monitoring migrant health. These will be discussed in turn.

Policy-legal framework

Addressing health vulnerabilities requires engagement with international, regional and national laws and policies. Human rights law is the most important basis for protection of migrants. In accordance with the principles and provisions set out in core universal human rights instruments, states have an obligation to protect the human rights of all individuals within their territory, including migrants, regardless of their migration status. More specifically, General Comment 14 on the 'The Right to the Highest Attainable Standard of Health' (the Right to Health) elaborates on Article 12 of the UN International Covenant on Economic, Social and Cultural Rights (ICESCR), noting that the right to health extends to migrant populations, including asylum-seekers and illegal immigrants. It addresses not only access to health services but also health vulnerability by recognising the underlying determinants of health such as living conditions, occupational health, impoverishment and discrimination. Other key instruments of human rights and international law and key regional policies are provided in the Annex of the *Health, Health Systems and Global Health* discussion paper of the 2nd Global Consultation on Migrant Health. In practice, however, migrants in many countries face many practical barriers to accessing care (53), with signs that recent policies are exacerbating this problem (54).

Above all, coherent public policy responses are required, involving the health, education, social, welfare, and finance sectors. The health sector has a key role in ensuring that the health aspects of migration are considered in the context of broader government policy and in engaging and collaborating with other sectors to find joint solutions that benefit the health of migrants. While studies are available on migrant health policies, it is difficult to integrate and synthesise these findings due to the selection of different countries, concepts, categories and methods of measurement across these studies. However, the Migrant Integration Policy Index (MIPEX) which evaluates policies to promote the integration of migrants now has a Health Strand, helping to surmount this obstacle by collecting information on carefully defined and standardised indicators across 40 countries on health care entitlements, access, and responsiveness for migrants.

Partnerships, multi-country frameworks

As noted above, current multi-country frameworks and partnerships have focussed predominantly on the link between communicable disease and migration. There is a need to extend such frameworks and partnerships beyond communicable disease surveillance and take a more comprehensive public health approach, including on recognising the full range of social determinants of health in migrants. There are few multi-country or multi-sectoral partnerships on migrant health that include the full spectrum of sectors and actors required to adequately address health vulnerabilities. Some rare exceptions are in relation to HIV/AIDS, widely seen as a challenge whose solutions demand a multi-sectoral response (52). Other examples can be found in the Development thematic paper.(55)

In terms of regional responses, the European Union provides some of the best examples of multi-country frameworks that take a broader approach to health vulnerabilities, including recognising the need to include migrants within its programme on the social determinants of health. UN-led networks also offer potential to address migrant health vulnerability. However, such networks have generally lacked adequate financing, enforcement and reporting mechanisms (52). Recent measures such as the Global Compact on Refugees and the Global Compact for Safe, Orderly and Regular Migration may

also offer the opportunity to better address the health needs and vulnerabilities of migrant populations.

There is an opportunity to strengthen global and regional responses to migration that do not consistently include health but have a direct influence on health vulnerabilities, such as labour rights, and occupational health and safety. For example, the Global Forum on Migration and Development and the Global Migration Group could provide important means of ensuring health vulnerability is integrated into other sectors and processes.

Migrant sensitive health systems

Migrant sensitive health systems and programmes aim to incorporate the needs of migrants into all aspects of health services, financing, policy, planning, implementation, and evaluation. This includes aspects such as: language services; culturally informed care, health promotion and prevention; accessible primary care; capacity building within the systems to support migrant responsive systems; and data to monitor and plan for migrant needs (52, 56). There is, however, enormous diversity in the extent to which health systems have implemented these measures (57). Some best practice approaches to the development of migrant sensitive health systems include measures to:

- Expedite the process to allow physicians from other countries (including migrants' countries of origin) to practice in the countries of destination, and facilitate and prioritize their incorporation into the health systems
- Use technology (e.g. tele-health) to support services to mobile populations, including the support that providers from the countries of origin can offer in monitoring health problems in a culturally and linguistically sensitive manner
- Train migrants to become community health workers and incorporate them into health systems that serve populations originating from same country/culture
- Conduct cultural competency training among health and social work providers
- Promote exchanges between health professionals from countries of origin and countries of destination.
- Develop and incorporate public health practices such as health literacy campaigns for migrants, guides to accessing health services, engaging migrants in planning/implementation of health services, and use of cultural mediators.

