The International Health Regulations (2005)
Vector Surveillance and Control at PoE

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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.
Annex 5

1. WHO shall publish, on a regular basis, a list of areas where disinsection or other vector control measures are recommended for conveyances 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 parcels.

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

I
• Understanding Roles and Responsibilities
• Recognizing Vector Borne Disease Threat

H
• Instituting Vector Surveillance at POE
• Evidence Based Vector Control at POE

R
• Surveillance and Control on Conveyances, Cargo, Postal Parcels and Baggage
• Emergency Measures as necessary
VECTOR SURVEILLANCE AND CONTROL AT POE

1. Evaluate the Receptivity and Vulnerability of POE
   - What is the environment context?
   - Where is the minimum 400-meter vector-free zone?
   - What is the epidemiological context?
   - What is the local entomological situation and other vector situation in the area?
   - Which authorities are competent authorities?

2. Make a Risk Assessment
   - Extent of invasion, geographical spread, collection & identification of field samples

3. Establish a Surveillance Plan
   - Target local and potential vectors species & vector-borne diseases
   - Decision making on vector control methods

4. Implement the Plan
   - Various physical, chemical, biological, mechanical and environmental methods of vector control

5. Monitor and Evaluate
   - Evidence-based vector control at POE

6. Emergency Plan
   - In case of outbreak of vector-borne disease or exotic vector species detection
   - Immediate response until total eradication

NEEDS AND RESOURCES
- Professional staff trained on methods of surveillance, vector identification and control
- Laboratory
- Standard operating procedures
- Personal protective equipments
- Equipments and supplies for vector surveillance and control

If no vector detected

If vectors detected

Overview of WHO and IHR

World Health Organization
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
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.
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


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:
Thank you

 شكرا
Merci
Gracias
谢谢
спасибо
Obrigado

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