GLOBAL CONSULTATION ON MIGRANT HEALTH
National School of Public Health | Madrid, Spain | 3–5 March 2010

MONITORING MIGRANTS’ HEALTH
The opinions expressed in this paper are entirely those of the authors and do not necessarily reflect or represent the positions of any organization to which the authors may be associated.
Monitoring Migrants’ Health*

Overview

All human activities can affect and influence health and health outcomes either through direct effects on illnesses and disease or secondarily by affecting the social determinants of health. Such effects and influences may occur both at the level of the individual as well as the community and population level. Migration and the associated flows of people, communities and populations, which is both a process and an activity, has long been recognized as being associated with or influencing health outcomes in certain situations. Attempts to manage or deal with health and disease in travellers and migrants represent some of the earliest aspects of humanitarian medicine (hospices) and public health (the control of imported disease).

Migrant Health Monitoring Lacks a Global Integrated Scope

Over time it has become appreciated that the health aspects of migration are not limited to the migrants themselves. Depending on the situation and location, it has been observed that the health of migrants may have important implications for the host populations from which migrants originate, transit or travel through, and live and work. At the same time aspects of migrants’ health are influenced and affected by where and how they travel, reside or settle. Traditionally much of the interest in this regard reflected situational events and outcomes related to a particular, time, place or population cohort. Due to the fact that many of the legal and administrative aspects of citizenship and right of residence are aspects of national sovereignty, attention to migrant health frequently occurred at the national level or, in some cases, regional level. That is also where information gathering, monitoring and analysis of migrant health have also tended to occur. As a consequence, the majority of research and study on the health aspects and implications of migration has and continues to take place at the national or regional level. Differences in the nature and quality of the information exist between many of the various jurisdictions, hampering the development of relevant and broadly applicable international or global policies and programmes in migrant health.

More recently, as the health implications of modern globalization are being addressed through a lens of population health principles, the broader global aspects of health and migration are assuming greater international prominence. The modern world is more interconnected and interdependent than it has ever been. The effects of these shared connections and dependency extend to health. At the same time, global society is ever more mobile and migration is an important part of that mobility. Recent United Nations estimates on international migration suggest that the number of international migrants to be in range of some 214 million people.1 It is anticipated that continued globalization, environmental change, social and political evolution will be associated with the continued growth and expansion of migration.

It is expected, for example, that there will be continued expansion of the migrant labour workforce over the foreseeable future2 and that some countries with declining birth-rates and aging populations will require increasing immigration to support their economic and social development.3 Considering the dynamics of migration in a global population-based context, it is interesting to note that if international migrants were considered as a country they would currently represent the fifth largest country (by population size) in the world. The collective health needs and implications of a global population cohort of this size are obviously considerable. Additionally, the population demography of modern migration has resulted in situations where migrant and foreign born cohorts represent significant proportions of national populations in many countries (Figure 1). The demographic realities of migration on this scale have corresponding im-

---

* Main author: Brian Gushulak, Research Consultant, Migration Health Consultants, Inc.
Monitoring Migrants’ Health

Impacts and effects on national health programmes and policy development related to the specific needs and health status of the migrants themselves.

Figure 1. Top ten countries with the highest share of migrants in the total population (percentage of total population, 2005) (countries with 1 million or more residents)

Like Other Populations, Migrants Display Disparate Health Determinants and Health Outcomes

Similar to other large national populations, the health characteristics, indicators, outcomes and needs of migrants are not uniformly distributed across the population. Wealth, employment, education, nutrition and historical experiences all influence individual and population health. The same is true for migrant populations and communities where disparities in the social and economic determinants of health in migrant communities affect vulnerability and create adverse health outcomes.

The process of migration itself adds an additional component to the dynamics of migrant health. Population movement which involves the crossing of boundaries and frontiers as well as that which takes place within national borders provides an opportunity for geographically separated health and disease risks and outcomes to move between different social, economic and epidemiological environments. Some groups and communities may be particularly susceptible to health influences specifically associated with migration. Examples include: 1) the vulnerabilities of refugees and involuntarily displaced populations forced to leave their normal place of residence; 2) the workplace and occupational health challenges faced by migrant workers, particularly those in irregular situations; 3) the risks encountered by smuggled migrants and trafficked persons, and 4) the vulnerabilities and poverty of the irregular, unauthorized, undocumented and other exploited migrants.

