# Ebola Virus Disease (Ebola) Pre-Departure/Exit Screening at Points of Departure in Affected Countries

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## INTRODUCTION

Pre-departure/exit screening is a public health intervention used to identify persons with possible symptoms of or risk of exposure to Ebola virus disease (Ebola) and to prevent them from further travel. Screening measures are based upon symptom assessment and risk and can be adapted for air, land, and sea points of departure (PODs). The pre-departure/exit screening process should be paired with travel restrictions to prevent the exportation of Ebola to other countries, protect travelers and air crew, and foster compliance with public health recommendations for exposed or symptomatic persons. Effective exit screening prevents the introduction and spread of disease to other geographic areas.

The following document provides a detailed description of several planning and implementation considerations that countries should explore when determining pre-departure/exit screening plans and implementation. These considerations include items such as: the method, tools, and sequence of screening, determining resource needs, communication messages, and the legal authorities to conduct screening.

Pre-departure/exit screening plans should include an extensive public health communications campaign to educate the traveling public and the travel industry. These messages should provide important health information as well as the intent to screen travelers for the signs and symptoms of disease and risk of exposure to Ebola.

## **PRIOR TO IMPLEMENTATION**

Prior to the implementation of a pre-departure/exit screening process, a standard operating procedure (SOP) should be developed in consultation with the stakeholders and responsible parties. Suggested parties include, but are not limited to: government entities with jurisdiction such as customs and immigration, public health authorities, airport authorities, airport managers, and security personnel. These entities will lead the implementation of the pre-departure/exit screening process and manage available resources.

As part of the development of the SOP, a needs assessment should be conducted to determine the best location to conduct the primary and secondary screening, staffing and training needs, and necessary supplies including non-contact thermometers, personal protective equipment (PPE), and development and printing of materials.

The legal authorities for implementing pre-departure/exit screening should be considered while developing the SOP. Plans should be developed with regard to local, national, and international public health, customs and border protection, and travel entities.

The pre-departure/exit screening process should include an extensive public health communications campaign to educate the traveling public and the travel industry. These messages should provide important health information about the outbreak as well as the intent to screen travelers for the signs of disease and risk of exposure to Ebola. Specifically, messages should tell travelers to expect delays, that boarding may be denied, and that those that are sick should consider postponing travel. Sample travel messages are contained in Appendices 10-12.

## **PRIMARY SCREENING**

Primary screening is a process that identifies travelers that may be symptomatic with or were possibly exposed to Ebola. This initial screening can be conducted by a workforce without public health or medical training. Activities include: observing travelers for the signs of disease, temperature screening, and the distribution, collection, and review of a public health questionnaire to determine risk. Primary screening evaluates all travelers and identifies those that need further evaluation of illness or are at risk of Ebola exposure.

Travelers who exhibit signs or symptoms consistent with Ebola should be referred to secondary screening for further evaluation. Boarding should be denied until further assessment and recommendations are made during the secondary screening process. Persons exhibiting any of the following symptoms should be referred to secondary screening:

- fever greater than 38.0 degrees Celsius or 100.4 degrees Fahrenheit, or feeling feverish
- severe headache
- muscle pain
- vomiting
- diarrhea
- stomach or abdominal pain
- unexplained bleeding or bruising

Travelers who have been determined through primary screening to be at risk for Ebola exposure should also be referred to secondary screening for further assessment even if they are not exhibiting any symptoms or signs of disease. Risk of Ebola exposures should be assessed by using a public health questionnaire during the primary screening process. These travelers should also be denied boarding until a further assessment of risk is conducted in the secondary screening process. The types of activities which put travelers at risk for Ebola exposure include:

- Caring for confirmed Ebola patients either at home or in a healthcare setting without the appropriate use of personal protective equipment (PPE)
- Engaging in the preparation of bodies or burial rites for those who have died from Ebola
- Working in a laboratory where Ebola samples are processed without using appropriate PPE or following biosafety precautions

A sample template of a primary screening public health questionnaire is provided in Appendix 4.

## **Implementation**

Travelers should complete a primary screening form (Appendix 4) to assess risk of exposure and self-report any symptoms they have experienced within the past 48 hours. Primary screening personnel should review the answers to this questionnaire, while also observing travelers for the symptoms and signs of disease that are consistent with Ebola, and conduct a non-contact temperature screening. If a traveler answers "yes" to any of the questions on the questionnaire, he or she should be referred to secondary

<sup>&</sup>lt;sup>1</sup> Temperature inclusion criteria may need to be adjusted based upon the temperature device used for screening. Calibration recommended

screening for further evaluation. Travelers who exhibit signs of disease or report symptoms consistent with Ebola should also be referred to secondary screening.

