Chapter 10
Assessing the Health of Persons Experiencing Forced Migration: Current Practices for Health Service Organisations

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Abbreviations

WHO	World Health Organization
MIPEX	Migration Policy Index
IOM	International Organization for Migration
EU	European Union
EEA	European Economic Area
UNGA	United Nations General Assembly
GCM	Global Compact for Safe, Orderly and Regular Migration
WHA	World Health Assembly
UNHCR	UN High Commissioner for Refugees
CEAS	Common European Asylum System
EC	European Commission
CEA	Cost-effectiveness analysis

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GDPR	General Data Protection Regulation (EU)
GP	General Practitioner
HIS	Health information system

Introduction

The objective of this chapter is to review the current evidence and practice regarding health assessments and linkage to care for populations who experience forced migration. After embedding the chapter in a historical and legal framework and background, it will discuss the health, health assessments and linkage to care for persons who experience forced migration and review some of the practical and ethical issues around it, identify gaps in evidence and research and conclude with a summary.

The term 'forced migration' is often used to distinguish acute, crisis-driven, 'forced' migrant movements, sometimes including asylum seekers and undocumented migrant groups such as trafficked or smuggled persons from 'voluntary', long-term, economic movements including migrant groups such as registered labour migrants. Defining mobility trajectories based on a person's agency, 'forced' versus 'voluntary' migration can be simplistic, and in reality, a continuum of agency exists (Erdal and Oeppen 2018), and IOM regularly reports on mixed migration (International Organization for Migration 2018), which can be defined as 'complex population movements including refugees, asylum seekers, economic migrants and other migrants' (International Organization for Migration 2008). However, the term 'forced migration' is often used in political, policy and research discourse and will be used here. The chapter is designed to cover health assessments and care linkage amongst all who experience forced migration, although a lot of relevant evidence is from refugee resettlement programmes and large asylum centre reception centres, as evidence and practice is not as readily available for other, more irregular forms of migration.

Refugee Health Access and Health Assessments

There is a long history of global refugee movements and coordinated health assessments, the latter often mandated by receiving country governments. Health assessments, defined here as formal health assessment carried out in relation to international borders, have been part of immigration and visa regulations at least since the early twentieth century, often as extension to quarantine regulations and implemented by port health departments (Taylor 2016). However, the magnitude of movements, and with it the interest in health assessments, has changed over time. In 2017, it was estimated that there were about 258 million (United Nations Population Division, Department of Economic and Social Affairs n.d.) international migrants globally, of which approximately 25.4 million were refugees and 3.1 million asylum seekers (United Nations High Commissioner for Refugees n.d.-a). This overall volume of global migrants has significantly increased over the last 10 years. The routes of migration and recipient countries have also changed (International Organization for Migration 2019), not least because of the changing nature of conflicts and border control factors and also in line with potential receiving country preferences (case study 1 in Box 10.1). This means that the context, scope and reach of health assessments for refugees is almost constantly changing and leading to a decrease of resettlement-related health assessments in some countries, whilst others have only recently initiated or significantly increased their resettlement intake and with it often the number of health assessments. There is, therefore, a significant interest in these health assessments and to identify best practice and ensure coordination and standardisation of these efforts, particularly from receiving countries, who recently experienced increased inward migration. There also now appears to be general agreement at international level of the value of access to relevant health services for migrant populations.

Box 10.1 The ePHR to Assess Health Status and Needs of Arriving Refugees/Migrants

The ePHR is a tool to assess the health status and related health needs of refugees and migrants arriving in Europe including specifically vulnerable groups and to store health data in a database to make it available in transit and destination countries. It is built on three components: a personal health record (PHR) which is held by the individual migrant in paper or electronic form, a handbook for professionals and an electronic health database.

The ePHR helps to (re)construct the medical history of arriving migrants and provides an opportunity to record subsequent provision of treatment, including vaccinations, and to offer counselling and health education services. It is a personal document that migrants and refugees should keep with them and that contains the individual's health data. It offers the unique possibility of a health record that can be stored and shared across borders and that facilitates continuity of medical care for individuals and surveillance relevant for public health.

The accompanying handbook for health professionals supports the systematic health assessment and also seeks to ensure that health assessment and preventive and health promotion measures are provided via the employment of health mediators and interpreters.

