= MR 45

Health crises and migration

Michael Edelstein, David Heymann and Khalid Koser

Individual and collective responses to health crises contribute to an orderly public health response that most times precludes the need for large-scale displacements. Restricting population movement is a largely ineffective way of containing disease, yet governments sometimes resort to it where health crises emerge.

Among the earliest recorded government health policies were the quarantine laws during the plague epidemics of fourteenthcentury Europe when several Mediterranean port cities isolated communities affected by disease and restricted population movement in response to the threat of a health crisis. By the late eighteenth century these principles had become the norm at international borders.

In 1951, the World Health Organization (WHO) adopted the International Sanitary Regulations – renamed International Health Regulations (IHR) in 1969 – with the objective of maximum prevention of the spread of infectious diseases with minimal disruption of travel and trade. The IHR focused on controlling four diseases – cholera, yellow fever, plague and smallpox – and were based on the assumptions that only a few diseases were a threat to international travel and trade, that migration was unidirectional, and that diseases could be stopped at international borders.

The IHR contain no formal enforcement mechanism or penalty for failing to comply with recommendations and in 1995 WHO conceded that countries did not often report these four diseases because of the risk of decreased travel and trade. Furthermore the IHR did not cover diseases causing high mortality or spreading rapidly, such as pandemic influenza. The 2003 Severe Acute Respiratory Syndrome (SARS) outbreak and the 2009 H1N1 outbreak have shown that diseases can spread globally within days.

Revised IHR have therefore been in operation since 2007. They have moved away from specific diseases and now focus on 'public health events of international concern' (PHEICs). The revised IHR take a preventive approach to the international spread of disease, emphasising national responsibility for the detection and containment of disease events at source through the requirement that they develop and maintain core public health capacity. The IHR require the reporting of PHEICs to WHO so that appropriate evidence-based international measures can be developed.

Despite their adherence to the IHR, countries sometimes revert to isolation and restriction, threatening or deciding to close borders or to impose travel restrictions in an attempt to prevent infections from entering their territory. As a response to the SARS epidemic in 2003, for example, Kazakhstan closed its 1.700km border with China to all air, rail and road traffic and Russia closed the majority of its border crossings with China and Mongolia. During the H1N1 pandemic in 2009, China suspended direct flights from Mexico and screened every inbound international flight, quarantining the whole flight if any passenger was found to have a temperature above 37.5 degrees Celsius. All these measures were taken against WHO's advice.

Flight in response to health crises

Large-scale population movement as a direct result of a health crisis is rare. When it does occur, migration tends to be internal (to regions directly outside the immediate crisis zone), temporary, and early on in the health crisis when information is often scarce, contradictory or inaccurate. A plague outbreak in Surat in India in 1995 led to half a million people fleeing the city. During the 2003 SARS outbreak up to one million people left Beijing. In these two examples people tended to go back to their family villages and return to the city after the crisis had subsided.

Cross-border migration as a result of a health crisis is rarer but does occur. In 2008-09, Zimbabwe endured one of the largest outbreaks of cholera ever recorded, with more than 98,000 suspected cases and 4,276 deaths. By January 2009, before the outbreak had reached its peak, an estimated 38,000 Zimbabweans had fled into South Africa, although the precise impact of the cholera outbreak on migration from Zimbabwe into South Africa is hard to estimate due to a high level of background migration of thousands of Zimbabweans crossing every day.

One specificity of health crises is the ability of individuals and communities to mitigate the effect of the crisis. The gradual improvement of the understanding of infectious diseases, their causative agents, modes of transmission and evidencebased ways to control their spread have empowered individuals, populations and governments to adopt preventive behaviour, in many cases pre-empting voluntary or forced migration. Individual or collective actions reduce the risk of disease and offer an alternative to fleeing, which may explain in part why people choose not to leave an area where a health crisis is occurring. During the 2003 SARS outbreak, the city of Toronto in Canada, which experienced the largest outbreak of SARS outside Asia, adopted a voluntary and widely followed 10-day home guarantine strategy for individuals who had been in close contact with a case. In total, 23,103 individuals were quarantined, of whom only 27 were issued a legally enforceable quarantine order. During the 2009 H1N1 pandemic, WHO recommended vaccine development and distribution, use of antiviral medications, school closures, work pattern adjustment, self-isolation of symptomatic individuals and advice to their caregivers, and cancellation of mass gathering as ways to mitigate the pandemic. WHO explicitly stated that it did not recommend travel restrictions.