In addition, travelers with have a fever of 38.0 degrees Celsius or 100.4 degrees Fahrenheit or higher during primary temperature screening or those who report feeling feverish should also be referred to secondary screening. All travelers who have been referred to secondary screening should be denied boarding until further evaluation and assessment of risk exposure can be conducted during secondary screening.

Travelers may continue traveling if:

- all answers to questions on the public health questionnaire are "no"
- they do not appear to exhibit any of the signs and or report any symptoms of disease AND
- they do not have a fever of 38.0 degrees Celsius or 100.4 degrees Fahrenheit or higher

## **SECONDARY SCREENING**

The secondary screening process builds upon the primary screening process by further evaluating travelers identified during primary screening. Secondary screening should be conducted by a workforce with public health or medical training. Activities include: in-depth public health interview to assess risk and a brief focused physical exam, which includes a second temperature measurement.

Final determinations about travel restrictions, referral for medical evaluation, or treatment as well as the notification of proper public health authorities should be made following secondary screening.

Individuals identified in primary screening should undergo an in-depth public health, secondary screening interview conducted by a public health or medical professional. During this secondary screening interview, responses to the public health questionnaire should be verified and a brief focused physical exam, including a second temperature measurement, should be conducted. Primary screening questionnaires should be attached to secondary screening interview forms to assist in record keeping.

Travelers who exhibit clinical signs and symptoms consistent with Ebola as confirmed by the secondary screening interview and examination should be denied boarding and referred for additional medical evaluation and treatment. Appropriate public health authorities should also be notified as part of this process.

Travelers who are confirmed by the secondary screening interview to be at risk for exposure to Ebola should be denied boarding until after the 21 day incubation period has expired. These travelers should be given communication materials with messages about the outbreak and where to seek treatment if symptoms develop (Appendix 12). Additional travel restrictions could be implemented (See Travel Restrictions document). Appropriate public health authorities should also be notified as part of this process.

## **Implementation**

All travelers who have been referred to secondary screening should be denied boarding until further evaluation and assessment of risk exposure is completed during secondary screening.

Secondary screeners should complete a Secondary Screening form (Appendix 5) with all travelers who are referred to secondary screening including a second temperature check with a non-contact thermometer and more in-depth questions about signs, symptoms, and exposures. Decisions to deny boarding and recommend either further medical evaluation or treatment or travel restrictions should be implemented as described above with consideration of guidance from public health authorities.

Travelers may continue traveling if:

- they have no known risks for Ebola exposure as determined by the secondary screening public health interview.
- they do not appear to exhibit any of the signs or report any symptoms consistent with Ebola as determined by the secondary screening public health interview, AND
- they do not have a fever 38.0 degrees Celsius or 100.4 degrees Fahrenheit or higher, as verified during the secondary screening

## MEDICAL REFERRAL

Some travelers who exhibit the signs and symptoms consistent with Ebola during primary and secondary screening may require 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, should be developed as part of SOPs prior to implementing pre-departure/exit screening. These travelers should be given communication materials with information describing why they are being referred for additional medical evaluation and where to seek medical care (Appendix 11).

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

Local and national legal authorities compelling individuals to seek medical care should also be considered while developing this process and coordination plan. All travelers who have been referred for further medical examination as part of the secondary screening process should be denied boarding until they no longer pose a public health risk. Additional public health measures such as isolation orders may also be considered.

## TRAVEL RESTRICTIONS

The implementation of travel restrictions is an effort to reduce the risk posed by travelers who may be symptomatic with or exposed to Ebola. This system may be used to support the effectiveness of predeparture/exit screening. Preventing travelers who have been identified during the primary and secondary screening process from boarding commercial airplanes, as well as ships, trains or buses, helps to prevent the exportation of Ebola to other countries, protects passengers and crew onboard, and fosters compliance with public health recommendations for exposed persons in affected countries. Legal authorities for restricting travel for symptomatic or exposed persons, as well as mechanisms to enforce this restriction and to lift the restriction when the person is no longer a threat to public health, should be considered in advance of implementation. Additional information on establishing an air travel restriction process is contained within the *Travel Restriction for Ebola* document.

