

## ANNEXES 1–3

One Health Risk Communication Training for Media Professionals and Public Health Communicators

November 2020





## TABLE OF CONTENTS

ANNEX 1: TOOLS FOR FACILITATORS	1
Material Checklist	2
Pre/Post-Test Scoring Guide	6
ANNEX 2: MATERIALS FOR DISTRIBUTION TO PARTICIPANTS	8
Handout 1: Character Cards	9
Handout 2: 3-Day Agenda	10
Handout 3: Pre-Test Questionnaire	14
Handout 4: National One Health and PZD Resource Sheet	16
Handout 5: Compiled WHO Factsheets	17
Handout 6: Case Studies - Ebola, SARS, and COVID-19	66
Handout 7: Roles and Responsibilities of Public Health Spokespersons and Journalists	71
Handout 8: Pneumonic plague scenario	76
Handout 9: Messages and Materials Checklist	78
Handout 10: Alpha and Moussa Scenarios (J)	80
Handout 11: Interview role play (J)	82
Handout 12: Pitfalls and Strategies: Press Briefings and Community Meetings (PHP)	86
Handout 13: Sample Press BriefinG (PHP)	89
Handout 14: Case Study Interview Preparation (PHP)	90
Handout 15: Strategies for Successful Interviews (PHP)	92
Handout 16: Resource Package (PHP)	95
Handout 17: Technical Brief Package	112
Handout 18: Disease Z Simulation Role Play	132
Handout 19: Post-Test	135
Handout 20: Workshop Evaluation	137
Handout 21: Certificate Template	139
ANNEX 3: TRAINING OF TRAINERS COMPANION RESOURCE	139
TOT Overview	141
5-day ToT Agenda Template	143
HANDOUT 22 TOT: Self-Assessment Checklist for Facilitation SESSIONS	146
Session 1.2 A TOT: Objectives of 5-day TOT	148
Session 1.2B TOT: Review of 3-day Training Package	150
Session 1.4 A TOT: Review of Facilitation Skills and Giving and Receiving Feedback	153
Session 1.4B TOT: Practice Facilitation	159
Session 6.2 A Planning Your 3-day Training	163

## ANNEX 1: TOOLS FOR FACILITATORS

The materials in Annex 1 are not for distribution to participants. They consist of:

- The Material Checklist, which provides a list of all materials needed for the training including copies of each handout and list of flip charts to prepare in advance.
- The Pre/Post Test Score sheet.

## MATERIAL CHECKLIST

**Note:** The number of copies needed is based on a training group of 20 participants and 4 facilitators. Adjust as needed for your group. Please review this checklist before printing any materials front-to-back.

Material	# of Copies Needed	Comments
Facilitator Guide	1 per facilitator (4)	1 per facilitator and participant for TOT (24)
Annex to Facilitator Guide	1 per facilitator (4)	1 per facilitator and participant for TOT (24)
Presentation Slides (optional)	2 per training	1 for each breakout Session (Annex 4)
Handout 1: Character Cards	5 copies – cut in advance	*Make enough copies so each participant has one square. Each person should have a match.
Handout 2: 3 -Day Agenda	1 per person (20)	Provide at Registration - reference in session 1.2
Handout 3 : Pre-test Questionnaire	1 per person (20)	Session 1.3
Handout 4 : National One Health and PZD Resource Sheet	1 per person (20)	Prepare in advance and distribute in Session 2.1
Handout 5: Compiled WHO Factsheets	1 per person (20)	Session 2.2
<b>Handout 6:</b> <i>Case Studies-</i> <i>Ebola, SARS, and COVID-19</i>	7 copies of full document (separated by disease scenario)	Session 3.2 Each person in Group 1 gets a copy of Ebola case only Each person in Group 2 gets a copy of SARS case only Each person in Group 3 gets a copy of COVID-19 case only <b>*Do not print front-to-back</b>
<b>Handout 7:</b> <i>Roles and</i> <i>Responsibilities of Public Health</i> <i>Spokespersons and Journalists</i>	1 per person (20)	Session 3.3
Handout 8: Pneumonic Plague Scenario	1 per person (20)	Session 3.4

Material	# of Copies Needed	Comments
<b>Handout 9:</b> <i>Messages and</i> <i>Materials Development</i> <i>Checklist</i>	1 per person (20)	Session 3.4
Handout 10: Alpha and Moussa Scenarios (J)	5 copies cut or torn in half in advance	Session 4.1 (J) Each J participant (10) receives one of the two scenarios
<b>Handout 11</b> : Interview Role Play (J)	5 copies separated by scenario A or B in advance	Session 4.2 (J) <b>*Do not print front-to-back</b>
<b>Handout 12:</b> <i>Pitfalls and</i> <i>Strategies: Press Briefings and</i> <i>Community Meetings (PHP)</i>	1 Per PHP participant (10)	Session 4.2 (PHP)
Handout 13: Sample Press Briefing (PHP)	1 per PHP participant (10)	Session 4.2 (PHP)
Handout 14: Case Study Interview Preparation (PHP)	1 per PHP Participant (10)	Session 4.3 (PHP)
Handout 15: Strategies for Successful Interviews (PHP)	1 per PHP Participant (10)	Session 4.3 (PHP)
Handout 16: Resource Package (PHP)	1 per PHP Participant (10)	Session 4.4 (PHP)
Handout 17: Technical Brief Package	1 per person (20)	Session 5.2
<b>Handout 18:</b> <i>Disease Z</i> <i>Simulation Role Play</i>	7 copies of full document (separated by role)	Session 6.2 Each person in the Community Group gets a copy of their role only Each person in the Journalist Group gets a copy of their role only Each person in Public Health Group gets a copy of their role only *Do not print front-to-back
Handout 19: Post- Test Questionnaire	1 per person (20)	Session 6.3

Material	# of Copies Needed	Comments
Handout 20: Workshop Evaluation	1 per person (20)	Session 6.3
<b>Handout 21:</b> <i>Certificate</i> Template	1 per person (20)	Session 6.3 Complete with name, date and local signature before printing. Do not print front to back. Distribute with submission of completed evaluation and post test
Handout 22 TOT: Self- Assessment Checklist*	1 per person	*TOT only – Session 1.4 B. In Annex 3
Scoring Sheet for Pre/Post- Test	1	Not for distribution – in Annex 1
Contact Sheet	1 for completion + 1 copy of completed sheet for each participant (20)	For completion during registration so copy can be distributed to participants with certificate. Recommended entry directly into excel to reduce mistakes due to handwriting. Information to include: Name Title/ Role Affiliation/ Organization/ Ministry Area of Expertise Phone/ What's App Other (Twitter, skype, Instagram, Facebook, etc.)
Flip charts	10	Stands are helpful, if available
Markers	5 boxes	Multi-colored
Таре	2-3 rolls	
Scissors	2 pairs	
Bowl or plastic bag	1	
Sticky notes/ VIPP Cards	3-5 packs	Multi-colored, if possible
Pens and notepads	1 per person (20)	

Material	# of Copies Needed	Comments
Projector, extension cord, laptop, adaptor (optional)	2 complete sets	1 for each breakout room
	Risk communication definition	Session 1.2
	Training objectives	Session 1.2
	Zoonotic disease definition	Session 2.1
	Group work questions	Session 2.2
	Group work questions	Session 2.3
	Group work questions	Session 3.2
	Group work questions	Session 3.3
	Group work questions	Session 3.4
	Group work questions	Session 4.1 (J)
Prepared flip charts	Aspects of non- verbal communication	Session 4.2 (J)
	Simple ways to show empathy	Session 4.2 (J)
	Group work questions	Session 4.2 (J)
	Simple ways to show empathy (*different than J)	Session 4.2 (PHP)
	Group work questions	Session 4.2 (PHP)
	Role Play Instructions	Session 4.3 (PHP)
	Criteria to assess risk of rumor	Session 5.1
	Instructions for rumor reflection	Session 5.2
	Role play instruction	Session 6.2
Energizers and Ice breaker Ideas	Online resource	https://www.sessionlab.com/li brary/energiser

## PRE/POST-TEST SCORING GUIDE

#### Instructions:

- **Section1:** *True/False.* Measure the difference in the number of correct True/False between the pre-test and post-test
- Section 2: Score the number of correct responses for each question. Measure the difference in correct answers between the pre-test and post-test
- Section 3: Agree or Disagree. Note an increase in more participants feeling more confident and having more knowledge.

Q1. One Health focuses on the health of animals. FALSE

Q2. The main principles of effective risk communication are transparency, consistency, frequent communication, and empathy.
TRUE

Q3. Messages given about a particular outbreak should include as much medical terminology as possible, so people know the disease is serious. FALSE

Q4. When communicating to the public about a health risk, it is important for spokespersons to hide what they do not know about the disease FALSE

Q5. In order to address a rumor, it is important to understand why it is occurring and to understand the gaps in the public's knowledge and information. TRUE

**Q6.** Journalists must obtain informed consent from the sources they interview. **TRUE** 

Q7. Different groups of people may have customs or beliefs that go against advice given during a disease outbreak.
TRUE

Q8. Communication to the public via social media should be avoided during a public health outbreak because it is hard to control and spreads a lot of misinformation. FALSE

**Q9.** The primary role of journalists during a disease threat is to criticize the government response.

FALSE

**Q10.** Write down the name of two zoonotic diseases.

Use list of your country's priority zoonotic diseases for answers to this question. Answers could include:

- Viral Hemorrhagic fevers: Ebola, Lassa Fever, Crimean Congo Hemorrhagic Fever, Rift Valley Fever, and Marburg virus
- Animal influenzas: Avian influenza (bird flu); Swine (pig) Flu
- Other bacterial diseases and viruses: Anthrax, Bovine Tuberculosis, Brucellosis, Trypanosomiasis (Sleeping Sickness), and rabies

#### **Q11.** What is one way to identify rumors?

Answers may include: monitor social media, listen to community members, building trust with local leaders, talking to health workers.

**Q12** and **Q13**. Note whether participants confidence (Q12) and knowledge (Q13) increase from the pre-test to the post-test.

# ANNEX 2: MATERIALS FOR DISTRIBUTION TO PARTICIPANTS

Annex 2 contains the following:

- Agenda
- Pre/Post-Test
- Activity Handouts and resource materials for participants used in Sessions
- Workshop Evaluation
- Certificate template

Materials are presented in the order in which they are presented to participants by facilitators.

## HANDOUT 1: CHARACTER CARDS

**Instructions:** Cut the squares, fold them in half, and put them in a bowl or bag. Make as many copies as needed so each person has a square.



## HANDOUT 2: 3-DAY AGENDA

Day	Time	Topic/ Session	Module Learning Objectives By the end of Unit Sessions Participants should be able to:	
	8:30 – 9:00 AM	Registration	<ul> <li>Receive agenda and materials</li> <li>Provide contact information for contact sheet</li> </ul>	
	9:00 – 9:15 AM	<b>Opening remarks</b> , prayers, and other protocols		
	MODULE 1: INTROD	UCTION		
	9:15 -9:45 AM	<b>Session 1.1:</b> Welcome and Introductions	<ul> <li>Explain purpose of the training and clarify expectations for the three-day training</li> </ul>	
	9:45 – 10:15 AM	<b>Session</b> 1.2: Purpose, Learning Objectives, and Expectations	<ul> <li>Define risk communication</li> <li>Define ground rules for the</li> </ul>	
	10:15-10: 45 AM	Session 1.3: Ground rules, Housekeeping, and Pre- test	<ul> <li>Define ground rules for the training</li> <li>Introduce each other</li> </ul>	
Day 1	10:45-11:00 AM	Tea Break + Energizer	<ul> <li>Assess their level of knowledge with the pre-test to identify personal learning goals for the workshop</li> </ul>	
	MODULE 2: OVERVIEW OF ONE HEALTH AND PRIORITY ZOONOTIC DISEASES			
	11:00 - 11:30 AM	Session 2.1: Setting the Foundations: Zoonotic Disease and the One Health Approach	• Define a zoonotic disease and identify priority zoonotic disease in their country	
	11:30 AM -12: 30 PM	<b>Session 2.2:</b> Priority Zoonotic Diseases – Country Level Focus 1	<ul> <li>Explain core elements of One Health and key features of One Health risk communication</li> </ul>	
	12: 30- 1: 30 PM	Lunch + Energizer	<ul> <li>Identify what knowledge gaps they have as communicator for</li> </ul>	
-	1: 30 -3:30 PM	<b>Session 2.3:</b> Priority Zoonotic Diseases – Country Level Focus 2	<ul> <li>their country's PZDs</li> <li>Identify and review local tools and resources available to fill</li> </ul>	
	3.30 -3:45 PM	Tea Break + Energizer	<ul> <li>Begin to discuss key features</li> <li>and challenges with One Health</li> </ul>	
	3:45 - 4:30 PM	<b>Session 2.4:</b> <i>Risk</i> <i>Communication within a</i> <i>One Health Framework</i>	risk communication from their professional roles and experience	

Day	Time	Topic/ Session	Module Learning Objectives By the end of Unit Sessions Participants should be able to:	
	MODULE 3: COMMU	INICATING FOR BEHAVIOR CH	ANGE	
	8:30 – 9:00 AM	Arrival	• Explain the role trust plays in effective risk communication.	
	9:00-9:15 AM	Session 3.1: Review of Day 1 and Introduction to Day 2	• Identify and discuss principles of effective risk communication and how they work together to	
	9:15- 11:15 AM	<b>Session 3.2:</b> <i>Trust and</i> <i>Principles of Effective Risk</i> <i>Communication</i>	<ul> <li>Identify and discuss common pitfalls in risk communication and factors that drive them.</li> </ul>	
	11:15- 11:30 AM	Tea Break + Energizer	• Identify areas of collaboration for media and public health	
Day 2	11:30 AM - 12:30 PM	<b>Session 3.3:</b> <i>Roles and</i> <i>Responsibilities in Risk</i> <i>Communication</i>	<ul> <li>professionals.</li> <li>Begin initial reflection on the professional roles and responsibilities of both media</li> </ul>	
	12:30- 1: 30 PM	Lunch + Energizer	and public health professionals for enhanced understanding of other's priorities, challenges,	
	1:30 - 3:00 PM	Session 3.4: Elements of Effective Messaging	<ul> <li>and expectations.</li> <li>Review elements of effective communication to</li> </ul>	
	3:00- 3:15 PM	Tea Break + Energizer	communicate and practice applying them.	
	MODULE 4: PROFESSIONAL BREAKOUT SESSIONS			
	3:15- 5:15 PM	Session 4.1 (J): Ethical Principles and Frameworks for Reporting in Public Health Emergencies	Journalist/Media- focused sessions should be able to: • Define and agree upon ethical	
	3:15- 4:15 PM	<b>Session 4.1 (PHP):</b> Understanding Media Needs	<ul> <li>principles and frameworks for media professionals covering a public health emergency.</li> <li>Discuss challenges of reporting in an epidemic and identify and</li> </ul>	

Day	Time	Topic/ Session	Module Learning Objectives By the end of Unit Sessions Participants should be able to:	
	4:15-5:15 PM	<b>Session 4.2 (PHP):</b> Best Practices for Press Briefings and Community	<ul> <li>practice application of tips and strategies to manage challenges.</li> <li>Demonstrate an enhanced understanding of the</li> </ul>	
		Meetings	challenges that other actors, including public health authorities and vulnerable	
	8:30 – 9:00 AM	Arrival	interviewed in public health emergencies and identify strategies to manage these	
	9:00-11:00 AM	<b>Session 4.2 (J):</b> Ethical Interviewing	<ul> <li>Improve their knowledge and skill of with ethical interviewing techniques.</li> </ul>	
-	9:00- 10:30 AM	<b>Session 4.3 (PHP):</b> Considerations for Successful Interviews	<ul> <li>Public Health Professionals- focused sessions should be able to: Expand their understanding of the role of the media in epidemics.</li> </ul>	
			<ul> <li>Reflect and discuss challenges and successes working with media and identify strategies to better plan for address media's</li> </ul>	
Day 3	10:30-11:00 AM	<b>Session 4.4 (PHP):</b> Best Practices: Risk Communication Plan and Media Strategy	needs for improved collaboration.	
			<ul> <li>Review pitfalls and strategies to strengthen press briefings and interviews.</li> </ul>	
			<ul> <li>Practice applying preparatory techniques for media interactions.</li> </ul>	
	11:00- 11:15 AM	Tea Break + Energizer	<ul> <li>Identify key components of a risk communication plan and media strategy and tools and resources to support development and implementation.</li> </ul>	
	MODULE 5: ADDRESSING RUMORS & MISINFORMATION			