The ePHR was developed and implemented in selected European countries in two consecutive actions by the International Organization for Migration (IOM)—Migration Health Division—and co-funded by the European Union (EU), starting in 2016, in the 'Re-Health' and 'Re-Health2' projects (http://

re-health.eea.iom.int/). Re-Health/Re-Health2 aims at improving the capacity of EU member states under particular migratory pressure to address the health-related issues of migrants arriving at key reception areas whilst preventing and addressing possible communicable diseases and cross-border health events.

A feasibility study was conducted by the Center for Health and Migration, Vienna, during the initial testing phase, assessing the acceptability, feasibility and transferability of the ePHR. The ePHR was well-received by migrants with 91% (n = 2.838 of 3.125) giving informed consent. Reasons for non-consent were fear of use of information against the migrant's interest and that migrants couldn't see any benefits.

Acceptability by staff was measured with effort and payoff of using the ePHR. Ideally, high payoff can be achieved with low effort. Those staff members who see high payoff will be more willing to take high efforts; staff members who experience high effort and low payoff will not favour the ePHR. A majority of staff reports high payoff with high effort (66%; n = 23), and 26% (n = 9) report high payoff with low effort. Named efforts are mainly connected to explaining the ePHR to migrants to get informed consent and to overcome technical barriers. Payoffs are seen in the systematic collection of data and in the possibility to share data electronically.

Feasibility of the on-site use of ePHR was seen as mainly related to mediation services available and the technical quality and user-friendliness.

Most important elements for further development were seen in training of staff; information for migrants about scope, purpose and benefits of ePHR, about data safety and that the ePHR is not connected to the asylum procedure; provision of sufficient technical equipment; and availability of medical staff on site.

Predeparture health assessments have been the preferred model for a number of countries such as the USA, Canada, Australia or New Zealand for humanitarian entrants through refugee resettlement programmes (Douglas et al. 2017). These pre-entry assessments have been particularly attractive for specific target groups (such as vulnerable refugees) or specific disease groups and have been integrated in the resettlement process. As resettlement has become more targeted, the role of predeparture assessment has increased in importance. It is worth noting that many countries with resettlement programmes also have a separate system to assess asylum seekers.

Health assessments can be done at various points in the refugee's journey: predeparture, on arrival or post arrival. Health assessments are often determined by trajectories of migration routes, including irregular migration. For example, in some Southern European border states, who recently experienced a higher number of informal arrivals, post arrival health assessments, often carried out in reception centres, were more common. More recently, some countries of origin (such as Sri

Lanka) have started performing health assessments amongst specific types of emigrants (e.g. labour migrants). Nevertheless, the landscape of health assessments is constantly changing, and there has been a recent political interest for stronger support of migration management in transition countries (European Council 2018), and this may make pre-entry health assessments more attractive and feasible for these receiving countries.

The objectives and the scope of health assessments are highly variable and not always known to the migrant (see also Chap. 7). Some countries appear to screen exclusively for public health reasons and to prevent excessive demand on their healthcare system, and this can lead to a policy of exclusion, so that persons with certain illnesses, especially infectious diseases or mental health conditions are prevented from entry.

The objective of other health assessment programmes includes a check for medical conditions to facilitate care of patients in the receiving country and to detect conditions which require urgent treatment and linkage to care, such as tuberculosis (TB) and human immunodeficiency virus (HIV) (UK Home Office et al. 2017). These preferences are often informed by the context—for example, states which take refugees with the United Nations Refugee Agency (UNHCR) vulnerability criteria may choose the latter. Screening in reception centres can have similar objectives, but its processes can be more dependent on the acuteness of situation and the logistics on the ground, and on occasion, a stronger emphasis is placed on protecting public health or on detecting vulnerabilities. Pragmatism and logistics can also be important factors influencing process on the ground.

A key component of health assessments and detecting vulnerabilities should be linkage to appropriate care along with the ability to access this care (Pareek et al. 2018). However, this significantly varies according to circumstances and receiving countries. In their analysis of health systems, the health strand of the Migrant Integration Policy Index (MIPEX) (International Organization for Migration 2017) provides a good overview of some of the difficulties and barriers faced by migrants and refugees (including undocumented migrants) to access to 38 different receiving countries' health systems (EU/EEA, Bosnia and Herzegovina, Macedonia, Turkey, Australia, Canada, New Zealand and the USA) across the dimensions of entitlement and access of healthcare. It is obvious that both not only vary by receiving country but also by legal status of the migrant.

