



# **Technical note for Ebola virus disease preparedness planning for entry screening at airports, ports and land crossings**

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## Acknowledgements

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## **Introduction**

In August 2014, the WHO Director-General declared the Ebola virus disease (EVD) outbreak in West Africa a Public Health Emergency of International Concern, under the provisions of the International Health Regulations (IHR) 2005. The IHR Emergency Committee advised non-affected countries to establish and strengthen surveillance for clusters of unexplained fever or deaths due to febrile illness. It also advised countries to prepare to detect, investigate and manage EVD cases to minimize the risk of international spread of the disease, while avoiding general bans on international travel and trade.

WHO does not recommend entry screening at this time for the EVD outbreak in West Africa. However, for preparedness planning purposes, countries may wish to develop plans and procedures for entry screening according to their own risk assessment and cost benefit analysis. Entry screening procedures should not interfere with international travel and trade.

This document provides recommendations for planning entry screening at Points of Entry (PoE). It was developed in collaboration with the US Centers for Disease Control and Prevention, the International Civil Aviation Organization and the International Air Transport Association.

## **Background**

The incubation period of EVD, from exposure to the onset of symptoms, ranges between 2 and 21 days. People without symptoms of EVD are not able to spread the disease. The principal mode of transmission is direct contact with the body fluids of people who have symptoms.

Travellers have previously been diagnosed with haemorrhagic fever diseases (Ebola, Marburg, or Lassa fever) after long-distance travel (e.g., between continents). To date, there have been no reports of virus transmission during travel. However, transmission has occurred in destination countries after travel, such as in health-care facilities, when recommended infection prevention and control precautions were not appropriately followed.

## **Objectives of entry screening planning**

An entry screening plan usually has stated objectives, such as:

- to identify upon arrival international travellers exhibiting signs and symptoms of EVD, or with a history of exposure to Ebola virus, and provide an effective, coordinated response to protect the health of travellers and communities;
- to provide procedures and requirements needed to screen travellers at airports or other PoE (e.g., ports or ground crossings);
- to include entry screening in a comprehensive approach to disease prevention, treatment and care.

## **Objectives of entry screening**

- To identify ill travelers with signs and symptoms consistent with EVD, and their potential contacts;
- to identify appropriate public health measures, such as treatment and isolation, that are commensurate with the risks and do not unduly interfere with international travel;
- to protect the health of travellers, their families, and the population of the destination country.

## Planning for entry screening

### 1. Coordination of entry screening with other public health measures

Entry screening is most effective when accompanied by other interventions such as exit screening in Ebola-affected countries, health alert notices, and reporting identified ill travellers to public health authorities upon arrival. Consideration should be given to the best use of available resources, the capacity to conduct entry screening, and the number of travellers arriving from affected countries.

Health authorities may coordinate with airlines to ensure there is adequate time for passengers in transit to board their departing flights. This is to avoid hasty screening and passengers missing their connecting flights. Passengers in transit may be screened in a priority line.

### 2. Communications

#### 2.1 Communication with travellers

Information on the potential risk of EVD may be provided at PoE (e.g. at airports or ports), in arrival areas or at ground crossing points, to raise the awareness and knowledge of travellers.

Travellers should be informed of the measures to take should they develop symptoms of EVD, and how they can obtain assistance. Airlines should consider educating travellers onboard about EVD and the procedures they may undergo upon arrival (see Appendix 2 for sample scripts)<sup>1</sup>.

#### Template message for travellers

- Infection occurs through contact with the blood, body fluids or tissues of an infected symptomatic person, or the body of a person who has died from Ebola, or by contact with contaminated objects.
- Persons who come into direct contact with an infected symptomatic person or infected animal or the body of a person who has died from Ebola are at risk.
- Avoid all contact with blood, body fluids, and tissues of sick people, even after their death.
- Do not handle items that may have been in contact with an infected person.
- Symptoms include fever, weakness, muscle pain, headache and sore throat. This is followed by vomiting, diarrhoea, rash, and, in some cases, bleeding.
- In the most affected countries of Guinea, Liberia and Sierra Leone, particular care should be taken to avoid EVD infection.
- Simply being in proximity to a healthy-looking person (for example, in a public transport conveyance) does not constitute a risk.
- There is no approved vaccine.
- Practise careful hygiene, especially hand hygiene with an alcohol-based handrub solution (hand sanitizer) if available, and with soap and water when hands are visibly soiled. Practise hand hygiene especially before touching eyes, nose or mouth, and after using the toilet or touching objects at high risk of being contaminated.
- If you stayed in the areas where Ebola cases have been recently reported, seek immediate medical attention if you feel ill (fever, headache, achiness, sore throat, diarrhoea, vomiting, stomach pain, rash or red eyes). Early treatment improves the chance of recovery.

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<sup>1</sup> <http://www.iata.org/whatwedo/safety/health/Documents/health-guidelines-cabin-announcement-scripts.pdf>

- Do not take aspirin or ibuprofen because they can increase the risk of bleeding. This information should also be given to all passengers during exit screening.

## **2.2 Communication between Points of Entry and national health surveillance systems**

- Promptly establish lines of communication between PoE health authorities and transport sector officials (e.g. representatives of the national civil aviation and maritime authorities, conveyance operators and PoE operators), as well as those between PoE health authorities and the national health surveillance systems.
- Raise awareness of EVD and disseminate information among all relevant stakeholders at PoE.
- Establish and improve procedures and means of communication for:
  - a) PoE health authorities receiving health information, documents, and/or reports from conveyance operators regarding ill travellers on board, and to provide advice and advance notice of application of control measures;
  - b) PoE health authorities to inform the next PoE of ill travellers on board;
  - c) PoE health authorities to inform the national health surveillance system of ill travellers identified.