However, it is critical to recognise that mitigating health vulnerability goes beyond ensuring responsive health services and systems, and requires engagement in the underlying drivers of poor health that reach beyond the health system. This would include addressing micro level determinants such as age and gender, meso-level determinants such as social and community networks and capital, poor housing, food, and education, and unemployment, and poverty; and macro-level determinants such as legal frameworks around asylum, discrimination, and legal entitlements, and the role of corporations. This requires the health systems to engage with other key sectors such as welfare, housing, education, and legal protection.

Monitoring migrant health

Migrant health metrics have historically focused on disease-based indicators, particularly communicable disease surveillance and control. Addressing health vulnerabilities requires a broader understanding of how migrant health is affected by the social determinants of health, including migration-related social determinants. This recognition must be matched by redesign of information systems to include these broader social determinants of health. Given their wide scope and challenges in collecting 'gold standard' epidemiological data on social determinants of health, it is advisable to take a broad approach by including a range of data sources and assuming chains of plausible reasoning

(58). The ability to monitor migrant health vulnerability would also be strengthened by using internationally applicable indicators related to key health vulnerabilities and agreed methodologies to support comparisons between countries. Central to such work will also be development and application of routine health metrics that record the different sub-group classifications of migration in order to capture their different experiences and related vulnerabilities, including key migrant-relevant indicators such as origin, duration of residence or migration history. Such work requires political and financial support to ensure effective implementation.

An ongoing process of systematically collating, synthesising and analysing empirical research on migrant health vulnerability is also needed, linked to activities that can address it. This would provide an important resource to understand better the major barriers that inhibit progress in addressing migrant health vulnerability and resilience (59). There is also a clear need to train researchers in migrant population specific aspects and methodologies. The Migration Health and Development Research Initiative (MHADRI) is a recently established research network that seeks to address above-mentioned issues and to promote shared research activities and approaches in migration health.

Monitoring of how policies address or affect migrant health vulnerabilities is also required. Currently, systems monitoring the implementation and enforcement of health policies focuses principally on health services, such as legal entitlements (e.g. for services), access policies (e.g. language and cultural support for services), and responsive services (e.g. how services and staff are adapted to the needs of migrants). Monitoring of laws and policies and their enforcement should focus not only on health services, but also other services and activities that influence health vulnerability such as labour laws, anti-discrimination laws, asylum processes, and how these then may influence health outcomes. A similar view was expressed by the Canadian Minister of Health who stated that ‘every policy is ultimately a health policy’ at the OECD Policy Forum on the Future of Health in January 2017. Whether in the field of education, employment, or anti-discrimination, they are ultimately all health decisions. This same rationale has also been developed and incorporated in the conceptualisation of the Health Vulnerability Model, presented in this paper. While valuable qualitative policy evaluations are present, the availability of quantitative tools to conduct cross-national comparative research and explore the effect of policy on immigrant health outcomes is more limited.

As noted above, the Migrant Integration Policy Index (MIPEX) provides an example of a migration policy monitoring initiative that could be used to monitor health. MIPEX addresses a broad range of policies and contextual factors which are crucial to understanding policy implementation related to health vulnerability. For example, it monitors policies and their implementation related to labour markets, education, political participation, and anti-discrimination. Beyond policy indicators, MIPEX allows for multivariate analysis to establish the independent effect of policy and other contextual level factors on migrant health outcomes.

To inform this thematic report, a systematic review of available evidence on the association between health outcomes and integration policies was conducted (Annex A in the full paper¹). This notes a lack of any existing theoretical framework and of empirical research. Consequently, existing analyses of macro influences of health differences between migrants and non-migrants are exploratory in nature. Overall, as compared to non-immigrants, immigrants experience a clear disadvantage for most health outcomes considered. Disparities were generally reduced in countries with a strong integration policy. This trend was maintained even after adjustment for relevant individual- and contextual-level factors.

The majority of studies identified in our search included MIPEX, in one form or another, as a measure of national migrant integration policies. While the global MIPEX score failed to show a relationship

¹ To be found at <https://www.iom.int/migration-health/second-global-consultation>

with depression in immigrants (60), the overall MIPEX score has been found to be related with a smaller disadvantage as compared to non-migrants in subjective wellbeing (61). The relationship between integration policies and subjective wellbeing has further been studied through a focused analysis amongst older migrants and non-migrants in Europe, revealing that the immigrant/non-immigrant gap is bigger in countries with restrictive family reunion policies (62).