The Policy Context of Health Assessment and Linkage to Care

Within the context of forced migration, there is consensus to ensure that basic provisions in terms of food, shelter and social security should be made by receiving countries (see also Chap. 13). In declaring solidarity with and acknowledging responsibility for people who are faced with forced migration, the United Nations General Assembly (UNGA) adopted the New York Declaration in September 2016 (United Nations General Assembly n.d.), pledging that basic health needs of refugee communities are met, particularly those of vulnerable populations, including women and children.

The New York Declaration also commits member states to working towards the Global Compact for Safe, Orderly and Regular Migration (GCM) (United Nations General Assembly n.d.), setting out to provide a framework for international cooperation for all types of migration, including forced migration. The GCM provides much more detail on addressing vulnerabilities in migration (objective 7); strengthening procedures for screening, assessment and referral (objective 12); and providing access to basic services for migrants (objective 15). Objective 7 is particularly concerned with ensuring early recognition of vulnerabilities and appropriate response and referral mechanisms, especially for vulnerable women, and minors, including healthcare and psychological services. Objective 12 commits to improving predictability and legal certainty of migration procedures but also seeks to ensure that assessments and screening procedures are appropriate, standardised and aimed at detecting vulnerable populations, such as unaccompanied minors. Objective 15 aims to ensure that the human right of access to basic services can be exercised by refugees, and this includes non-discriminatory access to appropriate and responsive services including accessible information about the services and a mandate for human right organisations to monitor (or if necessary) help mitigate access issues.

Based on previous resolutions, including the one on the health of migrants (WHA 61.17), member states through the World Health Assembly have endorsed a resolution on ‘Promoting the Health of Refugees and Migrants’ in May 2017, which calls on member states to promote a framework of guiding priorities and guiding principles for migrant health, including the right to enjoy the highest principles of physical and mental health, the principle of equality and non-discrimination, equitable access to health services and the promotion of people-centred and migrant-sensitive health systems, amongst others (World Health Organization n.d.).

Within the EU/EEA, minimum standards for asylum seekers have been adopted in Directive 2013/33/EU (European Commission n.d.), and article 17 recommends that, on reception, basic needs of asylum seekers, including those pertaining to physical and mental health should be provided for, and article 10 mandates that persons in detention should have access to appropriate medical treatment and psychological counselling. Provision of healthcare is further specified in article 19, detailing that all asylum applicants should have access to at least essential healthcare as well as treatment of mental health conditions and that there should be appropriate services for those with special needs.

In fact, there is a specific obligation on national authorities to identify and monitor vulnerable persons to ensure appropriateness of reception conditions. The minimum standards for asylum seekers discourage the detention of vulnerable migrants, particularly children (article 11), although it allows medical screening on public health grounds. Persons with special needs are defined as those who are vulnerable; this includes minors, unaccompanied minors, disabled people, elderly people, pregnant women, single parents with minor children, victims of trafficking, victims of female genital mutilation, persons with mental health problems and persons who have been subjected to torture, rape or other serious forms of psychological, physical or sexual violence (article 22). There is a requirement to identifying and specifying the exact nature of these vulnerabilities and to adequately support these persons throughout the asylum process.

In summary, there now appears to be a general agreement at international level that culturally and medically appropriate healthcare access, including for urgent and mental health conditions should be accessible to all migrants, including for those suffering forced migration. Special efforts should be made to identify persons and circumstances of vulnerability to ensure that circumstances and care can be tailored appropriately. However, as described in the Migration Policy Index (MIPEX), entitlements and access to care can be highly variable, even between European Union member states, and frequently, those affected by forced migration, including asylum seekers, and those uncertain legal status are the least likely to be able to efficiently access the receiving countries' health system (see also Chap. 5). It is currently not entirely clear to what extent persons with vulnerabilities are systematically and effectively identified and their care appropriately adapted. This chapter seeks to look at health assessments and in-country examples to examine this question.

Health Assessments and Health Access of Persons Experiencing Forced Migration: Current State of Affairs

Here, we aim to provide a comprehensive picture on the current knowledge of the health, health assessments and health access of persons who experienced forced migration. It is important to recognise that persons in these circumstances are a very heterogenous group—because of age and gender, socio-economic and geographical determinants, and not least because of their variable legal status in transit and receiving countries. The health, health access and health assessments (if any) will significantly vary depending on whether they have recognised refugee status, are asylum seekers, are failed asylum seekers or are undocumented. There are still a lot of variations in the use of the terminology, and this has been shown to affect health policy and ultimately access to care (Hannigan et al. 2016). The chapter also has a specific focus on the identification and linkage to care for the subgroup with vulnerability criteria. Literature is scarce, particularly on the latter issue, so this chapter brings together case studies from specific contexts with a narrative literature review.

