



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

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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)¹.

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.

¹ <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 educate the community, travellers and the travel industry. These messages should include important health information about actions that travellers should take if they feel ill after travel or if they have been exposed to Ebola. Travellers should be reminded to be prepared for delays that may occur as a result of entry screening.

2. Legal Mechanisms for Screening and Other Interventions

Any plan for entry screening should include consideration of the legal mechanisms to conduct screening and related activities, and the responsible authorities. Interventions that may require legal authority include primary and secondary screening for travellers; medical evaluation for symptomatic travellers; and public health interventions such as symptom monitoring, public health observation, quarantine, and possible travel restrictions for exposed travellers. Planners should gain consent and support for these activities from other government agencies and non-government organizations, as needed.

3. Plan of Operations

Entry screening should be implemented, taking into account the PoE public health emergency plan. Modify and adopt existing public health emergency plans according to the situation. Note the core capacity requirements that should be in place:

- (a) to provide appropriate public health emergency response by establishing and maintaining a public health emergency contingency plan, including the nomination of a coordinator and contact points for relevant PoE, public health and other agencies and services;
- (b) to provide assessment of and care for affected travellers or animals by establishing arrangements with local medical and veterinary facilities for their isolation, treatment and other support services that may be required;
- (c) to provide appropriate space, separate from other travellers, to interview suspect or affected persons;
- (d) to provide for the assessment and, if required, quarantine of suspect travellers, preferably in facilities away from the PoE;
- (e) to apply recommended measures to disinfect, decontaminate or otherwise treat baggage, cargo, containers, conveyances, goods or postal parcels including, when appropriate, at locations specially designated and equipped for this purpose;
- (f) to apply entry or exit controls for arriving and departing travellers; and
- (g) to provide access to specially designated equipment, and to trained personnel with appropriate personal protection, for the transfer of travellers who may carry infection or contamination.

4. Primary Screening

Primary screening includes temperature measurement and visual observation of travellers to look for signs of illness. Screening personnel also review Traveller Public Health Declaration Forms (Appendix 3). Travellers who have signs or symptoms of Ebola, or who have been potentially exposed to the virus, are referred to secondary screening.

Operational considerations for primary screening:

- Set up a physical space for travellers to fill out a Traveller Public Health Declaration Form for primary screening as soon as they arrive at the PoE, or make arrangements for the health declaration forms and the passenger locator cards to be completed on the conveyance.
- Select and train port staff to conduct visual screening of travellers. Primary screening staff do not need medical or public health training.
- Use appropriate personal protective equipment (PPE) when assessing ill travelers.
- Choose security personnel to provide crowd control.
- Select PoE workers to limit access to primary screening areas.
- Ensure thermometers are calibrated and tested periodically for accuracy.
- Select escorts for ill travellers or potentially exposed travellers, to take them to secondary screening.
- Determine baggage assistance and security requirements for travellers referred to secondary screening.
- Take into consideration the sensitivity of temperature measurement equipment. The temperature cut-off point for further evaluation (secondary screening) should be lower than 38.6° C to correct sensitivity variations.

5. Secondary Screening

Staff with medical or public health training conduct secondary screening. Screening staff assess travellers for signs or symptoms of EVD based on the most current case definition and known risk factors for exposure to Ebola virus. Travellers have their temperature taken using a non-contact thermometer. Travellers are also checked for other symptoms of Ebola. Screening staff interview travellers using questionnaires for secondary screening (Appendix 4). Health authorities at PoE and other public health officials decide when travellers can be released from screening to continue to their next destination, or if they should be referred to a health-care facility for medical evaluation. Additional interventions, such as public health observation, may also be needed.

Operational considerations for secondary screening:

- Select and train staff to conduct secondary screening of travellers, as needed. Secondary screening staff should have some medical or public health training.
- Identify staff to train port officers on EVD symptom screening and procedures, to report possible EVD cases.
- Use appropriate PPE when assessing ill travellers.
- Purchase non-contact thermometers and train staff to use them.
- Develop questionnaires for secondary screening and train staff to use them.
- Develop guidance for staff on assessing travellers for signs and symptoms consistent with EVD including fever, severe headache, muscle pain, vomiting, diarrhoea, stomach pain, and/or unexplained bleeding or bruising.
- Develop a process to refer exposed travellers without EVD symptoms, including travel companions of symptomatic travellers with suspected EVD, to public health authorities for interventions such as symptom monitoring when needed.
- Locate and secure temporary space to isolate ill travellers until further evaluation can be arranged.
- Prepare educational material for ill or exposed travellers.