Together, these vulnerabilities may apply differently to individuals or migrant communities in relation to place, time and person. The outcome of these vulnerabilities may be manifest through disparities and differences in terms of availability of, access to and use of appropriate health and medical services, therapeutics and facilities as well as relevant information about health. For example, new migrants may be unfamiliar with the use of health care systems and protocols at their new place of residence. In locations where health care is provided on a fee for service basis, poverty, a common factor for many new migrants, may limit their ability to seek or pay for health care. Additionally, many migrants move to destinations where linguistic, social
and cultural factors are different from their home. Studies have demonstrated that these and similar factors affect the access and use medical services following migration. The systematic monitoring of the nature and impact of health vulnerabilities in migrants will provide improved metrics for better and targeted policy and programme development.

The Health Aspects of Migration Do Not End with Resettlement

It is important to note that many of the health vulnerabilities and adverse health outcomes associated with migration develop or continue after the arrival and resettlement phases of the process of migration. Several member states who monitor aspects of migrant health have noted that some migrant communities arrive in their new host societies with health indicators and status that may be better than those in the host population. In some cases those positive findings remain while in other situations they deteriorate over time. This observation is known as the Healthy Migrant Effect, and while there may be several reasons for it, a better understanding is important to the population-health based monitoring of migrant health. Sustaining good health and preventing further deterioration in migrant health will be an increasingly important aspect of future endeavours in the monitoring of migrant health. Better understanding of the nature and origin of the Healthy Migrant Effect will also assist in the design of programme and policies to reduce some of the future health needs of migrants and to mitigate long term impact of newly arriving migrants on downstream health and medical services. Monitoring the many factors associated with the healthy migrant effect and linking this information to other social and population-based determinants of health is a goal that demands greater attention. It is not, however, an undertaking without implications. The systematic understanding of the Healthy Migrant Effect will require routine and systematic evaluation of the health status of migrants on arrival, practices that may be currently undertaken.

These dynamic relationships of health and migration, including the needs of more vulnerable migrants and the public health aspects of migration, were reflected in the report by the World Health Organization (WHO) Secretariat to the World Health Assembly in 2008. That report noted that strategies to improve migrant health in WHO Member States would require collaborative and cohesive assessments of the status and trends of migrants’ health as well as the better monitoring and analysis of health information. The report also describes the importance of addressing migrant health needs in an integrated manner that included countries of origin, transit, and destination and, in some cases, return.

Traditional Migrant Health Information Sources and Trend Monitoring

What is Currently Known about Migrant Health?

The collection of health information about migrants varies by country and type of data. In countries where immigration has been a long standing component of nation building, such as Australia, Canada, New Zealand, the United States and others, health assessments have been a routine component of the immigration process. In some of these countries, country of birth or migration status is a routine element of disease surveillance and reporting. Historical examples in that regard have included infectious diseases, but more recently longitudinal studies of other determinants of health have been included. As the importance of place of origin and length of residence in a new country are increasingly recognized as having importance in identifying problems and improving health outcomes, recent recommendations ask for routinely collecting this information in areas such as maternal child health. Comparative research and analysis exploring health and disease elements between migrant and host populations in those countries has
been frequent. However, comparing the results of those studies between countries is often limited by the use of different variables and population definitions.

Countries with national health insurance systems may collect information regarding citizenship or nationality but this may not include the immigration status of the individual. Countries with multicultural populations may collect and record health information on the basis of ethnicity, some of which may reflect migration activities. Additionally, medical research and health investigation in countries with large or significant migrant or foreign born populations may compare health characteristics and outcomes in cohorts of migrants. More recently, as migration is recognized as a global factor affecting and influencing more countries, including those not traditionally or historically considered immigration sending or receiving, the nature and quality of health information regarding migrants is receiving greater focus.

Moving Beyond a Disease-Based Focus

Reflecting historical associations with public health efforts to control imported or transported illness and disease, a considerable amount of migration health information, data gathering and research has been disease-based. In addition, public health interest and in some cases regulatory requirements have supported the monitoring of communicable diseases in the context of migration. Together these factors and forces ensure that disease-based monitoring of migration health issues may be over-represented in the medical literature. However, as the nature and diversity of migration evolved during the latter decades of the 20th century, greater attention was drawn to the health needs of migrant populations themselves. In 1983, WHO undertook a consultation on health and migration with a primarily European focus. Those consultations recommended more in-depth studies on differential mortality and morbidity, the impact of irregular migration status and a focus of country of origin as a reference point. In 1990, the International Organization for Migration (IOM) and WHO organized an international conference dealing with the needs of the migrants themselves. Since that time an increasing number of organizations, institutions, researchers and countries have been exploring and examining migrant health.