A recent WHO-commissioned review on the health of refugees and asylum seekers in the European region found a very mixed picture across the region and was limited by the fact that settings are not always comparable and that most studies came from few receiving countries, including Scandinavia and the United Kingdom (UK) (Bradby et al. 2015). This finding of practice variabilities has been corroborated in other reviews (Hvass and Wejse 2017). However, and acknowledging the limitations, the WHO review found evidence for increased prevalence of specific infectious diseases and some mental health conditions. A systematic review on current diagnoses of mental illness indicated that refugees resettled in Western countries could be about 10 times more likely to have post-traumatic stress disorder than age-matched general populations in those countries (Fazel et al. 2005). However, there is considerable heterogeneity of prevalence rates in studies, and comparability to the nonmigrant population is contested. Depending on the particular circumstances of their forced migration, non-communicable diseases, including prevalent respiratory or heart diseases, musculoskeletal conditions or diabetes may be undermanaged not least due to financial and access barriers particularly in transit and may require attention and appropriate care in receiving countries (Amara and Aljunid 2014). Some of the vulnerabilities amongst persons who experience forced migration have been well-documented—for example, there is good evidence of adverse perinatal and maternal health outcomes amongst refugees (Bollini et al. 2009; Gagnon et al. 2009) or mental health (Porter and Haslam 2005).

The vulnerability not only of children and adolescents exposed to violence but also protective factors such as social support in the receiving countries has been equally well-documented (Fazel et al. 2012). Complexities in healthcare provision owing to cultural-linguistic barriers, healthcare provider capacity issues and legality concerns have been well-described (Suphanchaimat et al. 2015).

Central to the concept of the European Commission (EC) directive on asylum seekers in the EU and the Common European Asylum System (CEAS) is the notion of vulnerability. This is one of the key reasons why its legislation mandates the systematic identification of vulnerabilities, which would then be translated into procedural safeguards for protection of the individual (European Commission n.d.; European Union n.d.). The concept is not new in Europe, being recognised by the European Court of Human Rights, and not unique to the EU setting, with a number of other available legal instruments, such as the UN Convention on the Rights of the Child or the UN Convention on the Rights of Persons with Disabilities, providing legal context, adopted by a number of non-European countries. It should be noted that detecting vulnerabilities is primarily an immigration function, not a health function, and ill physical and mental health is just a subset to vulnerability criteria at large.

The concept of health risks and vulnerability and its safeguards appear intuitive; it is reasonable to prioritise those who have specific needs, either by virtue of their demographic characteristics, health or welfare concerns, or protection needs. There is a considerable amount of literature, including tools describing how to screen or elicit these concerns, but there is no uniform agreement on what is included in refugee health risks and vulnerabilities, with marked differences across countries (United Nations High Commissioner for Refugees n.d.-b) and some authors arguing that the asylum seeking status itself can be regarded as vulnerabilities.

In addition to these country- and setting-specific differences, the tools, capacity and training to screen for vulnerabilities are also highly heterogenous. There may be a risk of recall and observer bias when trying to elicit vulnerabilities not readily recognisable, and such assessments may be setting, client and provider dependent. Whilst robust training and legal support networks may risk over-ascertainment, the lack of these together with stigma and cultural-linguistic barriers may risk under-ascertainment. Such decreased sensitivity and specificity can be highly consequential to the migrant and the society of the receiving country. There is therefore a legitimate concern about the current over-reliance on identification of vulnerabilities to define migrants worthy of protection in the European context. Health equity has emerged as a principle that can help us with this assessment of refugees who are at risk to the medical system.

Since the majority of vulnerability criteria (which emerged from a human right perspective) are not directly health related, the responsibility of assessments thereof does not usually lie with health professionals. The link to health assessments, which initially evolved from a traditional quarantine perspective, is variable but can be relatively loose. Information from health assessments, if carried out well, can be used to corroborate a narrative from the vulnerability assessment, and this may take the form of expert witness statements. Yet the extent to which information from health assessments is systematically used to inform the detection or validation of criteria informing a vulnerability assessment is variable. More information and better targeted research about optimising the link between health and vulnerability assessments and their use to inform each other may be urgently needed.