MIPEX has also been operationalised through a policy model approach, as proposed by Meuleman with the three typologies, namely: the inclusive model, the assimilationist model and the exclusionist model. Results revealed that migrants in countries with a exclusionist policy model had poorer self-rated health and larger inequalities, as compared to migrants in countries with other policy models (63). Building on this research (64), one could operationalise MIPEX in the same manner in order to analyse whether the effects of discrimination on health outcomes change in countries with different integration policies. The associations between perceived group discrimination and poor health outcomes in first generation immigrants are indeed more significant in countries with assimilationist immigration policies.

Taken together, these results suggest that integration policies, beyond simply health integration policies, are important for reducing health inequalities between immigrants and non-immigrants, and are needed in order to tackle inequalities in health and ultimately to improve equity in health. Further work would also be required linking the current policy measures with health outcomes. Such work would be critical in documenting and comparing good policy practice by governments in addressing migrant health vulnerability and resilience and holding governments and other key actors to account.

Conclusion

This paper explored the health of migrants from the perspectives of vulnerability and resilience, and presented a conceptual framework by which to understand vulnerability of migrant populations and how measures to promote resilience can counteract them. The framework was then applied to legislative, monitoring, health systems, and partnerships/multi-country frameworks. These elements will be crucial in documenting and comparing good policy practice in addressing migrant health vulnerability and resilience and holding governments and other key actors to account. We conclude with key questions whose answers will inform the development of priorities for work in this area.

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Annex: A review of the link between migrant health and migrant integration policies

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Introduction

The link between migration/migrant status and health is a topic that has received attention across a vast array of disciplines. Empirical research on morbidity and mortality rate differences between migrant and non-migrant populations have found that, while health differences in migrants and non-migrants do not necessarily disappear when controlling for socio-economic status, social and economic factors are a significant predictor of migrant health. Moreover, persistent differences may further be understood through underlying political, environmental, economic, social and cultural determinants that help to improve people's health, and help to prevent or reduce negative influences on health in the future (Commission on Social Determinants of Health, 2008). This would suggest that efforts to improve migrant health requires a multi-sectoral approach and the engagement of actors from inside and outside the health system, in order to address the social determinants of health across all of these sectors.

However, to date, little is known about the underlying mechanism and influence of structural factors on those most frequently exposed to health inequalities. Certain country-level structural factors and policies that set-out to create reinforce economic and social equality may play a 'protective' role and could be considered as determinants of immigrant health in their own right. In order to tackle the underlying issues, it is necessary to understand the role of such policies as possible mediators/moderators on the causal chain between migration status and health and review the impact of policies across all sectors on social determinants of health.

The World Health Organisation (WHO) has determined that the following policy measures amongst those that are relevant to foster social inclusion²:

1. Measures to combat discrimination against migrants and ethnic minorities include education of the public and effectively enforced legislation. Institutional discrimination should be combated by imposing statutory requirements on organizations to deal with all groups equitably.
2. Educational policies can pay special attention to the needs of migrant and ethnic children by, for example, facilitating their integration into mainstream schools and ensuring that selection policies make allowances for the extra time required for acculturation and language learning. Segregation, tracking and ability grouping can have particularly negative impacts on migrant and ethnic minority children (EC, 2008).
3. Employment policies can be directed at the removal of barriers and systematic disadvantages for migrants and ethnic minorities in the labour market.
4. Social protection policies can ensure migrants and ethnic minorities do not fall into poverty, destitution and homelessness (Luckanachai & Rieger, 2010).

² World Health Organization. (2010). How health systems can address health inequities linked to migration and ethnicity. Copenhagen: WHO Regional Office for Europe.
Available at: http://www.euro.who.int/__data/assets/pdf_file/0005/127526/e94497.pdf?ua=1

5. Housing and environmental policies (such as reduction of environmental health hazards, improved transport and other amenities) designed to improve the living conditions of migrants and ethnic minorities (Stanciole & Huber, 2009).
6. Health policies can ensure equitable access to appropriate services (including prevention and health promotion) for all groups.
7. Policies on naturalisation, political participation, family reunification etc. can reduce the gap between the rights of foreigners and those of citizens.
8. Integration programmes for new migrants can offer help with language-learning, orientation to the host country and access to education, health and social care services.