Conclusions

It is difficult to attribute collective migration directly to health crises, especially migration across international borders. In cases where population migration occurs, it is generally within a wider humanitarian crisis which is often already an immediate threat to life and is more likely to be the trigger of the population movement. Even when the underlying event is not sudden or catastrophic, such as the gradual collapse of the state in Zimbabwe, migration due to health crises occurs against a background of pre-existing emigration to bordering countries, with populations displaced by the health crisis using the same mode of movement as those migrating for other purposes. This makes it difficult to attribute migration directly to health or to quantify the health-related population movements. Where people move as a result of health crises, they tend to move internally and over short distances for relatively short periods of time, and often because of misunderstandings and panic.

Although the individual and collective use of measures to mitigate the effect of health crises may partly explain why health crises do not lead to migration, such responses may not yet be possible in resource- and infrastructure-poor countries where the majority of health crises occur.

The current understanding of the dynamics of disease transmission is that diseases cannot be stopped at borders. Outbreaks such as those of SARS or H1N1 have shown that the volume and speed of global travel mean that diseases can be disseminated worldwide in a matter of days. Mathematical models provide little evidence that travel restrictions would reduce the spread of disease. This evidence is reflected in the IHR, which focus less on control measures at borders and more on detection and response at source, and on enabling global communication channels. The regulations allow for a tailored, evidence-based response to be advocated as and when crises arise, focusing on limiting the spread of diseases.

= MR 45

While the IHR encompass travel-related public health-related migration makes it a necessity health measures to limit the spread of disease, such as vector-control measures at points of entry by air, sea or land, they are not designed to make recommendations on migrationrelated issues relating to health crises, such as the status of individuals or populations leaving a health crisis area. Individuals crossing international borders purely to escape a health crisis are unlikely to be recognised as refugees under the 1951 Convention; they are more likely to be considered migrants.

While there are legal precedents for successful health-related asylum claims, particularly for HIV-positive individuals, asylum was granted on the basis of the fear of persecution associated with HIV status or sexual orientation rather than health status. The reverse – i.e. individuals qualifying as refugees who are denied asylum and deported because of their HIV status - has been more commonly seen. UNAIDS have stated that HIV-related migration restrictions have regularly violated the human rights principle of non-refoulement of refugees. These cases fall outside the remit of the IHR.

The flexibility extended in much national legislation to people who may not satisfy the legal criteria for refugee status but who may be in danger if they return to their country of origin could be extended to people from countries undergoing health crises. Similar provisions already exist, for example, for people whose countries have been affected by natural disasters (such as US policy towards Montserrat and Haiti). As there is often an interaction between natural disasters and health consequences, such an understanding should be relatively easy to achieve. The policy challenge would be to know when deportation bans on the basis of health crises may be lifted, and it would seem sensible that these would be aligned with WHO declarations under the IHR.

In a world of rapid travel, trade and climate change, where the frequency of emerging infectious diseases and other health problems is on the rise, the potential for increased

to better define its status. Greater efforts should be made to encourage governments, and organisations that work with migration and migrating populations, to understand and abide by the IHR as a means of strengthening the potential to prevent migration related to health crises while ensuring the best possible protection against disease.

Recommendations

- More research is required on the impact of health crises on migration particularly in distinguishing health from other motivations to migrate.
- Greater coherence is required between the IHR and migration policies and practices at the national and international levels in order to inform government responses that help populations avoid migration during health crises.
- At the national level, greater coordination is required between government agencies separately tasked with migration and health mandates; national migration policies should accommodate the assistance and protection of migrants arriving from, or faced with the prospect of returning to, areas affected by health crises, including by suspending deportation orders until the health crisis has subsided.

Michael Edelstein is a Fellow in Epidemiology in the Public Health Agency of Sweden. Michael.edelstein@doctors.org.uk www.folkhalsomyndigheten.se/

David Heymann David.Heymann@phe.gov.uk is Professor of Infectious Disease Epidemiology at the London School of Hygiene and Tropical Medicine www.lshtm.ac.uk and Head and Senior Fellow, Chatham House Centre on Global Health Security.

Koser Khalid k.koser@gcsp.ch is Deputy Director at the Geneva Centre for Security Policy www.gcsp.ch and Non Resident Senior Fellow, Brookings-LSE Project on Internal Displacement. www.brookings.edu/about/projects/idp