

Public health emergencies of international concern in the post-Ebola world



Whether or not the current furore over Zika prove to be a kneejerk reaction, it gives travel medicine practitioners a chance to grab the attention of the travelling public and deliver some much-needed practical advice. Group Captain Andy Green FFTM RCPS(Glasg) offers some insights.

As the Ebola outbreak drew to its close towards the end of 2015, the international community breathed a collective sigh of relief. The world had escaped the threatened global extinction event by a combination of well-directed and proportionate responses, which allowed targeted resources to be directed to maximum effect, first to control and then to stop the outbreak.

The mutual congratulations that followed were tempered slightly by knowing that late relapses or recurrent infection might happen, which mandated extended surveillance in

those countries primarily affected for at least 90 days following the last recorded case—and perhaps much longer. In addition, many nations announced plans for enhanced detection and surveillance programmes for novel infectious diseases, coupled with aspirations to establish international response teams for future outbreaks, although details of organisation and funding have not yet been determined.

A contrarian view of the Ebola outbreak Response, authored by a group of international academics, was critical of the lack of leadership provided by the World Health Organisation (WHO), and made a series of recommendations for immediate actions to prevent any future similar event compromising a fragile global health infrastructure.

The wide-ranging reforms they suggested were considered feasible and achievable by the expert group. Specifically, they addressed those key areas that governments and international bodies had avoided, such as improvements to basic primary health care systems, detection and recognition of novel diseases in resource-

poor regions, multinational intervention teams, rapid and open sharing of information between nations, and — perhaps most importantly — a recognition that objective oversight and governance of any future responses is essential.

Other observers were more overtly critical in their opinions. There was a widely-held view that the WHO was slow to react to the initial reports of Ebola Virus Disease in early 2014, and delayed declaration of a Public Health Emergency of International Concern (PHEIC) until the outbreak was out of control. There was further criticism that the international response was provoked only by perceived threats to nations themselves, and that many of the interventions were targeted at prevention of imported disease rather than outbreak control at source. Indeed, many of the actions by nations were not only inappropriate, but also detrimental to care of individual patients with confirmed or suspected disease.

So how well prepared are we in 2016?

As I write, the predicted appearance of a new emerging and persistent infectious disease has already occurred. On 1 February 2016 the WHO declared a PHEIC in response to the spread of Zika Virus Disease across the Americas. However, there is a question whether this represents a measured and proportionate response to an international health crisis, or is it the action of an international community anxious to be seen to be not delaying intervention on this occasion.

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Why might one ask?

Zika is not a new infection, having first been described in Africa in 1947. It is spread human-human by mosquitos of the *Aedes* genus, including *Ae aegyptii* and *Ae albopictus*. In other words, the vectors are similar to those for yellow fever, dengue and chikungunya. Diagnosis is not easy and relies on the availability of recognised laboratory testing, but it seems likely that the virus has migrated (either in people or mosquitos) across the Pacific Region and arrived in the Americas within the last decade. During 2015 there were an estimated 1.5 million cases in South America (primarily Brazil).

The disease is a typical arbovirus infection clinically with fever, rash and myalgia predominant. What excites interest is the observation of clusters of microcephaly in children born in regions where Zika is now endemic (4,180 cases in Brazil in 2015), although at time of writing only three cases have been shown to have evidence of Zika infection. In contrast, during 2015 there were an estimated 50 million cases of dengue worldwide, 15 million of them in Brazil. Worldwide malaria deaths had fallen to an estimated 500,000, which was considered a success. Chikungunya had a similar epidemiological pattern to Zika, starting in Africa in the 1950s and then becoming endemic worldwide. Its importance in 2015 was demonstrated by local transmission within Europe as far north as France, with *Ae albopictus* as the vector.

Yet, unlike Zika Virus, none of these diseases has been declared a PHEIC despite causing a greater burden of disease and death.

Implications for the travel medicine practitioner

Like Ebola, Zika is newsworthy. It has an interesting name—and the potential to disrupt the 2016 Olympic Games. The advice from Public Health England, based on that of the WHO, is very risk averse. For a disease that is mosquito-borne and causes millions of cases per annum, there has been media focus on the theoretical sexual transmission of disease from returning (male) travellers — despite there being only anecdotal case reports. In addition, disinfection of aircraft arriving from the Americas has been initiated, even though the vector is already widely present in Europe. The risk of disease transmission by an infective mosquito to passengers during flight is close to zero.

However, this infection should be regarded as an opportunity for the travel medicine community to promote its importance to the travelling public. The UK Government advice and that of the WHO might not necessarily be logical or proportionate, but it is unlikely to do harm. What it will do is raise the profile of diseases associated with travel, and most likely mean that people attend for pre- and post-travel advice who may not have done so otherwise.

This provides the opportunity to discuss other — arguably more important — travel health issues. For example: bite prevention measures, early reporting of any illness during or after travel, and improved compliance with malaria chemoprophylaxis when indicated.

The post-Ebola world is less tolerant of risk from diseases associated with travel. It is up to travel medicine practitioners to ensure that the travelling population knows who to consult for advice on reducing that risk.

The views expressed in this article are personal observations of the author, and do not reflect the position of the Faculty of Travel Medicine or of the Defence Medical Services.

Please contact the Editor for references.



Zika Resources UK

Search at www.gov.uk for ‘Zika virus – epidemiological and guidance update’ for a compendium of links to the latest news and information.

‘Zika virus infection: guidance for primary care’ is particularly helpful. Health professionals are asked to be vigilant and consider ZIKV in patients with fever who are returning from the Americas, especially those with a history of travel to areas of ZIKV transmission.

Advice for pregnant women: those planning pregnancy and their partners travelling to Zika affected areas.

<http://travelhealthpro.org.uk/two-new-zika-resources-available/>

Blood donor guidance

Current guidance in all four countries of the UK imposes a 28-day blood donation deferral, so long as no symptoms of Zika are present, on anyone who has travelled to a ZIKV-endemic area. Check individual services for latest updates: England & North Wales (www.blood.co.uk), Scotland (www.scotblood.co.uk), Wales (www.welsh-blood.org.uk) and Northern Ireland (www.nibts.org/index.html).

NaTHNaC

Travel Health Pro has quick links to Zika information and a filter for individual information at: <http://travelhealthpro.org.uk/zika-virus-quick-links/>

TRAVAX

- www.travax.nhs.uk/news.aspx (health professionals login required)
- www.fitfortravel.nhs.uk/advice/disease-prevention-advice/zika-virus-infection.aspx (open access)