Modern Areas of Interest in Migrant Health Monitoring

The Interface Between Migration and the Social Determinants of Health

While the gathering of health indicators and migrant health metrics (metrics refer to sets of measurements that quantify results) has historically focused on disease-based indicators, the improved understanding of how health is affected by social and economic factors has widened the area’s interest. Issues such as access to care, poverty, unemployment and marginalization affect many migrant populations although they also affect the health outcomes of other populations and communities. Additionally, it is increasingly appreciated that many of the health outcomes of migrant communities and populations are also influenced by or result from migration-related social determinants of health.

In many areas of the world, it has been demonstrated that the availability of and access to health and medical services can have major impact on health outcomes. It has been shown, for example, that access to appropriate services can improve the early diagnosis and treatment of communicable diseases. Similar benefits are observed in situations where accessing and using health services facilitates the early treatment of non-infectious diseases, preventing or delaying their progression to stages that require more intensive or costly care. Additionally, it has been demonstrated that improving access to and utilization of maternal-child health services delivers better health outcomes. Extensive work has been undertaken in exploring and defining the effects, influences and impact of the wide range of social determinants health. Guidelines for health equity surveillance systems encompassing health inequities, outcomes, determinants, and conse-
quences have been developed and validated. These guidelines can be easily adapted to the monitoring of migrant health.

Positive outcomes resulting from improved access to health services are not solely limited to improvements in the personal health of migrants themselves. They are also associated with social and economic benefits for the host society. The early diagnosis and treatment of communicable infections, for example, reduces the risks of outbreaks and limits the need for, costs of and public anxiety associated with outbreak control activities. At the same time, the early and appropriate provision of health promotion, prevention and treatment provides much more cost effective care than having to deal with advanced disease and illness. While all migrants experience the benefits of better access to health and medical services, the needs of vulnerable migrant populations such as irregular migrants for whom access issues are often more complex or challenging are areas of current and important interest.

Defining and better quantifying the specific elements related to these and similar observations, using population-based outcome indicators, is important to both plan and validate polices, programmes and activities intended to improve migrant health. However, current global migration is diverse in terms of migration dynamics and demography and most of the focus on migrant health tends to be national in both scope and reporting. As a consequence, more widely applicable lessons and best practices may not be easily apparent or obscured by local or national factors, definitions and limitations in data gathering.

The better understanding of the complex relationships between migration and health will require expanding the collection of information to regional and multilateral levels. The resulting regional and global perspective on the relationships between access to care and migrant health outcomes will be important in evaluating how migration policies may influence downstream health system demands and future programme costs. However, the global applicability of such an undertaking will require the use of standardized monitoring and reporting metrics.

### Challenges in Monitoring Migrant Health

<table>
<thead>
<tr>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity in source data (differing definitions and denominators)</td>
</tr>
<tr>
<td>Dynamics of modern migration (evolving population dynamics)</td>
</tr>
<tr>
<td>Health effects of migration extending beyond first generation</td>
</tr>
<tr>
<td>Access to some populations/communities</td>
</tr>
</tbody>
</table>

### Data Integrity

The comparative monitoring, interpreting and reporting on migrant health can be challenging. As historical and traditional methods were frequently national in scope, differences in the methods and nomenclature used by different countries had limited importance. However, considering issues in a global or international context requires standardized methodology to allow for comparative analysis and evaluation. Activities to minimize differences in the classification and comparability of data and migrant health information represent one of the greatest needs as countries move forward in the understanding of migrant health.

Data comparability issues are primarily the result of two factors.
Monitoring Migrants’ Health

Monitoring the Denominator

The first, as described above, is a consequence of the legal and administrative aspects related to the determination of citizenship, residency and immigration being national responsibilities. As countries have diverse backgrounds in regard to how they address issues of right of residency and citizenship, national differences in terminology and classification are to be expected. Coordinated international activities and agreements have helped harmonize approaches to some elements such as refugee determination, migrant labour and regional approaches to citizenship and residency as those exemplified by the European Union. Yet many differences remain at national level. An implicit consequence of this factor is that the legal and administrative definitions and classifications used in the context of migration and immigration were for the most part developed in the absence of any considerations of population health.