Day	Time	Topic/ Session	<b>Module Learning Objectives</b> By the end of Unit Sessions Participants should be able to:
	11:15 AM - 12:15 PM	<b>Session 5.1:</b> Overview: Defining, Assessing, and Responding to Rumors	<ul> <li>Define rumors and discuss different types of rumors.</li> <li>Reflect and discuss on motivations for sharing rumors, how rumors spread, and the consequences they can have.</li> </ul>
	12:15- 1:15 PM	Lunch + Energizer	<ul> <li>Discuss and identify best practices for assessing rumors for their risk and how to respond to them.</li> </ul>
	1:15-2:15 PM	<b>Module 5.2:</b> Using Media Monitoring to Manage Rumors in Traditional and Social Media	<ul> <li>Reflect on their experiences with media monitoring and rumor tracking systems.</li> <li>Review tips and tools to support media monitoring and rumor tracking.</li> </ul>
	MODULE 6: EFFECTIVE COORDINATION		·
	2:15 - 3:00 PM	Session 6.1: Envisioning Effective Coordination	<ul> <li>Establish agreed upon ground rules to enhance coordination and collaboration between</li> </ul>
	3:00-3:15 PM	Tea Break + Energizer	public health officials and media professionals that embrace their differences yet
	3:15- 4: 15 PM	<b>Session 6.2:</b> Bringing it all Together	recognize the ways in which they complement one another.
	4: 15 - 4:45 PM	<b>Session 6.3:</b> Post-Test, Workshop Evaluation, and Closing	<ul> <li>Establish a coordination mechanism for continued joint learning or interaction if desired</li> <li>Complete a post-test to assess knowledge gained across the training</li> <li>Offer feedback on the warkshap</li> </ul>
			1-

### HANDOUT 3: PRE-TEST QUESTIONNAIRE

**SECTION 1:** Indicate whether the following statements are True or False. For each answer, circle either True or False.

**Q1.** One Health focuses on the health of animals.

#### True False

False

**Q2.** The main principles of effective risk communication are transparency, consistency, frequent communication, and empathy.

True

False

**Q3.** Messages given about a particular outbreak should include as much medical terminology as possible, so people know the disease is serious.

#### True False

**Q4.** When communicating to the public about a health risk, it is important for spokespersons to hide what they do not know about the disease.

#### True False

**Q5.** In order to address a rumor, it is important to understand why it is occurring and to understand the gaps in the public's knowledge and information.

True False

**Q6.** Journalists must obtain informed consent from the sources they interview.

True False

**Q7.** Different groups of people may have customs or beliefs that go against advice given during a disease outbreak.

True False **Q8.** Communication to the public via social media should be avoided during a public health outbreak because it is hard to control and spreads a lot of misinformation.

True False

**Q9.** The primary role of journalists during a disease threat is to criticize the government response.

True False

**SECTION 2:** Write your responses to the following questions.

**Q10.** Write down the name of two zoonotic diseases.

**Q11.** What is one way to identify rumors?

**SECTION 3:** Indicate whether you agree or disagree by circling your responses to the following questions.

**Q12.** I feel confident that I have the skills to communicate with the public and/or report during a disease outbreak.

5	4	3	2	1
Strongly Agree	Agree	Neither or N/A	Disagree	Strongly Disagree

**Q13.** I know best practices for coordination, trust-building, and cooperation between journalists and government spokespersons during a zoonotic disease outbreak.

5	4	3	2	1
Strongly Agree	Agree	Neither or N/A	Disagree	Strongly Disagree

## HANDOUT 4: NATIONAL ONE HEALTH AND PZD RESOURCE SHEET

#### MAPPING ONE HEALTH RESOURCES FOR (INSERT COUNTRY NAME)

**Instructions:** Work with One Health and Risk Communication partners to complete this sheet in advance of the training for each participant to use as a reference resource.

List of the Priority Zoonotic Diseases in (country)	
Key risk-communication structures in (country)	
Key National/Regional One Health Structures and Ministries in (country) (Include disease- specific entities, e.g., National Avian Flu Task Force, etc.)	
Existing key One Health and PZD documents (strategic plans, operational plans, technical resources in-country) and links to access if available	
List, links and/or contacts for access to existing One Health or PZD Communication Materials	
One Health Resource persons in (country)	

## HANDOUT 5: COMPILED WHO FACTSHEETS

#### EBOLA VIRUS DISEASE

• https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease

#### **KEY FACTS**

- Ebola virus disease (EVD), formerly known as Ebola hemorrhagic fever, is a rare but severe, often fatal illness in humans.
- The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission.
- The average EVD case fatality rate is around 50%. Case fatality rates have varied from 25% to 90% in past outbreaks.
- Community engagement is key to successfully controlling outbreaks.
- Good outbreak control relies on applying a package of interventions, namely case management, infection prevention and control practices, surveillance and contact tracing, a good laboratory service, safe and dignified burials and social mobilization.
- Vaccines to protect against Ebola are under development and have been used to help control the spread of Ebola outbreaks in Guinea and in the Democratic Republic of the Congo (DRC).
- Early supportive care with rehydration, symptomatic treatment improves survival. There is no licensed treatment proven to neutralize the virus but a range of blood, immunological and drug therapies are under development.
- Pregnant and breastfeeding women with Ebola should be offered early supportive care. Likewise vaccine prevention and experimental treatment should be offered under the same conditions as for non-pregnant population.

#### BACKGROUND

The Ebola virus causes an acute, serious illness which is often fatal if untreated. EVD first appeared in 1976 in 2 simultaneous outbreaks, one in what is now Nzara, South Sudan, and the other in Yambuku, DRC. The latter occurred in a village near the Ebola River, from which the disease takes its name.

The 2014–2016 outbreak in West Africa was the largest Ebola outbreak since the virus was first discovered in 1976. The outbreak started in Guinea and then moved across land borders to Sierra Leone and Liberia. The current 2018-2019 outbreak in eastern DRC is highly complex, with insecurity adversely affecting public health response activities.

The virus family Filoviridae includes three genera: Cuevavirus, Marburgvirus, and Ebolavirus. Within the genus Ebolavirus, six species have been identified: Zaire, Bundibugyo, Sudan, Taï Forest, Reston and Bombali. The virus causing the current outbreak in DRC and the 2014– 2016 West African outbreak belongs to the Zaire ebolavirus species.

#### TRANSMISSION

It is thought that fruit bats of the *Pteropodidae* family are natural Ebola virus hosts. Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals such as fruit bats, chimpanzees, gorillas, monkeys, forest antelope or porcupines found ill or dead or in the rainforest. Ebola then

spreads through human-to-human transmission via direct contact (through broken skin or mucous membranes) with:

- Blood or body fluids of a person who is sick with or has died from Ebola
- Objects that have been contaminated with body fluids (like blood, feces, vomit) from a person sick with Ebola or the body of a person who died from Ebola

Health-care workers have frequently been infected while treating patients with suspected or confirmed EVD. This occurs through close contact with patients when infection control precautions are not strictly practiced.

Burial ceremonies that involve direct contact with the body of the deceased can also contribute in the transmission of Ebola.

People remain infectious as long as their blood contains the virus.

Pregnant women who get acute Ebola and recover from the disease may still carry the virus in breastmilk, or in pregnancy related fluids and tissues. This poses a risk of transmission to the baby they carry, and to others. Women who become pregnant after surviving Ebola disease are not at risk of carrying the virus.

If a breastfeeding woman who is recovering from Ebola wishes to continue breastfeeding, she should be supported to do so. Her breast milk needs to be tested for Ebola before she can start.

• For more, read the guidelines on the management of pregnancy and breastfeeding in Ebola.

#### **SYMPTOMS**

The incubation period, that is, the time interval from infection with the virus to onset of symptoms, is from 2 to 21 days. A person infected with Ebola cannot spread the disease until they develop symptoms.

Symptoms of EVD can be sudden and include:

- Fever
- Fatigue
- Muscle pain
- Headache
- Sore throat

This is followed by:

- Vomiting
- Diarrhea
- Rash
- Symptoms of impaired kidney and liver function
- In some cases, both internal and external bleeding (for example, oozing from the gums, or blood in the stools).
- Laboratory findings include low white blood cell and platelet counts and elevated liver enzymes.

#### DIAGNOSIS

It can be difficult to clinically distinguish EVD from other infectious diseases such as malaria, typhoid fever and meningitis. Many symptoms of pregnancy and Ebola disease are also quite similar. Because of risks to the pregnancy, pregnant women should ideally be tested rapidly if Ebola is suspected.

Confirmation that symptoms are caused by Ebola virus infection are made using the following diagnostic methods:

- antibody-capture enzyme-linked immunosorbent assay (ELISA)
- antigen-capture detection tests
- serum neutralization test
- reverse transcriptase polymerase chain reaction (RT-PCR) assay
- electron microscopy
- virus isolation by cell culture

Careful consideration should be given to the selection of diagnostic tests, which take into account technical specifications, disease incidence and prevalence, and social and medical implications of test results. It is strongly recommended that diagnostic tests, which have undergone an independent and international evaluation, be considered for use.

 <u>Diagnostic tests evaluated through the WHO Emergency Use Assessment and Listing</u> process

Current WHO recommended tests include:

- Automated or semi-automated nucleic acid tests (NAT) for routine diagnostic management.
- Rapid antigen detection tests for use in remote settings where NATs are not readily available. These tests are recommended for screening purposes as part of surveillance activities, however reactive tests should be confirmed with NATs.

The preferred specimens for diagnosis include:

- Whole blood collected in ethylenediaminetetraacetic acid (EDTA) from live patients exhibiting symptoms.
- Oral fluid specimen stored in universal transport medium collected from deceased patients or when blood collection is not possible.

Samples collected from patients are an extreme biohazard risk; laboratory testing on noninactivated samples should be conducted under maximum biological containment conditions. All biological specimens should be packaged using the triple packaging system when transported nationally and internationally.

#### TREATMENT

Supportive care - rehydration with oral or intravenous fluids - and treatment of specific symptoms improves survival. There is as yet no proven treatment available for EVD. However, a range of potential treatments including blood products, immune therapies and drug therapies are currently being evaluated.

In the ongoing 2018-2019 Ebola outbreak in DRC, the <u>first-ever multi-drug randomized</u> <u>control trial</u> is being conducted to evaluate the effectiveness and safety of drugs used in the

treatment of Ebola patients under an ethical framework developed in consultation with experts in the field and the DRC.

Pregnant and breastfeeding women with Ebola should be offered early supportive care, like general population. Likewise experimental treatment should be offered under the same conditions as for non-pregnant population.

#### VACCINES

An experimental Ebola vaccine proved highly protective against EVD in a major trial in Guinea in 2015. The vaccine, called rVSV-ZEBOV, was studied in a trial involving 11 841 people. Among the 5837 people who received the vaccine, no Ebola cases were recorded 10 days or more after vaccination. In comparison, there were 23 cases 10 days or more after vaccination among those who did not receive the vaccine.

The rVSV-ZEBOV vaccine is being used in the ongoing 2018-2019 Ebola outbreak in DRC. Pregnant and breastfeeding women should have access to the vaccine under the same conditions as for the general population.

- Initial data indicates that the vaccine is highly effective
- <u>WHO's Strategic Advisory Group of Experts has stated the need to assess additional</u> <u>Ebola vaccines</u>

#### PREVENTION AND CONTROL

Good outbreak control relies on applying a package of interventions, including case management, surveillance and contact tracing, a good laboratory service, safe burials and social mobilization. Community engagement is key to successfully controlling outbreaks. Raising awareness of risk factors for Ebola infection and protective measures (including vaccination) that individuals can take is an effective way to reduce human transmission. Risk reduction messaging should focus on several factors:

- **Reducing the risk of wildlife-to-human transmission** from contact with infected fruit bats, monkeys, apes, forest antelope or porcupines and the consumption of their raw meat. Animals should be handled with gloves and other appropriate protective clothing. Animal products (blood and meat) should be thoroughly cooked before consumption.
- Reducing the risk of human-to-human transmission from direct or close contact with people with Ebola symptoms, particularly with their bodily fluids. Gloves and appropriate personal protective equipment should be worn when taking care of ill patients. Regular hand washing is required after visiting patients in hospital, as well as after taking care of patients at home.
- **Outbreak containment measures,** including safe and dignified burial of the dead, identifying people who may have been in contact with someone infected with Ebola and monitoring their health for 21 days, the importance of separating the healthy from the sick to prevent further spread, and the importance of good hygiene and maintaining a clean environment.
- Reducing the risk of possible sexual transmission, based on further analysis of ongoing research and consideration by the WHO Advisory Group on the Ebola Virus

Disease Response, WHO recommends that male survivors of EVD practice safer sex and hygiene for 12 months from onset of symptoms or until their semen tests negative twice for Ebola virus. Contact with body fluids should be avoided and washing with soap and water is recommended. WHO does not recommend isolation of male or female convalescent patients whose blood has been tested negative for Ebola virus.

• Reducing the risk of transmission from pregnancy related fluids and tissue, Pregnant women who have survived Ebola disease need community support to enable them to attend frequent antenatal care (ANC) visits, to handle any pregnancy complications and meet their need for sexual and reproductive care and delivery in a safe way. This should be planned together with the Ebola and Obstetric health care expertise. Pregnant women should always be respected in the sexual and reproductive health choices they make.

#### CONTROLLING INFECTION IN HEALTH-CARE SETTINGS

Health-care workers should always take standard precautions when caring for patients, regardless of their presumed diagnosis. These include basic hand hygiene, respiratory hygiene, use of personal protective equipment (to block splashes or other contact with infected materials), safe injection practices and safe burial practices.

Health-care workers caring for patients with suspected or confirmed Ebola virus should apply extra infection control measures to prevent contact with the patient's blood and body fluids and contaminated surfaces or materials such as clothing and bedding. When in close contact (within 1 meter) of patients with EVD, health-care workers should wear face protection (a face shield or a medical mask and goggles), a clean, non-sterile long-sleeved gown, and gloves (sterile gloves for some procedures).

• <u>Healthcare staff working with ANC or obstetric care should be informed about risks</u> of persisting virus in pregnancy related fluids and encouraged to follow protocol for their own safety and the safety of the women they are caring for.

Laboratory workers are also at risk. Samples taken from humans and animals for investigation of Ebola infection should be handled by trained staff and processed in suitably equipped laboratories.

#### CARE FOR PEOPLE WHO RECOVERED FROM EVD

A number of medical complications have been reported in people who recovered from Ebola, including mental health issues. Ebola virus may persist in some body fluids, including semen, pregnancy-related fluids and breast milk.

Ebola survivors need comprehensive support for the medical and psychosocial challenges they face and also to minimize the risk of continued Ebola virus transmission. To address these needs, a dedicated program can be set up for care for people who recovered from Ebola.

• For more, read the Guidance on clinical care for survivors of Ebola virus disease

Ebola virus is known to persist in immune-privileged sites in some people who have recovered from Ebola virus disease. These sites include the testicles, the inside of the eye, and the central nervous system. In women who have been infected while pregnant, the

virus persists in the placenta, amniotic fluid and fetus. In women who have been infected while breastfeeding, the virus may persist in breast milk.

• For more information on pregnant and breastfeeding women recovering from Ebola virus disease, please read the WHO Guideline Document.