6. Transfer to Health-care Facilities

Emergency medical service personnel will arrange or provide transport for ill persons to health-care facilities for medical evaluation, diagnosis and medical care. Other considerations include:

- identifying medical facilities for evaluation of ill travellers;
- ensuring patient transport (by ambulance) is available, when needed;
- ensuring infection prevention and control precautions are in place, PPE is available, and staff are trained in its correct use (for EVD, this includes gown, gloves, mask, and eye protection);
- establishing a process to inform local clinics or hospitals prior to patient transfer;
- addressing security issues during transportation.

Data Management

Data management refers to the process of storing, recording, and disposing of the records captured during entry screening. This may include paper-based record-keeping and/or electronic database creation and data entry, depending upon the resources and infrastructure available.

Appropriate management of data as part of an entry screening plan provides valuable insight into the scope and effectiveness of screening programs. This information helps to inform future decision-making and implementation considerations.

The templates suggested to assist in data collection can be found in Appendices 3 to 7.

Checklist for Entry Screening plans often include tools to assist in evaluating implementation. An example is found in Appendix 1.

References

Centers for Disease Control and Prevention, Ebola Outbreak: Airport, Border, & Port of Entry Resources for Use by International Partners.

<http://wwwnc.cdc.gov/travel/page/ebola-outbreak-communication-resources>

WHO Ebola Event Management at Points of Entry: Interim Guidance.

<http://www.who.int/csr/resources/publications/ebola/event-management-poe/en/>

WHO Travel and Transport Risk Assessment: Interim Guidance for Public Health Authorities and the Transport Sector. <http://www.who.int/csr/resources/publications/ebola/travel-guidance/en/>

WHO Statements on the Meeting of the International Health Regulations Emergency Committee Regarding the 2014 Ebola Outbreak in West Africa, 8 August 2014 and 22 September 2014.

http://www.who.int/ihr/ihr_ec_ebola/en/

Appendix 1: Sample Entry Screening Checklist

Entry Screening is a public health intervention used to identify persons with possible symptoms of, or risk of exposure to, Ebola virus disease (EVD), to prevent them from further travel. Screening measures are based upon risk and can be adapted for airports, land border crossings and sea ports.

Primary Screening: Identified travellers with signs, symptoms or risk of exposure to Ebola.

Prior to Implementation:

- Develop Standard Operating Procedures (SOP) for primary screening for ports
- Develop SOP for all staff on the proper use of Personal Protective Equipment (PPE)
- Identify:
 - the Points of Entry (PoE) where primary screening will be implemented
 - the appropriate location(s) where primary screening will take place within each PoE
- Identify staffing needs for:
 - screening personnel
 - security
 - transportation (for possible referrals for further medical evaluation)
- Train personnel on:
 - primary screening procedures including use of a Traveller Public Health Declaration Form
 - appropriate use of PPE
- Develop a Traveller Public Health Declaration Form to screen for potential EVD exposure or infection (see Appendix 3)
- Translate the Traveller Public Health Declaration Form into relevant languages
- Identify data management needs and protocols
- Develop a communication campaign to educate travellers and the travel industry about the entry screening process (e.g. posters, signs, or other educational media)
- Develop/distribute communication tools such as travel health notices to provide general information on the outbreak, the purpose of screening and potential impacts on travellers, the travel industry and others

Implementation:

- Implement SOP for primary screening
 - Follow PPE guidance for screening staff
 - Observe travellers for signs and symptoms of disease
 - Distribute and collect Traveller Public Health Declaration Forms on EVD exposure or infection
 - Execute the data management strategy
 - Post and distribute communication tools
- Travellers may proceed with travel if it is determined through primary screening that they have no exposure risk based on their health declaration and no relevant symptoms.
- If travellers have answered yes to any of the questions on the Traveller Public Health Declaration Form or have other signs or symptoms of EVD, immediately refer them to secondary screening.

Secondary Screening: Further assessment of identified travellers to determine if travel restriction or referral for medical evaluation is needed.