While health impact and influences may extend across the entire spectrum of migration, travel and ethnic history, those influences may not be adequately reflected by national definitions or practices. For example, some countries collect and relate health information in terms of nationality or citizenship. This practice, while providing a frame of reference in terms of demographic legal status, is insensitive to the health effects resulting from the timing of the individual’s arrival at their new destination. A migrant who arrived some 30 years ago from country X may be administratively classified similarly to a person from the same origin who has arrived within the past six months. Several, but not all, of the health characteristics of the earlier migrant are more likely to reflect those of the host population than those of the more recent arrival.

Other countries collect some health information in relation to place of birth. This practice provides a comparator that is not influenced by subsequent citizenship or residency formalities. The process has been use in the monitoring of some diseases and has been used to plan and amend policies and programmes to mitigate or control some diseases such as tuberculosis (Figure 2).

Figure 2. Tuberculosis in the UK 2008

A part of this dynamic has been a simple product of access. Organized or regular migration, including organized refugee resettlement activities, normally involves interaction with national governmental, legal or administrative sectors. This interface and interaction with officials facilitates the collection of information including health monitoring, if required or requested as part of the migration application process. While important in the context of health monitoring, it may have limited applicability to other migrant populations, particularly those acutely affected by crisis (environmental, social, political or conflict-related) or those migrating through irregular means where access to the populations themselves may be limited. Improved migration
health monitoring will reduce elements of bias resulting from the over-representation of some population cohorts and increase the wider applicability and implications of migrant health observations.

The administrative terminology used to describe the legal or citizenship status of individuals or populations may have little epidemiological power in helping to define or describe migrant cohorts at increased risk for adverse health outcomes. Populations of migrants defined or aggregated on the basis of immigration status (refugee, immigrant, asylum seeker) may be composed of markedly diverse sub-populations comprised of communities and individuals at greater risk or need of medical intervention. Victims of trafficking or exploitation, forcibly displaced individuals and traumatized refugees are but a few examples. Even within specific administrative or legal classifications there can be great diversity in the social determinants of health depending on the situation. Immigrants, for example, depending location and situation, can encompass cohorts of wealthy, educated, employed individuals and communities relocating internationally as well as much less advantaged individuals and communities who may be subject to the health effects of poverty, limited education and poor employment. The social and economic differences present in the same administrative or legal migrant classification can be reflected in disparities in health characteristics and outcomes within the larger cohort. Depending upon the size of the more vulnerable groups, health indicators aggregated by immigration classification alone may mask or obscure groups or cohorts at risk.

The monitoring and evaluation of health metrics that account for the existing diversities in migrant populations will support improved migration health policy development. As demonstrated in other cross cutting health issues such as primary care, gender and health, the impact of chronic diseases and the control of international public health threats, the use of appropriate metrics and monitoring by WHO is a cornerstone in the development of relevant multinational and global health policies for use by member states.

**Monitoring the Effects of Modern Migration**

*Traditional Immigration/Emigration*

The second factor influencing the applicability and relevance of health information used to monitor migrant health is the consequence of the evolution of the process of modern migration itself. Several of the historical approaches to examining migrant health were developed in the context of the traditional immigration/emigration paradigm of migration. Migration was and in many situations is considered to be a unidirectional process where individuals and populations left a place of origin, permanently or for an extended period of time. That model was appropriate for many of the great historical migratory movements such as European population flows to the Americas, of the 19th and early 20th century, post conflict and ‘cold war’ migration in Europe or the initial waves of migration from Asia and Africa following decolonization. It has been effectively used for the monitoring and study of the impact of long-term migration on certain health conditions such as malignancies, genetic disorders and some chronic infections in some locations (Figure 3).
In addition to the use of place of birth and immigration status some countries with multicultural or diverse population components have evaluated health indicators and outcomes by using determinants of race and or ethnicity as proxy variables for migration. These approaches while sometimes useful in quantifying or identifying differences in health outcomes can be complicated by serious methodological, ethical and conceptual factors. In many locations the volume and dynamics of modern migration test traditional or historical concepts of ethnicity. Communities with dual or multiple citizenship coupled with continuous modern global communication and information exchange and frequent travel patterns further complicate the use of race or ethnicity as surrogates for migration variables. The systematic comparability of health information collected in the context of race and/or ethnicity between different countries and regions is important but it may not always reflect the implications and influences of migration.

