



International Organization for Migration (IOM)

## MALARIA CONTROL AND ELIMINATION IN THE CONTEXT OF MIGRATION AND HUMAN MOBILITY





“ Efforts to address malaria should take into account migration flows, the vulnerability aspects of the entire migration process and access to health care for the vulnerable migrants and mobile populations. Malaria is preventable and treatable. However, the reality is malaria is a fatal disease that neither knows nor respects borders. ”

# “MALARIA CONTROL AND ELIMINATION IN THE CONTEXT OF MIGRATION AND HUMAN MOBILITY”

## I. Background

### People on the move in an increasingly globalized world

Human mobility<sup>1</sup> and migration<sup>2</sup> trends are recognized elements in today's globalized world. More people move, with many crossing international borders, driven by complex and inter-related factors such as economic crisis, current geo-political dynamics, labour market demands, urbanization and the emergence of mega-cities, anti-migrant sentiments, continuing disparity of wealth distribution and opportunities, climate change-induced disasters, food and fuel crisis as well as improved communications and ease and speed of travel. One in 7 persons is a migrant with an estimated 1 billion migrants<sup>1</sup> worldwide. In 2010, the total number of international migrants globally was estimated at 214 million people (UNDESA, 2009)<sup>3</sup> in addition to approximately 740 million internal migrants (UNDP, 2009)<sup>4</sup>, 50% of whom are women. Moreover, displacement resulting from natural disasters and conflicts affected over 41 million people in 2011<sup>5</sup>.

These dynamic population movement trends raise multi-faceted challenges for many countries and communities on how to effectively manage the health consequences of human mobility giving consideration to different levels of vulnerability and continuity of care within national and across international borders as well as throughout the migration cycle – at country of origin, in transit countries and country of destination and upon return home.

Mobile populations, migrants and their families particularly the undocumented - often considered as the *'hidden or hard to reach'* individuals - face complex obstacles in accessing essential health care and malaria control services. Migrants move with their epidemiological health profiles – influenced by genetic, biological, societal factors - between geographical areas of various burden and typologies of infectious diseases like malaria. In many countries, they usually fall outside any national, regional or global strategies, plans of action and sectoral policies largely due to an interplay of elements such as poverty, gender, language, age, immigration status, health-seeking behaviour, lack of migrant-sensitive policies and health systems, and anti-migrant sentiments.<sup>6,7,8</sup> Even in Thailand, where a Compulsory Migrant Health Insurance Scheme (CMHIS) has been incorporated to address the migrant health needs, many irregular migrants are challenged in navigating the complex process of registering, obtaining a work permit and purchasing an insurance package.<sup>9</sup> The spread of communicable diseases knows no borders particularly in settings where there are significant disparities in health care infrastructure and access to health services between neighbouring countries or between countries of origin and destination. When moving from one location to the next, migrants may introduce communicable health conditions for example malaria, or acquire conditions when residing in host communities, and introduce these acquired conditions when returning home.

### Malaria today

Malaria continues to be a major global public health problem impacting 109 countries globally, ranked as the fifth highest cause of death from infectious diseases worldwide, and the second highest cause of mortality in Africa. Malaria also places an economic burden on communities and households and contributes to the cycle of poverty in endemic countries. There were an estimated 216 million episodes of malaria in 2010. Approximately 81%, or 174 million cases were in Africa, with South-East Asia accounting for another 13%<sup>10</sup>. There were an estimated 655,000 malaria deaths in 2010, of which 91% are in Africa. Approximately 86% of malaria deaths globally were of children

<sup>1</sup> For ease of reference, migrants referred to in this document involves a groups of people including regular or irregular migrants, victims of trafficking, asylum seekers, refugees, displaced persons, returnees, migrant workers, nomads, and pastoralists (IOM Glossary 2011).

under 5 years of age. The estimated incidence of malaria has fallen by 17% globally between 2000 and 2010. Larger percentage reductions are seen in the European (99.5%), American (60%) and Western Pacific (38%) regions. Malaria specific mortality rates have fallen by 25% between 2000 and 2010 with the largest percentage reductions seen in the European (99%), American (55%), Western Pacific (42%) and African Regions (33%).<sup>11</sup>

In high transmission areas, malaria control programmes strive to deliver universal access and coverage of a combination of key interventions. Sustained control leads to shrinking geographical boundaries of transmission and to low levels of transmission. The result is that malaria becomes localized to sub-district foci or hot spots of indigenous transmission.

## **Malaria and population mobility**

Previous malaria risk areas remain highly vulnerable and receptive to imported infections, symptomatic cases and potential re-introduction of malaria. The risk of importation and re-introduction of malaria is linked through population movements within and across national boundaries and international borders as in the case of Southern Africa where challenges are encountered in the push for malaria elimination. For example, in Swaziland, during a period of 2 years (2007-2009), 90% of imported cases of malaria came from Mozambique from groups such as truckers, informal traders and sugar plantation workers. In South East Asia, in the Yunnan Province of China, 98.8% of total malaria cases and 75% of *P. falciparum* malaria cases were found to be imported from neighbouring countries. South East Asia is also being monitored for the spread of artemisinin resistant strains of malaria through migration flows.