## **3. Public health documents**

The International Health Regulations require the following documents to be used to collect information about potential public health risks. To improve the detection of EVD at PoE, these documents could assist in the collection of information about ill travellers with clinical signs or symptoms consistent with EVD.

### **3.1 Air travel: Health section of the Aircraft General Declaration Form**

If the health section of the Aircraft General Declaration Form is not required for all arriving aircraft, the country may consider making its submission mandatory for aircraft arriving from EVD-affected areas and for aircraft carrying ill travellers suspected of having EVD. The State Party shall inform aircraft operators or their agents of these requirements.

### **3.2 Sea travel: Maritime Declaration of Health and Ship Sanitation Certificates**

a) If the Maritime Declaration of Health is not required for all arriving ships on an international voyage, the country may consider making its submission mandatory for international ships arriving from/passing through EVD-affected areas, particularly ships carrying ill travellers suspected of having EVD.

b) Any public health measures adopted on board should be recorded on Ship Sanitation Certificates. This includes the examination of crew or travellers who have been in Ebola-affected areas and need to be followed up at the next port. Coordination with IHR National Focal Points among the countries is needed to transmit information between PoE in different countries. The State Party shall inform ship operators or their agents of these requirements.

## **4. Identification of Points of Entry and travellers to be screened**

The following factors need to be considered when planning entry screening.

### **4.1 Identification of conveyances:**

- arriving directly from affected countries, their routes and PoE;
- arriving indirectly after stopping at some point in affected countries, their routes and PoE;

- carrying travellers with signs and symptoms consistent with EVD, or known to have recently been in an Ebola-affected area, based on information provided in the public health documents listed above, or to the competent authority at PoE prior to arrival.

#### **4.2 Identification of travellers based on information obtained prior to arrival**

Travellers' itineraries, potential exposure history and other information obtained prior to arrival at the destination country may assist in identifying travellers suitable for screening. This could reduce indiscriminate screening of travellers arriving at PoE, and increase the likelihood of travellers cooperating.

For countries sharing borders with Ebola-affected countries, entry screening could be warranted at all land crossing points, if the affected country does not conduct exit screening. Countries that share borders may also consider entering into agreements that aim to prevent and control international transmission of EVD at ground crossings. Joint designation of adjacent ground crossings could also be considered.

### **5. Personal Protective Equipment (PPE)**

To protect screening personnel, PPE guidance may be emphasized as follows:

All staff involved in the screening and transfer of EVD patients must comply with their organization's health and safety policies. Staff involved in traveller screening or responding to suspected EVD cases at PoE will follow country protocols and procedures.

Other considerations include:

- Planning to ensure there is sufficient PPE to support the response (e.g. port health agencies maintain a four-week supply of PPEs for every responder, and inventory PPE stock for needed supplies every two weeks).
- Holding training on proper donning and doffing (putting on and removing) of PPE before screening is implemented.

### **6. Staffing requirements**

Staffing needs for entry screening are based on an estimation of the number of travellers to be screened on arrival identified in the planning phase; the layout of airports or port terminals; the location of secondary screening; and the number of arriving conveyances. In general, port health officers are placed in each airport terminal for secondary screening. Multiple work shifts may be required. Shifts should be coordinated around the arrival times of flights targeted for screening.

### **7. Implementation timeline**

The agencies implementing and supporting screening need to know when staff should be prepared to perform these functions. Agencies should consider the time it takes to identify qualified personnel or to provide training. Administrative requirements for people to become qualified to conduct screening should also be considered, along with the time required to set up facilities and procure supplies to support screening.

The implementation of entry screening requires:

- the selection of the necessary response staff;
- obtaining PoE security clearance for badges and access;
- training staff and partners;
- securing local government and organization support; and
- gathering the necessary supplies.

## 8. Legal context

The IHR provide options for health measures and the legal context for their application (IHR articles 15-18, 23-34). The implementation of entry screening and/or restrictions on persons from affected areas can be implemented with the following public health measures:

- reviewing travel history in affected areas;
- reviewing proof of medical examination and any laboratory analysis;
- requiring medical examinations;
- placing suspect persons under public health observation;
- implementing quarantine or other public health measures for suspect persons;
- implementing isolation and treatment of affected persons when necessary;
- implementing contact tracing of suspect or affected persons.

According to IHR Article 31.2, if a traveller for whom a country may require a medical examination, vaccination or other prophylaxis fails to consent to any such measure, or refuses to provide the information or the documents, the country concerned may deny entry to that traveller. If there is evidence of an imminent public health risk, the country may, in accordance with its national law and to the extent necessary to control such a risk, compel or advise the traveller to undergo:

- (a) the least invasive and intrusive medical examination that would achieve the public health objective;
- (b) vaccination or other prophylaxis; or
- (c) additional established health measures that prevent or control the spread of disease, including isolation, quarantine or placing the traveller under public health observation.

Countries adopting measures that significantly interfere with international air traffic, such as refusing international travellers entry or departure for more than 24 hours, shall inform WHO of such measures and their public health rationale within 48 hours of implementation (Article 43). WHO has a mandate to share such information with all State Parties.

## Overview of Entry Screening Operations

Entry screening is a two-stage process, including primary and secondary screening. Primary screening can be conducted by staff without medical or public health training. Its purpose is to identify travellers who could be at risk of EVD, either due to symptoms or exposure history. Secondary screening is a more detailed process usually conducted by staff with medical or public health training. Its purpose is to identify travellers with symptoms or exposure history requiring further evaluation.

### 1. Communications

Entry screening implementation should include a comprehensive public health communications campaign to

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_27665](https://www.yunbaogao.cn/report/index/report?reportId=5_27665)