An important aspect of longitudinal studies of traditional migration is that they often transcended generations. The implications associated with the migration of genetic or biological health determinants extend long after the arrival of the first generation of migrants. Over extended periods of time, migrants can influence the epidemiology of previously rare or uncommon disorders or diseases at host or transit destinations. Examples are provided by the epidemiology of some malignancies and genetically determined blood disorders such as thalassaemias. The role and importance of health monitoring of this type remains but now extends to countries and regions not historically considered to migrant-receiving locations. The children and grandchildren of migrants may manifest the genetic and biological determinants of their progenitor’s place of origin but if monitoring is based on citizenship or nationality, they may not be included. Mitigating or managing these situations is a developing area of migration health but as noted above, monitoring these events can be complicated by data definitions. Understanding country populations as dynamic and changing communities partly due to the integration of previously migrant communities, rather than close populations with specific unchanging characteristics, may help to understand the need for ongoing updating of health monitoring systems.

Modern Patterns of Migration
In several respects, modern global migration can be very different from the historical unidirectional model. A considerable amount of current migratory activity involves temporary, return or in some cases circular migration. Millions of migrants may be permanent residents of differ-
ent locations or countries from those in which they work or reside temporarily. Aspects of dual or multiple nationality and ease of travel have blurred both the concept and the functional aspects of citizenship, immigration and emigration. There are also population flows of irregular migrants between host and destination locations and into and out of regular migrant population groups. Recent geopolitical evolution may now allow for the return, travel and repatriation of refugees or displaced populations who may have been absent from their original homes for extended periods of time. Additionally, an important element of migrant health is related to the children and extended families of migrants who, while being routinely considered in the immigration/emigration paradigm, share health risks and determinants of migrant populations due to travel and cultural linkages. These cohorts, described as travellers who visit friends and relatives (VFR) are areas of current interest in the monitoring of aspects of the international spread of disease.28

It is clear that terminologies and classifications developed or implemented in the context of traditional unidirectional immigration often do not adequately reflect the more complex health implications of modern migration. Adequate and sensitive classification and data standardization will ensure that the health attributes and needs of vulnerable or high risk cohorts of migrants are more easily identified and described.

**Sources of Information**

The collection and gathering of migrant health information can be derived from many sources. As noted, some member states may collect health information or statistics on the basis of nationality, immigration status or right of residence. At national level, census information may use place of birth or citizenship as variables to estimate the size and demography of migrant populations. As noted above, these approaches result in the aggregation of what may be disparate subpopulations and small groups or communities that may be vulnerable but “lost” in the larger denominator. Aggregate census statistics of this type, however, if coupled with the time of arrival of new residents, can be useful in long-range health policy and programme planning.

Countries where health elements are a component of national immigration programmes may monitor some health indicators in migrant or foreign born populations as part of the immigration process. As described elsewhere, this activity can take place around the time of the application for admission, arrival at the new place of residence or granting of residency status and is frequently limited to specific disease or conditions according to national public health or immigration law. Examples include tuberculosis, some sexually transmitted infections, immunization status and serious chronic illnesses or conditions requiring extensive care. Some countries may collect and evaluate how, and for what reasons, migrants access or use health and medical services. Other countries may either systematically or less regularly monitor health surveillance or epidemiological information with respect to migrant status, ethnicity or place of birth. Often, studies of this type begin as a disease-based approach with the prevalence or incidence of an illness or a disease related to ethnicity or immigration status. The information collected from those undertakings provides an important window into migrant health but extending the knowledge to other, wider venues can be problematic.

Depending on location, however, large numbers of migrants may access or utilize services in manners that are not systematically monitored or evaluated. Migrants may receive medical services from public, private or civil society sectors or a combination of providers, depending on their status, financial capacity or the nature of their illness (the treatment of diseases of public health importance, for example, may be treated through the public health care sector even though other conditions and illnesses are not). In other locations the provision of health-related services may be shared between national health, social service and civil society sectors. Common information-gathering tools, health surveillance systems and indicator definitions may be standardized between providers. The resulting diversity of patterns of access, care and monitor-
ing complicates the collection of information and evidence to better support the planning and development of migrant-sensitive health policies, programmes and services.