Prior to Implementation:

- Develop SOPs for secondary screening for airports, ports and ground crossings
- Develop public health interview for enhanced assessment (Appendix 4)
- Identify:
 - PoE where secondary entry screening will be implemented
 - appropriate location for secondary screening to take place within each PoE
 - a location to keep travel companions and others who have touched a symptomatic individual or their body fluids, until they are released for travel
- Identify staffing needs for:
 - Screening
 - Medical and public health needs
 - Security
 - Transportation (for possible referrals for further medical evaluation)
- Train personnel in:
 - the use of the enhanced assessment tool
 - secondary screening procedures
 - the use of infrared non-contact thermometers
 - the appropriate use of PPE
- Procure appropriate supplies needed for temperature screening
- Develop a public health interview for enhanced assessment
- Translate public health interview questions into relevant languages
- Identify data management needs and protocols (e.g. secondary screening logs)
- Develop/distribute communication tools with specific guidance for exposed or potentially exposed travellers

Implementation:

- Implement Secondary screening SOP
 - Follow PPE guidance for screeners
 - Evaluate passenger for signs and symptoms of disease
 - Conduct an enhanced public health interview (Appendix 4)
 - Conduct temperature screening
 - Execute implementation strategy
- The traveller may proceed with travel if it is determined through secondary screening that they do not meet the risk criteria, based on the health questionnaire, and do not have signs and symptoms of disease.
- Referral for additional medical evaluation may be recommended based on secondary screening.

Referral to Public Health or Medical Authorities

Prior to Implementation:

- Develop SOP for referral to public health or medical authorities
 - (May be included in secondary screening SOP)
- Identify how travellers will be transferred to public health authorities for assessment or transported to a medical facility for care
- Identify the transport service provider

- Identify security personnel to assist with non-compliant travellers
- Identify notification procedures to public health or medical authorities for all referrals
- Identify criteria to add or remove travellers from the travel restriction list and notify travellers of the requirements to continue travel

Implementation:

- Transport the traveller to the medical facility
- Notify the appropriate public health authority
- Place any traveller referred for further assessment on the travel restriction list

Potential Legal Authorities

- International Health Regulations/Public Health Emergency of International Concern
recommendations: international regulations that facilitate international cooperation to mitigate the spread of disease
- National authorities (country specific)
- Local authorities (country specific)

Communication: to educate travellers and the travel industry about the entry screening process

- Message to travellers:
 - Passengers determined to have symptoms consistent with, or to have had possible exposure to, EVD should expect delays
 - Travellers with EVD symptoms will be denied travel
 - Where to get care if denied travel
 - Postpone travel when sick
- Messages to industry:
 - Requirements for information from travellers
 - Reporting of ill travellers
 - Response to ill travellers
- Develop communication tools, such as travel health notices, to provide general information on the outbreak

Appendix 2: Script to be read by cabin crew to passengers prior to arrival

Script 1: When arriving at a country where travellers from affected countries are asked to self-identify to the public health authority.

Ladies and gentlemen,

Actions have been put in place by public health authorities in response to the ongoing outbreak of Ebola in Guinea, Liberia, and Sierra Leone.

All travellers (including transit travellers) who have been present in Guinea, Liberia, and Sierra Leone, in the past three weeks are asked to report to the public health authority on arrival at the airport. This is requested as a safety measure, even if you are feeling well. Thank you for your cooperation.

Script 2: When arriving at a country that requires passengers to fill out the Traveller Health Declaration Form.

Ladies and gentlemen,

Actions have been put in place by public health authorities in response to the ongoing outbreak of Ebola in Guinea, Liberia, and Sierra Leone.

Public health authorities require that all travellers complete a health declaration form before arrival. Your information will be used in accordance with local privacy laws to help fight the spread of the disease. Every traveller must complete a form. A parent or guardian may complete the form for a child. This is required as a precautionary measure, even if you are feeling well.

The cabin crew will give out the form shortly. Please hand the completed form to the public health authority representative on arrival.

Thank you for your cooperation.

Sample scripts by International Air Travel Association: <http://www.iata.org/whatwedo/safety/health/Documents/health-guidelines-cabin-announcement-scripts.pdf>

Appendix 3: Template Traveller Public Health Declaration Form

If entry screening is implemented at the Points of Entry in your country, it is highly recommended that public health authorities use the template below. The application of a unified form will facilitate harmonization of international practice and procedures for primary traveller health screening at Points of Entry during the Ebola outbreak.

