

**EVD Event Management Workshops**

**Case Scenario 1 Exit Screening at Airport**

**Implementing exit screening at an airport of a country,  
with initial cases of Ebola Virus Disease transmission**

**PARTICIPANT VERSION**

**MARCH 2015**

**Developed in association with WHO Collaborating Centre for the International Health  
Regulations: points of entry at University of Thessaly, Greece**



## Background

At the first meeting on August 6, 2014, the IHR Emergency Committee made the following recommendation for States with Ebola transmission:

States should conduct exit screening of all persons at international airports, seaports and major land crossings, for unexplained febrile illness consistent with potential Ebola infection. The exit screening should consist of, at a minimum, a questionnaire, a temperature measurement and, if there is a fever, an assessment of the risk that the fever is caused by EVD. Any person with an illness consistent with EVD should not be allowed to travel unless the travel is part of an appropriate medical evacuation.

There should be no international travel of Ebola contacts or cases, unless the travel is part of an appropriate medical evacuation. To minimize the risk of international spread of EVD:

- Confirmed cases should immediately be isolated and treated in an Ebola Treatment Centre with no national or international travel until 2 Ebola-specific diagnostic tests conducted at least 48 hours apart are negative;
- Contacts (which do not include properly protected health workers and laboratory staff who have had no unprotected exposure) should be monitored daily, with restricted national travel and no international travel until 21 days after exposure;
- Probable and suspect cases should immediately be isolated and their travel should be restricted in accordance with their classification as either a confirmed case or contact.

## PART A

On 1<sup>st</sup> of September 2014, the first three laboratory-confirmed cases of EVD have been detected in Country A among members of one family. Despite the attempts of the health authorities to contain the disease and to identify and quarantine all contacts of the initial cases, 30 days later the number of cases has increased to 100 laboratory-confirmed cases. Twenty of them were contacts of the initial cases, while the others were not contacts of the initial cases and contacted the disease through other exposures (contact with other cases, or after eating fruit bat soup). Since in-country transmission has been documented, authorities decided to implement the WHO temporary recommendations for exit screening for all travelers leaving from Country A.

### Question 1 (5 minutes)

- a. Which airports should implement exit screening?
- b. What are the key elements of exit screening?
- c. Describe primary and secondary screening?

#### **References:**

*WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: November 6, 2014.*  
*ACI Airport preparedness guidelines for outbreaks of communicable disease (<http://www.aci.aero/>)*

### Question 2 (10 minutes)

**Who should be involved in the planning arrangements for exit screening at the PoE?**

#### **References:**

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: November 6, 2014.*

## PART B

Country A has only one international airport. A meeting is organized with representatives from legal authorities, customs, border protection, travel entities, immigration, public health and civil aviation authorities, airport operators, conveyance operators, and security personnel, with the aim to create SOPs for the implementation of the exit screening process.

Moreover, a communication strategy for exit screening has been decided. This includes an extensive public health communications campaign to educate the traveling public and the travel industry. These messages provide important health information about the outbreak as well as the intent to screen travellers for the signs of disease and risk of exposure to EVD. Specifically, messages include the following:

- Travellers who are sick should consider postponing travel;
- Travellers should plan to arrive early at the travel facility and expect delays related to public health screening;
- Travellers will be required to complete a Traveller Public Health Declaration for each member of the travel party, and these questionnaires will be reviewed prior to clearance to board;
- Temperature measurement will be required in addition to normal security provisions;
- Boarding may be denied based on public health criteria.

### Question 3 (10 minutes)

**What information should be communicated to travellers in regards to the characteristics and the prevention of spread of EVD?**

#### **References:**

- *WHO Travel and Transport Risk Assessment, September 10, 2014*
- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: November 6, 2014.*

### Question 4 (10 minutes)

**In which location at the airport exit screening should take place?**

#### **References:**

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure November 6, 2014.*

## PART C

A Primary Screening plan is designed, which include the SOP for primary screening, staffing needs, supply needs for temperature screening, training of personnel, development and translation of the Traveller Public Health Declaration, data management needs and protocols and development of communication campaign to educate community leaders, travellers and travel industry about the outbreak and the exit screening process.