Relapse-symptomatic illness in someone who has recovered from EVD due to increased replication of the virus in a specific site is a rare event but has been documented. Reasons for this phenomenon are not yet fully understood.

Studies of viral persistence indicate that in a small percentage of survivors, some body fluids may test positive on reverse transcriptase polymerase chain reaction (RT-PCR) testing for Ebola virus for longer than 9 months.

More surveillance data and research are needed on the risks of sexual transmission, and particularly on the prevalence of viable and transmissible virus in semen over time. In the interim, and based on present evidence, WHO recommends that:

- All Ebola survivors and their sexual partners should receive counselling to ensure safer sexual practices until their semen has twice tested negative. Survivors should be provided with condoms.
- Male Ebola survivors should be offered semen testing at 3 months after onset of disease, and then, for those who test positive, every month thereafter until their semen tests negative for virus twice by RT-PCR, with an interval of one week between tests.
- Ebola survivors and their sexual partners should either:
  - o abstain from all types of sex, or
  - observe safer sex through correct and consistent condom use until their semen has twice tested negative.
- Having tested negative, survivors can safely resume normal sexual practices without fear of Ebola virus transmission.
- Based on further analysis of ongoing research and consideration by the WHO Advisory Group on the Ebola Virus Disease Response, WHO recommends that male survivors of Ebola virus disease practice safe sex and hygiene for 12 months from onset of symptoms or until their semen tests negative twice for Ebola virus.
- Until such time as their semen has twice tested negative for Ebola, survivors should practice good hand and personal hygiene by immediately and thoroughly washing with soap and water after any physical contact with semen, including after masturbation. During this period, used condoms should be handled safely, and safely disposed of, so as to prevent contact with seminal fluids.
- All survivors, their partners and families should be shown respect, dignity and compassion.
- Interim advice on the sexual transmission of the Ebola virus disease

#### WHO RESPONSE

WHO aims to prevent Ebola outbreaks by maintaining surveillance for Ebola virus disease and supporting at-risk countries to develop preparedness plans. This document provides overall guidance for control of Ebola and Marburg virus outbreaks:

• <u>Ebola and Marburg virus disease epidemics: preparedness, alert, control, and evaluation</u>

When an outbreak is detected WHO responds by supporting community engagement, disease detection, contact tracing, vaccination, case management, laboratory services, infection control, logistics, and training and assistance with safe and dignified burial practices.

WHO has developed detailed advice on Ebola infection prevention and control:

• Infection prevention and control guidance for care of patients with suspected or confirmed Filovirus haemorrhagic fever in health-care settings, with focus on Ebola

#### LASSA FEVER

• <u>https://www.who.int/news-room/fact-sheets/detail/lassa-fever</u>

#### **KEY FACTS**

- Lassa fever is an acute viral hemorrhagic illness of 2-21 days duration that occurs in West Africa.
- The Lassa virus is transmitted to humans via contact with food or household items contaminated with rodent urine or feces.
- Person-to-person infections and laboratory transmission can also occur, particularly in hospitals lacking adequate infection prevention and control measures.
- Lassa fever is known to be endemic in Benin, Ghana, Guinea, Liberia, Mali, Sierra Leone, and Nigeria, but probably exists in other West African countries as well.
- The overall case-fatality rate is 1%. Observed case-fatality rate among patients hospitalized with severe cases of Lassa fever is 15%.
- Early supportive care with rehydration and symptomatic treatment improves survival.

#### BACKGROUND

Though first described in the 1950s, the virus causing Lassa disease was not identified until 1969. The virus is a single-stranded RNA virus belonging to the virus family ARENAVIRIDAE.

About 80% of people who become infected with Lassa virus have no symptoms. 1 in 5 infections result in severe disease, where the virus affects several organs such as the liver, spleen and kidneys.

Lassa fever is a zoonotic disease, meaning that humans become infected from contact with infected animals. The animal reservoir, or host, of Lassa virus is a rodent of the genus Mastomys, commonly known as the "multimammate rat." Mastomys rats infected with Lassa virus do not become ill, but they can shed the virus in their urine and feces.

Because the clinical course of the disease is so variable, detection of the disease in affected patients has been difficult. When presence of the disease is confirmed in a community, however, prompt isolation of affected patients, good infection prevention and control practices, and rigorous contact tracing can stop outbreaks.

Lassa fever is known to be endemic in Benin (where it was diagnosed for the first time in November 2014), Ghana (diagnosed for the first time in October 2011), Guinea, Liberia, Mali (diagnosed for the first time in February 2009), Sierra Leone, and Nigeria, but probably exists in other West African countries as well.

#### SYMPTOMS OF LASSA FEVER

The incubation period of Lassa fever ranges from 6–21 days. The onset of the disease, when it is symptomatic, is usually gradual, starting with fever, general weakness, and malaise. After a few days, headache, sore throat, muscle pain, chest pain, nausea, vomiting, diarrhea, cough, and abdominal pain may follow. In severe cases facial swelling, fluid in the lung cavity, bleeding from the mouth, nose, vagina or gastrointestinal tract and low blood pressure may develop.

Protein may be noted in the urine. Shock, seizures, tremor, disorientation, and coma may be seen in the later stages. Deafness occurs in 25% of patients who survive the disease. In half of these cases, hearing returns partially after 1–3 months. Transient hair loss and gait disturbance may occur during recovery.

Death usually occurs within 14 days of onset in fatal cases. The disease is especially severe late in pregnancy, with maternal death and/or fetal loss occurring in more than 80% of cases during the third trimester.

#### TRANSMISSION

Humans usually become infected with Lassa virus from exposure to urine or feces of infected Mastomys rats. Lassa virus may also be spread between humans through direct contact with the blood, urine, feces, or other bodily secretions of a person infected with Lassa fever. There is no epidemiological evidence supporting airborne spread between humans. Person-to-person transmission occurs in both community and health-care settings, where the virus may be spread by contaminated medical equipment, such as re-used needles. Sexual transmission of Lassa virus has been reported.

Lassa fever occurs in all age groups and both sexes. Persons at greatest risk are those living in rural areas where Mastomys are usually found, especially in communities with poor sanitation or crowded living conditions. Health workers are at risk if caring for Lassa fever patients in the absence of proper barrier nursing and infection prevention and control practices.

#### DIAGNOSIS

Because the symptoms of Lassa fever are so varied and non-specific, clinical diagnosis is often difficult, especially early in the course of the disease. Lassa fever is difficult to distinguish from other viral hemorrhagic fevers such as Ebola virus disease as well as other diseases that cause fever, including malaria, shigellosis, typhoid fever and yellow fever. Definitive diagnosis requires testing that is available only in reference laboratories. Laboratory specimens may be hazardous and must be handled with extreme care. Lassa virus infections can only be diagnosed definitively in the laboratory using the following tests:

- reverse transcriptase polymerase chain reaction (RT-PCR) assay
- antibody enzyme-linked immunosorbent assay (ELISA)
- antigen detection tests
- virus isolation by cell culture.

#### TREATMENT AND PROPHYLAXIS

The antiviral drug ribavirin seems to be an effective treatment for Lassa fever if given early on in the course of clinical illness. There is no evidence to support the role of ribavirin as post-exposure prophylactic treatment for Lassa fever.

There is currently no vaccine that protects against Lassa fever.

#### PREVENTION AND CONTROL

Prevention of Lassa fever relies on promoting good "community hygiene" to discourage rodents from entering homes. Effective measures include storing grain and other foodstuffs in rodent-proof containers, disposing of garbage far from the home, maintaining clean households and keeping cats. Because MASTOMYS are so abundant in endemic areas, it is not possible to completely eliminate them from the environment. Family members should always be careful to avoid contact with blood and body fluids while caring for sick persons.

In health-care settings, staff should always apply standard infection prevention and control precautions when caring for patients, regardless of their presumed diagnosis. These include basic hand hygiene, respiratory hygiene, use of personal protective equipment (to block splashes or other contact with infected materials), safe injection practices and safe burial practices.

Health-care workers caring for patients with suspected or confirmed Lassa fever should apply extra infection control measures to prevent contact with the patient's blood and body fluids and contaminated surfaces or materials such as clothing and bedding. When in close contact (within 1 meter) of patients with Lassa fever, health-care workers should wear face protection (a face shield or a medical mask and goggles), a clean, non-sterile long-sleeved gown, and gloves (sterile gloves for some procedures).

Laboratory workers are also at risk. Samples taken from humans and animals for investigation of Lassa virus infection should be handled by trained staff and processed in suitably equipped laboratories under maximum biological containment conditions.

On rare occasions, travelers from areas where Lassa fever is endemic export the disease to other countries. Although malaria, typhoid fever, and many other tropical infections are much more common, the diagnosis of Lassa fever should be considered in febrile patients returning from West Africa, especially if they have had exposures in rural areas or hospitals in countries where Lassa fever is known to be endemic. Health-care workers seeing a patient suspected to have Lassa fever should immediately contact local and national experts for advice and to arrange for laboratory testing.

#### WHO RESPONSE

The Ministries of Health of Guinea, Liberia and Sierra Leone, WHO, the Office of United States Foreign Disaster Assistance, the United Nations, and other partners have worked together to establish the Mano River Union Lassa Fever Network. The program supports these 3 countries in developing national prevention strategies and enhancing laboratory diagnostics for Lassa fever and other dangerous diseases. Training in laboratory diagnosis, clinical management, and environmental control is also included.

#### RIFT VALLEY FEVER

<u>https://www.who.int/news-room/fact-sheets/detail/rift-valley-fever</u>

#### **KEY FACTS**

- Rift Valley fever (RVF) is a viral zoonosis that primarily affects animals but can also infect humans.
- The majority of human infections result from contact with the blood or organs of infected animals.
- Human infections have also resulted from the bites of infected mosquitoes.
- To date, no human-to-human transmission of RVF virus has been documented.
- The incubation period (the interval from infection to onset of symptoms) for RVF varies from 2 to 6 days.
- Outbreaks of RVF in animals can be prevented by a sustained program of animal vaccination.

Rift Valley fever (RVF) is a viral zoonosis that primarily affects animals but also has the capacity to infect humans. Infection can cause severe disease in both animals and humans. The disease also results in significant economic losses due to death and abortion among RVF-infected livestock.

RVF virus is a member of the PHLEBOVIRUS genus. The virus was first identified in 1931 during an investigation into an epidemic among sheep on a farm in the Rift Valley of Kenya.

Since then, outbreaks have been reported in sub-Saharan Africa. In 1977 an explosive outbreak was reported in Egypt, the RVF virus was introduced to Egypt via infected livestock trade along the Nile irrigation system. In 1997–98, a major outbreak occurred in Kenya, Somalia and Tanzania following El Niño event and extensive flooding. Following infected livestock trade from the horn of Africa, RVF spread in September 2000 to Saudi Arabia and Yemen, marking the first reported occurrence of the disease outside the African continent and raising concerns that it could extend to other parts of Asia and Europe.

#### **TRANSMISSION IN HUMANS**

The majority of human infections result from direct or indirect contact with the blood or organs of infected animals. The virus can be transmitted to humans through the handling of animal tissue during slaughtering or butchering, assisting with animal births, conducting veterinary procedures, or from the disposal of carcasses or fetuses. Certain occupational groups such as herders, farmers, slaughterhouse workers, and veterinarians are therefore at higher risk of infection.

The virus infects humans through inoculation, for example via a wound from an infected knife or through contact with broken skin, or through inhalation of aerosols produced during the slaughter of infected animals.

There is some evidence that humans may become infected with RVF by ingesting the unpasteurized or uncooked milk of infected animals.

- Human infections have also resulted from the bites of infected mosquitoes, most commonly the AEDES and CULEX mosquitoes and the transmission of RVF virus by hematophagous (blood-feeding) flies is also possible.
- To date, no human-to-human transmission of RVF has been documented, and no transmission of RVF to health care workers has been reported when standard infection control precautions have been put in place.
- There has been no evidence of outbreaks of RVF in urban areas.

#### CLINICAL FEATURES IN HUMANS

#### Mild form of RVF in humans

The following are clinical features of the mild form of RVF in humans:

- The incubation period (the interval from infection to onset of symptoms) for RVF varies from 2 to 6 days.
- Those infected either experience no detectable symptoms or develop a mild form of the disease characterized by a feverish syndrome with sudden onset of flu-like fever, muscle pain, joint pain and headache. Some patients develop neck stiffness, sensitivity to light, loss of appetite and vomiting; in these patients the disease, in its early stages, may be mistaken for meningitis.
- The symptoms of RVF usually last from 4 to 7 days, after which time the immune response becomes detectable with the appearance of antibodies and the virus disappears from the blood.

#### Severe form of RVF in humans

While most human cases are relatively mild, a small percentage of patients develop a much more severe form of the disease. This usually appears as 1 or more of 3 distinct syndromes: ocular (eye) disease (0.5–2% of patients), meningoencephalitis (less than 1% of patients) or hemorrhagic fever (less than 1% of patients).

The following are clinical features of the severe form of RVF in humans:

- Ocular form: In this form of the disease, the usual symptoms associated with the mild form of the disease are accompanied by retinal lesions. The onset of the lesions in the eyes is usually 1 to 3 weeks after appearance of the first symptoms. Patients usually report blurred or decreased vision. The disease may resolve itself with no lasting effects within 10 to 12 weeks. However, when the lesions occur in the macula, 50% of patients will experience a permanent loss of vision. Death in patients with only the ocular form of the disease is uncommon.
- **Meningoencephalitis form:** The onset of the meningoencephalitis form of the disease usually occurs 1 to 4 weeks after the first symptoms of RVF appear. Clinical

features include intense headache, loss of memory, hallucinations, confusion, disorientation, vertigo, convulsions, lethargy and coma. Neurological complications can appear later (after more than 60 days). The death rate in patients who experience only this form of the disease is low, although residual neurological deficit, which may be severe, is common.

• Hemorrhagic fever form: The symptoms of this form of the disease appear 2–4 days after the onset of illness, and begin with evidence of severe liver impairment, such as jaundice. Subsequently signs of hemorrhage then appear such as vomiting blood, passing blood in the feces, a purpuric rash or ecchymoses (caused by bleeding in the skin), bleeding from the nose or gums, menorrhagia and bleeding from venipuncture sites. The case-fatality ratio for patients developing the hemorrhagic form of the disease is high at approximately 50%. Death usually occurs 3 to 6 days after the onset of symptoms. The virus may be detectable in the blood for up to 10 days, in patients with the hemorrhagic icterus form of RVF.

The total case fatality rate has varied widely between different epidemics but, overall, has been less than 1% in those documented. Most fatalities occur in patients who develop the hemorrhagic icterus form.

#### OUTBREAKS THAT HAVE OCCURRED SINCE 2000:

Severe form of RVF in humans

**2016, Republic of Niger:** As of 11 October 2016, Ministry of Health reported 105 suspected cases including 28 deaths of RVF in humans in Tahoua region.

**2012 Republic of Mauritania:** The Ministry of Health in Mauritania declared an outbreak of RVF on 4 October 2012. From 16 September 2012 (the date of onset of the index case) to 13 November 2012, a total of 36 cases, including 18 deaths were reported from 6 regions.

**2010, Republic of South Africa:** From February to July 2010, the Government of South Africa reported 237 confirmed cases of RVF in humans, including 26 deaths from 9 provinces.

**2008–2009, Madagascar:** From December 2008 to May 2009, the Ministry of Health, Madagascar reported 236 suspected cases including 7 deaths.

**2008, Madagascar:** The Ministry of Health, Madagascar reported an outbreak of RVF on 17 April 2008. From January to June 2008, a total of 476 suspected cases of RVF including 19 deaths were reported from 4 provinces.

**2007, Sudan:** The Federal Ministry of Health, Sudan, reported an outbreak of RVF on 28 October 2008. A total of 738 cases, including 230 deaths, were reported in Sudan between November 2007 and January 2008.

