

Travel Health and Points of Entry: Key Considerations

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Outline of the Presentation

- Travel Health
 - WHO Recommendations & Travel Advice
 - Impact on travel and tourism industry
- Points of Entry
 - IHR Requirements regarding vectors
 - IMO Requirements
 - Detection and Management of public health events at PoE



Travel Health

- ✓ **WHO:** Not recommending any travel or trade restrictions related to Zika virus disease.
- ✓ **UNWTO Statement :** There should be no restrictions on travel with the affected areas and *that travel measures should be observed.*
 - ✓ Health and tourism authorities are working together!



Travel Advice: As of 22 February

- All travellers
 - stay informed about Zika virus and other mosquito-borne diseases
 - adhere closely to steps that can prevent mosquito bites during the trip
 - practice safe sex
- Pregnant women
 - consider delaying travel to areas with Zika local transmission
 - consult health care provider.



National Recommendations: Risk assessment

- National governments may make public health and travel recommendations to their own populations, using risk assessment approach.
 - A travel advisory already issued by many countries
 - **Article 43**: *"Countries implementing additional health measures which significantly interfere with international traffic shall provide to WHO the public health rationale and relevant scientific information for it. WHO shall share this information with other States Parties"*



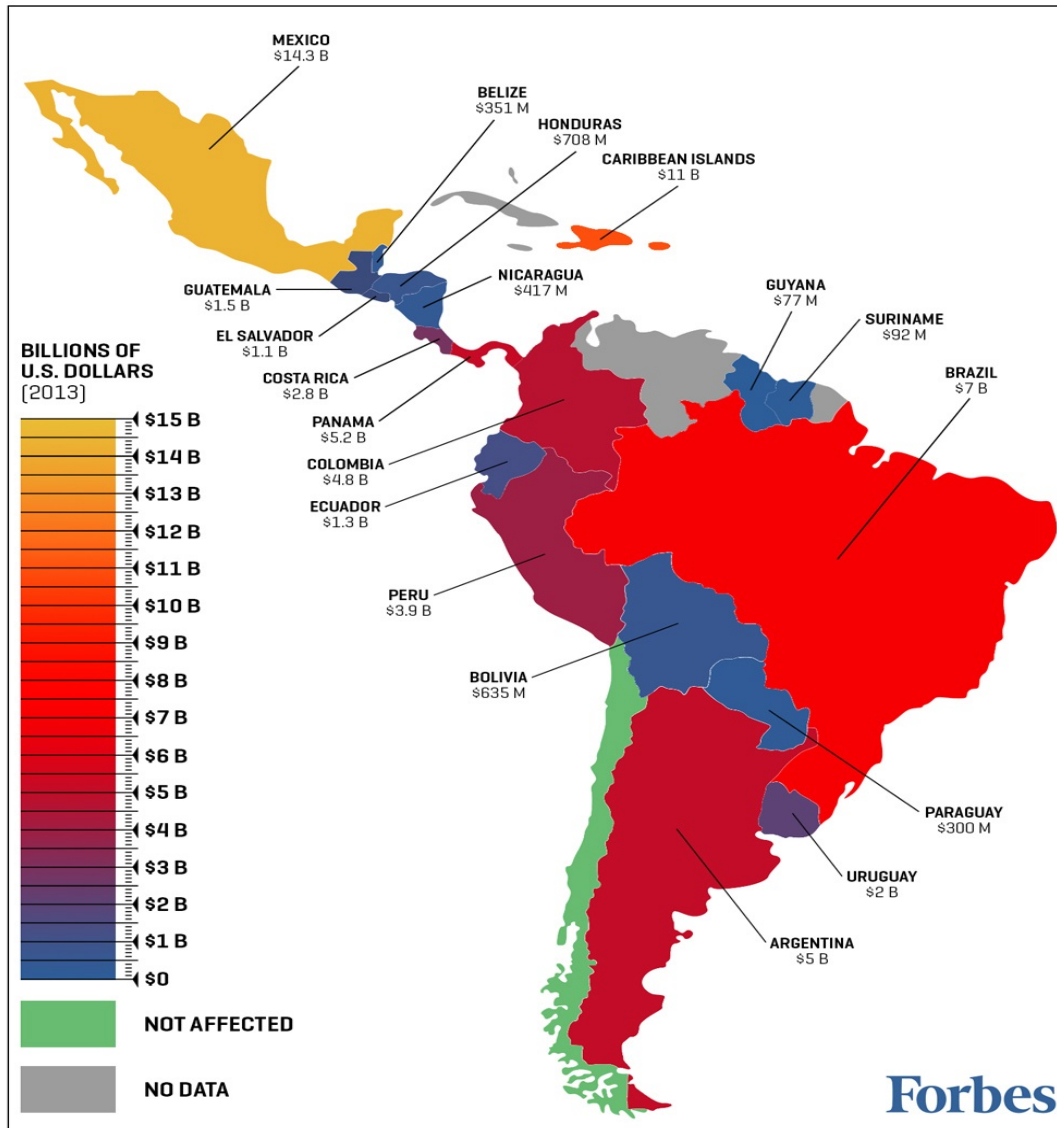
Current Situation

- Travel industry faces growing concern over Zika virus
- Airlines, cruise companies and resorts working on policies to handle credit, refunds and/or trip alternatives
 - A growing number of carriers have offered refunds or are rebooking customers who bought tickets to Zika affected areas.
 - Airlines allowing flight attendants and pilots to change their routes if they have concerns.
 - Big companies are also letting employees opt out of travel to Zika-affected countries ([The Economist](#))

Impact on Travel and Tourism Industry

- Travel and tourism is a key industry for many of the Zika affected countries:
 - In 2013, Revenues made by international tourists in (Mexico: \$14.31 billion, US: \$214.7 and \$7 billions in Brazil (Source: Forbes Business)
 - **WTO**  It is too early to make any effective assessment of the impact on the tourism sector
 - **Forbes Business**: a little over \$ 63 billions.

INTERNATIONAL TOURISM RECEIPTS OF COUNTRIES AFFECTED BY ZIKA



SOURCES: WORLD TOURISM ORGANIZATION, YEARBOOK OF TOURISM STATISTICS, COMPENDIUM OF TOURISM STATISTICS, WORLD BANK

FIGURES ROUNDED TO THE FIRST DECIMAL PLACE

World Bank

- Lost revenue will total only **\$3.6 billion**, or about **0.6% of GDB** (coordinated international response)
- Impacts could be significantly larger (a link between Zika and GBS and Zika transmission through sexual contact, or public perceptions of risks rise sharply).