## DATA MANAGEMENT

Data management refers to the process of storing, recording, and disposing of the records captured during pre-departure/exit 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 pre-departure/exit 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 primary functions of data management may include:

- 1. Conducting quality assurance (QA) review on completed questionnaires, forms, logs and summary reports to make sure that information is legible and complete.
- 2. Manually extracting information from hard copy questionnaires, forms, logs and summary reports to manually calculate basic descriptive statistics (e.g., number of individuals completing primary screening per day)
- 3. Developing an electronic database in which to enter data from hard copy questionnaires, forms, logs and summary reports to calculate basic and complex descriptive statistics,
- 4. Compiling a list of individuals who were prevented from traveling and could be added to a travel restricted list.

Several sample tools to provide a sample framework for data management have been included (Appendices 6-9).

## Appendix 1: Summary Checklist Pre-Departure/Exit Screening at Points of Entry

<u>Pre-Departure/Exit Screening:</u> Pre-departure/exit screening is a public health intervention used to identify persons with possible symptoms of or risk of exposure to Ebola virus disease (Ebola) and to prevent them from further travel. Screening measures are based upon risk and can be adapted for airports, land border crossings and sea points of departure.

Primary Screening - Identify travelers with signs, symptoms, or risk of exposure to Ebola

Pr	or t	to Implementation:
		Develop Standard Operating Procedure (SOP) for primary screening
	Ide	entify:
		points of departure (international airports) where primary exit screening will be implemented
	T 1	appropriate location where primary screening will take place within each point of departure
	Ide	entify staffing needs for:
		screening personnel
		□ security
		others, e.g., data management, interpreters for specific languages
		Identify supply needs for temperature screening (e.g., non-contact thermometers, personal protective equipment [PPE])
	П	Purchase supplies needed for temperature screening (including batteries)
	Tra	nin personnel on:
		primary screening procedures
		use of non-contact thermometers
		□ appropriate use of PPE
		Develop public health questionnaire for potential Ebola symptoms or exposure (Appendix 5)
		Translate public health questionnaire into relevant languages
		Develop communication campaign to educate community leaders, travelers and travel industry
		about the outbreak and the pre-departure/exit screening process (e.g. posters, signs, or other
		educational media) (Appendix 10-12)
	Ш	Identify data management needs and protocols (e.g. primary screening logs)
	Im	plementation:
		Implement SOP for primary screening
		Follow PPE guidance for screeners
		Observe travelers for signs and symptoms of disease
		Distribute, collect, and review public health questionnaire
		Conduct temperature screening
		Execute data management strategy
		Post and distribute communication messages tools
	If t	raveler is positive for symptoms/signs or exposure, refer to secondary screening
$\triangleright$		avelers may continue traveling if:
		all answers to questions on the public health questionnaire are "no"
		they do not appear to exhibit any of the signs and symptoms of disease AND
		they do not have a fever of greater than 38.0 degrees Celsius or 100.4 degrees Fahrenheit

<u>Secondary Screening</u> – Further assessment of identified travelers to determine if travel restriction or referral for medical evaluation is needed

ъ.	
<u>Pri</u>	ior to Implementation:
	Identify:
	□ airports where secondary exit screening will be implemented
	□ appropriate location where secondary screening will take place within the airport, port or ground crossing
	□ healthcare facilities to which ill travelers identified by screening will be referred
	Identify staffing needs for:
	☐ medical and public health personnel
	□ transportation (for possible referrals for further medical evaluation)
	□ others, e.g., data management, interpreters for specific languages
	Train personnel on:
	□ secondary screening procedures
	□ use of infrared non-contact thermometers
	□ appropriate use of PPE
	☐ Identify supply needs for temperature screening (e.g., non-contact thermometers, personal protective equipment [PPE])
	☐ Purchase supplies needed for temperature screening (including batteries)
	☐ Develop public health interview for enhanced assessment (Appendix 6)
	☐ Translate public health interview questions into relevant languages
	☐ Develop/distribute communication messages (Appendix 10-12)
	☐ Identify data management needs and protocols (e.g. secondary screening logs)
Im	plementation:
	☐ Follow PPE guidance for screeners
	☐ Conduct a public health interview (Appendix 6)
	☐ Evaluate passenger for of signs and symptoms of disease
	☐ Repeat temperature screening
	Travelers should be denied boarding if, through secondary screening, they are:
	☐ Exhibiting signs and symptoms consistent with Ebola infection
	☐ Have fever of greater than 38.0 degrees Celsius or 100.4 degrees Fahrenheit
	☐ Confirmed to be at risk for Ebola exposure within the past 21 days
	Referral for additional medical evaluation may be recommended based on secondary screening
	Travel restrictions and other public health interventions may be implemented
_	Travelers may senting traveling if
	Travelers may continue traveling if:
	all answers to questions on the public health questionnaire are "no"
	☐ they do not appear to exhibit any of the signs and symptoms of disease AND