**2006, Kenya, Somalia and Tanzania:** From 30 November 2006 to 12 March 2007, a total of 684 cases including 234 deaths from RVF was reported in Kenya. From 19 December 2006 to 20 February 2007, a total of 114 cases including 51 deaths was reported in Somalia. From 13 January to 3rd May 2007, a total of 264 cases including 109 deaths was reported in Tanzania.

**2003, Egypt:** In 2003 there were 148 cases including 27 deaths of RVF reported by the Ministry of Health of Egypt.

**2000, Saudi Arabia and Yemen:** There were 516 cases with 87 deaths of RVF reported by the Ministry of Health of Saudi Arabia. In 2000, the Ministry of Public Health in Yemen reported 1087 suspected cases, including 121 deaths.

#### DIAGNOSIS

Because the symptoms of Rift Valley fever are varied and non-specific, clinical diagnosis is often difficult, especially early in the course of the disease. Rift Valley fever is difficult to distinguish from other viral hemorrhagic fevers as well as many other diseases that cause fever, including malaria, shigellosis, typhoid fever, and yellow fever.

Definitive diagnosis requires testing that is available only in reference laboratories. Laboratory specimens may be hazardous and must be handled with extreme care. Rift Valley fever virus infections can only be diagnosed definitively in the laboratory using the following tests:

- reverse transcriptase polymerase chain reaction (RT-PCR) assay
- IgG and IgM antibody enzyme-linked immunosorbent assay (ELISA)
- virus isolation by cell culture.

#### TREATMENT AND VACCINES

As most human cases of RVF are relatively mild and of short duration, no specific treatment is required for these patients. For the more severe cases, the predominant treatment is general supportive therapy.

An inactivated vaccine has been developed for human use. However, this vaccine is not licensed and is not commercially available. It has been used experimentally to protect veterinary and laboratory personnel at high risk of exposure to RVF. Other candidate vaccines are under investigation.

#### **RVF VIRUS IN HOST ANIMALS**

RVF is able to infect many species of animals causing severe disease in domesticated animals including cattle, sheep, camels and goats. Sheep and goats appear to be more susceptible than cattle or camels.

Age has also been shown to be a significant factor in the animal's susceptibility to the severe form of the disease: over 90% of lambs infected with RVF die, whereas mortality among adult sheep can be as low as 10%.

The rate of abortion among pregnant infected ewes is almost 100%. An outbreak of RVF in animals frequently manifests itself as a wave of unexplained abortions among livestock and may signal the start of an epidemic.

#### ECOLOGY AND MOSQUITO VECTORS

Several different species of mosquito are able to act as vectors for transmission of the RVF virus. The dominant vector species varies between different regions and different species can play different roles in sustaining the transmission of the virus.

Among animals, the RVF virus is spread primarily by the bite of infected mosquitoes, mainly the AEDES species, which can acquire the virus from feeding on infected animals. The

female mosquito is also capable of transmitting the virus directly to her offspring via eggs leading to new generations of infected mosquitoes hatching from eggs.

However, when analyzing RVF major outbreaks, 2 ecologically distinct situations should be considered. At primary foci areas, RVF virus persists through transmission between vectors and hosts and maintains through vertical transmission in AEDES mosquitoes. During major outbreak in primary foci, the disease can spread to secondary foci through livestock movement or passive mosquitoes dispersal and amplifies in naïve ruminants via local competent mosquitoes like CULEX, MANSONIA and ANOPHELES that act as mechanical vectors. Irrigation schemes, where populations of mosquitoes are abundant during long periods of the year, are highly favorable places for secondary disease transmission.

#### PREVENTION AND CONTROL

#### **Controlling RVF in animals**

Outbreaks of RVF in animals can be prevented by a sustained program of animal vaccination. Both modified live attenuated virus and inactivated virus vaccines have been developed for veterinary use. Only 1 dose of the live vaccine is required to provide long-term immunity, but this vaccine may result in spontaneous abortion if given to pregnant animals. The inactivated virus vaccine does not have this side effect, but multiple doses are required in order to provide protection which may prove problematic in endemic areas.

Animal immunization must be implemented prior to an outbreak if an epizootic is to be prevented. Once an outbreak has occurred animal vaccination should NOT be implemented because there is a high risk of intensifying the outbreak. During mass animal vaccination campaigns, animal health workers may, inadvertently, transmit the virus through the use of multi-dose vials and the re-use of needles and syringes. If some of the animals in the herd are already infected and viremic (although not yet displaying obvious signs of illness), the virus will be transmitted among the herd, and the outbreak will be amplified.

Restricting or banning the movement of livestock may be effective in slowing the expansion of the virus from infected to uninfected areas.

As outbreaks of RVF in animals precede human cases, the establishment of an active animal health surveillance system to detect new cases is essential in providing early warning for veterinary and human public health authorities.

#### Public health education and risk reduction

During an outbreak of RVF, close contact with animals, particularly with their body fluids, either directly or via aerosols, has been identified as the most significant risk factor for RVF virus infection. Raising awareness of the risk factors of RVF infection as well as the protective measures individuals can take to prevent mosquito bites is the only way to reduce human infection and deaths.

Public health messages for risk reduction should focus on:

 reducing the risk of animal-to-human transmission as a result of unsafe animal husbandry and slaughtering practices. Practicing hand hygiene, wearing gloves and other appropriate individual protective equipment when handling sick animals or their tissues or when slaughtering animals.

- reducing the risk of animal-to-human transmission arising from the unsafe consumption of fresh blood, raw milk or animal tissue. In the epizootic regions, all animal products (blood, meat, and milk) should be thoroughly cooked before eating.
- the importance of personal and community protection against mosquito bites through the use of impregnated mosquito nets, personal insect repellent if available, light colored clothing (long-sleeved shirts and trousers) and by avoiding outdoor activity at peak biting times of the vector species.
- Guide on safe food for travelers

#### Infection control in health care settings

Although no human-to-human transmission of RVF has been demonstrated, there is still a theoretical risk of transmission of the virus from infected patients to healthcare workers through contact with infected blood or tissues. Healthcare workers caring for patients with suspected or confirmed RVF should implement Standard Precautions when handling specimens from patients.

Standard Precautions define the work practices that are required to ensure a basic level of infection control. Standard Precautions are recommended in the care and treatment of all patients regardless of their perceived or confirmed infectious status. They cover the handling of blood (including dried blood), all other body fluids, secretions and excretions (excluding sweat), regardless of whether they contain visible blood, and contact with non-intact skin and mucous membranes.

• <u>Standard precautions in health care</u>

As noted above, laboratory workers are also at risk. Samples taken from suspected human and animal cases of RVF for diagnosis should be handled by trained staff and processed in suitably equipped laboratories.

#### **VECTOR CONTROL**

Other ways in which to control the spread of RVF involve control of the vector and protection against their bites.

Larviciding measures at mosquito breeding sites are the most effective form of vector control if breeding sites can be clearly identified and are limited in size and extent. During periods of flooding, however, the number and extent of breeding sites is usually too high for larviciding measures to be feasible.

RVF forecasting and climatic models

Forecasting can predict climatic conditions that are frequently associated with an increased risk of outbreaks and may improve disease control. In Africa, Saudi Arabia and Yemen RVF outbreaks are closely associated with periods of above-average rainfall. The response of vegetation to increased levels of rainfall can be easily measured and monitored by Remote Sensing Satellite Imagery. In addition, RVF outbreaks in East Africa are closely associated with the heavy rainfall that occurs during the warm phase of the El Niño–Southern Oscillation (ENSO) phenomenon.

These findings have enabled the successful development of forecasting models and early warning systems for RVF using satellite images and weather/climate forecasting data. Early

warning systems, such as these, could be used to trigger detection of animal cases at an early stage of an outbreak, enabling authorities to implement measures to avert impending epidemics.

Within the framework of the new International Health Regulations (2005), the forecasting and early detection of RVF outbreaks, together with a comprehensive assessment of the risk of diffusion to new areas, are essential to enabling the implementation of effective and timely control measures.

#### WHO RESPONSE

For the 2016, Niger outbreak, WHO sent a multisectoral national rapid response team, including members from the Ministry of Health, veterinary services and Centre de Recherche Médicale et Sanitaire (CERMES). The unit was deployed for field investigation on 31 August 2016.

In Niger, the WHO Country Office provides technical and financial support for surveillance, outbreak investigation, technical guidelines regarding case definition, case management, shipment of samples, and risk communication.

The Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), and WHO are coordinating on animal and human health and providing additional support to Niger for the outbreak response.

WHO is working with partners in the Global Outbreak Alert and Response Network (GOARN) to coordinate international support for the response. The International Federation of Red Cross and Red Crescent Societies (IFRC) and UNICEF are supporting outbreak response.

#### PLAGUE

<u>https://www.who.int/news-room/fact-sheets/detail/plague</u>

#### **KEY FACTS**

- Plague is caused by the bacteria Yersinia pestis, a zoonotic bacteria usually found in small mammals and their fleas.
- People infected with Y. pestis often develop symptoms after an incubation period of one to seven days.
- There are two main clinical forms of plague infection: bubonic and pneumonic. Bubonic plague is the most common form and is characterized by painful swollen lymph nodes or 'buboes'.
- Plague is transmitted between animals and humans by the bite of infected fleas, direct contact with infected tissues, and inhalation of infected respiratory droplets.
- Plague can be a very severe disease in people, with a case-fatality ratio of 30% to 60% for the bubonic type, and is always fatal for the pneumonic kind when left untreated.
- Antibiotic treatment is effective against plague bacteria, so early diagnosis and early treatment can save lives.
- From 2010 to 2015 there were 3248 cases reported worldwide, including 584 deaths.
- Currently, the three most endemic countries are the Democratic Republic of the Congo, Madagascar, and Peru.

Plague is an infectious disease caused by the bacteria Yersinia pestis, a zoonotic bacteria, usually found in small mammals and their fleas. It is transmitted between animals through fleas. Humans can be infected through:

- the bite of infected vector fleas
- unprotected contact with infectious bodily fluids or contaminated materials
- the inhalation of respiratory droplets/small particles from a patient with pneumonic plague.

Plague is a very severe disease in people, particularly in its septicemic (systemic infection caused by circulating bacteria in bloodstream) and pneumonic forms, with a case-fatality ratio of 30% to 100% if left untreated. The pneumonic form is invariably fatal unless treated early. It is especially contagious and can trigger severe epidemics through person-to-person contact via droplets in the air.

From 2010 to 2015, there were 3248 cases reported worldwide, including 584 deaths.

Historically, plague was responsible for widespread pandemics with high mortality. It was known as the "Black Death" during the fourteenth century, causing more than 50 million deaths in Europe. Nowadays, plague is easily treated with antibiotics and the use of standard precautions to prevent acquiring infection.

#### SIGNS AND SYMPTOMS

People infected with plague usually develop acute febrile disease with other non-specific systemic symptoms after an incubation period of one to seven days, such as sudden onset of fever, chills, head and body aches, and weakness, vomiting and nausea.

There are two main forms of plague infection, depending on the route of infection: bubonic and pneumonic.

- **Bubonic** plague is the most common form of plague and is caused by the bite of an infected flea. Plague bacillus, Y. PESTIS, enters at the bite and travels through the lymphatic system to the nearest lymph node where it replicates itself. The lymph node then becomes inflamed, tense and painful, and is called a 'bubo'. At advanced stages of the infection the inflamed lymph nodes can turn into open sores filled with pus. Human to human transmission of bubonic plague is rare. Bubonic plague can advance and spread to the lungs, which is the more severe type of plague called pneumonic plague.
- **Pneumonic** plague, or lung-based plague, is the most virulent form of plague. Incubation can be as short as 24 hours. Any person with pneumonic plague may transmit the disease via droplets to other humans. Untreated pneumonic plague, if not diagnosed and treated early, can be fatal. However, recovery rates are high if detected and treated in time (within 24 hours of onset of symptoms).

#### WHERE IS PLAGUE FOUND?

As an animal disease, plague is found in all continents, except Oceania. There is a risk of human plague wherever the presence of plague natural foci (the bacteria, an animal reservoir and a vector) and human population co-exist.

• Global distribution of natural plague foci as of March 2016

Plague epidemics have occurred in Africa, Asia, and South America; but since the 1990s, most human cases have occurred in Africa. The three most endemic countries are the Democratic Republic of Congo, Madagascar, and Peru. In Madagascar cases of bubonic plague are reported nearly every year, during the epidemic season (between September and April).

#### DIAGNOSING PLAGUE

Confirmation of plague requires lab testing. The best practice is to identify Y. pestis from a sample of pus from a bubo, blood or sputum. A specific Y. pestis antigen can be detected by different techniques. One of them is a laboratory validated rapid dipstick test now widely used in Africa and South America, with the support of WHO.

#### TREATMENT

Untreated pneumonic plague can be rapidly fatal, so early diagnosis and treatment is essential for survival and reduction of complications. Antibiotics and supportive therapy are effective against plague if patients are diagnosed in time. Pneumonic plague can be fatal within 18 to 24 hours of disease onset if left untreated, but common antibiotics for enterobacteria (gram negative rods) can effectively cure the disease if they are delivered early.

#### PREVENTION

Preventive measures include informing people when zoonotic plague is present in their environment and advising them to take precautions against flea bites and not to handle animal carcasses. Generally people should be advised to avoid direct contact with infected body fluids and tissues. When handling potentially infected patients and collecting specimens, standard precautions should apply.

#### VACCINATION

WHO does not recommend vaccination, expect for high-risk groups (such as laboratory personnel who are constantly exposed to the risk of contamination, and health care workers).

#### MANAGING PLAGUE OUTBREAKS

• Find and stop the source of infection. Identify the most likely source of infection in the area where the human case(s) was exposed, typically looking for clustered areas with large numbers of small animal deaths. Institute appropriate infection, prevention and control procedures. Institute vector control, then rodent control. Killing rodents before vectors will cause the fleas to jump to new hosts, this is to be avoided.
- **Protect health workers.** Inform and train them on infection prevention and control. Workers in direct contact with pneumonic plague patients must wear standard precautions and receive a chemoprophylaxis with antibiotics for the duration of seven days or at least as long as they are exposed to infected patients.
- **Ensure correct treatment:** Verify that patients are being given appropriate antibiotic treatment and that local supplies of antibiotics are adequate.
- Isolate patients with pneumonic plague. Patients should be isolated so as not to infect others via air droplets. Providing masks for pneumonic patients can reduce spread.
- **Surveillance:** identify and monitor close contacts of pneumonic plague patients and give them a seven-day chemoprophylaxis. Chemoprophylaxis should also be given to household members of bubonic plague patients.
- **Obtain specimens** which should be carefully collected using appropriate infection, prevention and control procedures and sent to labs for testing.
- **Disinfection.** Routine hand-washing is recommended with soap and water or use of alcohol hand rub. Larger areas can be disinfected using 10% of diluted household bleach (made fresh daily).
- Ensure safe burial practices. Spraying of face/chest area of suspected pneumonic plague deaths should be discouraged. The area should be covered with a disinfectant-soaked cloth or absorbent material.

# SURVEILLANCE AND CONTROL

Surveillance and control require investigating animal and flea species implicated in the plague cycle in the region and developing environmental management programs to understand the natural zoonosis of the disease cycle and to limit spread. Active long-term surveillance of animal foci coupled with a rapid response during animal outbreaks has successfully reduced numbers of human plague outbreaks.

In order to manage plague outbreaks effectively and efficiently it is crucial to have an informed and vigilant health care work force (and community) to quickly diagnose and manage patients with infection, to identify risk factors, to conduct ongoing surveillance, to control vectors and hosts, to confirm diagnosis with laboratory tests, and to communicate findings with appropriate authorities.

# WHO RESPONSE

WHO aims to prevent plague outbreaks by maintaining surveillance and supporting at-risk countries to prepare. As the type of animal reservoir differs according to the region and influences the risk and conditions of human transmission, WHO has developed specific guidelines for the Indian sub-continent, South America and Sub-Saharan Africa.

WHO works with ministries of health to support countries facing outbreaks for field control activities.