Refugees may have poor or deteriorating health, because of conditions experienced before, during or after arrival to new country. A healthcare system that is poorly adapted to their needs compounds this situation, resulting in further marginalisation and health inequities. It is critical to identify preventable and often unrecognised clinical care gaps that can result from such majority-system biases (Pottie et al. 2011).

The nature and extent of health assessments is inevitably determined by the setting. Health, access and assessments are probably best documented for recognised refugees, and a significant body of literature is set in the resettlement context, and a number of countries run programmatic health assessments or screenings for refugees awaiting resettlement prior to departure to the receiving country (case study 2 in Box 10.2). Many of these programmes are well-established, have clear guidelines and often are quality assured and monitored (UK Home Office et al. 2017; Immigration Refugees and Citizenship Canada 2013; Centers for Disease Control and Prevention (CDC) 2017). In this context, health assessments are often part of a more comprehensive process, including security-related assessments, and can take place considerable time before resettlement takes place. These health examinations can include a general assessment of health status, including a physical examination, routine bloods and urine and often include multiple specific disease areas, including screening for mental health conditions or an assessment of drug and alcohol use, an assessment of disabilities and infectious disease screening. The latter often depends on the epidemiology in the country of origin and receiving country, for example, for active tuberculosis, hepatitis B and C, HIV, helminths or malaria. In addition, many programmes offer vaccination for common vaccine-preventable diseases, including diphtheria and tetanus, meningococcal disease, polio, measles or rotavirus amongst others.

Box 10.2 Health Assessments for UK-Bound Refugees

The UK has a number of refugee programmes, including for those arriving from Sub-Saharan Africa, such as the Gateway Protection Programme, and those arriving from the Middle East through the Syrian Vulnerable Person Resettlement Programme (VPRS). Until relatively recently, the UK programme included a few hundred refugees each year. However, following an announcement of the (then) prime minister David Cameron on 7 September 2015, the VPRS was expanded to take 20,000 Syrian refugees between 2015 and 2020.

The UK prioritises resettlement according to the UNHCR vulnerability criteria. Criteria include persons who have demonstrated legal and physical protection needs—such as being survivors of violence and torture, elderly refugees, women-at-risk, children and adolescents, those seeking family reunification, those with medical needs and those who lack local integration prospects. All UK-bound refugees undergo a standardised health assessment prior to departure, guided by technical instructions on refugee screening and covering a wide range of general and specific disease topics. Noting aforementioned vulnerability criteria, the primary objectives of these health assessments are to identify health conditions for which treatment is recommended before the individual travels to the UK (including fitness to travel), to ensure the individual is settled in a location that has appropriate facilities to meet their health and social care needs and to use the opportunity to bring their vaccinations up to date and in the singular case of active pulmonary TB for public health reasons.

The health assessment is therefore very broad and includes determining the general health status as well as screening for specific diseases of which screening for a number of them, including tuberculosis, hepatitis B and C or malaria, is informed by receiving country epidemiology. In addition, vaccinations are provided to ensure they are up to date with the UK vaccination schedule. A basic mental health assessment is also performed, and more recently, the more extensive Global Mental Health Assessment Tool (GMHAT) has been piloted amongst a Syrian refugee population in Lebanon. Health assessments for refugees are carried out by qualified doctors and nurses in the field, mostly through the International Organization for Migration.

Treatment is provided prior to departure or organised post arrival, depending on specific disease area, circumstances and individual or public health need; and with the help of the receiving local authority and health authority, refugees are provided with good access to required key services, including health.

The objectives of these assessments can vary and include receiving country public health considerations (as justification for infectious disease screening, such as tuberculosis) but can also include considerations about costs to the receiving country healthcare system or society (Immigration Refugees and Citizenship Canada 2013; Centers for Disease Control and Prevention (CDC) 2017). However, the aim can also be to ensure that resettlement circumstances are optimised to meet the refugee's health needs (UK Home Office et al. 2017). In the latter scenario, screening for health-related vulnerabilities is included in the assessment in order to aid matching local facilities to the need of the refugee (case study 2 in Box 10.2). Practical barriers, which may impede the full implementation of such objectives, can include resource pressures, competing objectives and, not least occasionally suboptimal, often hierarchical information flows (Fig. 10.1). The latter can arise because of the challenge to provide to each of the multiple agencies involved in resettlement the needed and appropriate context-specific information about the refugee whilst adhering to relevant data protection regulations (such as the EU General Data Protection Regulation, GDPR (European Commission 2016)). There can be barriers and delays if, for example, the local health economy or, if relevant, the local healthcare providers do not receive appropriate and complete health information in a timely manner. Much progress has been made in ensuring that refugee health data is captured in confidential, transferable and accessible databases, but competing systems and slow implementation has been a barrier to this process. The feedback mechanism, including information from providers about the appropriateness, usefulness, timeliness or completeness of such information, is often narrative, and published literature on such questions is scarce. In a desire to improve mental health-related information, the Global Mental Health Assessment Tool (GMHAT) (GMHAT 2019) was recently piloted amongst UK-bound refugees in Lebanon. An audit amongst UK General