The staff, after completing training on the SOPs and on the use of equipment and PPE, proceed to the implementation of primary screening.

### Question 5 (15 minutes)

**What are the needs of primary screening for:**

- a. Staff
- b. Supplies including equipment for temperature measurement and PPE
- c. Training of personnel

### References:

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: November 6, 2014.*

### Question 6 (5 minutes)

**What data should be collected during primary screening and why?**

### Part C(1)

Travellers 1, 2, 3 and 4 went through the primary screening. The results of the primary screening assessment are shown below.

#### **Traveller 1**

Visual Observation: Traveller 's face was flushed (red)

Signs and symptoms: Diarrhoea, Severe headache

Exposure assessment: answered "No" in all questions of the Traveller Public Health Declaration Form

Temperature check result: 39.6° Celsius or 103.28° Fahrenheit

#### **Traveller 2**

Visual Observation: No obvious signs of illness

Signs and symptoms: None

Exposure assessment: answered "No" in all questions of the Traveller Public Health Declaration Form

Temperature check result: 36.0° Celsius or 96.8° Fahrenheit

#### **Traveller 3**

Visual Observation: No obvious signs of illness

Signs and symptoms: none

Exposure assessment: answered "No" in all questions of the Traveller Public Health Declaration Form

Temperature check result: 39.5° Celsius or 103.10° Fahrenheit

#### **Traveller 4**

Visual Observation: Traveller appeared to be in pain, clutching stomach

Signs and symptoms: diarrhoea and abdominal pain

Exposure assessment: answered "No" in all questions of the Traveller Public Health Declaration Form

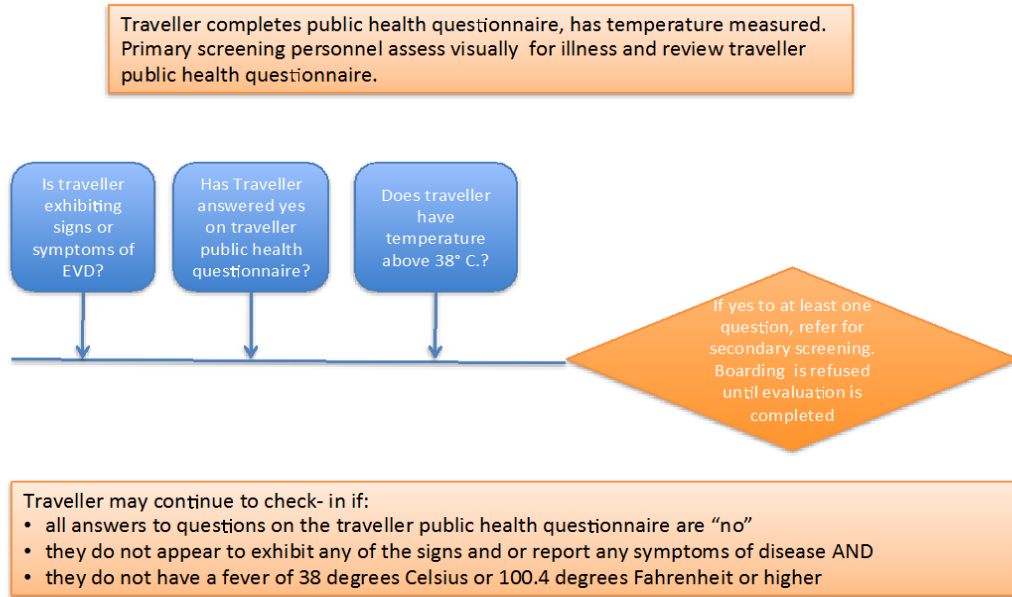
Temperature check result: 37.9° Celsius or 100.2° Fahrenheit

**Question 6 (20 minutes)**

**Who of the travellers 1, 2, 3, 4 should be referred for secondary screening?**

**References:**

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure: November 2014.*



**PRIMARY SCREENING**

**Figure 1: Primary Screening Outline**

## PART D

A Secondary Screening Plan is designed which include the SOP for secondary screening, staffing needs, supply needs for temperature screening, training of personnel, development and translation of secondary screening form (found. Appendix x: Secondary screening forms), data management needs and protocols and development of communication campaign to educate community leaders, travellers and travel industry about the outbreak and the exit screening process.