# HIGHLY PATHOGENIC AVIAN INFLUENZA (HPAI/BIRD FLU) AND SWINE FLU

<u>https://www.who.int/news-room/fact-sheets/detail/influenza-(avian-and-other-zoonotic)</u>

# **KEY FACTS**

- Humans can be infected with avian, swine and other zoonotic influenza viruses, such as avian influenza virus subtypes A(H5N1), A(H7N9), and A(H9N2) and swine influenza virus subtypes A(H1N1), A(H1N2) and A(H3N2).
- Human infections are primarily acquired through direct contact with infected animals or contaminated environments, these viruses have not acquired the ability of sustained transmission among humans.
- Avian, swine and other zoonotic influenza virus infections in humans may cause disease ranging from mild upper respiratory tract infection (fever and cough), early sputum production and rapid progression to severe pneumonia, sepsis with shock, acute respiratory distress syndrome and even death. Conjunctivitis, gastrointestinal symptoms, encephalitis and encephalopathy have also been reported to varying degrees depending on subtype.
- The majority of human cases of influenza A (H5N1) and A(H7N9) virus infection have been associated with direct or indirect contact with infected live or dead poultry. Controlling the disease in the animal source is critical to decrease risk to humans.
- Influenza viruses, with the vast silent reservoir in aquatic birds, are impossible to eradicate. Zoonotic influenza infection in humans will continue to occur. To minimize public health risk, quality surveillance in both animal and human populations, thorough investigation of every human infection and risk-based pandemic planning are essential.

Humans can be infected with zoonotic influenza viruses such as avian or swine influenza viruses.

# THE PATHOGEN

There are four types of influenza viruses: types A, B, C and D:

- Influenza A viruses infect humans and many different animals. The emergence of a new and very different influenza A virus with the ability infect people and have sustained human to human transmission, can cause an influenza pandemic.
- Influenza B viruses circulates among humans and cause seasonal epidemics. Recent data showed seals also can be infected.
- Influenza C viruses can infect both humans and pigs, but infections are generally mild and are rarely reported.
- Influenza D viruses primarily affect cattle and are not known to infect or cause illness in people.

**Influenza type A viruses** are of most significance to public health due to their potential to cause an influenza pandemic. Influenza type A viruses are classified into subtypes according to the combinations of different virus surface proteins hemagglutinin (HA) and

neuraminidase (NA). So far there are 18 different hemagglutinin subtypes and 11 different neuraminidase subtypes. Depending on the origin host, influenza A viruses can be classified as avian influenza, swine influenza, or other types of animal influenza viruses. Examples include avian influenza "bird flu" virus subtypes A(H5N1) and A(H9N2) or swine influenza "swine flu" virus subtypes A(H1N1) and A(H3N2). All of these animal influenza type A viruses are distinct from human influenza viruses and do not easily transmit among humans.

Aquatic birds are the primary natural reservoir for most subtypes of influenza A viruses. Most cause asymptomatic or mild infection in birds, where the range of symptoms depends on the virus properties. Viruses that cause severe disease in poultry and result in high death rates are called highly pathogenic avian influenza (HPAI). Viruses that cause mild disease in poultry are called low pathogenic avian influenza (LPAI).

## SIGNS AND SYMPTOMS IN HUMANS

Avian, swine and other zoonotic influenza infections in humans may cause disease ranging from mild upper respiratory infection (fever and cough) to rapid progression to severe pneumonia, acute respiratory distress syndrome, shock and even death. Gastrointestinal symptoms such as nausea, vomiting and diarrhea has been reported more frequently in A(H5N1) infection. Conjunctivitis has also been reported in influenza A(H7). Disease features such as the incubation period, severity of symptoms and clinical outcome varies by the virus causing infection but mainly manifests with respiratory symptoms.

In many patients infected by A(H5) or A(H7N9) avian influenza viruses, the disease has an aggressive clinical course. Common initial symptoms are high fever (greater than or equal to 38°C) and cough followed by symptoms of lower respiratory tract involvement including dyspnea or difficulty breathing. Upper respiratory tract symptoms such as sore throat or coryza are less common. Other symptoms such as diarrhea, vomiting, abdominal pain, bleeding from the nose or gums, encephalitis, and chest pain have also been reported in the clinical course of some patients. Complications of infection include severe pneumonia, hypoxemic respiratory failure, multi-organ dysfunction, septic shock, and secondary bacterial and fungal infections. The case fatality rate for A(H5) and A(H7N9) subtype virus infections among humans is much higher than that of seasonal influenza infections.

For human infections with avian influenza A(H7N7) and A(H9N2) viruses, disease is typically mild or subclinical. Only one fatal A(H7N7) human infection has been reported in the Netherlands so far. For human infections with swine influenza viruses, most cases have been mild with a few cases hospitalized and very few reports of deaths resulting from infection.

## EPIDEMIOLOGY OF HUMAN INFECTIONS

In terms of **transmission**, human infections with avian and other zoonotic influenza viruses, though rare, have been reported sporadically. Human infections are primarily acquired through direct contact with infected animals or contaminated environments, but do not result in efficient transmission of these viruses between people.

In 1997, human infections with the HPAI **A(H5N1)** virus were reported during an outbreak in poultry in Hong Kong SAR, China. Since 2003, this avian virus has spread from Asia to Europe and Africa, and has become endemic in poultry populations in some countries. Outbreaks have resulted in millions of poultry infections, several hundred human cases, and many

human deaths. The outbreaks in poultry have seriously impacted livelihoods, the economy and international trade in affected countries. Other avian influenza A(H5) subtype viruses have also resulted in both outbreaks in poultry and human infections.

In 2013, human infections with **A(H7N9)** virus were reported for the first time in China. Since then, the virus has spread in the poultry population across the country and resulted in over 1500 reported human cases and many human deaths

**Other avian influenza viruses** have resulted in sporadic human infections including the A(H7N7) and A(H9N2) viruses. Some countries have also reported sporadic human infections with **swine influenza viruses**, particularly the A(H1) and A(H3) subtypes.

In term of risk factors for human infections:

- for avian influenza viruses, the primary risk factor for human infection appears to be direct or indirect exposure to infected live or dead poultry or contaminated environments, such as live bird markets. Slaughtering, defeathering, handling carcasses of infected poultry, and preparing poultry for consumption, especially in household settings, are also likely to be risk factors. There is no evidence to suggest that the A(H5), A(H7N9) or other avian influenza viruses can be transmitted to humans through properly prepared poultry or eggs. A few influenza A(H5N1) human cases have been linked to consumption of dishes made with raw, contaminated poultry blood. Controlling the circulation of avian influenza viruses in poultry is essential to reducing the risk of human infection. Given the persistence of the A(H5) and A(H7N9) viruses in some poultry populations, control will require long-term commitments from countries and strong coordination between animal and public health authorities.
- for swine influenza viruses, risk factors reported for most human cases includes close proximity to infected pigs or visiting locations where pigs are exhibited, but some limited human-to-human transmission has occurred.

For avian influenza A(H5N1) virus infections in humans, current data indicate an **incubation period** averaging 2 to 5 days and ranging up to 17 days1. For human infections with the A(H7N9) virus, incubation period ranges from 1 to 10 days, with an average of 5 days. For both viruses, the average incubation period is longer than that for seasonal influenza (2 days). For human infections with swine influenza viruses, an incubation period of 2–7 days has been reported.

# DIAGNOSIS

Laboratory tests are required to diagnose human infection with zoonotic influenza. WHO, through its Global Influenza Surveillance and Response System (GISRS), periodically updates technical guidance protocols for the detection of zoonotic influenza in humans using molecular e.g. RT-PCR and others methods.

Rapid influenza diagnostic tests (RIDTs) have lower sensitivity compared to PCR and their reliability depends largely on the conditions under which they are used. Commercially available RDTs in general cannot provide subtype information. RIDTs are sometimes used in clinical settings, but their use in detection of zoonotic viruses is limited.

Adequate, appropriate samples for influenza tests should be taken from patients and processed with diagnostics according to relevant guidance and protocols <sup>1</sup>.

# TREATMENT

Evidence suggests that some **antiviral drugs**, notably NEURAMINIDASE INHIBITOR (oseltamivir, zanamivir), can reduce the duration of viral replication and improve prospects of survival, however ongoing clinical studies are needed. Emergence of oseltamivir resistance has been reported.

- In suspected and confirmed cases, neuraminidase inhibitors should be prescribed as soon as possible (ideally, within 48 hours following symptom onset) to maximize therapeutic benefits. However, given the significant mortality currently associated with A(H5) and A(H7N9) subtype virus infections and evidence of prolonged viral replication in these diseases, administration of the drug should also be considered in patients presenting later in the course of illness.
- Treatment is recommended for a minimum of 5 days but can be extended until there is satisfactory clinical improvement.
- Corticosteroids should not be used routinely, unless indicated for other reasons (e.g.,: asthma and other specific conditions); as it has been associated with prolonged viral clearance, immunosuppression leading to bacterial or fungal superinfection.
- Most recent A(H5) and A(H7N9) viruses are resistant to adamantane antiviral drugs (e.g. amantadine and rimantadine) and are therefore not recommended for monotherapy.
- Presence of co-infection with bacterial pathogens can be encountered in critically ill patients.

# PREVENTION

Apart from antiviral treatment, the public health management includes **personal protective measures** like:

- Regular hand washing with proper drying of the hands
- Good respiratory hygiene covering mouth and nose when coughing or sneezing, using tissues and disposing of them correctly
- Early self-isolation of those feeling unwell, feverish and having other symptoms of influenza
- Avoiding close contact with sick people
- Avoiding touching one's eyes, nose or mouth

Health care workers preforming aerosol generating procedures should use airborne precautions. Standard contact and droplet precautions and appropriate personal protective equipment (PPE) should be made available and used during epidemics.

Travelers to countries and people living in countries with known outbreaks of avian influenza should, if possible, avoid poultry farms, contact with animals in live poultry markets, entering areas where poultry may be slaughtered, and contact with any surfaces that appear to be contaminated with feces from poultry or other animals. Good food safety and food hygiene practices e.g. hands washing with soap and water should be followed. Travelers returning from affected regions should report to local health services if respiratory symptoms suspecting zoonotic influenza virus infection.

Pre-exposure or post-exposure prophylaxis with antivirals is possible but depends on several factors e.g. individual factors, type of exposure, and risk associated with the exposure.

# PANDEMIC POTENTIAL

Influenza pandemics are epidemics that affect a large proportion of the world due to a novel virus. Pandemics are unpredictable, but recurring events that can have health, economic and social consequences worldwide. An influenza pandemic occurs when a novel influenza virus emerges with the ability to cause sustained human-to-human transmission, and the human population has little to no immunity against the virus. With the growth of global travel, a pandemic can spread rapidly globally with little time to prepare a public health response.

Ongoing circulation of some avian influenza viruses in poultry, such as A(H5) and A(H7) viruses, are of public health concern as these viruses cause severe disease in humans and the viruses have the potential to mutate to increase transmissibility among humans. To date, although human-to-human transmission of these viruses is thought to have occurred in some instances when there had been close or prolonged contact with a patient, there has been no sustained human-to-human transmission identified.

Whether currently circulating avian, swine and other zoonotic influenza viruses will result in a future pandemic is unknown. However, the diversity of zoonotic influenza viruses that have caused human infections is alarming and necessitates strengthened surveillance in both animal and human populations, thorough investigation of every zoonotic infection and pandemic preparedness planning.

# WHO RESPONSE

WHO, in its capacity for providing leadership on global health matters, continuously monitors avian and other zoonotic influenza viruses closely through its Global Influenza Surveillance and Response System (GISRS). WHO, in collaboration with the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization (FAO), conducts surveillance at the human-animal interface, assesses the associated risks and coordinates response to zoonotic influenza outbreaks and other threats to public health.

Based on risk assessment, WHO provides guidance, develops and adjusts surveillance, preparedness and response strategies to influenza – seasonal, zoonotic and pandemic influenza, and communicates timely risk assessment outcomes and intervention recommendations with Member States to enhance preparedness and response nationally and globally.

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# TRYPANOSOMIASIS (SLEEPING SICKNESS)

<u>https://www.who.int/news-room/fact-sheets/detail/trypanosomiasis-human-african-(sleeping-sickness)</u>

# **KEY FACTS**

- Sleeping sickness is caused by parasites transmitted by infected tsetse flies and is endemic in 36 sub-Saharan African countries. Without treatment, the disease is considered fatal. where there are tsetse flies that transmit the disease.
- The people most exposed to the tsetse fly and to the disease live in rural areas and depend on agriculture, fishing, animal husbandry or hunting.
- Human African trypanosomiasis takes 2 forms, depending on the parasite involved: Trypanosoma brucei gambiense accounts for more than 98% of reported cases.
- Sustained control efforts have reduced the number of new cases. In 2009 the number reported dropped below 10 000 for the first time in 50 years, and in 2018 there were 977 cases recorded.
- Diagnosis and treatment of the disease is complex and requires specifically skilled staff.

Human African trypanosomiasis, also known as sleeping sickness, is a vector-borne parasitic disease. It is caused by infection with protozoan parasites belonging to the genus Trypanosoma. They are transmitted to humans by tsetse fly (Glossina genus) bites which have acquired their infection from human beings or from animals harboring human pathogenic parasites.

Tsetse flies are found just in sub-Saharan Africa though only certain species transmit the disease. For reasons that are so far unexplained, in many regions where tsetse flies are found, sleeping sickness is not. Rural populations living in regions where transmission occurs and which depend on agriculture, fishing, animal husbandry or hunting are the most exposed to the tsetse fly and therefore to the disease. The disease develops in areas ranging from a single village to an entire region. Within an infected area, the intensity of the disease can vary from one village to the next.

# Forms of human African trypanosomiasis

Human African trypanosomiasis takes 2 forms, depending on the parasite involved:

• **TRYPANOSOMA BRUCEI GAMBIENSE** is found in 24 countries in west and central Africa. This form currently accounts for 98% of reported cases of sleeping sickness and causes a chronic infection. A person can be infected for months or even years without major signs or symptoms of the disease. When more evident symptoms

emerge, the patient is often already in an advanced disease stage where the central nervous system is affected.

• **TRYPANOSOMA BRUCEI RHODESIENSE** is found in 13 countries in eastern and southern Africa. Nowadays, this form represents under 2% of reported cases and causes an acute infection. First signs and symptoms are observed a few months or weeks after infection. The disease develops rapidly and invades the central nervous system. Only Uganda presents both forms of the disease, but in separate zones.

Another form of trypanosomiasis occurs mainly in Latin America. It is known as American trypanosomiasis or Chagas disease. The causal organism belongs to a different Trypanosoma subgenus and is transmitted by a different vector.

# ANIMAL TRYPANOSOMIASIS

Other parasite species and sub-species of the Trypanosoma genus are pathogenic to animals and cause animal trypanosomiasis in wild and domestic animals. In cattle, the disease is called Nagana. Trypanosomiasis in domestic animals, particularly in cattle, is a major obstacle to the economic development of affected rural areas.

Animals can host the human pathogen parasites, especially T.b. rhodesiense, of which domestic and wild animals are an important reservoir. Animals can also be infected with T.b. gambiense and probably act as a reservoir to a lesser extent. However, the precise epidemiological role of the animal reservoir in the gambiense form of the disease is not yet well known.

## MAJOR HUMAN EPIDEMICS

There have been several epidemics in Africa over the last century:

- one between 1896 and 1906, mostly in Uganda and the Congo Basin;
- one in 1920 in a number of African countries; and
- the most recent epidemic started in 1970 and lasted until the late 1990s.

The 1920 epidemic was controlled thanks to mobile teams which carried out the screening of millions of people at risk. By the mid-1960s, the disease was under control with less than 5000 cases reported in the whole continent. After this success, surveillance was relaxed, and the disease reappeared, reaching epidemic proportions in several regions by 1970. The efforts of WHO, national control programs, bilateral cooperation and nongovernmental organizations (NGOs) during the 1990s and early 21st century reversed the curve.