□ they do not have a fever of greater than 38.0 degrees Celsius or 100.4 degrees Fahrenheit

## Referral for Medical Evaluation/Public Health Notification:

## Prior to Implementation:

- □ Develop SOP for referral to public health or medical authorities
  - ➤ (May be included in secondary screening SOP)
- ☐ Identify how travelers will be transported medical facility
- ☐ Identify notification procedures for:
  - ☐ medical authorities for all referrals
  - □ appropriate public health authorities
- ☐ Identify security personnel to assist with non-compliant travelers

## Implementation:

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

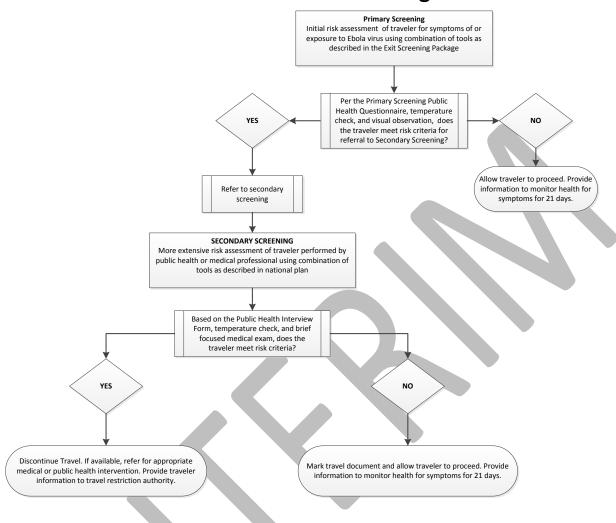
## **APPENDIX 2 - IMPLEMENTATION TOOLS:**

- 1. Visual inspection: screeners visually observe and assess travelers for overt signs of Ebola. This can use existing workforce and is not resource intensive, but it does add duties to workers who might not be comfortable evaluating travelers, and who might not appropriately assess them.
- **2. Primary screening**: data gathering and health risk assessment form. This provides current health information about the traveler and exposures to Ebola and uses existing workforce. However, it relies on factual responses from the traveler who might deny exposures in hopes of continuing travel. This also requires logistics of printed forms and writing utensils, and it might be necessary to make changes to the form over time if the outbreak changes.
- **3. Secondary screening:** confirms and elaborates on symptoms and risks identified in primary screening and determines traveler disposition. Trained public health or medical workers might identify symptoms the traveler is not aware of, and can lend additional knowledge to the risk of any exposures to Ebola patients. However, secondary screening requires trained personnel and requires paper and writing resources, and might be time-consuming.
- 4. **Fever checks:** non-contact thermometers used to document traveler temperature at primary and secondary screening. It is easy to implement discontinuation of travel based on presence of fever, a primary symptom of Ebola, but might be inaccurate if inappropriate thermometers are used. Appropriate non-contact thermometers might be expensive.
- 5. **Data management:** process of storing, recording, and consolidating data. This will monitor outcomes of primary and secondary screening and determine the proportion of travelers denied boarding for various reasons. Data management can be time intensive, and risks the loss of personally identifiable information

These measures may no longer be necessary once the outbreak is over, if there is a significant decrease in case counts, or if contact tracing is effective in the airport setting. The point of discontinuation should be made after discussion with all stakeholders.

## **Appendix 3: Screening Algorithm**

## **Exit Screening Process**



## **Appendix: 4: Primary Screening Form**

<b>Disposition:</b> □ Clear □ Secondary	<b>Temperature</b> (°C or °F):	_				
Dear Traveler: Due to an outbreak of Ebola, public heal declaration form. We need your help to prevent the spre		following	health			
(Name as it appears on your travel and boarding docum	nents) Today's Date (DD/MM/YY):					
Surname: First	Surname: First name:					
Other name(s):						
Phone number(s) with country code: 1)	2)	<del></del> -				
Country Issuing Passport:	Passport Number:					
Airline: Flight Number:						
Have you had any of the following symptoms today OR wi Please check yes or no.	thin the past 2 days?	Yes	No			
Fever of ≥38.0°C (100.4°F) or feeling feverish						
Severe headache						
Muscle or joint pain						
Vomiting						
Diarrhea						
Stomach or abdominal pain						
Unexplained bleeding or bruising (bleeding from mouth, nose coughing blood)	bleed, bloody vomit, bloody/black diarrhea,					
In the last 21 days, have you experienced any of the follow	ing? (Check yes or no)	Yes	No			
Were you ever exposed to blood or other body fluids of a pers	son with Ebola?					
Did you provide direct care to anyone with Ebola while the per This includes in a household or health care setting.	erson was sick?					
Have you worked in a laboratory that processes body fluids of	f Ebola patients?					
Did you directly handle dead bodies? This might include partiactivities that involved handling dead bodies.	cipating in funeral or burial rites or any other					
Do you live in the same household as a person with Ebola wh	ile that person was sick?					
Have you had spent time in the same room within 1 meter of a with an Ebola patient, or any physical contact with an Ebola p						
Have you ever been stuck with a needle or other sharp object, bodily fluids of someone with Ebola?	or splashed in the eye, nose or mouth with					
Have you been interviewed as part of a contact investigation f	or someone with Ebola?					