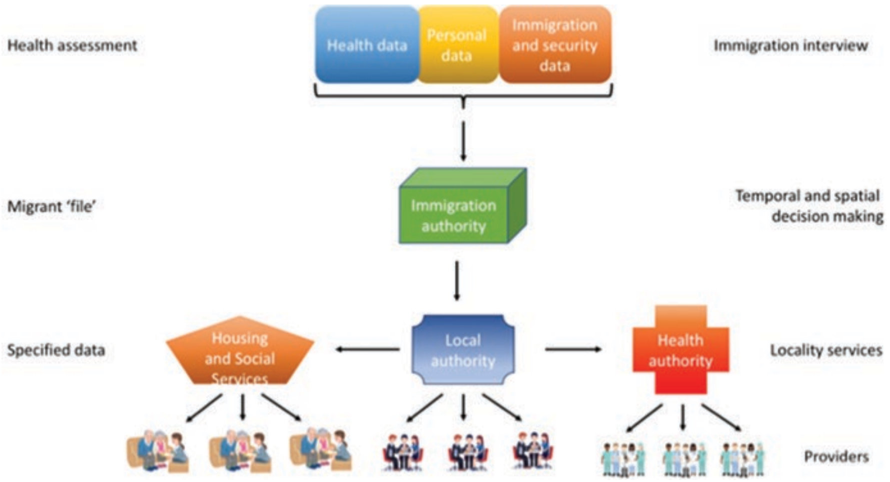

Fig. 10.1 Country example of hierarchical framework for sharing health information

Practitioners (GPs) found that the information was not always received by them in a timely fashion (author communication).

Health assessments in immediate reception or transit centres are now very common but highly variable. The population in reception centres tends to be socioeconomically, culturally, linguistically and legally more heterogenous than in a pre-migration setting and to a large extent includes persons applying for protection (asylum seekers), rather than those who have been granted protection (refugees), and applying meaningful health assessment and screening processes can therefore be more challenging. Health screens are often focused on the detection of immediate conditions of concern, particularly if conducted in a setting including persons whose health may be immediately affected by their journey (e.g. by boat through the different Mediterranean routes). They often include screening for infectious disease conditions, such as active tuberculosis. Assessing people with vulnerabilities, as well as assessing the vulnerabilities themselves can be very complex and requires thorough understanding and embedding within the sociocultural context (Raghavan 2018). Equally, the assessment of mental health morbidities may be hampered by cultural and linguistic barriers for which recent computer-based solutions may be a helpful adjunct (Morina et al. 2017).

In settings with large secondary migration (facilitated by contiguous landmass) or scheduled onward movements, it is possible for health assessments to take place in more than one location, making duplication of such efforts likely, especially if health conditions are not well-recorded or records are not shared. In many instances and apart from conditions or diseases requiring immediate attention, it is unclear to what extent information from health assessment, including assessment of vulnerabilities is utilised for the benefit of the migrant. Screening even for infectious diseases such as tuberculosis is not always well-recorded, which can lead to considerable uncertainties about calculating screening yields (Bozorgmehr et al. 2018). This could hinder targeted service provision and may affect wider health policy decisions. Conversely, there is good evidence that well-ascertained and recorded information can be helpful even within initial settings, such as refugee camps, for example, in the recording and early detection of infectious disease outbreaks (Rojek et al. 2018).

A number of different health record systems have been tried, and a key challenge seems to be balancing the need for readily available information with data protection considerations. It is possible that electronic systems have an advantage, compared to systems which rely on the migrant to bring a paper or electronic mobile storage device (Jahn et al. 2018). The need for accurate, timely and appropriate health information for healthcare providers in the immediate reception setting and further on in the migrants' journey has been well-recognised and has resulted in several initiatives, including the establishment of an electronic health record, funded by the European Commission (case study 1 in Box 10.1) (European Commission and Directorate-General for Health and Food Safety 2015) (see also Chap. 9).