Please complete this form. The information is being collected as part of the public health response to the outbreaks of Ebola in West Africa. The information will be used by public health authorities in accordance with applicable national laws.

Last (family) name: First (given) name:

Passport country: Passport number:

Arrival date: Day..... Month..... Year..... Birth date: Day..... Month..... Year.....

Sex: Male..... Female..... E-mail address:

Telephone number (include country code or country name):

Home address:

Address for next 21 days:

PUBLIC HEALTH INFORMATION:

Today or in the past 48 hours, have you had any of the following symptoms?	Yes	No
a. Fever (38° C / 100° F or higher), feeling feverish, or having chills?		
b. Vomiting or diarrhoea?		
c. Severe headaches or body aches?		
d. Unexplained bruising or bleeding?		
In the past 21 days, have you done any of the following?	Yes	No
e. Lived in the same household or had other contact with a person sick with Ebola?		
f. Worked in a health-care facility <i>treating Ebola patients</i> or a laboratory <i>analysing Ebola specimens</i> , or touched the body of someone who died in a country with an Ebola outbreak, without using personal protective equipment?		

Countries Visited:

List all countries where you have been in the past 21 days (including port transits and where you live). List the most recent country first (where you boarded). If you need more space, please use the back of the page.

1..... 2.....

3..... 4.....

Form ID:

Appendix 4: Secondary Screening Form

Point of Entry/Departure: Date of Interview (DD/MM/YYYY):

****PLEASE ATTACH THE TRAVELLER PUBLIC HEALTH DECLARATION FORM USED FOR PRIMARY SCREENING TO THIS DOCUMENT**

Reason Individual Referred for Secondary Screening (Check All that Apply)*:

- Fever Exposure(s)
 Other symptom(s)

SECTION 1: TRAVELLER INFORMATION

Family name: _____ First name: _____
 Other name(s): _____
 Age: _____ Date of Birth: ____/____/____ (DD/MM/YYYY) Gender: Male Female
 Passport #: _____ Passport Country: _____
 Head of Household: _____ Village/Town: _____ Parish: _____
 Country of Residence: _____ District: _____ Sub-County: _____

Location where traveller became ill or had exposure:

Village/Town: _____ District: _____ Sub-County: _____

If different from permanent residence, dates residing at this location: ____/____/____ to ____/____/____
 (DD/MM/YYYY)

Date of Exposure (If Applicable): ____/____/____ (DD/MM/YYYY)

SECTION 2: CLINICAL SIGNS AND SYMPTOMS

Temperature (°C):

Has the traveller experienced any of the following symptoms today OR within the past 48 hours?

Date of First Symptom Onset: ____/____/____ (DD/MM/YYYY)

Fever ($\geq 38.6^{\circ}\text{C}$)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Unexplained bleeding from any site	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
<i>If yes, Onset date ____/____/____ (DD/MM/YYYY)</i>		<i>If yes:</i>	
<i>Temp: ____ °C</i>		Bleeding of the gums	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Vomiting/nausea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Bleeding from injection site	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Diarrhoea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Nose bleed (epistaxis)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Intense fatigue/general weakness	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Blood or black stools (melena)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Anorexia/loss of appetite	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Fresh/red blood in vomit (haematemesis)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Abdominal pain	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Coughing up blood (haemoptysis)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Chest pain	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Bleeding from vagina, other than menstruation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Muscle pain	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Bruising of the skin (petechiae/ecchymosis)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Joint pain	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Other haemorrhagic symptoms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<i>If yes, please specify:</i> _____	
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	Other non-haemorrhagic clinical symptoms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Difficulty breathing	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<i>If yes, please specify:</i> _____	
Difficulty swallowing	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Sore throat	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Jaundice (yellow eyes/gums/skin)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Conjunctivitis (red eyes)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Skin rash	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Pain behind eyes/sensitive to light	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		
Confused or disoriented	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		

Unk = unknown

SECTION 3: EXPOSURES AND RISK FACTORS

Screening personnel should ask the following questions during the public health interview.
In the past three weeks, have you been in any of the following situations?