This paper reviews the existing comparative quantitative research on the links between migrant health and integration policies. Only multivariate multi-level research that assesses the role of all of these factors can help us understand the drivers behind integration outcomes and set reasonable expectations for the outcomes of integration policies. A simple monitoring of the health outcomes of migrants is not the way to evaluate the success or failure of integration policies. Changes in the situation of immigrants do not necessarily mean that integration policies lead to the specific outcomes, as is often claimed by policymakers. To be able to draw robust conclusions about the links between policies and outcomes, research must simultaneously take into account a wide range of policies, individual-level factors and contextual factors, all of which influence the specific intended or unintended outcomes.

In order to test the effect of such policies on migrant health outcomes, reliable cross-national/regional policy and of health measures are needed. The current lack of a comprehensive global dataset on measures of migrant health makes it difficult to detect regional patterns and trends, and current research is dictated by the availability of data, in one way or another. The objective of this scoping review is to identify the link between broadly defined integration policies and their direct/indirect effect on migrant health. This review of academic evidence is a first attempt to map and assess how research on the link between integration policies and health outcomes have operationalised such policies in a quantitative comparable manner, which also allows us to start mapping the gaps in the availability of comparable integration policy and migrant health data. The objective is to summarize the extent, nature, distribution and main findings of the available literature. For the purpose of this research question, we apply the broadest definition of 'immigrant' and 'health'.

Methodology: Systematic literature search

Migrants are defined as individuals who immigrated to a country different from their country of birth, and we do not apply any geographical restrictions. Further, what is understood by the term 'health', varies across disciplines and schools of thought. Therefore, we do not apply any restrictions in the search. Inclusion criteria were (i) quantitative study with description of method; (ii) based on original data, derived from well-described data sources; (quality filters) (iii) published between 1 January 1997 and 31 December 2016; (iv) written in English. No restrictions were set in terms of immigrant target group and health outcome studied. A systematic search was carried out using the PubMed database in January 2017 using the search terms: all ("integration policy" OR "integration policies" OR MIPEX) AND all ((health OR wellbeing OR well-being OR well being OR vulnerability OR vulnerabilities)).

74 articles were retrieved, which were screened first by their title and, in a second step, by their abstract. After full screening, 4 empirical studies were retained. Consequently, reference lists were examined and empirical papers that have been registered as citing the primary studies retained. This led us to identifying a further 5 papers which met the inclusion criteria, making a total of 9 empirical studies reviewed in this report (Table 1). Owing to the number of different health outcomes under study, we present our analysis in terms of health outcomes studied in the empirical papers reviewed.

Results

Significantly, the only cross-national research measuring the health outcomes of policies were limited to the European region. Most studies applied a broader EU-wide comparison (7), while one study applies a 3-country comparative approach. The parameters used for defining the 'migrant' group of interest differ between the studies: migrant target groups of interest included: 1st & 2nd generation, first generation recently arrived/settled, EU vs non-EU citizen/born or migrants from a specific country of origin.

The majority of the studies used data from the European Social Survey (5) or EU-SILC data (2). Two papers used targeted information sources: data collected in the Migrant Ethnic Health Observatory (MEHO) & data from the Survey of Health, Aging and Retirement in Europe (SHARE).

All but one study applied the Migrant Integration Policy Index (MIPEX) to account for national integration policy. The MIPEX is a comprehensive tool which can be used to assess, compare and improve integration policy in all EU Member States, Australia, Canada, Iceland, Japan, South Korea, New Zealand, Norway, Switzerland, Turkey and the USA. The index is based on 167 policy indicators and covers 8 policy areas: labour market mobility, education, permanent residence, political participation, access to nationality, family reunion, anti-discrimination. Since 2015 MIPEX also includes a health strand. However, it was not yet available at the time at which the studies under review were conducted. Policy strand scores and the aggregate national MIPEX scores range from 0 to 100, describing a continuum from 'critically unfavourable' to 'favourable'. A handful of the studies apply the MIPEX data through a typology of three integration policy types, identified through a latent class analysis of the specific dimensions scores of MIPEX: inclusive, assimilationist and exclusionist (Meuleman & Reeskens, 2008). As regards the other study, integration policy was captured by adjusting Mladovsky's (2011) inventory of policies aimed at improving migrant's health.