The staff, after completing training on the SOPs and the use of equipment and PPE, proceeds to the implementation of secondary screening.

### Question 7 (10 minutes)

What are the needs of secondary screening for:

- a. Staff
- b. Supplies including equipment for temperature screening and PPE
- c. Training of personnel
- d. Data management needs and protocols

### References:

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: SEPTEMBER 23, 2014.*

### Part D.1

As part of the secondary exit screening, the following information has been collected from travellers A, B, C, D and E.

#### Traveller A:

- He answered “No” to all questions in the Traveller Public Health Declaration
- He has no symptoms of fever.

#### Traveller B:

- She answered “Yes” in three questions in the Traveller Public Health Declaration.
- She answered “Yes” in four questions in the secondary screening form for exposure and risk factors
- She has symptoms of fever, headache, diarrhoea and bruising of the skin.

#### Traveller C:

- He answered “Yes” in one question in the Traveller Public Health Declaration for exposure and risk factors
- He answered “Yes” in one question of the secondary screening form for exposure and risk factors.
- He is asymptomatic.

#### Traveller D:

- She answered “Yes” in two questions in the Traveller Public Health Declaration
- She answered “Yes” in two questions in the secondary screening form.
- She has no fever, does not present any other symptoms or sign of infectious disease.

#### Traveller E:

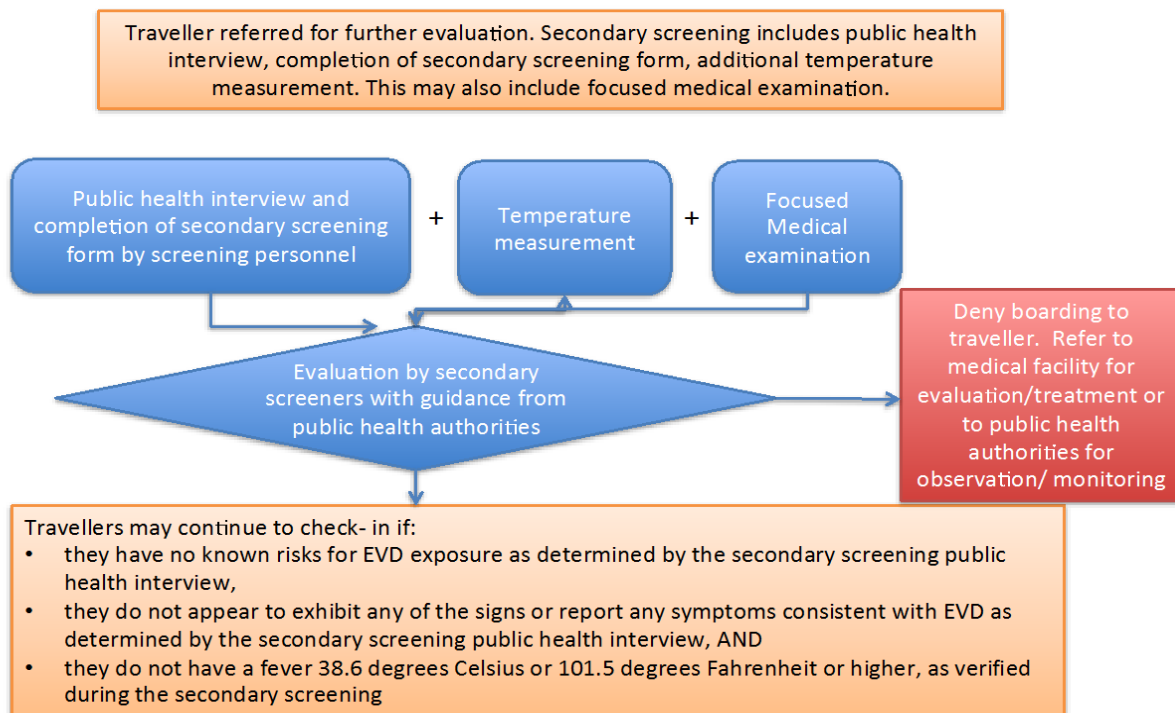
- He has symptoms of fever and headache and no other sign or symptom of infectious disease.
- He answered “No” in all questions in the Traveller Public Health Declaration
- He answered “No” in all questions of the secondary screening form

**Question 8** (20 minutes)

a) What are the health measures that must be implemented to travellers A, B, C, D, and E? Complete both columns in the tables with the response measures for each traveler.