The level of risk will be dependent on distance from nearby moderate to high transmission endemic areas especially during peak transmission periods. A high number of imported cases to newly established malaria free areas increase the possibility of a surge in the number of cases and possible re-introduction of malaria.<sup>12,13</sup> In the Dominican Republic, the high levels of migration from Haiti as a result of the 2010 earthquake – some 30,000 to 50,000 persons in the first month following the quake – are expected to increase malaria transmission.<sup>14</sup> Circular migration between endemic and non-endemic areas also contributes to increase in malaria. In the Amazon Basin, which has seen remarkable progress in malaria control and prevention, cyclical migration of labourers contributing the growth through gold mining and logging industries remain a challenge that requires coherent and coordinated multicounty efforts.<sup>15</sup>

## **2. Justification for Addressing Malaria among Migrants and Mobile Populations**

Migrants and mobile populations are increasingly being recognized as one of the high-risk vulnerable groups for malaria, in addition to children, pregnant women, people living with HIV/AIDS, and non-immune travellers. Often, migrants' inadequate access to malaria prevention, early screening and treatment services increase their susceptibility to malaria related morbidity and mortality due to undetected and untreated infections as have been highlighted during crisis situations and cross-border mass migration.

Migration is a social determinant of health. It is the newer, often irregular or unplanned migration, as well as the circumstances surrounding the migration process, that can increase migrants and mobile groups' vulnerability to ill-health that eventually may also affect communities in which they live, work or pass through. While migrants make important contributions to national and global economies, they often face barriers to accessing essential health and social services for prevention, treatment and control of malaria and other communicable diseases. In Malaysia, 53% are jobless, 61% cannot afford care and all irregular migrants face high risk of deportation if they use public health facilities due to mandatory reporting to immigration authorities.<sup>16</sup>

Capitalizing on the progress achieved by the Global Malaria Action Plan and 2008 World Health Assembly Resolution on the Health of Migrants<sup>17</sup>, it is critical that malaria control and elimination programs also focus on the area of malaria and

population mobility within the overall health system. This requires multi-sectoral partnerships, information exchanges and coordination at national, regional and global levels.<sup>2</sup> The nexus between malaria and population mobility at pre-departure, movement and return phases needs to be recognized through more evidence-based data gathering so that prevention and curative services can be more effectively delivered towards global elimination of malaria, in line with the malaria-specific UN-Millennium Development Goal (MDG) and integrated into efforts to mainstream migrants' health into the migration and development dialogue as well as health in the post-2015 development agenda.

In all, malaria control and elimination in the context of migration and human mobility may be summarised as follows:

- Mobility from high to low or non-malaria endemic countries can result in imported malaria cases.<sup>18 19</sup>
- Malaria can be re-introduced into low or non-malaria endemic countries through population mobility. This happens when local mosquitoes in low or non-endemic areas become infected with the malaria parasite by biting a person with imported malaria and then in turn transmitting malaria to local residents; i.e., "introducing" malaria to the population.
- Global migration across continents has serious implications for the possible spread of artemisinin resistant plasmodium falciparum from Asia to Africa.<sup>20</sup>
- Migrants and mobile populations may either have lost or not have naturally acquired immunity due to their frequent movements in and out of endemic areas.<sup>21 22</sup>
- Mobility may lead to poor treatment adherence, which in turn may expedite antimalarial drug resistance.
- Mobile populations are also difficult to reach and may be excluded from malaria control programmes.

**There is now a growing need and demand for a comprehensive global strategy framed within the 2008 WHA Migrant Health Resolution with operational guidance to address malaria among migrants and mobile populations. This will support innovative approaches to reach these hidden vulnerable populations who may be also residual reservoirs of malaria infection. This global strategy would be based on: 1) a review of the current global migration patterns in relation to malaria risk and as a barrier to effective malaria control and elimination 2) a review of the most recent evidence on epidemiology of malaria among migrants and mobile populations; and 3) a review of the current policies and practices on malaria control and elimination for migrants and mobile populations.**

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**2** Four pillars of the Resolution: (i) monitoring migrant health, (ii) policy and legal frameworks, (iii) migrant sensitive health systems, and (iv) partnerships, networks and multi-country frameworks

### 3. Endnotes

- 1 Human mobility refers to the 'ability of individuals, families or groups of people to choose their preferred place of residence'. UNDP, Human Development Report 2009, Overcoming Barriers: Human mobility and development. United Nations Development Programme, 2009 ([http://hdr.undp.org/en/media/HRD\\_2009\\_EN\\_Complete.pdf](http://hdr.undp.org/en/media/HRD_2009_EN_Complete.pdf), accessed 07 September 2012)
- 2 Migration refers to 'the movement of a person or a group of persons, either across an international border, or within a State. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes; it includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes including family reunification'. Glossary on Migration, 2<sup>nd</sup> Edition, No. 25 International Migration Law, International Organization for Migration (IOM), 2011, <http://www.west-info.eu/files/iom.pdf>, accessed 05 October 2012
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- 11 World Malaria Report 2011. World Health Organization. [http://www.who.int/malaria/world\\_malaria\\_report\\_2011](http://www.who.int/malaria/world_malaria_report_2011) accessed 04 October 2012
- 12 Kolitha Wickramage, Gawrie N. L. Galappaththy, D. Dayarathne, et al., "Irregular Migration as a Potential Source of Malaria Reintroduction in Sri Lanka and Use of Malaria Rapid Diagnostic Tests at Point-of-Entry Screening," *Case Reports in Medicine*, vol. 2013, Article ID 465906, 4 pages, 2013. <http://dx.doi.org/10.1155/2013/465906>
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“ Interventions targeting malaria need to consider the health-seeking behaviours of migrants and mobile populations. Migrants, refugees and mobile populations often seek treatment from unregulated, private vendors, increasing their risk of exposure to substandard drugs or oral artemisinin-based monotherapies, which can be a factor in emerging drug resistance. ”



For more information please contact:

International Organization for Migration (IOM)  
Regional Office for Southern Africa  
Sanlam Building 3rd Floor 353 Festival Street, Hatfield, Pretoria, South Africa

Tel: +27 (0) 12 342 2789 Fax: +27 (0) 12 342 0932

Email: [mhupretoria@iom.int](mailto:mhupretoria@iom.int)

Web: <http://southafrica.iom.int>