Thematic findings

Findings are summarised according to seven areas of health: (i) (subjective) wellbeing, (ii) general health, (iii) limitation of activity (iv) chronic illness, (v) still-born and neonatal deaths, (vi) depression and (vii) mortality rate ratios. Table 1 shows thematic coverage by study, with some including multiple themes.

(Subjective) Wellbeing

Considering general determinants of Subjective Wellbeing (SWB), people with migrant backgrounds may differ from members of the host society in some characteristics being relevant to SWB, such as income and social networks. Less is known about the societal characteristics that are beneficial to the SWB of migrants. Hadjar & Backes (2013) are among the first to account for possible macro-level factors and find a disadvantage in SWB of first-generation migrants that goes beyond deficits regarding well-studied SWB determinants. Furthermore, they find that the SWB gap between migrants and non-migrants is smaller in countries with more inclusive integration policies. The relationship between integration policies and subjective wellbeing has further been studied through a focused analysis amongst older migrants and non-migrants in Europe (Sand & Gruber, 2016). While migrants from Northern and Central Europe have similar SWB levels as non-migrants, Southern European, Eastern European, and Non-European migrants have significantly lower levels of SWB than the non-migrant population, even after controlling for relevant sociodemographic characteristics. Closer analysis reveals that there are large variations concerning the SWB gap between migrants and non-migrants across these countries. Taking into the account the situation and needs of the specific target group of

interest, this research restricts the analysis to the effect of family reunion policies, as measured by MIPEX. The SWB gap is comparably large in countries with more restrictive family reunion policies and becomes smaller along countries with more inclusive policies. These findings are consistent with the findings of Hadjar & Backes (2013) who detect a positive correlation between the overall MIPEX score and SWB. Research focusing specifically on the effect of healthcare policies directly aimed to improve migrants' health on wellbeing, finds that such policies similarly appear to explain differences in wellbeing between migrants and non-migrants (Blom et al., 2016). However, the effect only holds for first generation migrants living more than 10 years in a destination country. No effect is found for recently arrived first-generation immigrants. There are several possible explanations for this finding for example, limited language proficiency may mean that health promotion campaigns are completely lost on considerable numbers of recent immigrants (Ingleby, 2011).

General health

Four of the empirical studies identified through our search investigated the explanatory power of migrant integration policies for the differences in self-reported general health status between migrants and non-migrants. Self-assessed health is one of the most widely used indicators of health in survey research recommended by both the World Health Organisation and the European Commission. While Malmusi (2014) and Gianonni et al (2016) use EU-SILC data and Borrell et al (2015) and Blom et al (2016) apply ESS data, the measure for general health is near identical. One difference to note in the operationalisation of the measure, while three out of four studies create a dichotomous variable of good/poor health, Blom et al (2016) use the original ordinal variable for their analyses comprising of five answer categories: very good, good, fair, bad, or, very bad.

Applying MIPEX data through Meuleman's classification of national integration regimes, results suggest that compared with multicultural countries, first-generation long-settled (≥ 10 years residence) non-EU migrants report worse health in exclusionist countries and assimilationist countries (Malmusi, 2014). It can be interpreted that migrants in multiculturalist countries experience a slight health advantage, compared to those living in countries with a more mixed picture of integration policy. Health inequalities between migrants and non-migrants were also highest in exclusionist countries, where they persisted even after adjusting for differences in socio-economic situation. Applying the same measure of integration policies, Borrell et al (2015) explore the link between perceived discrimination and self-assessed poor health. The results reveal a significant association between perceived group discrimination and poor general health only among first-generation women. Again, when testing the effect of integration policy, on the relationship between perceived discrimination and poor general health, only for women in assimilationist and exclusionist countries is discrimination associated with poor self-perceived health, and not in countries with inclusive integration regimes. Gianonni et al (2016) test the effect of integration policy on health through a unique composite measure of integration policies, based on MIPEX data. The 'problematic migrant policy index' measures the number of problematic policy areas in (areas ranked with a value below 50 % of the maximum MIPEX score) and can take values from 0 to 5. The results reveal that non-EU migrants (measured as non-European citizen or non-EU born) living in countries where there are problems in terms of integration policies are at increased odds of reporting poor health. Moreover, the health status of the non-EU migrants is affected more strongly than the health status of EU-nationals/EU-born as the number of problems in integration policies increase. This holds even when controlling for individual socio-economic determinants and country-level characteristics. Lastly, Blom et al (2016) look at the effect of a more narrow set of policies on self-assessed general health namely, national policies explicitly aimed at improving migrants' health and their success in mitigating ethnic health inequalities. Results suggest that such policies appear to benefit recently arrived migrants, but only marginally. No significant effects are observed for long-settled first-generation and second-generation migrants.