IHR Requirements at Points of Entry related to Vector-Born Disease

Threat of the spread of vectors and vector-borne diseases by conveyances

- Vector surveillance and control at PoE and a minimum distance of 400m from PoE facilities (operations involving travellers, conveyances, containers, cargo and postal parcels)
- Conveyance leaving a PoE situated in an area where vector control is recommended should be disinfected
- WHO shall publish, a list of areas where disinsection or other vector control measures are recommended for conveyances arriving from these areas.

ICAO Recommendations

- ✓ ICAO Statement: under the leadership of WHO, collaboration with CDC, IATA , ACI and other aviation agencies:
 - ✓ Reducing the populations of the Aedes
 - ✓ Strengthening surveillance of the mosquito population and the development of the disease amongst humans
 - ✓ Fast-tracking research to improve the understanding of the disease and its control



Vector Surveillance and Control at PoE: WHY?

- The presence of a negligible number of invaded vectors may initially pose a limited real public health risk but can spiral outbreaks in the long-term.
- The aim of a routine surveillance and control program is to achieve zero levels of exotic vector population
- Keeping PoE free of vectors is equally important to deny them access to conveyances and luggage/cargo



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Vector Surveillance at PoE

- Vector surveillance programs should be appropriately designed for each PoE,
- Risk assessment
 - Description of the environment of PoE and surrounding 400-metre perimeter or wider
 - Local entomological situation
 - Epidemiological context



Surveillance at PoE: Description of the Environment

- Vector risk around the PoE (site, sanitation, vegetation, specific buildings)
- Activities and organization of PoE (routes, flow of passengers, goods/wild life)
- *Perimeter of 400 m around PoE:*
 - *Urban area, Commercial and industrial areas, Public domain and Sensitive sites*
- Areas to exclude insecticide treatment (aquatic harborages, fountains, areas of ecological interest)



Surveillance at PoE: Local Entomological Situation

- An inventory of species
 - Vector status (proven, potential)
 - Seasonal activity and dispersal ability
 - Preferred breeding sites
 - Feeding preferences
 - Conducive environmental parameters for vector growth



Surveillance at PoE: Local Epidemiological Context

- Introduction of infected vectors
- Local transmission of imported pathogens by autochthonous vectors (competence and vectorial capacity of local vectors)
- Exportation of pathogens: dissemination of infected vectors



Establishment of a Surveillance Plan

- Risk assessment matrices
 - (hazard, frequency, risk of importation and local transmission, risk management, preventive measures, etc)
- Objectives of surveillance program
 - (methods, seasonality, coverage, etc)
- Under normal circumstances: **A routine surveillance plan**
- In epidemics/outbreaks: **An emergency surveillance plan for rapid action.**