**Related Monitoring Variables**

International comparability and data standardization notwithstanding, even at a “uniform” national level, migrant health monitoring and study is subject to a variety of epidemiological influences that must be considered in the interpretation of the data. One of the most important is the population against which the migrant cohort is being compared. Traditionally, this has involved using one of three comparators. Firstly, and perhaps most commonly, the health characteristics of migrant populations may be compared against those of the host population in which the migrant transits or resides. Secondly, migrant health elements may be compared between similar groups of migrants in other locations of transit or residence. Finally, health-related aspects of migrant cohorts can be contrasted to those of similar populations from the migrants’ origin who did not migrate. Each approach can reveal important aspects of how the migratory process and its consequences affect and influence the health of migrants and of those with whom they have or currently live and work.

A further area of monitoring migrant health that requires attention relates to the importance of health information includes gender sensitive indicators that extend beyond aggregation according to sex. Gender norms and values and the complex interactions that affect many of the social and economic aspects of life between men and women affect health and health outcomes. The impact of these gender sensitive variables can be very important in some migrant populations. These influences may vary according to the stage of migration and some may be only manifest following migration and resettlement, particularly if there are gender-specific differences in the social or cultural environment between origin and destination. Monitoring the impact and outcome of these influences requires systematic attention to gender sensitive indicators as routine elements of migration health programmes and policies.

In addition, monitoring of migrant health in the modern context must consider an important and frequently underappreciated element – the rapid evolution of health conditions and influences in the environment in which migrants originate, transit, work or live. During the past three decades the determinants of health in many regions of the world where migrants originate have changed rapidly in terms of social and economic influences. Some of these changes, such as the decreasing incidence of many infectious disease or health outcomes for non-infectious diseases, have been positive. Others such as the adoption of less healthy lifestyles or health risk factors (e.g. dietary and caloric alterations; use of tobacco, alcohol or other substances) associated with diseases of affluence that may accompany economic development may be reflected in adverse health outcomes. Whatever their impact however, they can affect the interpretation of comparative studies, particularly those examining the health of earlier migrant cohorts. The fact that recent macro-environmental changes may produce population health outcomes that do not follow historical patterns may limit the applicability and relevance of earlier or historical studies.31

One of the important global benefits that can result from the improved monitoring of migrant health will be the early recognition and appreciation of evolving health influences (both positive and negative) at migrant origin and transit locations. The knowledge gathered from metrics of this type can support integrated policies and programmes to mitigate or reduce the consequences of health disparities.

**Clarifying and Delineating Health Characteristics and Outcomes Directly Associated with Migration**

A further challenge related to the monitoring of health of migrants is generated by the functional interface of processes of travel and migration. While travel is an integral portion of migration,
the inverse is not always true. While migrant and other travellers do share some health influences and characteristics the accurate appreciation and monitoring of the migration-specific health aspects will be necessary to support and direct accurate focus on those migrant populations who may be at greatest need. This is an important concept in the area of public health and the mitigation of the international spread of diseases. While some groups of migrants may be better studied or investigated as a consequence of administrative or legal requirements, the size of the population of international migrants is dwarfed by that of international travellers.

There are two basic and important facets in migrant health. The first is that migrants share many common health influences and outcomes with other population groups. Factors affecting the social determinants of health, defined and understood globally, are equally applicable to migrants. Health monitoring activities and programmes to mitigate these effects frequently exist but they may not include migrant-relevant indicators such as origin, duration of residence or migration history. Improving monitoring in this context may simply involve the addition of “migrant-relevant” data elements to existing tools.

The second facet is the health influences and determinants directly related to or resulting from migration. These elements may apply specifically to migrants and may not be addressed in health programmes. Examples include geographic, biological or genetic determinants of health as well as specific elements of the migration process itself (forced or voluntary movement, for example). In this case, health monitoring may require the development of new and specific tools including the above noted-migrant relevant indicators as well as specific components reflecting the population at risk (i.e. genetically determined blood disorders, geographically isolated infections, ethnic and cultural aspects and travel patterns).