Limitation of activity

In comparison to non-migrants, non-EU migrants are significantly more likely to report limitations in daily life (assessed by the question: are you hampered in any way in your daily activities by any longstanding illness or disability, ailment or any health problem?). Similarly to self-assessed general health, Gianonni et al (2016) find that being a migrant and living in a country with problems of integration increases the odds of reporting health limitations, even after controlling for migrant SES. Testing the effect of perceived discrimination on limitations of activity Borrell et al (2015) find that migrant men and women who report higher levels of perceived discrimination are also more likely to report higher levels limitations of activity. This finding only holds for first- and not second-generation migrants. When accounting for integration policy, the results show in inclusive countries, a positive association between perceived discrimination and limitation of activity among women. In assimilationist countries, perceived discrimination was associated with limited activity among both men and women. The second finding suggest that migrants residing in countries with more restrictive integration policies are more likely to experience limitations in daily life and furthermore, that perceived discrimination is more consistently associated with negative health outcomes in these countries.

Chronic illness

While non-EU migrants are not significantly more likely to report chronic conditions, once national integration policy is accounted for, results reveal that the status of non-EU migrants appears to be associated with lower odds of reporting chronic diseases (Gianonni et al 2016). On the other hand, living in countries where there are problems in integration policies increases the odds of reporting chronic conditions for migrants. Conversely, integration policies do not significantly affect the odds for the rest of the population. Taking together the findings of this research we can make a preliminary conclusion that the self-reported health status of non-EU migrants living in European countries is negatively influenced by the country context in terms of problems in migrant integration.

Depression

While it has been established that migrants as a group are at an increased risk for social exclusion and for mental health problems, little is known about possible cross-country variations, and the effects of a country's approach to migrant integration. In addition to moderating contextual effects, institutional arrangements facilitating or inhibiting migrant integration might also have significant indirect effects as they might mold barriers to integration experienced at the individual level, creating more risk factors for depression (Levecque & van Rossem, 2014).

The studies identified all use cross-sectional data from the European Social Survey (ESS) to compare depression scores between migrants and non-migrants facilitating the comparability of the findings however, the specific target groups across the studies do differ somewhat. Levecque & van Rossem (2014) hypothesise that migrant integration policies in countries might differ for first- and second-generation migrants, and for EU or non-EU migrants, and therefore the health effects might differ too. The effects are therefore tested for all of these groups separately. The results show that in comparison to natives, first-generation migrants (EU & non-EU born) show higher levels of depression, with those born outside of Europe to be the worst off. Further analysis unveils that this higher risk for depression is not attributable to ethnic minority status but is mainly due to experienced barriers to socioeconomic integration and processes of discrimination. While cross-national variation is observed in mean depression scores, a country's national policy on migrant integration does not appear to be a predictor of depressing among first-generation migrants nor does it have indirect beneficial health effects by

reducing barriers to integration. Whether native or immigrant, the risk of depression is highest when a in countries with restrictive integration policies. Taking a slightly different approach, Malmusi et al. (2015) set out to explore the link between social and political determinants of inequalities in depression by immigrant status, focusing specifically on first-generation long-settled migrants (≥ 10 years residence) from low-income countries. Immigrants report significantly higher depression scores than natives. The gap is substantially reduced when adjusting for income, discrimination and social class, supporting the findings of Levecque & van Rossem (2014). Turning to migrant integration policies, inequalities were lower in countries with higher scores on anti-discrimination policies and access to nationality (the latter only holds for women). Strikingly, migrants residing in countries with higher scores on long-term residence reported higher levels of depression (this finding only holds for men). The authors conclude that, despite substantial heterogeneity, inequalities tend to be largest in countries with more restrictive policies and encourage future research to validate the country-level association of these inequalities with specific dimensions of integration policy. Building on these findings, the third paper in this thematic area sets out to further explore the association between perceived discrimination and health outcomes (Borrell et al, 2015). Focusing on first- and second-generation immigrants from low-income countries, results reveal that the association between discrimination and depression is most significant among first-generation men and women living in countries with assimilationist immigrant integration policies (measured through Meuleman's integration typologies based on MIPEX data). Again, the prevalence of poor health outcomes is highest among first-generation immigrants, similar to results discussed above.