Essential Elements For Vector Surveillance

- Trained staff for laboratory and field services
- Access to laboratory with infrastructure, equipment, reagents and supplies
- Trained field staff on methods of surveillance of mosquitoes (immature and adult),
- Standard operating procedures for each type of surveillance methodology, piece of equipment used and time intervals.
- Effective personal protective equipment



Vector Control at Points of Entry

IVM is a key to the control of vectors at points of entry

- **Environmental management:** *Source reduction, habitat modification/manipulation*
- **Mechanical control:** *Window and door screening, drilling holes in fenders for drainage, removal and safe storage of scrap*
- **Biological control:** *arnivororous fish, biological larvicides*
- **Chemical control/insecticide treatment:** *larvicidal application, adult control, fogging, indoor spraying, insecticide treated material/special circumstances, repellents, repellents*

Essential Elements to Prepare for Vector Control

- Sufficient numbers of trained laboratory and field staff
- Support for implementing biolarvicides/chemical insecticide, spray, and PPE
- Support for implementing physical, mechanical, and environmental control measures
- Routine surveillance plan that provides evidence for action and timely decisions on the choice of control method
- Larval and adult bio-assay kits
- Linkage with referral Laboratory



Elements to Control Larvae and Reduce Vectors

- Undertake dredging ditches, filling up pits and clearing accumulated water.
- Remove rubbish and feces and cover rubbish bins.
- Install flush toilets instead of dry pail latrines in ports.
- Septic tanks should have sealed lids
- Source reduction and habitat modification using minor engineering methods to prevent breeding opportunities
(scraps, Tyers, ground tanks, septic tanks, overhead tanks, hose pipes, iron platform, development activity at PoE, etc.)

Disinsection of Aircraft: WHY & HOW?

- When done properly, it was found to be effective in killing mosquitoes travelling in aircraft
- Four methods are currently recommended by WHO for aircraft disinsection: Pre-flight, Blocks away, Top-of-descent, Residual treatment
- When applied, the details of each disinsecting (place, date, time, method) during the flight should be noted on Annex 9 of IHR



Environmental Health Criteria 243

AIRCRAFT DISINSECTION
INSECTICIDES

IOMC
**INTER-ORGANIZATION PROGRAMME FOR THE SOUND
MANAGEMENT OF CHEMICALS**
A cooperative agreement among FAO, ILO, UNDP, UNER, UNIDO, UNITAR,
WHO, World Bank and OECD

*This report contains the collective views of an international group of experts
and does not necessarily represent the decisions or the stated policy of the
World Health Organization*



The Efficacy of Insecticides in Aircrafts

- WHO guidelines for testing the efficacy of insecticide products used in aircraft
- WHO convened an international informal expert discussion.
 - Role of air travel in international spread of ZIKV
 - The evidence on the value of aircraft disinsection
 - Review of relevant disinsection guidelines



Detection and Management of public health Events at PoE

- Early detection of events
- Communication and information sharing
- Initial assessment/investigation
- Comprehensive assessment
 - Referral of cases
 - Other relevant sectors
- Handbook for management of public health event on board ships/ air transport



Regional Activities

- A Regional meeting to enhance preparedness capacity of countries to response to Zika virus Infection
- The meeting was conducted into two rounds
 - 22-23 February, Cairo and involves 12 Countries
 - 28-29 February in Casablanca and involves 10 countries



Recommendations of the meeting: Travel Health

- Be aware of and follow up tips included in the WHO Travel advice.
- National governments may make public health and travel recommendations to their own populations but based on risk assessment approach.
- Enhance coordination and collaboration between health and travel sector for share information and for the necessary arrangement.
- Countries implementing additional measures that may significantly interfere with international traffic shall inform



Recommendations of the Meeting :

Points of Entry-1

- Promote awareness of travellers to areas with ZIKV transmission
- Strengthen coordination between the different stakeholders of PoE
- Ensure having IHR requirements for the early detection, notification, assessment and management of public health events detected at points of entry and on board of conveyances.
- Establish/Strengthen vector surveillance and control at PoE and a minimum distance of 400m from PoE facilities based on risk assessment approach.



Recommendations of the Meeting:

Points of Entry-2

- Ensure having access to trained staff, laboratory, supplies and reagents, SOPs, PPEs and infrastructure for implementing vector surveillance and control programs.
- Disinsect conveyances leaving a PoE situated in an area where vector control is recommended using risk assessment approach.
- Enhance research to improve the understanding of the disease and the control of the vector at PoE and on conveyances



Thank you



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