## **Appendix 5: Secondary Screening Form**

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

Reason Individual Referred for Secondary Screening (Check All that Apply)\*: \*PLEASE ATTACH PRIMARY SCREENING FORM TO THIS DOCUMENT

□ Fever□ Exposure(s)□ Other symptom(s)

			ушрсы					
SECTION 1: TRAVELER INFORMATION								
Family name: First name:								
Other name(s):							ale 🗆	
Age: Date of	Age: Date of Birth:/(DD/MM/YYYY)							
Female	Female							
Passport #:	Passport #: Passport Country:							
Head of Household:			Villag	e/Town:	Parish	:		
			51.					
Country of Residence:			Disti	rict:Sul	b-County	<b>/</b> :		
<del></del>								
Location Where Traveler E	ither B	ecame	III or H	ad Exposure:				
Village/Town:		Distri	ct	Sub-Coun	tv			
village/TOWII.		_ DISUI	Ct	Sub-coun	Ly.			
If different from permanent re	ecidenc	e Date	c recidin	g at this location: / /	to	1	/	
(DD/MM/YYYY)	esidelic	e, Date:	s residing	g at this location	10 _	/	<b>/</b>	
Date of Exposure (If Applicable	le):		/	(DD/MM/YYYY)				
	4			_	Tomi	neratur	۰ (°C)۰	
SECTION 2: CLINICAL SIGNS AND SYMPTOMS  Temperature (°C):								
Has the traveler experienced	any of	the fol	lowing s	ymptoms today OR within t				
	any of	the fol	lowing s	ymptoms today OR within t				
Has the traveler experienced Date of First Symptom Onset	any of ::/	the fol	lowing s	ymptoms today OR within t _(DD/MM/YYYY)				
Has the traveler experienced Date of First Symptom Onset Fever (≥38.0° C)	any of	the fol	lowing s	ymptoms today OR within t _(DD/MM/YYYY)light	he past (	48 hou	rs?	
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//	any of	the fol	lowing s	ymptoms today OR within t _(DD/MM/YYYY)  light Confused or disoriented	he past (	48 hou	rs? □ No	□ Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C	any of ::/ Yes (DD	the fol	Unk	ymptoms today OR within t (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a	he past (	48 hou	rs? □ No	
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C  Vomiting/nausea	any of  ∷/  □ Yes  □ Yes  □ Yes	the fol	Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes:	he past (	48 hou	rs? □ No □ No	□ Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C  Vomiting/nausea  Diarrhea	Yes Yes Yes Yes	No No No	Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums	he past 4	□ Yes □ Yes	ns? □ No □ No □ No	□ Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C  Vomiting/nausea  Diarrhea Intense fatigue/general weakness	Yes Yes Yes Yes	he fold in No	Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes:	he past 4	□ Yes □ Yes	no No No No	□ Unk □ Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C  Vomiting/nausea  Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite	□ Yes	No No No No	Unk (YYYY) Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site	he past a	- Yes - Yes - Yes - Yes - Yes	No	□ Unk □ Unk □ Unk □ Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/  Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain	Yes Yes Yes Yes Yes Yes Yes	No No No No	Unk (YYYY) Unk Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis)	he past a	- Yes - Yes - Yes - Yes - Yes	No	Unk Unk Unk Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/  Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain	Yes Yes Yes Yes Yes Yes Yes Yes Yes	No No No No No	Unk TYYY) Unk Unk Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen	he past a	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/  Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain	any of  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	No   No   No   No   No   No   No   No	Unk Unk Unk Unk Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melentersh/red blood in vomit	any site	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date//  Temp:° C  Vomiting/nausea  Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain	Yes	No   No   No   No   No   No   No   No	Unk (YYYY)  Unk Unk Unk Unk Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melentersh/red blood in vomit (hematemesis)	he past any site	- Yes	No   No   No   No   No   No   No   No	Unk Unk Unk Unk Unk Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain	Yes	No	Unk TYYYY) Unk Unk Unk Unk Unk Unk Unk	light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen Fresh/red blood in vomit (hematemesis) Coughing up blood (hemoptice)	he past any site	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/  Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache	any of  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	No	Unk Unk Unk Unk Unk Unk Unk Unk	light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen Fresh/red blood in vomit (hematemesis) Coughing up blood (hemopt Bleeding from vagina, other	he past any site	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough	any of	No   No   No   No   No   No   No   No	Unk Unk Unk Unk Unk Unk Unk Unk Unk	light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen Fresh/red blood in vomit (hematemesis) Coughing up blood (hemopt Bleeding from vagina, other menstruation Bruising of the skin (petechiae/ecchymosis)	any site  any site  than	- Yes	No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough Difficulty breathing	Yes	No	Unk TYYY)  Unk Unk Unk Unk Unk Unk Unk Unk Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a lf yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melentersh/red blood in vomit (hematemesis) Coughing up blood (hemoptobleeding from vagina, other menstruation Bruising of the skin	any site  any site  than	- Yes	No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough Difficulty breathing Difficulty swallowing	any of	No	Unk	light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen Fresh/red blood in vomit (hematemesis) Coughing up blood (hemopt Bleeding from vagina, other menstruation Bruising of the skin (petechiae/ecchymosis)	any site  any site  than	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough Difficulty breathing Difficulty swallowing Sore throat	any of	No	Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melentersh/red blood in vomit (hematemesis) Coughing up blood (hemoptobleeding from vagina, other menstruation Bruising of the skin (petechiae/ecchymosis) Other hemorrhagic symptom	any site  any site  than	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough Difficulty breathing Difficulty swallowing Sore throat Jaundice (yellow eyes/gums/	any of	No	Unk	ymptoms today OR within to (DD/MM/YYYY)  light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melentersh/red blood in vomit (hematemesis) Coughing up blood (hemoptobleeding from vagina, other menstruation Bruising of the skin (petechiae/ecchymosis) Other hemorrhagic symptom	any site  any site  than	Yes   Yes	No   No   No   No   No   No   No   No	Unk
Has the traveler experienced Date of First Symptom Onset  Fever (≥38.0° C)  If yes, Onset date/ Temp:° C  Vomiting/nausea Diarrhea Intense fatigue/general weakness Anorexia/loss of appetite Abdominal pain Chest pain Muscle pain Joint pain Headache Cough Difficulty breathing Difficulty swallowing Sore throat Jaundice (yellow eyes/gums/ skin)	Yes	No	Unk TYYYY)  Unk Unk Unk Unk Unk Unk Unk Unk Unk Un	light Confused or disoriented Unexplained bleeding from a If yes: Bleeding of the gums Bleeding from injection site Nose bleed (epistaxis) Blood or black stools (melen Fresh/red blood in vomit (hematemesis) Coughing up blood (hemopt Bleeding from vagina, other menstruation Bruising of the skin (petechiae/ecchymosis) Other hemorrhagic sympton If yes, please specify:	any site  any site  than	Yes   Yes	No	Unk