While all papers find a significant difference in reported depression between immigrants and natives, the effect of integration policies is mixed. A possible explanation for the differences in the (lack of) moderating or mediating effect of a country's national migrant integration policy might lie in the slight differences in operationalisation of the Migrant Integration Policy Index (MIPEX) data and target sample of interest. While Levecque & van Rossem (2014) apply the MIPEX aggregate score to capture the effect of national integration policies, Malmusi et al. (2015) test the effect of each policy strand separately. Borrell et al (2015) take yet another approach and assign countries to one of 3 groups according to Meuleman's classification of national integration regimes, which was established according to MIPEX national data. Furthermore, Levecque & van Rossem (2014) highlight the need for an additional health strand, which has since been provided in the 2015 MIPEX edition.

All-cause mortality

To analyse mortality differences of immigrants from the same country of origin living in countries with distinct integration policy contexts, Ikram et al (2015) looked at all-cause mortality and various causes of death among Turkish and Moroccan immigrants across the Netherlands (inclusive), France (assimilationist) and Denmark (exclusionist). These countries each represent one of Meuleman's three groupings based on national integration policy. The authors hypothesised that all-cause mortality levels and the mortality gap with the local-born would be highest for immigrants residing in Denmark, followed by France and then Netherlands. Compared to Turkish- and Moroccan-born in the Netherlands, these groups had higher mortality in Denmark while mortality among Turkish- and Moroccan-born immigrants residing in France was consistently lower. The relative differences between immigrants and the local-born populations were also largest in Denmark and lowest in France. The findings suggest that macro-level policy contexts may influence immigrants' mortality however, the lack of statistical grounding of such a direct relationship means that these findings should be interpreted with caution. The innovation of this study is the possibility to compare policy effects on immigrants born in the same country that live in different European countries, and highlights the need for availability of cross-national comparative datasets in order to test such assumptions.

Discussion

This paper provides an overview of the scope and main findings of empirical work on national integration policy and migrant health outcomes. Only 9 primary sources were identified, all limited to the European context. This indicates a significant need for more and higher-quality, global research on this subject. Due to the variation in migrant samples and health outcomes across the studies, it is difficult to draw one definitive overall conclusion on the link between integration policies and specific health outcomes however, some trends can be identified.

Taken together, different integration policy models appear to make a difference on migrants' health outcomes across Europe. The findings suggest that the circumstances that lead to higher vulnerability among immigrants call for a wider response through the means of economic and social policies, and open the door to future studies to test the health effects of socio-political context on immigrants' integration. These findings also highlight the need for more inclusive integration policies, and the need for policymakers to consider the health consequences of their decisions in domains other than strictly health. Together, these results are evidence that migrant integration policies are needed in order to tackle inequalities in health and ultimately to improve equity in health.

While second-generation migrants in Europe show similar risk profiles as the non-migrant population in the same country, first-generation (non- EU migrants) find themselves most at risk, mainly due to experienced barriers to socioeconomic integration and processes of discrimination. The empirical studies reviewed reinforce the previously established link between (perceived) discrimination and health outcomes, particularly for migrants. Public policies on integration of immigrant groups are important for reducing discrimination and its related health outcomes (Callens, 2015). The research by Levecque & van Rossem (2014) reviewed in this paper, additionally found that the difference in levels of depression reported by migrants and non-migrants was significantly smaller in countries with more advanced anti-discrimination policies.

Concerning policy implications, the results indicate that migrants' health can be improved by fostering an integrative receiving context and providing the preconditions for social integration through provisions of equal access to key areas such as healthcare, labour market, education, political participation and access to justice. There is also a need for streamlining regulations for permanent residence, family reunion and naturalisation.

