

The International Health Regulations (2005)

Vector Surveillance and Control at PoE

Dr Ninglan Wang

**Ports, Airports and Ground Crossings
HSE/GCR/CAD-PAG-Lyon**



Key Facts

<http://www.who.int/mediacentre/factsheets/fs387/en/>

- **Vector-borne diseases account for more than 17% of all infectious diseases, causing more than 1 million deaths annually.**
- **More than 2.5 billion people in over 100 countries are at risk of contracting dengue alone.**
- **Malaria causes more than 600 000 deaths every year globally, most of them children under 5 years of age.**
- **Other diseases such as Chagas disease, leishmaniasis and schistosomiasis affect hundreds of millions of people worldwide.**
- **Many of these diseases are preventable through informed protective measures**
- **Globalization of travel and trade, unplanned urbanization and environmental challenges such as climate change are having a significant impact on disease transmission in recent years. Some diseases, such as dengue, chikungunya and West Nile virus, are emerging in countries where they were previously unknown.**



The International Health Regulations



Annex 5

1. WHO, shall publish, on a regular basis, a list of areas where disinsection or other vector control measures are recommended for conveyance arriving from these areas

4. State Parties shall establish programmes to- control vectors that may transport an infectious agent that constitutes a public health risk to a minimum distance of 400 metres from those areas of point of entry facilities that are used by travellers, conveyances, containers, cargo and postal



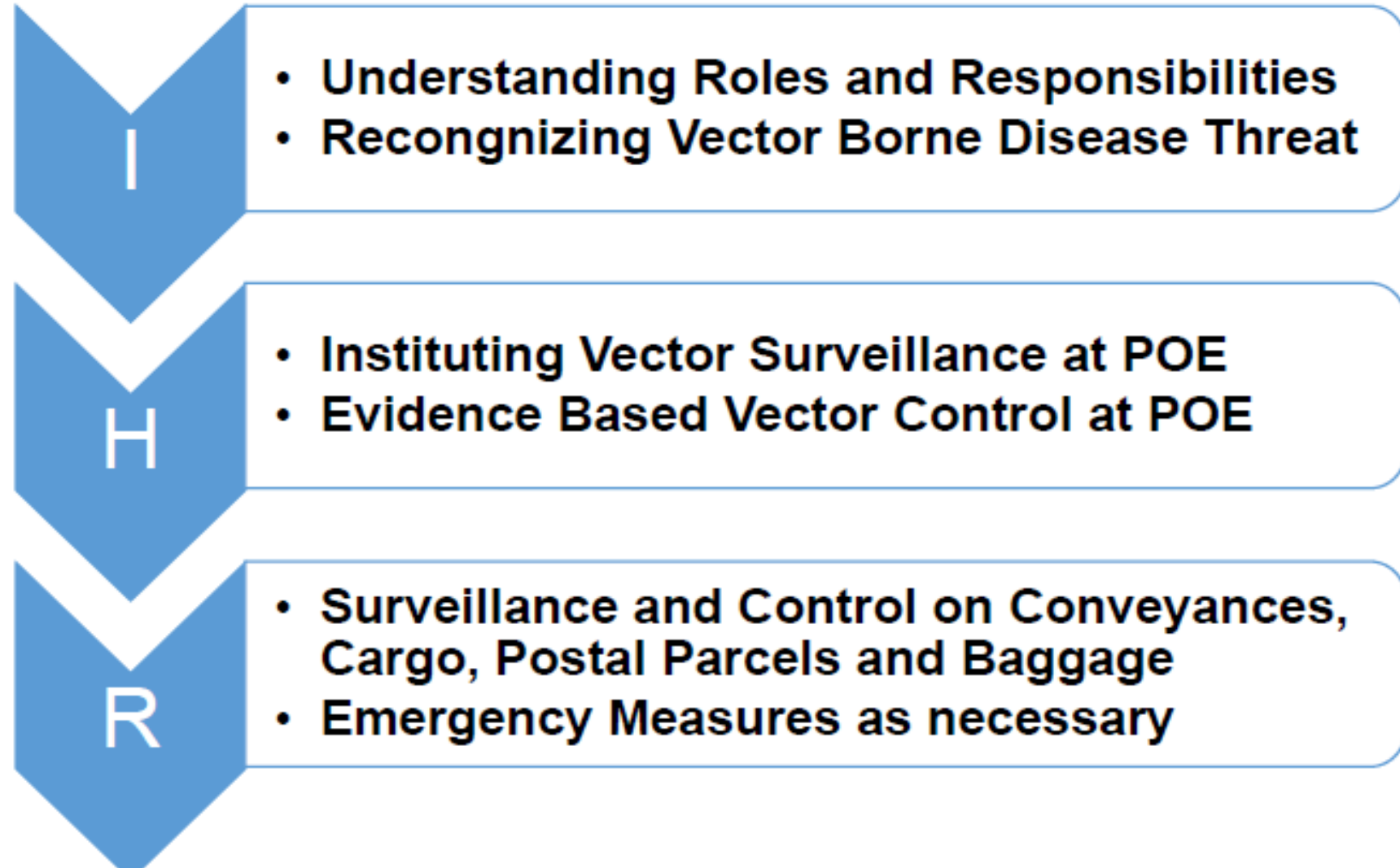
Arts. 22, 24, 27 and Annex 4, that PoEs are required to ensure that facilities used by travellers at points of entry are maintained in a sanitary condition and are kept free of source of infection and contamination, including vectors and reservoirs