Since the number of new human African trypanosomiasis cases reported between 2000 and 2018 dropped by 95%, the WHO neglected tropical diseases road map targeted its elimination as a public health problem by 2020 and interruption of transmission (zero cases) for 2030.

#### **DISEASE BURDEN**

Sleeping sickness threatens millions of people in 36 countries in sub-Saharan Africa. Many of the affected populations live in remote rural areas with limited access to adequate health services, which complicates the surveillance and therefore the diagnosis and treatment of cases. In addition, displacement of populations, war and poverty are important factors that facilitate transmission.

- In 1998, almost 40 000 cases were reported, but estimates were that 300 000 cases were undiagnosed and therefore untreated.
- During the last epidemic the prevalence reached 50% in several villages in Angola, the Democratic Republic of the Congo, and South Sudan. Sleeping sickness was the first or second greatest cause of mortality in those communities, even ahead of HIV/AIDS.
- In 2009, after continued control efforts, the number of cases reported dropped below 10 000 (9 878) for the first time in 50 years. This decline in number of cases has continued with 997 new cases reported in 2018, the lowest level since the start of systematic global data-collection 80 years ago. The estimated population at risk is 65 million people.

# CURRENT DISEASE DISTRIBUTION

The disease incidence differs from one country to another as well as in different parts of a single country.

- In the last 10 years, over 70% of reported cases occurred in the Democratic Republic of the Congo.
- Angola, Central African Republic, Chad, Congo, Gabon, Guinea, Malawi and South Sudan declared between 10 and 100 new cases in 2018.Cameroon, Côte d'Ivoire, Equatorial Guinea, Kenya, Uganda, United Republic of Tanzania, Zambia and Zimbabwe declared between 1 and 10 new cases in 2018.
- Countries such as Burkina Faso, Ghana, and Nigeria, have reported sporadic cases in the last 10 years.
- Countries like Benin, Botswana, Burundi, Ethiopia, Gambia, Guinea Bissau, Liberia, Mali, Mozambique, Namibia, Niger, Rwanda, Senegal, Sierra Leone, Swaziland and Togo have not reported any new cases for over a decade. Transmission of the disease seems to have stopped in some of these countries but there are still some areas where it is difficult to assess the exact situation because the unstable social circumstances and/or difficult accessibility hinder surveillance and diagnostic activities.

# INFECTION AND SYMPTOMS

The disease is mostly transmitted through the bite of an infected tsetse fly but there are other ways in which people are infected:

- Mother-to-child infection: the trypanosome can cross the placenta and infect the fetus.
- Mechanical transmission through other blood-sucking insects is possible, however, it is difficult to assess its epidemiological impact.
- Accidental infections have occurred in laboratories due to pricks with contaminated needles.
- Transmission of the parasite through sexual contact has been reported.

In the first stage, the trypanosomes multiply in subcutaneous tissues, blood and lymph. This is also called haemo-lymphatic stage, which entails bouts of fever, headaches, enlarged lymph nodes, joint pains and itching

In the second stage the parasites cross the blood-brain barrier to infect the central nervous system. This is known as the neurological or meningo-encephalic stage. In general, this is when more obvious signs and symptoms of the disease appear: changes of behavior, confusion, sensory disturbances and poor coordination. Disturbance of the sleep cycle, which gives the disease its name, is an important feature. Without treatment, sleeping sickness is considered fatal although cases of healthy carriers have been reported.

## DISEASE MANAGEMENT: DIAGNOSIS

Disease management is made in 3 steps:

- Screening for potential infection. This involves using serological tests (only available for T.B. GAMBIENSE) and checking for clinical signs - especially swollen cervical lymph nodes.
- Diagnosing by establishing whether the parasite is present in body fluids.
- Staging to determine the state of disease progression. This entails clinical examination and in some cases analysis of the cerebrospinal fluid obtained by lumbar puncture.

Diagnosis must be made as early as possible to avoid progressing to the neurological stage in order to elude complicated and risky treatment procedures

The long, relatively asymptomatic first stage of T. B. GAMBIENSE sleeping sickness is one of the reasons why an exhaustive, active screening of the population at risk is recommended, to identify patients at an early stage and reduce transmission by removing their status of reservoir. Exhaustive screening requires a major investment in human and material resources. In Africa such resources are often scarce, particularly in remote areas where the disease is mostly found. As a result, some infected individuals may die before they can ever be diagnosed and treated.

#### TREATMENT

The type of treatment depends on the form of the disease and the disease stage. The drugs used in the first stage are safer and easier to administer than those for second stage. Also, the earlier the disease is identified, the better the prospect of a cure. The assessment of treatment outcome requires follow up of the patient up to 24 months and entails clinical assessment and laboratory exams of body fluids including in some cases, cerebrospinal fluid obtained by lumbar puncture, as parasites may remain viable for long periods and reproduce the disease months after treatment.

Treatment success in the second stage depends on drugs that cross the blood-brain barrier to reach the parasite.

New treatment guidelines for gambiense human African trypanosmiasis were issued by WHO in 2019. In total six different drugs are used for the treatment of sleeping sickness. These drugs are donated to WHO by manufacturers and distributed free of charge to disease endemic countries.

Drugs used in the treatment of first stage:

- **Pentamidine:** discovered in 1940, used for the treatment of the first stage of T.B. GAMBIENSE sleeping sickness. Despite non-negligible undesirable effects, it is in general well tolerated by patients.
- Suramin: discovered in 1920, used for the treatment of the first stage of T.B. RHODESIENSE. It provokes certain undesirable effects, including urinary tract and allergic reactions.

Drugs used in the treatment of second stage:

- **Melarsoprol:** discovered in 1949, it is used for the treatment of both gambiense and rhodesiense infections. It is derived from arsenic and has many undesirable side effects, the most dramatic of which is reactive encephalopathy (encephalopathic syndrome) which can be fatal (3% to 10%). It is currently recommended as first-line treatment for the rhodesiense form, but rarely used in the gambiense form.
- **Eflornithine:** a molecule, much less toxic than melarsoprol, registered in 1990 is only effective against T.b. gambiense. It is generally used in combination with nifurtimox (as part of the Nifurtimox-eflornithine combination therapy, NECT) but can be used also as monotherapy. The regimen is complex and cumbersome to apply.
- Nifurtimox: The Nifurtimox-eflornithine combination therapy, NECT, was introduced in 2009. It simplifies the use of eflornithine by reducing the duration of treatment and the number of IV perfusions, but unfortunately it has not been studied for T.b. rhodesiense. Nifurtimox is registered for the treatment of American trypanosomiasis but not for human African trypanosomiasis. Nevertheless, after safety and efficacy data provided by clinical trials, its use in combination with eflornithine was included in the "WHO List of Essential Medicines". Both drugs are provided free of charge by WHO to endemic countries with a kit containing all the material needed for its administration.

Drugs used in the treatment of both stages:

**Fexinidazole** is a new oral treatment for gambiense human African trypanosomiasis It is included in 2019 in the WHO Essential medicines list and WHO human African Trypanosomiasis treatment guidelines. This molecule is indicated as first line for first stage and non-severe second stage. It should be administered within 30 minutes after a solid meal and under supervision of trained medical staff.

#### PUBLIC PRIVATE PARTNERSHIP

In 2000 and 2001, WHO established public-private partnerships with Aventis Pharma (now Sanofi) and Bayer HealthCare which enabled the creation of a WHO-led control and surveillance program, providing support to endemic countries in their control activities and the supply of medicines free of charge.

The partnership was renewed in 2006, 2011 and 2016. The success in curbing the number of sleeping sickness cases and the real possibilities of elimination of the disease has encouraged other private partners to sustain the WHO's initiative towards eliminating the disease as a public health problem.

#### WHO RESPONSE

WHO provides support and technical assistance to national control programs.

WHO provides the anti-trypanosome medicines free of charge to endemic countries through public-private partnerships with Sanofi (pentamidine, melarsoprol, effornithine and fexinidazole) and with Bayer HealthCare (suramin and nifurtimox). The conditioning and shipment of medicines is done in collaboration with MSF-Logistics.

In 2009, WHO set up a biological specimens bank that is available to researchers to facilitate the development of new and affordable diagnostic tools. The bank contains samples of blood, serum, cerebrospinal fluid, saliva and urine from patients infected with both forms of the disease as well as samples from uninfected people from areas where the disease is endemic.

In 2008, WHO launched the initiative of the Atlas of human African Trypanosomiasis to map at village level all reported cases. This initiative is jointly implemented with FAO within the PAAT framework. The Atlas is a dynamic database including geographical and epidemiological data, compiled by WHO through the contribution of SSNCPs, NGOs and Research Institutes.

In 2014 a coordination network for human African trypanosomiasis was established under WHO leadership to ensure strengthened and sustained efforts to eliminate the disease. The stakeholders include national sleeping sickness control programs, groups developing new tools to fight the disease, international and non-governmental organizations, and donors.

The objectives of the WHO program are to:

- strengthen and coordinate control measures and ensure field activities are sustained;
- strengthen surveillance systems;
- ensure accessibility to the diagnosis and the best treatment available;
- support the monitoring of treatment and drug resistance;
- develop an information database for epidemiological analysis, including the atlas of the human African trypanosomiasis, completed in collaboration with the Food and Agriculture Organization (FAO);
- ensure skilled staff by offering training activities;
- support operational research to improve diagnostic and treatment tools;
- promote collaboration with the FAO in charge of animal trypanosomiasis and the International Atomic Energy Agency (IAEA) dealing with vector control through male flies made sterile by radiation. The 3 UN agencies along with the African Union have promoted the Programme Against African Trypanosomiasis (PAAT);
- synergize vector and disease control activities in collaboration with the Pan African Tsetste and Trypanosomosis Eradication Campaign (PATTEC) of the African Union.

# ZOONOTIC TUBERCULOSIS

<u>https://www.who.int/tb/areas-of-work/zoonotic-tb/ZoonoticTBfactsheet2017.pdf?ua=1</u>

# WHAT IS ZOONOTIC TB?

- Zoonotic tuberculosis (TB) is a form of tuberculosis in people caused by *Mycobacterium bovis*, which belongs to the M. tuberculosis complex.
- It often affects sites other than the lungs (extrapulmonary), but in many cases is clinically indistinguishable from TB caused by M. tuberculosis.
- Within animal populations, M. bovis is the causative agent of bovine TB. It mainly affects cattle, which are the most important animal reservoir, and can become established in wildlife. The disease results in important economic losses and trade barriers with a major impact on the livelihoods of poor and marginalized communities.

# BURDEN

- In 2016, there were an estimated 147 000 new cases of zoonotic TB in people globally, and 12 500 deaths due to the disease. The African region carries the heaviest burden, followed by the South-East Asian region
- The true burden of zoonotic TB is likely to be underestimated due to a lack of routine surveillance data from most countries.
- Bovine TB is endemic in animal populations in many parts of the world.

# RISK FACTORS

• While the most common route of transmission of M. bovis to humans is through contaminated food (mainly untreated dairy products or, less commonly, untreated meat products), airborne transmission also poses an occupational risk to people in contact with infected animals or animal products, including farmers, veterinarians, slaughterhouse workers and butchers.

# **KEY CHALLENGES**

- The laboratory procedures most commonly used to diagnose TB do not differentiate M. tuberculosis from M. bovis. This leads to underdiagnosis of zoonotic TB.
- Zoonotic TB poses challenges for patient treatment and recovery. M. bovis is
  naturally resistant to pyrazinamide, one of the four medications used in the standard
  first-line antiTB treatment regimen. As most healthcare providers initiate treatment
  without drug susceptibility testing, patients with zoonotic TB may receive
  inadequate treatment.
- Zoonotic TB in humans is often initially extrapulmonary and may be misdiagnosed, and therefore initiation of treatment can be delayed.

# WHO PRIORITIES FOR ZOONOTIC TB

The World Health Organization (WHO), the World Organisation for Animal Health (OIE), the Food and Agriculture Organization of the UN (FAO) and the International Union Against Tuberculosis and Lung Disease (The Union) launched the first-ever roadmap for tackling zoonotic TB in October 2017. The roadmap is centered on a One Health approach, recognizing the interdependence of human and animal health sectors to address the major health and economic impact of this disease. It articulates clear immediate actions that all stakeholders can take to address this issue across different sectors and disciplines and defines milestones for the short- and medium-term. The roadmap calls for concerted action from government agencies, donors, academia, non-governmental organizations and private stakeholders across political, financial and technical levels. Ten priorities for action are defined, which will also bring substantial benefits for the control of other zoonotic and foodborne diseases:

## Improve the scientific evidence base

- Systematically survey, collect, analyze and report better quality data on the incidence of zoonotic TB in people, and improve surveillance and reporting of bovine TB in livestock and wildlife.
- 2. Expand the availability of appropriate diagnostic tools and capacity for testing to identify and characterize zoonotic TB in people.
- 3. Identify and address research gaps in zoonotic and bovine TB, including epidemiology, diagnostic tools, vaccines, effective patient treatment regimens, health systems and interventions coordinated with veterinary services.

# Reduce transmission at the animal-human interface

- 4. Develop strategies to improve food safety.
- 5. Develop capacity of the animal health sector to reduce the prevalence of TB in livestock.
- 6. Identify key populations and risk pathways for transmission of zoonotic TB.

#### Strengthen intersectoral and collaborative approaches

- 7. Increase awareness of zoonotic TB, engage key public and private stakeholders and establish effective intersectoral collaboration.
- 8. Develop and implement policies and guidelines for the prevention, surveillance, diagnosis, and treatment of zoonotic TB, in line with intergovernmental standards where relevant.
- 9. Identify opportunities for community-tailored interventions that jointly address human and animal health.
- 10. Develop an investment case to advocate for political commitment and funding to address zoonotic TB across sectors at the global, regional and national levels.

#### RABIES

• <u>https://www.who.int/news-room/fact-sheets/detail/rabies</u>

#### **KEY FACTS**

• Rabies is a vaccine-preventable viral disease which occurs in more than 150 countries and territories.

- Dogs are the main source of human rabies deaths, contributing up to 99% of all rabies transmissions to humans.
- Interrupting transmission is feasible through vaccination of dogs and prevention of dog bites.
- Infection causes tens of thousands of deaths every year, mainly in Asia and Africa.
- Globally rabies causes an estimated cost of US\$ 8.6 billion per year
- 40% of people bitten by suspect rabid animals are children under 15 years of age.
- Immediate, thorough wound washing with soap and water after contact with a suspect rabid animal is crucial and can save lives.
- Engagement of multiple sectors and One Health collaboration including community education, awareness programs and vaccination campaigns are critical.
- WHO leads the collective "United Against Rabies" to drive progress towards "Zero human deaths from dog-mediated rabies by 2030"

Rabies is a vaccine-preventable, zoonotic, viral disease. Once clinical symptoms appear, rabies is virtually 100% fatal. In up to 99% of cases, domestic dogs are responsible for rabies virus transmission to humans. Yet, rabies can affect both domestic and wild animals. It is spread to people and animals through bites or scratches, usually via saliva.

Rabies is present on all continents, except Antarctica, with over 95% of human deaths occurring in the Asia and Africa regions. Rabies is one of the Neglected Tropical Diseases (NTD) that predominantly affects poor and vulnerable populations who live in remote rural locations. Approximately 80% of human cases occur in rural areas. Although effective human vaccines and immunoglobulins exist for rabies, they are not readily available or accessible to those in need. Globally, rabies deaths are rarely reported and children between the ages of 5–14 years are frequent victims. Managing a rabies exposure, where the average cost of rabies post-exposure prophylaxis (PEP) is currently estimated at an average of US\$ 108 can be a catastrophic financial burden on affected families whose average daily income may be as low as US\$ 1–2 per person[1].

Every year, more than 29 million people worldwide receive a post-bite vaccination. This is estimated to prevent hundreds of thousands of rabies deaths annually. Globally, the economic burden of dog-mediated rabies is estimated at US\$ 8.6 billion per year.