## **SECTION 3: EXPOSURES AND RISK FACTORS**

In the past three weeks, have you done any of the following?:

Were you exposed to blood or other body fluids of a person with Ebola?	☐ Yes ☐ No ☐ Unk
Did you get stuck with a needle or other sharp object, or splashed in the eye, nose, or	☐ Yes ☐ No ☐ Unk
mouth?	
Did you ever fail to wear waterproof gloves, gown, facemask, and goggles?	☐ Yes ☐ No ☐ Unk
Did you provide direct care to any person with Ebola while the person was sick?	☐ Yes ☐ No ☐ Unk
Did you ever fail to wear waterproof gloves, gown, facemask, and goggles?	☐ Yes ☐ No ☐ Unk
Did you work in a laboratory where body fluids of Ebola patients were processed?	☐ Yes ☐ No ☐ Unk
Did you ever <b>fail</b> to wear waterproof gloves, gown, facemask, and goggles?	☐ Yes ☐ No ☐ Unk
Did you directly handle dead bodies, such as participating in a funeral or burial rites or	☐ Yes ☐ No ☐ Unk
other activities that involve the handling of dead bodies?	
Did you ever fail to wear waterproof gloves, gown, facemask, and goggles?	☐ Yes ☐ No ☐ Unk
Have you spent time in the same room as any person with Ebola?	☐ Yes ☐ No ☐ Unk
Did you ever fail to wear waterproof gloves, gown, facemask, and goggles?	☐ Yes ☐ No ☐ Unk
If no, were you always at least 1 meter away from the person with Ebola?	☐ Yes ☐ No ☐ Unk
If no, did you spend a long period of time in the room (more than walking by	☐ Yes ☐ No ☐ Unk
the area)?	
If no, did you have any physical contact with the person with Ebola, such as	☐ Yes ☐ No ☐ Unk
shaking hands or touching any body part?	
Have you been interviewed as part of a contact investigation for someone with Ebola?	☐ Yes ☐ No ☐ Unk