Amongst undocumented migrants, the entitlement and access to healthcare provision can be severely limited, and alternative systems can be overwhelmed and health problems amplified, whilst additional barriers occur due to fear (often justified) and stigma (Hacker et al. 2015). This pattern of differential healthcare access stratified by legal status in the receiving country and often caused by bureaucratic barriers has been recently confirmed and well-described in the MIPEX (International Organization for Migration 2017). It has been noted in various European projects concerned with healthcare for undocumented migrants that, in absence of legal access to regular public health services, NGOs act as healthcare providers for undocumented migrants and in this role also take over health assessments. However, this information is rarely made available to the public health system and for further development of services, as NGOs often act in parallel to the country's healthcare system. This can create a situation where data is there, but not used and/or synthesised for public health purposes. Benchmarking country health information systems (HIS) with respect to the ability to assess the health status and healthcare situation of forced migrants is important. Bozorgmehr and colleagues developed a HIS Tool for Asylum Seekers (HIATUS) and applied the tool to the HIS in Germany and Netherlands (Bozorgmehr et al. 2017a). HIATUS revealed substantial limitations in HIS capacity to assess the health situation of asylum seekers in both countries and allowed for intercountry comparisons.

The urgent need for also including undocumented migrants into electronic health information systems, coupled with the complete absence thereof, has been documented in a systematic review (Schoevers et al. 2009).

Ethical Considerations

There are inherent ethical challenges associated with the health assessment of migrants. Many programmes are set up with the objective of population health and national health security (public policy and country laws), whilst it is an individual's health that is being assessed. Indeed, in some situations, the primary user of this health information is not a healthcare worker, but the government. Many migrants do not understand this difference which may lead to health-related consequences and further costs (Pacheco et al. 2016). A new migrant could also consider screening tests a threat to their migration status. The lack of linkage to care or intention of treatment or lack of informed consent in migrant health screening are ethical dilemmas (Denholm et al. 2015; Beeres et al. 2018) that have not been addressed in many national policies. The healthcare practitioners may have conflicting and dual loyalties and obligations providing care in limited settings and not able to optimally advocate for their patients (Hui and Zion 2018).

It also has to be considered that health assessments have the potential to be misused as instruments of migration control. From an ethical, human right and public health perspective, health assessment should not be constructed as instruments of discrimination, but rather instruments of public health good. Additionally, programmes without sufficient evidence base or without adequate epidemiological rationale particularly if diagnostic yield is low or diagnostic tests expensive, such as those focussing primarily on health security issues, may risk inappropriate use of resources (Bozorgmehr et al. 2017b). In this context, there may be issues around detection of conditions and linkage to care in settings where access to care is restricted.

There are additional challenges concerning data protection when undertaking health assessments and formulating health information systems of forced migrant populations, not least because of the numerous actors involved. Finally, it must be understood that health assessments are also a snapshot in time, whereas health needs are dynamic and dependent on many variables (Schoretsanitis et al. 2018), and that the occupational health particularly of migrant workers is not addressed in most health assessments.

What Are the Gaps for Policy and Research?

A recent bibliometric analysis demonstrated that the field of migration health is severely under-researched, particularly in international collaboration and specific topic and disease areas and by developmental or income gradients of countries (Sweileh et al. 2018). A small number of systematic reviews have explored the topics of mental health status (Amara and Aljunid 2014), maternal health, infectious disease and non-communicable disease (Amara and Aljunid 2014) status of various refugees and asylum seekers. These studies have also indicated major gaps in the evidence landscape by country, migrant category and migration corridor. Many disease areas also remain uncovered, and most of the underlying studies have been carried out in specific contexts and amongst specific populations, making generalisability difficult. The best data come from well-structured refugee programmes often within the health assessment context (Crawshaw et al. 2018) or with standardised medical record systems (Kane et al. 2014). Data on health of migrants and refugees via irregular migration pathways and with lesser legal entitlements or access, such as asylum seekers or undocumented migrants, are particularly scarce. A key finding of the bibliometric analysis was also the scarcity of research data on international migrant workers which comprised of only 6% of totally research despite the total number of migrant workers being seven times higher than refugees. Despite their economic contributions, migrant workers, and in particular those low-skilled from lower-income nations, are ‘left behind’ in global migration health research. The fact that many migrant workers undergo a health assessment as part of visa issuance and travel is significant, and analysis of such data is critical for both labour-sending and labour-receiving countries (Wickramage and Mosca 2014). Particular attention needs to be focused on gender dimensions, the human rights and health vulnerabilities of female migrant workers.