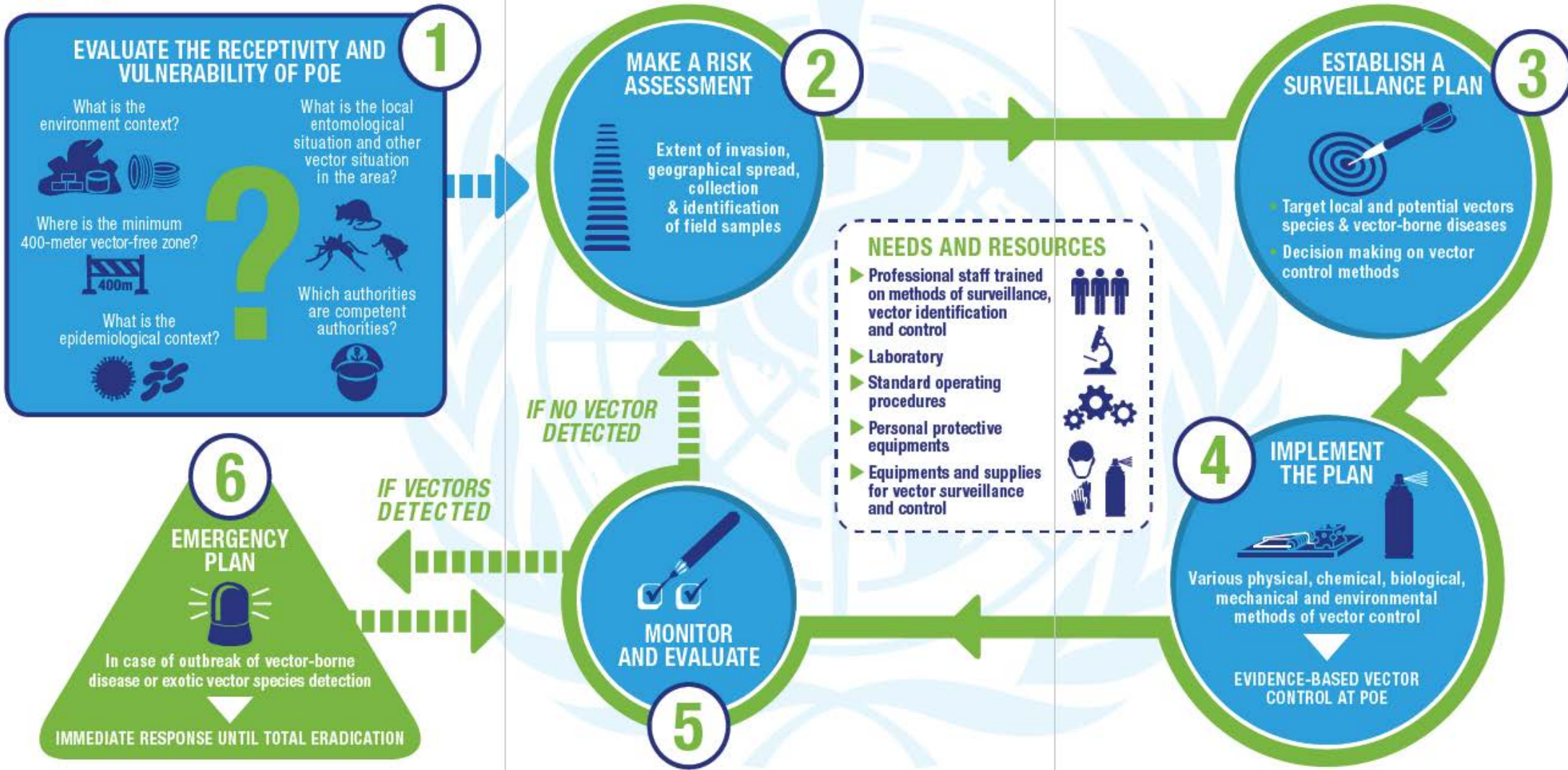
Annex 3 and Annex 9 encompass technical requirements respectively on the vector surveillance and control with regard to ship inspection and those of disinsecting or sanitary treatment measures in aircrafts