While these studies address important gaps in the knowledge on migrant health in Europe, a few limitations should be kept in mind. Data on the use of care by migrants, on its effectiveness on health, and health outcomes is sparse. Adequate cross-country samples of migrants with similar origins are needed to confirm these results, as well as qualitative studies to further understand the mechanism between policies and health outcomes. Although the data sources used in these studies presents an outstanding opportunity for cross-national comparisons, there are some possible issues that might affect the comparability of multi-country studies (see Levecque et al., 2012). Furthermore, the migrants in these data may not be fully representative of migrant populations in Europe. It is likely that the samples refer to a selection of relatively well-integrated migrants and exclude those who find themselves in the most vulnerable positions. This suggests that the results are likely conservative estimates, since the situation for less integrated migrants is probably worse. Although some exceptions exist, inferring from the regional scope of the studies identified, there is a need for harmonised integration policy and demographic and health differences between migrants and non-migrants. Improvements in this respect will be crucial to assess health disparities and develop policy responses for changes to be facilitated and effectively implemented. Such an endeavour requires political prioritisation, adequate resourcing and informed implementation as well as the willingness for cooperation among migrants' countries of origin, transit and destination.

Despite the thematic focus of these studies, only one paper accounted for the effect of health policy (Blom et al., 2016). Even then, the authors conclude that their measure is fairly broad and heterogeneous. As a result, it remains difficult to distinguish which concrete policy interventions are most effective in reducing ethnic health inequalities. The majority of papers also express the need for a comparative measure of policies on access and quality of healthcare. As of 1st of January 2015, a newly developed MIPEX Health Strand set out to fill this gap by providing information on carefully defined and standardise indicators across 40 countries; full details can be found in the Summary Report (IOM, 2016). The questionnaire measures the equitability of policies relating to four issues: (A) migrants' entitlements to health services; (B) accessibility of health services for migrants; (C) responsiveness to migrants' needs; and (D) measures to achieve change. The instrument does not simply provide qualitative data on each of the questionnaire items; it also provides scores on the four dimensions and a total score obtained by summing these. To convert the qualitative data into quantitative scores, the method developed by MIPEX is used. Researchers and stakeholders impatiently await empirical comparative evidence of national health policies and health outcomes. However, as the studies in this review demonstrate, achieving health equity is not an issue of policies targeting migrants' health alone. International, regional and national laws and policies law play a fundamental role in addressing health vulnerabilities and achieving health equity for all populations. Strengthened and coherent responses are needed at all these levels to address not only health but all areas that directly influence health vulnerabilities and enhance resilience.

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Authors	Year	Title	Country	Thematic coverage of study					
				Depression	General health	Limitation of activity	Chronic illness	Subjective Wellbeing	All-cause mortality
Blom, N., Huijts, T., & Kraaykamp, G.	2016	Ethnic health inequalities in Europe. The moderating and amplifying role of healthcare system characteristics	24 European countries		x			x	
Borrell, C., Pal, L., Bartoll, X., Ikram, U., & Malmusi, D.	2015	Perceived discrimination and health among immigrants in Europe according to national integration policies	18 European countries	x	x	x			
Giannoni, M., Franzini, L., & Masiero, G.	2016	Migrant integration policies and health inequalities in Europe	23 European countries		x	x	x		
Hadjar, A., & Backes, S.	2013	Migration background and subjective well-being a multilevel analysis based on the european social survey	European countries (not specified)					x	
Ikram, U. Z., Malmusi, D., Juel, K., Rey, G., & Kunst, A. E.	2015	Association between integration policies and immigrants' mortality: An explorative study across three european countries	3 European countries						x
Levecque, K., & Van Rossem, R.	2015	Depression in Europe: does migrant integration have mental health payoffs? A cross-national comparison of 20 European countries	20 European countries	x					
Malmusi, D.	2015	Immigrants' health and health inequality by type of integration policies in european countries	14 European countries		x				

Malmusi, D., Pal., Pa, L., Ikram, U., Kunst, A., & Borrell, C.	2015	Social and political determinants of inequalities in depression by immigrant status in Europe	17	European countries	x
Sand, G., & Gruber, S.	2016	Differences in Subjective Well-being Between Older Migrants and Natives in Europe.	11	European countries	x

Table 1. Summary of articles