# PREVENTION

# **Eliminating rabies in dogs**

Rabies is a vaccine-preventable disease. Vaccinating dogs is the most cost-effective strategy for preventing rabies in people. Dog vaccination reduces deaths attributable to dog-mediated rabies and the need for PEP as a part of dog bite patient care.

#### Awareness on rabies and preventing dog bites

Education on dog behavior and bite prevention for both children and adults is an essential extension of a rabies vaccination program and can decrease both the incidence of human rabies and the financial burden of treating dog bites. Increasing awareness of rabies prevention and control in communities includes education and information on responsible pet ownership, how to prevent dog bites, and immediate care measures after a bite.

Engagement and ownership of the program at the community level increases reach and uptake of key messages.

# Immunization of people

The same vaccine is used to immunize people after an exposure (see PEP) or before exposure to rabies (less common). Pre-exposure immunization is recommended for people in certain high-risk occupations such as laboratory workers handling live rabies and rabies-related (lyssavirus) viruses; and people (such as animal disease control staff and wildlife rangers) whose professional or personal activities might bring them into direct contact with bats, carnivores, or other mammals that may be infected.

Pre-exposure immunization might be indicated also for outdoor travelers to and expatriates living in remote areas with a high rabies exposure risk and limited local access to rabies biologics. Finally, immunization should also be considered for children living in, or visiting such areas. As they play with animals, they may receive more severe bites, or may not report bites.

# **SYMPTOMS**

The incubation period for rabies is typically 2–3 months but may vary from 1 week to 1 year, dependent upon factors such as the location of virus entry and viral load. Initial symptoms of rabies include a fever with pain and unusual or unexplained tingling, pricking, or burning sensation (paresthesia) at the wound site. As the virus spreads to the central nervous system, progressive and fatal inflammation of the brain and spinal cord develops.

There are two forms of the disease:

- Furious rabies results in signs of hyperactivity, excitable behavior, hydrophobia (fear of water) and sometimes aerophobia (fear of drafts or of fresh air). Death occurs after a few days due to cardio-respiratory arrest.
- Paralytic rabies accounts for about 20% of the total number of human cases. This
  form of rabies runs a less dramatic and usually longer course than the furious form.
  Muscles gradually become paralyzed, starting at the site of the bite or scratch. A
  coma slowly develops, and eventually death occurs. The paralytic form of rabies is
  often misdiagnosed, contributing to the under-reporting of the disease.

# DIAGNOSIS

Current diagnostic tools are not suitable for detecting rabies infection before the onset of clinical disease, and unless the rabies-specific signs of hydrophobia or aerophobia are present, clinical diagnosis may be difficult. Human rabies can be confirmed intra-vitam and post mortem by various diagnostic techniques that detect whole viruses, viral antigens, or nucleic acids in infected tissues (brain, skin or saliva)[2].

# Transmission

People are usually infected following a deep bite or scratch from an animal with rabies, and transmission to humans by rabid dogs accounts for 99% of cases.

In the Americas, bats are now the major source of human rabies deaths as dog-mediated transmission has mostly been broken in this region. Bat rabies is also an emerging public health threat in Australia and Western Europe. Human deaths following exposure to foxes, raccoons, skunks, jackals, mongooses and other wild carnivore host species are very rare, and bites from rodents are not known to transmit rabies.

Transmission can also occur if saliva of infected animals comes into direct contact with human mucosa or fresh skin wounds. Contraction of rabies through inhalation of viruscontaining aerosols or through transplantation of infected organs is described, but extremely rare. Human-to-human transmission through bites or saliva is theoretically possible but has never been confirmed. The same applies for transmission to humans via consumption of raw meat or milk of infected animals.

# POST-EXPOSURE PROPHYLAXIS (PEP)

Post-exposure prophylaxis (PEP) is the immediate treatment of a bite victim after rabies exposure. This prevents virus entry into the central nervous system, which results in imminent death. PEP consists of:

- Extensive washing and local treatment of the bite wound or scratch as soon as possible after a suspected exposure;
- a course of potent and effective rabies vaccine that meets WHO standards; and
- the administration of rabies immunoglobulin (RIG), if indicated.

Starting the treatment soon after an exposure to rabies virus can effectively prevent the onset of symptoms and death.

#### **Extensive wound washing**

This first-aid measure includes immediate and thorough flushing and washing of the wound for a minimum of 15 minutes with soap and water, detergent, povidone iodine or other substances that remove and kill the rabies virus.

#### **Exposure risk and indications for PEP**

Depending on the severity of the contact with the suspected rabid animal, administration of a full PEP course is recommended as follows:

Categories of contact with suspect rabid animal	Post-exposure prophylaxis measures
<b>Category I</b> - touching or feeding animals, animal licks on intact skin (no exposure)	Washing of exposed skin surfaces, no PEP
<b>Category II</b> - nibbling of uncovered skin, minor scratches or abrasions without bleeding (exposure)	Wound washing and immediate vaccination

Categories of contact with suspect rabid animal	Post-exposure prophylaxis measures
<b>Category III</b> - single or multiple transdermal bites or scratches, contamination of mucous membrane or broken skin with saliva from animal licks, exposures due to direct contact with bats (severe exposure)	Wound washing, immediate vaccination and administration of rabies immunoglobulin

All category II and III exposures assessed as carrying a risk of developing rabies require PEP. This risk is increased if:

- the biting mammal is a known rabies reservoir or vector species
- the exposure occurs in a geographical area where rabies is still present
- the animal looks sick or displays abnormal behavior
- a wound or mucous membrane was contaminated by the animal's saliva
- the bite was unprovoked
- the animal has not been vaccinated.

The vaccination status of the suspect animal should not be the deciding factor when considering initiating PEP or not when the vaccination status of the animal is questionable. This can be the case if dog vaccination programs are not being sufficiently regulated or followed out of lack of resources or low priority.

WHO continues to promote human rabies prevention through the elimination of rabies in dogs, dog bite prevention strategies, and more widespread use of the intradermal route for PEP which reduces volume and therefore the cost of cell-cultured vaccine by 60% to 80%.

# Integrated bite case management

If possible, the veterinary services should be alerted, the biting animal identified, removed from the community and either quarantined for observation (for healthy dogs and cats) or submitted for immediate laboratory examination (dead or euthanized animals showing clinical signs of rabies). PEP must be continued during the 10-day observation period or while awaiting laboratory results. Treatment may be discontinued if the animal is proven to be free of rabies. If a suspect animal cannot be captured and tested, then a full course of PEP should be completed. Joint contact tracing by veterinary and public health services is encouraged to identify additional suspected rabid animals and human bite victims, with the goal to apply preventive measures accordingly.

# WHO RESPONSE

Rabies is included in WHO's new 2021-2030 road map. As a zoonotic disease, it requires close cross-sectoral coordination at the national, regional and global levels.

- WHO, FAO (Food and Agriculture Organization) and OIE (World Organisation for Animal Health), have prioritized rabies under a One Health approach
- WHO leads the 'United Against Rabies' (UAR) a multi-stakeholder platform to advocate for, and prioritize investments in rabies control and coordinate the global rabies-elimination efforts to achieve zero human deaths from dog-mediated rabies by 2030

- WHO works with partners to guide and support countries as they develop and implement their national rabies elimination plans
- WHO regularly updates and disseminates technical guidance on rabies [4], for example on epidemiology, surveillance, diagnostics, vaccines, safe and cost-effective immunization[5], control and prevention strategies for human and animal rabies, operational program implementation[6] and palliative care for human rabies patients
- On the path towards rabies elimination countries can request WHO validation of achieving zero human deaths from dog-mediated rabies [4] and seek OIE endorsement of their dog rabies control programs and self-declare freedom from dog rabies[7]
- Mexico was the first country to have been validated by WHO in 2019 for eliminating human deaths from dog-mediated rabies
- Inclusion of rabies biologics into countries list of essential medicines and advocating for increased access of poor and rural populations to PEP is a WHO priority and strengthens the global movement towards achieving Universal Health Coverage
- In 2019 Gavi has included human rabies vaccines in its vaccine investment strategy 2021-2025 which will support scaling up rabies PEP in Gavi eligible countries, WHO will continue to advise on best strategies and practices for its roll out to countries requesting rabies vaccine.
- Monitoring of rabies programs and disease surveillance are needed to measure impact and for increasing awareness and advocacy.

The 2030 NTD Roadmap is a key guiding document for the global response to NTDs over the next decade and includes regional, progressive targets for rabies elimination[8]

The key towards sustaining and expanding the rabies programs to adjacent geographies has been to start small, catalyze local rabies programs through stimulus packages, demonstrate success and cost-effectiveness, and ensure the engagement of governments and affected communities.

Rabies elimination needs adequate and long-term investments. Showcasing local success and raising awareness on rabies have been proven effective to gain and maintain political will.

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# CRIMEAN CONGO HAEMORRHAGIC FEVER

<u>https://www.who.int/news-room/fact-sheets/detail/crimean-congo-haemorrhagic-fever</u>

## **KEY FACTS**

- The Crimean-Congo hemorrhagic fever (CCHF) virus causes severe viral hemorrhagic fever outbreaks.
- CCHF outbreaks have a case fatality rate of up to 40%.
- The virus is primarily transmitted to people from ticks and livestock animals. Humanto-human transmission can occur resulting from close contact with the blood, secretions, organs or other bodily fluids of infected persons.
- CCHF is endemic in Africa, the Balkans, the Middle East and Asia, in countries south of the 50th parallel north.
- There is no vaccine available for either people or animals.

Crimean-Congo hemorrhagic fever (CCHF) is a widespread disease caused by a tick-borne virus (NAIROVIRUS) of the BUNYAVIRIDAE family. The CCHF virus causes severe viral hemorrhagic fever outbreaks, with a case fatality rate of 10–40%.

CCHF is endemic in Africa, the Balkans, the Middle East and Asian countries south of the 50th parallel north – the geographical limit of the principal tick vector.

## THE CRIMEAN-CONGO HAEMORRHAGIC FEVER VIRUS IN ANIMALS AND TICKS

The hosts of the CCHF virus include a wide range of wild and domestic animals such as cattle, sheep and goats. Many birds are resistant to infection, but ostriches are susceptible and may show a high prevalence of infection in endemic areas, where they have been at the origin of human cases. For example, a former outbreak occurred at an ostrich abattoir in South Africa. There is no apparent disease in these animals.

Animals become infected by the bite of infected ticks and the virus remains in their bloodstream for about one week after infection, allowing the tick-animal-tick cycle to continue when another tick bites. Although a number of tick genera are capable of becoming infected with CCHF virus, ticks of the genus HYALOMMA are the principal vector.

#### TRANSMISSION

The CCHF virus is transmitted to people either by tick bites or through contact with infected animal blood or tissues during and immediately after slaughter. The majority of cases have occurred in people involved in the livestock industry, such as agricultural workers, slaughterhouse workers and veterinarians.

Human-to-human transmission can occur resulting from close contact with the blood, secretions, organs or other bodily fluids of infected persons. Hospital-acquired infections can also occur due to improper sterilization of medical equipment, reuse of needles and contamination of medical supplies.

# SIGNS AND SYMPTOMS

The length of the incubation period depends on the mode of acquisition of the virus. Following infection by a tick bite, the incubation period is usually one to three days, with a maximum of nine days. The incubation period following contact with infected blood or tissues is usually five to six days, with a documented maximum of 13 days.

Onset of symptoms is sudden, with fever, myalgia, (muscle ache), dizziness, neck pain and stiffness, backache, headache, sore eyes and photophobia (sensitivity to light). There may be nausea, vomiting, diarrhea, abdominal pain and sore throat early on, followed by sharp mood swings and confusion. After two to four days, the agitation may be replaced by sleepiness, depression and lassitude, and the abdominal pain may localize to the upper right quadrant, with detectable hepatomegaly (liver enlargement).

Other clinical signs include tachycardia (fast heart rate), lymphadenopathy (enlarged lymph nodes), and a petechial rash (a rash caused by bleeding into the skin) on internal mucosal surfaces, such as in the mouth and throat, and on the skin. The petechiae may give way to larger rashes called ecchymoses, and other hemorrhagic phenomena. There is usually evidence of hepatitis, and severely ill patients may experience rapid kidney deterioration, sudden liver failure or pulmonary failure after the fifth day of illness.

The mortality rate from CCHF is approximately 30%, with death occurring in the second week of illness. In patients who recover, improvement generally begins on the ninth or tenth day after the onset of illness.

## DIAGNOSIS

CCHF virus infection can be diagnosed by several different laboratory tests:

- enzyme-linked immunosorbent assay (ELISA);
- antigen detection;
- serum neutralization;
- reverse transcriptase polymerase chain reaction (RT-PCR) assay; and
- virus isolation by cell culture.

Patients with fatal disease, as well as in patients in the first few days of illness, do not usually develop a measurable antibody response and so diagnosis in these individuals is achieved by virus or RNA detection in blood or tissue samples.

Tests on patient samples present an extreme biohazard risk and should only be conducted under maximum biological containment conditions. However, if samples have been inactivated (e.g. with virucides, gamma rays, formaldehyde, heat, etc.), they can be manipulated in a basic biosafety environment.

#### TREATMENT

General supportive care with treatment of symptoms is the main approach to managing CCHF in people.

The antiviral drug ribavirin has been used to treat CCHF infection with apparent benefit. Both oral and intravenous formulations seem to be effective.

# PREVENTION AND CONTROL

#### **Controlling CCHF in animals and ticks**

It is difficult to prevent or control CCHF infection in animals and ticks as the tick-animal-tick cycle usually goes unnoticed and the infection in domestic animals is usually not apparent. Furthermore, the tick vectors are numerous and widespread, so tick control with acaricides (chemicals intended to kill ticks) is only a realistic option for well-managed livestock production facilities.

For example, following an outbreak at an ostrich abattoir in South Africa (noted above), measures were taken to ensure that ostriches remained tick free for 14 days in a quarantine station before slaughter. This decreased the risk for the animal to be infected during its slaughtering and prevented human infection for those in contact with the livestock.

There are no vaccines available for use in animals.

# Reducing the risk of infection in people

Although an inactivated, mouse brain-derived vaccine against CCHF has been developed and used on a small scale in eastern Europe, there is currently no safe and effective vaccine widely available for human use.

In the absence of a vaccine, the only way to reduce infection in people is by raising awareness of the risk factors and educating people about the measures they can take to reduce exposure to the virus.

Public health advice should focus on several aspects.

# **REDUCING THE RISK OF TICK-TO-HUMAN TRANSMISSION**

- wear protective clothing (long sleeves, long trousers);
- wear light colored clothing to allow easy detection of ticks on the clothes;
- use approved acaricides (chemicals intended to kill ticks) on clothing;
- use approved repellent on the skin and clothing;
- regularly examine clothing and skin for ticks; if found, remove them safely;
- seek to eliminate or control tick infestations on animals or in stables and barns; and
- avoid areas where ticks are abundant and seasons when they are most active.

# REDUCING THE RISK OF ANIMAL-TO-HUMAN TRANSMISSION

- wear gloves and other protective clothing while handling animals or their tissues in endemic areas, notably during slaughtering, butchering and culling procedures in slaughterhouses or at home;
- quarantine animals before they enter slaughterhouses or routinely treat animals with pesticides two weeks prior to slaughter.

# REDUCING THE RISK OF HUMAN-TO-HUMAN TRANSMISSION IN THE COMMUNITY

- avoid close physical contact with CCHF-infected people;
- wear gloves and protective equipment when taking care of ill people;
- wash hands regularly after caring for or visiting ill people.

## **Controlling infection in health-care settings**

Health-care workers caring for patients with suspected or confirmed CCHF, or handling specimens from them, should implement standard infection control precautions. These include basic hand hygiene, use of personal protective equipment, safe injection practices and safe burial practices.

As a precautionary measure, health-care workers caring for patients immediately outside the CCHF outbreak area should also implement standard infection control precautions.

Samples taken from people with suspected CCHF should be handled by trained staff working in suitably equipped laboratories.