Vector and vector borne diseases

Steps Recommended for Implementation of IHR 2005 for Vector Control at POE



VECTOR SURVEILLANCE AND CONTROL AT POE



Vector Surveillance at PoE

Surveillance at Point of Entry

- Vector Free Zone (400 metres from those areas of point of entry facilities that are used by travellers, conveyances, containers, cargo and postal parcels)
- Essential Elements of Surveillance
- Establishment of Surveillance Plan

Example: Mosquitoes

- Larval surveillance
- Adult surveillance



Vector Control at PoE

Example: Mosquitoes

Environmental Management

- Source Reduction
- Habitat Modification
- Habitat Manipulation

Mechanical Control

- Windows and Doors Screening
- Drilling Holes in Fenders



Vector Control at PoE

Biological Control

- Larvivorous Fish
- Biolarvicides

Chemical Control

- Antilarval Spraying e.g. Temephos
- Adult Control: Fogging, Indoor Residual Spraying,
- Insecticide Treated Bed-nets, Repellents





Vector Control at PoE

Aircraft Disinsection

- Pre-flight
- Block away
- Top-of Descent
- Residual



Zika Virus

WHO Director-General summarizes the outcome of the Emergency Committee regarding clusters of microcephaly and Guillain-Barré syndrome

WHO statement on the first meeting of the International Health Regulations (2005) Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations

1 February 2016

Members of the Committee agreed that the situation meets the conditions for a Public Health Emergency of International Concern.

I have accepted this advice.

I am now declaring that the recent cluster of microcephaly cases and other neurological disorders reported in Brazil, following a similar cluster in French Polynesia in 2014, constitutes a Public Health Emergency of International Concern.

The screenshot shows the WHO website interface. At the top is the WHO logo and navigation menu. The main heading is "Zika virus and potential complications". Below this is a featured article titled "Women in the context of microcephaly and Zika virus" with a sub-image of hands being sprayed with disinfectant. The article text discusses the risk of babies born with microcephaly and provides Q&A and travel advice. Below the article are three columns: "Situation and response" (listing situation reports and WHO response), "Research and development" (with a sub-image of a lab and text about WHO mapping research), and "Resources and publications" (listing guidance for health workers, infographics, and international health regulations).

Information for travellers visiting Zika affected countries

Updated 12 February 2016 (<http://www.who.int/csr/disease/zika/information-for-travelers/en/>)

- ✓ Travellers should stay informed about Zika virus and other mosquito-borne diseases and consult their local health or travel authorities if they are concerned.
- ✓ Based on available evidence, WHO is not recommending any travel or trade restrictions related to Zika virus disease. Countries reporting sporadic Zika infections in travellers arriving from affected countries pose little, if any, risk of onward transmission.
- ✓ As a precautionary measure, some national governments may make public health and travel recommendations to their own populations, based on their assessment of the available evidence and local risk factors.

Zika virus: Aircraft disinsection for mosquito control

http://www.who.int/ihr/ports_airports/zika-aircraft-disinsection/en/

On 1 February 2016, the first meeting of the International Health Regulations (2005) (IHR 2005) Emergency Committee on Zika virus met and observed an increase in neurological disorders and neonatal malformations and subsequently advised the WHO Director General that the recent cluster of microcephaly cases and other neurological disorders reported in Brazil, following a similar cluster in French Polynesia in 2014, constitutes a Public Health Emergency of International Concern (PHEIC). This advice was endorsed by the WHO Director-General.

As a precautionary measure, standard WHO recommendations regarding disinsection of aircraft and airports can be implemented in order to attempt to control the vector (*Aedes* spp. mosquito) that spreads the Zika virus. It should be noted that the decision to implement WHO disinsection recommendations is dependent on individual country risk assessment for vector control. For countries and other entities which, after risk assessment for vector control choose to implement aircraft and airport airplane disinsection, it should be done according to standard WHO recommendations. WHO has provided guidelines on how to do so safely. Specifications for aircraft disinsection products have been established by the WHO Pesticide Evaluation Scheme (WHOPES), including:



PUBLIC HEALTH



**Baggage Claim
Terminal**



Thank you

شكرا

Merci

Gracias

谢谢

спасибо

Obrigado

www.who.int/ihr/ports_airports/en/

