Health challenges

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There are no easy solutions to the emerging implications for health of climate change-related migration.

Among the obvious diseases that will plague health planners, health care workers and policymakers in an era of climate change-related migration, some of the most likely diseases are mosquito-borne. Malaria and dengue have always moved with people, and in some countries the circular labour movement of people between the countryside and cities has given birth to new urban reservoirs of both these diseases. Dengue fever in Rio de Janeiro has been linked to rural-urban migration as well as to urban environmental degradation. Even temperate regions - where one would not normally expect to find malaria and dengue - have seen a growing number of cases linked both to tourist travel and to the migration of people from countries where these diseases are prevalent.

Chikungunya fever, which was reported in Italy for the first time in 2007, is now expected to become more frequent elsewhere too. Some of the regions of South-East Asia and Central and South America likely to be most affected by rising sea levels or by more freshwater flooding are areas where malaria, dengue and chikungunya fever are endemic. Population movements from these areas to other parts of the same countries or across borders, where higher temperatures and more humidity might favour mosquitoes, could lead to a significant spread of these diseases.

Changing water distribution patterns in the wake of repeated flooding, together with an increase in temperature and the forced mass movement of people, could also have far-reaching implications for water-related diseases such as schistosomiasis. This already affects an estimated 200 million people around the world and causes high rates of morbidity and mortality.1 Water development projects in a number of countries have amply demonstrated how easily schistosomiasis can be spread by population movement. Other less obvious means of spread could occur too; in Brazil schistosome-carrying snails have been unwittingly moved from rural to urban communities on fishermen's nets.

Although many of the health implications of climate change-related displacement will probably be felt in 'the South', they will not be unique to developing countries. North America and Europe could well experience further growth in the number of new migrants and refugees and, if so, could see new or more pronounced public health challenges. Most parts of Western Europe have already seen the pattern of new cases of tuberculosis change with increased migration from Eastern Europe and other areas where the prevalence of TB has remained high or even grown with the AIDS epidemic.

The movement of people from poorer parts of Europe and developing countries has similarly increased the prevalence of hepatitis A and B in other European countries where it had become far less problematic. In many parts of Europe, moreover, new cases of HIV and other sexuallytransmitted infections are more and more concentrated in and around newcomers from countries where prevention of HIV has been less successful than in most western EU countries. In North America migration has similarly been associated with changing health profiles and challenges. The seasonal movement of

CLIMATE CHANGE AND DISPLACEMENT

agricultural labourers from Central and South America, for example, where up to 13 million people are living with Chagas disease, has been linked to an estimated 500,000 new infections in parts of the US such as Louisiana, southern Texas and California, where many of these seasonal workers go to find work.

The spread of communicable diseases is not the only health challenge that will result from increased migration. Everywhere there is growing evidence that the processes of (even temporary) migration and re-settlement are drivers of noncommunicable diseases such as cardiovascular conditions and Type II diabetes. Not only do people on the move seem to be more at risk of these diseases but their outcomes are also worse than those of nonmigrants, a reminder that, for whatever reason, migrants rarely have the same type of access to health care services as non-migrants and often remain on the margins of access to care that could help them.

Psychosocial problems also arise because migration is always stressful. It typically involves breaking family ties, leaving without any assurance of

success in finding work and not knowing if and how receiving societies will respond. In many cases the routes migrants take and the ways in which they reach their destinations are fraught with risks to health. In a political climate of resistance and lack of sympathy for newcomers, the trauma of movement could become even more profound and far-reaching than it already is.

Countries everywhere have begun to raise both virtual and real barriers to newcomers, making not only their entry more difficult but also their insertion and eventual integration. Experience has time and again shown that where migrants are less well accommodated, they are likely to be less socio-economically productive and more likely to suffer from a variety of physical and psychosocial problems. These are the same migrants who tend to be directed towards the least attractive areas of cities, to the worst and cheapest housing that is also furthest from essential health care services. The lives they lead and the work they do offer little health security. Earning poor wages and with little job stability, while still struggling to send badly needed remittances home, migrants often fall into a spiral of poor nutrition, weakened health and vulnerability to new diseases.

Conclusion

Preparing for the health implications of climate change-induced migration will require a mapping of the epidemiological profile of the areas that may become 'sending' areas and of those that could become 'receiving' ones. Some people will be forced to move from areas with a history of certain diseases to places where such diseases are uncommon;

not only will there be little if any 'herd immunity' but also medical practitioners may be unfamiliar with the symptoms and treatments that are required. Conversely, many other people may be forced to move to areas where they will be exposed to health threats they have not previously had to confront, and for which they have neither preventative nor therapeutic experience. Because many of the regions that will be most affected are located in economically disadvantaged countries where public health resources are already lacking, the health challenges of potentially massive displacement of people from one region to another call for far more attention than has been given to date.

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1. www.who.int/schistosomiasis/en/



Hurricane Gustav, 2008.