Equally, healthcare entitlements and access have been reasonably well-documented for a number of countries in the EU/EEA (International Organization for Migration 2017). However, such output has also been temporal and geographically restricted, with uncertainty about entitlements and access for asylum seekers and undocumented migrants, particularly in a rapidly changing policy environment.

Similarly, health assessment procedures are well-documented for highly structured and quality-assured programmes in the context of resettlement programmes (Centers for Disease Control and Prevention (CDC) 2017), with considerable uncertainty around context, content, transmission and use of health assessment information in other contexts, such as reception centres or even unregulated camp situations. In addition, traditionally, health assessments have been created as part of immigration procedures, often informed by public health aspects (including prevention of transmission), and sometimes to identify and exclude individuals whose conditions may be regarded as 'cost pressures' to the receiving country health system. Such assessments are therefore often designed to maximise disease detection sensitivity and less to benefit individuals, and much more evidence is required to assess and inform which health assessments and in which contexts and point in the migration journey would have a positive impact for the individual and society (Crawshaw et al. 2018). Recent systematic reviews carried out for European migrant infectious disease screening guidelines demonstrated that robust studies on some of the key questions around health assessments, such as effectiveness and cost-effectiveness or even target populations, are scarce, although, more recently, significant progress has been made with a series of systematic reviews, including for tuberculosis (Greenaway et al. 2018b), hepatitis B and C (Greenaway et al. 2018a; Myran et al. 2018), HIV (Pottie et al. 2018) or vaccine-preventable diseases (Hui et al. 2018). There is a scarcity of routine data for monitoring health assessments, as has recently been described in the case of tuberculosis screening amongst asylum seekers in Germany (Bozorgmehr et al. 2018). The screening and detection of vulnerabilities and their link to care are equally under-researched.

This scarcity of research for significant parts of population groups who experienced forced migration including their health assessments and linkage to care has important policy implications in several aspects. Firstly, the absence of reliable figures can have adverse effects on planning for accessible, culturally appropriate health services, which in turn could generate health service pressures and a risk of knock-on effects such as perception of or actual under-provisions for the population in the receiving country. Secondly, an in-depth understanding of the demography, health status and epidemiology of such groups is important for healthcare provider and public health training purposes. Thirdly, although a number of studies, including the MIPEX (International Organization for Migration 2017) or specific member state papers, have provided reasonable attempts to demonstrate evidence of cost-effectiveness for universal healthcare access for all groups of migrants who experienced forced migration into the receiving country healthcare system (Bozorgmehr and Razum 2015), the debate has not been sufficiently settled to convince policymakers of the merits of this, and more robust cost-effectiveness analyses are needed. Conversely, more evidence is needed about the health and social impact as well as the long-term economic costs of restricted access to health and social care. Fourthly, there is an urgent need for a better understanding of how to optimise health assessments to ensure effectiveness and cost-effectiveness and maximise the benefits for the individual and society and how to best integrate and use resulting information for healthcare planning in the receiving country and to address any individual healthcare needs. The current situation risks missing a valuable tool for targeting and optimising care (including addressing vulnerabilities) for those who need it most.

Conclusions

Health and vulnerability assessments of migrants all have a long history but have evolved significantly. They started from very different origins and with different foci; health assessments stem from quarantine arrangements and vulnerability assessments from a human right perspective although they are still frequently used for immigration control purposes. More recently, they have been developed significantly, and there are increasing tendencies to utilise these tools for the benefit of the migrant and his/her integration in the receiving country. However, even with a clear legislative framework, both internationally and at EU level (including a mandatory requirement to screen for vulnerabilities and ensure appropriate services to meet the needs), the reality is highly heterogenous, and the implementation of EU directives to protect vulnerable migrants is still sketchy. Despite the recognition of health as a human right and notwithstanding numerous international resolutions and documents, the linkage to care is at best variable and in the current political climate potentially worsening in many settings. Much remains to be done to ensure that these instruments, some of which were initially implemented as instruments of immigration control, are used for the benefit of the migrants themselves and ultimately their integration into the receiving country. Ultimately, healthy migrants are in the best interest of receiving countries and global health at large (Abubakar et al. 2018).

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