Were you exposed to the blood or other body fluids of a person with EVD?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you ever NOT wear waterproof gloves, gown, facemask, and/or goggles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Did you get pricked with a needle or other sharp object, or splashed in the eye, nose, or mouth?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Did you provide direct care to any person with EVD while the person was sick?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you ever NOT wear waterproof gloves, gown, facemask, and/or goggles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Did you work in a laboratory where body fluids of EVD patients were processed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you ever NOT wear waterproof gloves, gown, facemask, and/or goggles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Did you directly handle dead bodies, such as participating in a funeral or burial rites or other activities that involve handling dead bodies?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you ever NOT wear waterproof gloves, gown, facemask, and/or goggles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Have you spent time in the same room as any person with EVD?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you ever NOT wear waterproof gloves, gown, facemask, and/or goggles?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, were you always at least 1 metre away from the person with EVD?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you spend a long period of time in the room (more than walking past the area)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
If yes, did you have any physical contact with the person with EVD, such as shaking hands or touching any body part?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Have you been interviewed as part of a contact-tracing investigation after an individual has been confirmed to have EVD?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk

Unk = unknown

SECTION 4: TRIAGE AND RESPONSE

Complete the table with the measures to be taken based on the results of the assessment

Travel Intervention (check one):	Medical Assessment and Intervention (check all that apply): 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/health-care facility <input type="checkbox"/> Referred home for symptom watch <input type="checkbox"/> Other, specify:

Point of entry:

Date of Interview (DD/MM/YYYY):

Appendix 5: Travel Companion Listing Form

Suspect Case Information							
Surname	Other name(s)	Phone number	Village/Town*	Sub-county*	District*	Date of Symptoms Onset	Dates of Travel*

**Please provide information on where the contact will be residing for the next month.*

Companion Information									
Surname	Other name(s)	Phone number	Village/Town	Sub-county	District	Sex (M/F)	Age (yrs)	Relation to suspect case	Type of contact (1,2,3,4,5)** with suspect case; list all

****Types of contact with suspect case**

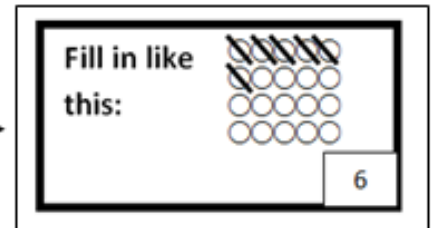
- 1 = Come into contact with the body fluids of the suspect case (blood, vomit, saliva, urine, faeces)
- 2 = Had direct physical contact with the suspect case
- 3 = Touched or shared the linens, clothes, or dishes/eating utensils of the suspect case
- 4 = Slept, ate, or spent time in the same household as the suspect case
- 5 = Travel companion

<p>TO BE COMPLETED BY SCREENER:</p> <p>Name: _____ Position: _____ Phone: _____</p> <p>_____</p>

Appendix 6: Primary Screening Log

INSTRUCTIONS

- Complete general information section at beginning of shift.
- Please tick one circle for each traveller who completes primary screening.
- Write the total number of ticks in the lower right corner of each box.
- Each box contains 20 circles. Each row contains 100 circles.



General Information

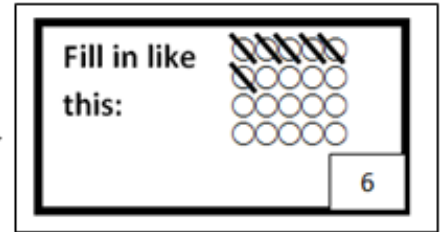
Airport:		
Screener Name:		
Fever Screening Tool Used (Make/Model):		
Date (DD/MM/YYYY) and Time of Shift:	___/___/___	___:___-___:___

Completed Primary Screening					
Total Completed Primary Screening:					

Appendix 7: Referred to Secondary Screening Log

INSTRUCTIONS

- Complete general information section at beginning of shift.
- Please tick one circle for each traveller who is referred to secondary screening.
- Write the total number of ticks in the lower right corner of each box.
- Each box contains 20 circles. Each row contains 100 circles.