## **SECTION 4: TRIAGE AND RESPONSE**

Travel Intervention (check one):	Medical Assessment and Intervention (check all that apply):			
	contact Public Health Authority for all transported and referred			
	travelers			
☐ Allowed to board flight	☐ Transported to hospital/healthcare facility			
□ Not allowed to board flight	☐ Referred home to symptom watch			
	☐ Other, specify:			

Form ID:	
Point of entry:	
Date of Interview (DD/MM/YYYY):	VIRAL HEMORRHAGIC FEVER: TRAVEL COMPANION LISTING FORM

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

<sup>\*</sup>For all information on location, please list information on where the contact will be residing for the next month

Companion Info	rmation							
Surname	Other name(s)	Phone	Village/Town	Sub-county	District	Sex A	ge Relation to	Type of contact
		number				(M/F) (y	rs) 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, feces)
- 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 case
- 5 = Travel companion

TO BE COMPLETED BY SCREENER:		
Name:	_ Position:	Phone:

## **Appendix 6: Primary Screening Log**

<ul> <li>INSTRUCTIONS</li> <li>Complete general information section at beginning of shift.</li> <li>Please tick one circle for each traveler who completes primary screening.</li> <li>Write the total number of ticks in the lower right comer of each box.</li> <li>Each box contains 20 circles. Each row contains 100 circles.</li> </ul>								
General Inform Airport:	mation							
Screener Name:								
Fever Screening Tool Make/Model):	Used							
Date (DD/MM/YYYY Shift:	) and Time of	/ /		:	- :			
	1							
Completed Primary Screening	00000	00000	00000	00000	00000			
	00000	00000	00000	00000	00000 00000 00000 00000			
	00000	00000	00000	00000	00000 00000 00000 00000			
	00000	00000	00000	00000	00000			
	00000	00000	00000	00000	00000			

## Appendix 7: Referred to Secondary Screening Log

# INSTRUCTIONS Complete general information section at beginning of shift. Please tick one circle for each traveler 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. Fill in like this:

						_
General Info	ormation					
Airport:						
Screener Name:						
Fever Screening To	ool Used:			X ·		
Date (DD/MM/YY) Shift:	(Y) and Time of	//_		;;		
Referred to Secondary Screening	00000	00000	00000	00000	00000	

Referred to Secondary Screening	00000	00000 00000 00000	00000 00000 00000	00000	00000
	00000	00000	00000	00000	00000
	00000	00000	00000	00000	00000
	00000	00000	00000	00000	00000
	00000	00000	00000	00000	00000

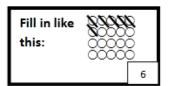
Total Referred to Secondary	
Screening:	

## **Appendix 8: Secondary Screening Log**

## **Completed Secondary Screening Log**

## INSTRUCTIONS

- · Complete general information section at beginning of shift.
- Please tick one circle for each traveler 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 Info	rmation								
Airport:									
Screener Name:									
Fever Screening Too	l Used:								
Date (DD/MM/YYYY) and Time of Shift:		::							
Completed Secondary Screening	00000		00000	00000	00000				
	00000		00000	00000	00000				
	00000		00000	00000	00000				
	00000		00000	00000	00000				
	00000		00000	00000	00000				
			Total Complete Screening:	d Secondary					