Global diversity in many of the economic and social determinants of health produces great disparities in the epidemiology of disease and the distribution of health outcomes. Health indicators and characteristics of populations living and working in these disparate environments and locations will reflect local health conditions and influences. Some of those indicators and determinants will accompany migrants when they move to a new destination similar to other travellers following the same route. In this context migration simply provides an epidemiological window disclosing existing disparities and health inequities. The distinction is important as it is fundamental to the considerations of where best to address or mitigate the issue. For example, it has been suggested that addressing certain diseases of importance in some migrant populations, such as tuberculosis, would be more efficiently undertaken through disease control programmes in source countries as opposed to routinely screening immigrants. It is important in this context to better document and to understand those health outcomes that are the product of pre-existing conditions from those that develop in response to or as a result of migration and exposure to adverse health determinants at the migrants’ new place of residence.

Understanding and defining the health indicators and outcomes directly related to the migratory process will allow for the most effective and appropriate use of interventions, efforts and investment to improve and promote health. Comparing migrant populations to host populations frequently reveals that not all of the health characteristics of migrants are adverse. As noted above, many migrants arrive at their new home with health indicators and determinants that exceed those of the host population. Over time, due to the negative influence of some social and economic factors, these positive health indicators become less prevalent; a situation associated with future cost and service demand implications. Assisting migrant populations in maintaining these positive indicators and preventing their future deterioration will be facilitated by the improved monitoring of migrant health. Improved monitoring will support better health prevention in migrant populations.

More systematic global migration health monitoring also has positive implications for some migrant source countries. Improved collection of health information for migrants from less develop-
oped regions can be used as a surrogate for population health indicators that source countries may not have the current capacity to obtain. Such information may be useful in health programme development in those locations.

Improving the Monitoring of Migrant Health

Many of the elements of the WHO resolution adopted by the WHA in May of 2008 will require the collaborative and integrated collection, analysis and interpretation of the empirical measurements of migrant health indicators and outcomes. There is a large amount of activity and investigation into the relationships between health and migration and an extensive collection of historical material that provides insight into these relationships. However, much of this material activity has been collected at national level and variations in definitions and data sets make international and aggregate comparisons difficult. Reducing these differences and developing more widely applicable indicators will greatly assist in improving the monitoring of the health of migrants.

To be effective, future policy development, health prevention and promotion programmes, and health interventions intended to improve and support the health of migrants, will need to be both population and evidence based. Those policies and guidelines should be based on metrics and analysis flowing from data elements that are wider in scope and context than those represented by administrative immigration or legal status context, citizenship or nationality. The complex social, cultural and ethnic components of migration mean that they will also need to encompass more than disease-based epidemiology. They will have to reflect the dynamic elements of the process of migration itself. Elements that include duration of residence both before migration and after arrival may need to be included in monitoring activities to account for the effects of acculturization and evolving health environments at the migrant’s place of origin. The long-term consequences of genetic and biological health determinants have implications for health monitoring that extends, sometimes for generations, beyond the process of migration and can influence the need for future health services. Collecting the information to monitor and support those initiatives will require comparative and standardized processes producing globally relevant and applicable conclusions necessary to support programme development and provide adequate health guidance for immigration and migration policies.

<table>
<thead>
<tr>
<th>Needs for Improved Migration Health Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved standardization of metrics and indicators</td>
</tr>
<tr>
<td>Better monitoring of under-represented communities and migrant populations</td>
</tr>
<tr>
<td>Improved definition of metrics and indicators specifically related to migration v. those resulting from existing global disparities</td>
</tr>
<tr>
<td>Greater attention to aspects of health prevention and promotion in migrant populations</td>
</tr>
<tr>
<td>Improved economic analysis of current migration health interventions</td>
</tr>
</tbody>
</table>

WHO and its partners have already addressed similarly complex health issues such as the role and effects of gender, age, and primary health care; issues that are defined and influenced by economic, social and geographic disparity. Migrant health shares some of those characteristics and will benefit from some of the lessons learned as those issues became monitored in a global fashion. Globally integrated approaches have been successfully used to address several health issues of international importance and many of the Organization’s activities are already directed
at reducing health disparities, a major factor affecting the health of migrants. At the international level, regional approaches to improving the monitoring of health indicators in migrant and ethnic populations exist. Reflecting national activities in the area of migrant health some of them are disease- as opposed to migration-based and as such frequently include populations with diverse migrant backgrounds. As described above, there are complex methodological challenges related to the examination of health in terms of race and ethnicity. Some of the health influences are biological and genetic while others are social, economic and cultural. Others still may be the result of or directly influenced by the process of migration itself. One of the important areas of discussion for this consultation will be the need to identify best indicators that account for the effects of migration as well as the longer term health outcomes in migrants.