General Information		
Airport:		
Screeener Name:		
Fever Screening Tool Used:		
Date (DD/MM/YYYY) and Time of Shift:	___/___/___.	___:___ - ___:___

Referred to Secondary Screening					

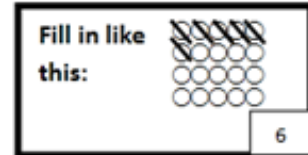
Total Referred to Secondary Screening:	
-----------------------------------------------	--

Appendix 8: Secondary Screening Log

Completed Secondary Screening Log

INSTRUCTIONS

- Complete general information section at beginning of shift.
- Please tick one circle for each traveller who has completed secondary screening.
- Write the total number of ticks in the lower right corner of each box. →
- Each box contains 20 circles. Each row contains 100 circles.



General Information		
Airport:		
Screeener Name:		
Fever Screening Tool Used:		
Date (DD/MM/YYYY) and Time of Shift:	__/__/__.	__:__-__:__

Completed Secondary Screening					

Total Completed Secondary Screening:	
---------------------------------------------	--

[Time out]

Appendix 9: Screening Log Summary Reports

Screening Log Summary Report

Date (DD/MM/YYYY): ___/___/___.

Shift time:	Total completed primary screening:	Total referred to secondary screening:	Total completed secondary screening:	Outcome of Secondary Screening			
				Referred by [XXXX] for public health intervention:	Referred by [XXXX] for medical intervention:	Travel restriction implemented:	Allowed to travel:
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
: - :							
Daily Total:							

NOTE: One person may have more than one outcome, meaning that the total of the outcome columns may not equal the total completed screening.

TRAVEL TO AND FROM EBOLA-AFFECTED COUNTRIES IS LOW-RISK HERE IS WHAT YOU NEED TO KNOW



WHILE TRAVELLING

If you develop a fever and Ebola symptoms yourself promptly inform airline personnel.



fever, weakness, muscle pain, headache, and sore throat; followed by vomiting, diarrhoea, bleeding.



Alert airline personnel about a fellow traveller who has Ebola symptoms:



AT AIRPORTS AND AT YOUR DESTINATION



DO NOT touch the body of a person who has died from Ebola.



Use alcohol rub throughout the day. When hands are visibly dirty use soap and water.



Seek prompt medical attention if you have Ebola symptoms.



Avoid direct physical contact with anyone who is displaying the symptoms of Ebola.



World Health Organization

Appendix 11: Sample Ill Traveller Card

Information for Ill Travellers: Ebola What you need to do

You have been given this card because you might have been exposed to patients with Ebola, and because you are sick with symptoms consistent with Ebola infection. This does not mean that you have Ebola, but further evaluation is needed.

- Ebola is a severe, often fatal disease that spreads through direct contact with an infected person's blood or body fluids (such as saliva or urine). Symptoms appear within 21 days of exposure.
- People exposed to Ebola are not contagious unless they have a fever and other symptoms of Ebola: severe headache, muscle pain, vomiting, diarrhoea, stomach pain, or unexplained bleeding or bruising.

Because of your exposure and symptoms, public health officials require that you be medically evaluated.

- You will be taken to a hospital emergency department.
- At the hospital, a doctor will examine you. Based on the results of the examination, you might be tested for Ebola, if recommended by public health officials.
- Follow all instructions by public health and medical personnel to prevent exposing others.

If your medical evaluation does not indicate Ebola infection:

- You will be allowed to leave the hospital.
- However, continue to take steps to protect yourself and others until 21 days after leaving the Ebola-affected country:
 - o Take your temperature every morning and evening, and watch for symptoms consistent with Ebola fever, severe headache, muscle pain, vomiting, diarrhoea, stomach pain, or unexplained bleeding and bruising.
 - o Check in regularly with public health officials according to their instructions.
 - o Tell public health officials if you plan to travel more than 50 miles or to another country.
 - o Do not travel on commercial planes, ships or trains.
 - o Call public health officials immediately if you get a fever* or other symptoms.
 - *Fever: temperature of 38° C / 100.4° F or higher, or feeling like you have a fever.
 - If you can't reach a public health official, call a doctor. Tell the doctor where you travelled and that you might have been exposed to Ebola.
 - Do not use public transport to get to the medical facility. Only travel by private car or ambulance.
 - o Bring this notice and give it to health-care staff when you arrive.

(Sample text for travellers based on CDC recommendations. Adapt as necessary for protocol in country of use.)