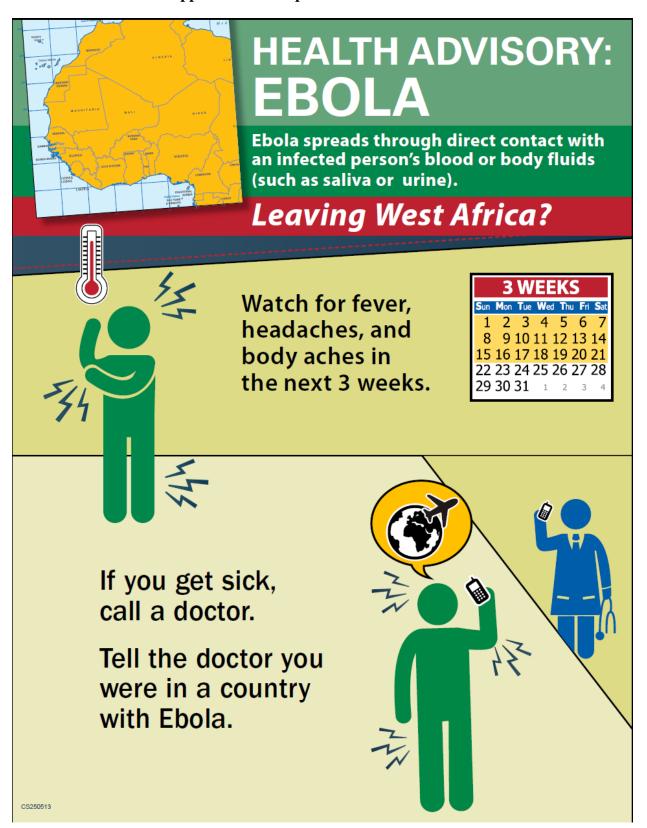
## Appendix 9: Screening Log Summary Reports Screening Log Summary Report

Date (	(DD	/MM	/YYYY	):	/	/	
Dutt	100	,	,	,.			۰

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

**Appendix 10: Sample Communication Poster** 



## **Appendix 11: Sample Ill Traveler Card**

ILL TRAVELER CARD - REQUIRED EVALUATION

August 13, 2014-2

# Information for Ill Travelers: 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 <u>fever</u> and other symptoms of Ebola: severe headache, muscle pain, vomiting, diarrhea, 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 Ebolaaffected country:
  - Take your temperature every morning and evening, and watch for symptoms consistent with Ebola: fever, severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.
  - o Check in regularly with your local health department according to their instructions.
  - o Tell the health department 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 the health department immediately if you get a fever\* or other symptoms.
    - \*Fever: temperature of 101.5° F / 38.6°C or higher or feeling like you have a fever.
      - If you can't reach the health department, call a doctor; tell the doctor where you traveled 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.
      - · Bring this notice and give it to health care staff when you arrive.

## For more information:

CDC Ebola website: www.cdc.gov/vhf/ebola/

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## **Appendix 12: Sample Travel Alert Notice**

TRAVEL HEALTH ALERT NOTICE August 13, 2014

# Possible Exposure: Ebola What you need to do

- You are being given this card because a sick person who might have been exposed to Ebola:
  - o sat near you on a plane OR
  - o had contact with you in an airport
- Spread of Ebola on a plane or in an airport is NOT likely. However, public health officials are being extra careful to ensure your safety.
- In the next few days, a public health official will let you know if the sick person has Ebola or not.
  - o If the person has Ebola, you will be evaluated and given additional instructions.
  - o If the person does NOT have Ebola, no further action 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: fever, severe headache, muscle pain, vomiting, diarrhea, stomach pain, or unexplained bleeding or bruising.
- · People exposed to Ebola are not contagious unless they have fever and other symptoms of Ebola.
- · Until a public health official contacts you, please protect yourself and others by taking these steps:
  - o Take your temperature every morning and evening, and watch for symptoms of Ebola.
  - o Call a doctor if you get a fever\* and other symptoms.
  - \*Fever: temperature of 101.5° F / 38.6°C or higher or feeling like you have a fever.
  - Tell the doctor you might have been exposed to Ebola on a plane.
  - o Bring this notice and give it to health care staff when you arrive.

## For more information

- US Centers for Disease Control and Prevention Ebola website: www.cdc.gov/vhf/ebola/
- •

## A Note to the Doctor

The patient giving you this card was on a plane seated near, or had contact in an airport with, an ill traveler who might have been exposed to Ebola.

## The US Centers for Disease Control and Prevention (CDC) recommends the following:

- · Place the patient in a private room.
- Implement standard, contact, and droplet precautions as outlined in CDC guidance. See link below.
- · Contact a quarantine medical officer.
  - o The medical officer will provide information about the ill traveler to inform risk assessment.
- If Ebola exposure is still a concern:
  - o Evaluate the patient using case definition provided by CDC. See link below.
  - o Notify your local public health department about the patient.
  - o The health department will provide guidance as to whether testing for Ebola is indicated.

## For more information

• CDC Ebola for health care providers: www.cdc.gov/vhf/ebola/hcp/index.html