**References:**

- WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: November 6, 2014.



Secondary Screening

Figure 2. Secondary Screening Outline

**Traveller A:**

<b>Travel Intervention (check one):</b>	<b>Medical Assessment and Intervention (check all that apply):</b> contact Public Health Authority for all transported and referred travellers
<input type="checkbox"/> Allowed to board flight <input type="checkbox"/> Not allowed to board flight	<input type="checkbox"/> Transported to hospital/healthcare facility <input type="checkbox"/> Referred home to symptom watch <input type="checkbox"/> Other, specify:

**Traveller B:**

<b>Travel Intervention (check one):</b>	<b>Medical Assessment and Intervention (check all that apply):</b> contact Public Health Authority for all transported and referred travellers
<input type="checkbox"/> Allowed to board flight <input type="checkbox"/> Not allowed to board flight	<input type="checkbox"/> Transported to hospital/healthcare facility <input type="checkbox"/> Referred home to symptom watch <input type="checkbox"/> Other, specify:

**Traveller C:**

<b>Travel Intervention (check one):</b>	<b>Medical Assessment and Intervention (check all that apply):</b> contact Public Health Authority for all transported and referred travellers
<input type="checkbox"/> Allowed to board flight <input type="checkbox"/> Not allowed to board flight	<input type="checkbox"/> Transported to hospital/healthcare facility <input type="checkbox"/> Referred home to symptom watch <input type="checkbox"/> Other, specify:

**Traveller D:**

<b>Travel Intervention (check one):</b>	<b>Medical Assessment and Intervention (check all that apply):</b> contact Public Health Authority for all transported and referred travellers
<input type="checkbox"/> Allowed to board flight <input type="checkbox"/> Not allowed to board flight	<input type="checkbox"/> Transported to hospital/healthcare facility <input type="checkbox"/> Referred home to symptom watch <input type="checkbox"/> Other, specify:

**Traveller E:**

<b>Travel Intervention (check one):</b>	<b>Medical Assessment and Intervention (check all that apply):</b> contact Public Health Authority for all transported and referred travellers
<input type="checkbox"/> Allowed to board flight <input type="checkbox"/> Not allowed to board flight	<input type="checkbox"/> Transported to hospital/healthcare facility <input type="checkbox"/> Referred home to symptom watch <input type="checkbox"/> Other, specify:

## **PART E**

Travellers who exhibited the signs and symptoms consistent with EVD during primary and secondary screening were referred to further evaluation and medical care at a medical facility. A coordination process with local medical facilities, as well as notification of the appropriate public health authorities, was included as part of SOPs prior to implementing exit screening. These travellers were given communication materials with information describing why and where they were being referred for additional medical evaluation and care.

If the traveller was suspected to have EVD or another communicable disease of public health concern, isolation during transport to the medical facility was necessary. Consideration was given to the transportation needs and safety concerns for those transporting the ill traveller. Security and law enforcement needs were assessed to prepare for potentially non-compliant travellers. These considerations were addressed in the development of SOP documents.

Local and national legal authorities compelling individuals to seek medical care were also considered while developing this process and coordination plan. All travellers who were referred for further medical examination as part of the secondary screening process were denied boarding until they no longer pose a public health risk.

### **Question 9 (5 minutes)**

#### **What are the PPE to be used by:**

- a) Persons performing the preliminary screening
- b) Persons performing the secondary screening and involved only in the interview the travelers
- c) Persons performing the secondary screening and performing the medical assessment and/or escort the patient to the ambulance during transportation to the medical facility

#### **References:**

- *WHO Ebola Virus Disease (EVD or Ebola) Exit Screening at Points of Departure DRAFT: SEPTEMBER 23, 2014.*

### **Question 10: (5 minutes)**

What operational considerations are important during transport of an ill traveller to a medical facility?

### **Question 11: (10 minutes)**

What public health or other measures should be considered for asymptomatic travellers who are assessed to have risk of exposure to Ebola?