Traditionally, issues of migrant health have been approached in terms of a disease- or condition-based focus, or a migrant classification-based focus. Both approaches provide some insight into the relationships between health and migration but may not allow for monitoring the effects and influences of the process of migration itself. Framework-based approaches to the study of health and migration based on phases of the process have been considered. Relating health indicators to the components of the migration; origin, movement, settlement and return, can provide the beginnings of a standardized matrix upon which the other related indicators and influences (examples include biological and genetic factors, socio-economic influences, access to care, cultural factors, environmental and other risks) can be related between locations and time. A similar matrix approach can be used to assess the effect of programmes and policies designed to improve migrant health.

Many of the principles and practices developed and utilized by WHO and member countries in those activities can modified and applied to monitoring the health of migrants. Work towards standardized information collection and analysis based on the results of this Consultation will be an important aspect of that activity. During this process, careful attention to one aspect of monitoring of migrant health will be required. Migrants may be subject to stigmatization and negative stereotyping for several reasons. Health and disease can be sensitive issues in certain situations and any activities associated with the monitoring of health outcomes in the context of migration must avoid negative associations related to health and migration. That is why it is important to consider the health outcomes and indicators that are simply associated with global disparities from those that are specifically associated with migration. The former are simply related to travel and global health disparities and can affect all travellers. The latter have more direct relevance for migrants. This attention reduces the possible stigmatization of migrants as disease carriers, especially in the context of health issues related to communicable or uncommon diseases. It is also important in terms of the collection and management of health information where privacy is important or where the fear of the consequence of the poor or abusive handling of data may complicate data gathering among certain groups of migrants. In this context, data aggregation and presentation must reflect high standards of privacy and protection of personal information.

The improved monitoring and analysis of the health elements related to or resulting from migration will be important for the development of applied migrant health policies and programmes. They will better and more early identify and define groups and communities at risk and will be essential to evaluating the impact of interventions and programmes to support the health of migrants. They will also be necessary for the development of integrated and widely applicable guidelines and best practices for those involved in migrant health in countries from which migrants originate, transit through, settle permanently or temporarily or perhaps return to. Improved monitoring of migrant health will provide the tools and capacity for countries to better prepare for and respond to the health needs of migrants and others affected by migration. It has been demonstrated in other WHO supported activities that actions and responses are best supported when the necessary resources and information are prepared for collective integrated use.
Improved monitoring of migrant health will support and strengthen many regional and global health and social initiatives, improving life and health for all migrants.

Summary

It is apparent the health of migrants is a field of interest and importance at national and international levels. The size and demography of modern global migration ensure that the health aspects of migrant will retain their importance for the foreseeable future and will have global implications. Considerable efforts are under way to explore the relationships and implications of health and migration across the spectrum of diverse migrant populations, origins, transit locations and resettlement destinations. However, monitoring migrant health often remains subject to historical aspects of immigration/emigration that can limit opportunities for using the information beyond the local context in which it was gathered. Making this information more widely applicable and expanding global capacities to collect, interpret and evaluate migration health information will assist national and international migrant health programme and policy development.

Two basic health monitoring components will be needed to accomplish this task. The first will be to ensure that existing programmes designed to improve the determinants of health are equally applicable to migrants, by recognizing their specific needs. Examples include health monitoring activities that support reducing the health effects of economic inequity, improving living standards and better access to health services. Needs in this regard are standardized use of health-relevant migrant definitions; examples of which may include place of origin, duration of residence of the migrant as well as indicators defining the cultural and linguistic capacity of service providers.

The second monitoring component reflects the need to better define the health indicators and elements directly related to or resulting from migration. Factors in this category may have the same significance for non-migrant populations and may include health indicators related to geographic origin, genetic or biological determinants of health in migrant populations that are different from those of host populations, the health effects of the migratory process itself and health vulnerabilities resulting from some aspects of migration such as the traumatization of refugees and displaced populations.

Together these activities will support the integration of migrant health into existing programmes and activities while ensuring that the specific health needs are recognized and addressed through a population health approach.