Recommendations for infection control while providing care to patients with suspected or confirmed Crimean-Congo hemorrhagic fever should follow those developed by WHO for Ebola and Marburg hemorrhagic fever.

#### WHO RESPONSE

WHO is working with partners to support CCHF surveillance, diagnostic capacity and outbreak response activities in Europe, the Middle East, Asia and Africa.

WHO also provides documentation to help disease investigation and control, and has created an aide-memoire on standard precautions in health care, which is intended to reduce the risk of transmission of bloodborne and other pathogens.

#### ANTHRAX

https://www.who.int/csr/disease/Anthrax/en/

Anthrax is primarily a disease of herbivorous mammals, although other mammals and some birds have been known to contract it. Until the introduction and widespread use of effective veterinary vaccines, it was a major cause of fatal disease in cattle, sheep, goats, camels, horses, and pigs throughout the world. Anthrax continues to be reported from many countries in domesticated and wild herbivores, especially where livestock vaccination programs are inadequate or have been disrupted.

Humans generally acquire the disease directly or indirectly from infected animals, or occupational exposure to infected or contaminated animal products. Control in livestock is therefore the key to reduced incidence. The disease is generally regarded as being non-contagious. Records of person-to-person spread exist but are rare.

For more information about prevention and treatment, consult the <u>WHO fact sheet</u>. See also <u>Information resources</u> for further details of the disease.

Additional extensive information about anthrax is provided in the <u>CDC Resource page on</u> <u>Anthrax</u> and included below:

## How people get infected

People get infected with anthrax when spores get into the body. When this happens, the spores can be activated and become anthrax bacteria. Then the bacteria can multiply, spread out in the body, produce toxins (poisons), and cause severe illness. This can happen when people breathe in spores, eat food or drink water that is contaminated with spores, or get spores in a cut or scrape in the skin.

## ANTHRAX IS NOT CONTAGIOUS

You cannot catch anthrax from another person the way you might catch a cold or the flu. In rare cases, person-to-person transmission has been reported with cutaneous anthrax, where discharges from skin lesions might be infectious.

Certain activities (described below) can increase a person's chances of getting infected.

# WORKING WITH INFECTED ANIMALS OR ANIMAL PRODUCTS

Most people who get sick from anthrax are exposed while <u>working with infected animals or</u> <u>animal products</u> such as wool, hides, or hair.

<u>Inhalation anthrax</u> can occur when a person inhales spores that are in the air (aerosolized) during the industrial processing of contaminated materials, such as wool, hides, or hair.

<u>Cutaneous anthrax</u> can occur when workers who handle contaminated animal products get spores in a cut or scrape on their skin.

#### EATING RAW OR UNDERCOOKED MEAT FROM INFECTED ANIMALS

People who eat raw or undercooked meat from infected animals may get sick with <u>gastrointestinal anthrax</u>. This usually occurs in countries where livestock are not routinely vaccinated against anthrax and food animals are not inspected prior to slaughter. In the United States, gastrointestinal anthrax has rarely been reported. This is because yearly vaccination of livestock is recommended in areas of the United States where animals have had anthrax in the past, and because of the examination of all food animals, which ensures that they are healthy at the time of slaughter.

#### **INJECTING HEROIN**

A newly discovered type of anthrax is <u>injection anthrax</u>. This type of anthrax has been seen in northern Europe in people injecting heroin. So far, no cases of injection anthrax have been reported in the United States.

## Who is at risk

Anyone who has come in contact with anthrax spores could be at risk of getting sick. Most people will never be exposed to anthrax. However, there are activities that can put some people at greater risk of exposure than others.

- <u>People Who Handle Animal Products</u>
- <u>Veterinarians</u>
- Livestock producers
- <u>Travelers</u>
- Laboratory Professionals
- <u>Mail handlers, military personnel, and response workers</u> who may be exposed during a bioterror event involving anthrax spores

## **Symptoms**

The symptoms of anthrax depend on the type of infection and can take anywhere from 1 day to more than 2 months to appear. All types of anthrax have the potential, if untreated, to spread throughout the body and cause severe illness and even death.

# CUTANEOUS ANTHRAX SYMPTOMS

- A group of small blisters or bumps that may itch
- Swelling can occur around the sore
- A painless skin sore (ulcer) with a black center that appears after the small blisters or bumps
  - Most often the sore will be on the face, neck, arms, or hands

# INHALATION ANTHRAX SYMPTOMS

- Fever and chills
- Chest Discomfort
- Shortness of breath
- Confusion or dizziness
- Cough
- Nausea, vomiting, or stomach pains
- Headache
- Sweats (often drenching)
- Extreme tiredness
- Body aches

#### GASTROINTESTINAL ANTHRAX SYMPTOMS

- Fever and chills
- Swelling of neck or neck glands
- Sore throat
- Painful swallowing
- Hoarseness

- Nausea and vomiting, especially bloody vomiting
- Diarrhea or bloody diarrhea
- Headache
- Flushing (red face) and red eyes
- Stomach pain
- Fainting
- Swelling of abdomen (stomach)

# INJECTION ANTHRAX SYMPTOMS

- Fever and chills
- A group of small blisters or bumps that may itch, appearing where the drug was injected
- A painless skin sore with a black center that appears after the blisters or bumps
- Swelling around the sore
- Abscesses deep under the skin or in the muscle where the drug was injected

# **Keep in Mind**

Injection anthrax symptoms are similar to those of cutaneous anthrax, but injection anthrax can spread throughout the body faster and be harder to recognize and treat than cutaneous anthrax. Skin and injection site infections associated with injection drug use are common and do not necessarily mean the person has anthrax.

# Diagnosis

<u>CDC Guidance</u> and <u>case definitions</u> are available to help doctors diagnose anthrax, take patient histories to determine how exposure may have occurred, and order necessary diagnostic tests.

If inhalation anthrax is suspected, chest X-rays or CT scans can confirm if the patient has mediastinal widening or pleural effusion, which are X-ray findings typically seen in patients with inhalation anthrax.

The only ways to confirm an Anthrax diagnosis are:

- To measure antibodies or toxin in blood
- To test directly for BACILLUS ANTHRACIS in a sample
  - $\circ \quad \text{blood} \quad$
  - $\circ$  skin lesion swab
  - o spinal fluid
  - respiratory secretions

Samples must be taken before the patient begins taking antibiotics for treatment.

# Treatment

Doctors have several options for treating patients with anthrax, including antibiotics and antitoxin. Patients with serious cases of anthrax will need to be hospitalized. They may require aggressive treatment, such as continuous fluid drainage and help breathing through mechanical ventilation.

# ANTIBIOTICS

All types of anthrax infection can be treated with antibiotics, including intravenous antibiotics (medicine given through the vein). If someone has symptoms of anthrax, it's important to get medical care as quickly as possible to have the best chances of a full recovery. Doctors will select antibiotics that are best for treating anthrax and that are best for the patient based on their medical history.

#### ANTITOXIN

When anthrax spores get inside the body, they can be "activated." When they become active, anthrax bacteria can multiply, spread out in the body, and produce toxins—or poisons. Anthrax toxins in the body cause severe illness.

After anthrax toxins have been released in the body, one possible treatment is antitoxin. Antitoxins target anthrax toxins in the body. Doctors must use antitoxin together with other treatment options.

Currently, there are a few types of antitoxins that can be used for treating anthrax

#### Prevention

Antibiotics can prevent anthrax from developing in people who have been exposed but have not developed symptoms. Ciprofloxacin and doxycycline are two of the antibiotics that could be used to prevent anthrax.

Each of these antibiotics offers the same protection against anthrax. Anthrax spores typically take 1 to 6 days to be activated, but some spores can remain inside the body and take up to 60 days or more before they are activated. Activated spores release toxins—or poisons—that attack the body, causing the person to become sick. That's why people who have been exposed to anthrax must take antibiotics for 60 days. This will protect them from any anthrax spores in their body when the spores are activated.

#### VACCINE

Anthrax Vaccine Adsorbed (AVA) protects against anthrax. It does **not** contain any anthrax bacteria and **cannot** give people anthrax. It is not typically available to the general public. The vaccine is approved by the Food and Drug Administration (FDA) for two different situations.

#### ROUTINE OCCUPATIONAL USE (BEFORE POSSIBLE EXPOSURE)

Anthrax vaccine is approved for use in three groups of adults 18 to 65 years of age who may be at risk of coming in contact with anthrax because of their job. These at-risk adults will receive the vaccine before exposure:

- Certain laboratory workers who work with anthrax
- Some people who handle animals or animal products, such as some veterinarians
- Some members of the United States military

To build up protection against anthrax, these groups should get **5 shots** of anthrax vaccine over 18 months. To stay protected, they should get annual boosters. The shots are injected into a muscle (intramuscular).

People who should **not** get the anthrax vaccine for routine occupational use include:

- Pregnant women.
- Anyone who has had a serious allergic reaction to a previous dose of anthrax vaccine.
- Anyone who has a severe allergy to any component of the anthrax vaccine. Anyone with severe allergies, including allergy to latex, should tell their doctor.

For anyone with a moderate or severe illness, their doctor might ask them to wait until they recover to get the vaccine. People with mild illness can usually be vaccinated.

#### POST-EVENT EMERGENCY USE (AFTER POSSIBLE EXPOSURE)

In certain situations, such as a bioterrorist attack involving anthrax, anthrax vaccine might be recommended to prevent the disease in people after they have been exposed to the anthrax germs.

If this were to happen, people who were exposed would get **3 shots** of anthrax vaccine over 4 weeks plus a 60-day course of antibiotics.

During an emergency, the **only** people who should **not** get the anthrax vaccine after possible exposure are those who have had a serious allergic reaction to a previous dose of anthrax vaccine. These people would receive the 60-day course of antibiotics only.

For more about anthrax vaccine, visit CDC's Anthrax Vaccination webpage

# BRUCELLOSIS

<u>https://www.who.int/news-room/fact-sheets/detail/brucellosis</u>

# **KEY FACTS**

- Brucellosis is found globally and is a reportable disease in most countries
- The disease causes flu-like symptoms, including fever, weakness, malaise and weight loss
- Person-to-person transmission is rare
- Brucellosis is a bacterial disease caused by various Brucella species, which mainly infect cattle, swine, goats, sheep and dogs

Brucellosis is a bacterial disease caused by various BRUCELLA species, which mainly infect cattle, swine, goats, sheep and dogs. Humans generally acquire the disease through direct contact with infected animals, by eating or drinking contaminated animal products or by inhaling airborne agents. Most cases are caused by ingesting unpasteurized milk or cheese from infected goats or sheep.

Brucellosis is one of the most widespread zoonoses transmitted by animals and in endemic areas, human brucellosis has serious public health consequences. Expansion of animal industries and urbanization, and the lack of hygienic measures in animal husbandry and in food handling, partly account for brucellosis remaining a public health hazard.

#### WHO IS AT RISK?

Brucellosis is found globally and is a reportable disease in most countries. It affects people of all ages and both sexes. In the general population, most cases are caused by the consumption of raw milk or its derivatives such as fresh cheese. Most of these cases are from sheep and goat products.

The disease is also considered an occupational hazard for people who work in the livestock sector. People who work with animals and are in contact with blood, placenta, fetuses and uterine secretions have an increased risk of contracting the disease. This method of transmission primarily affects farmers, butchers, hunters, veterinarians and laboratory personnel.

Worldwide, Brucella melitensis is the most prevalent species causing human brucellosis, owing in part to difficulties in immunizing free-ranging goats and sheep.

Human-to-human transmission is very rare.

# PREVENTION AND CONTROL

Prevention of brucellosis is based on surveillance and the prevention of risk factors. The most effective prevention strategy is the elimination of infection in animals. Vaccination of cattle, goats and sheep is recommended in enzootic areas with high prevalence rates. Serological or other testing and culling can also be effective in areas with low prevalence. In countries where eradication in animals through vaccination or elimination of infected animals is not feasible, prevention of human infection is primarily based on raising awareness, food-safety measures, occupational hygiene and laboratory safety.

Pasteurization of milk for direct consumption and for creating derivatives such as cheese is an important step to preventing transmission from animals to humans. Education campaigns about avoiding unpasteurized milk products can be effective, as well as policies on its sale.

In agricultural work and meat-processing, protective barriers and correct handling and disposal of afterbirths, animal carcasses and internal organs is an important prevention strategy.

#### TREATMENT AND CARE

Brucellosis typically causes flu-like symptoms, including fever, weakness, malaise and weight loss. However, the disease may present in many atypical forms. In many patients the symptoms are mild and, therefore, the diagnosis may not be considered. The incubation

period of the disease can be highly variable, ranging from 1 week to 2 months, but usually 2–4 weeks.

Treatment options include doxycycline 100 mg twice a day for 45 days, plus streptomycin 1 g daily for 15 days. The main alternative therapy is doxycycline at 100 mg, twice a day for 45 days, plus rifampicin at 15mg/kg/day (600-900mg) for 45 days. Experience suggests that streptomycin may be substituted with gentamicin 5mg/kg/daily for 7–10 days, but no study directly comparing the two regimes is currently available. The optimal treatment for pregnant women, neonates and children under 8 is not yet determined; for children, options include trimethoprim/sulfamethoxazole (co-trimoxazole) combined with an aminoglycoside (streptomycin, gentamycin) or rifampicin.

## WHO RESPONSE

WHO provides technical advice to member states through provision of standards, information and guidance for the management of brucellosis in humans and animals. The Organization works to support the coordination and sharing of information between the public health and animal health sectors. In collaboration with the Food and Agricultural Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the Mediterranean Zoonoses Control Programme (MZCP), WHO supports countries in the prevention and management of the disease through the Global Early Warning System for Major Animal Diseases (GLEWS).

WHO works with national governments, academia, non-governmental and philanthropic organizations, and regional and international partners to prevent and manage zoonotic threats and their public health, social and economic impacts. These efforts include fostering cross-sectoral collaboration at the human-animal-environment interface among the different relevant sectors at regional, national and international levels. WHO also works to develop capacity and promote practical, evidence-based and cost-effective tools and mechanisms for zoonoses prevention, surveillance and detection through reporting, epidemiological and laboratory investigation, risk assessment and control, and assisting countries in their implementation.

As part of the One Health approach, the World Health Organization collaborates with the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) on the Global Early Warning System for Major Animal Diseases (GLEWS). This joint system builds on the added value of combining and coordinating alert mechanisms of the three agencies to assist in early warning, prevention and control of animal disease threats, including zoonoses, through data sharing and risk assessment.

# HANDOUT 6: CASE STUDIES - EBOLA, SARS, AND COVID-19

**Instructions:** The following case studies are based upon real-world zoonotic disease epidemic scenarios. Each member of the group should take a few minutes to read through your assigned case study. All group members should then come together to discuss:

- 1. What are the key pitfalls or lessons learned in the epidemic response presented?
- 2. Which effective practices of risk communication were applied in this case?
- 3. How might effective collaboration between media actors and public health actors have changed the situation?

One person should take notes of key points of the discussion. You will have twenty minutes to work on this exercise before presenting your analysis for five minutes to the larger group.

## CASE STUDY 1: EBOLA IN WEST AFRICA

The 2013 - 2016 outbreak of EVD in Liberia, Sierra Leone and Guinea sent shockwaves throughout the world. The outbreak was so terrifying due to its virulence and mortality rates, with an estimated 28,616 people infected and 11,310 deaths. In addition to the devastation and loss of life it caused, the epidemic was so striking because one of the biggest factors impeding the ability for responders to control and contain its spread was widespread resistance to the risk communication strategy among affected and at-risk communities.

Fear, fueled by rumors and conspiracy theories, amplified some distrust of the government and international NGOs among citizens in countries where the disease spread unabated. For this reason, there was initially persistent and widespread denial of the reality of the disease, especially in Liberia and Sierra Leone, where theories that the disease was a deliberate conspiracy quickly spread. Faced with this denial, early risk communication efforts focused on spreading information that, while technically factually correct at the time, prioritized fear-based messages in an attempt to simply convince people that the virus was a real threat, rather than presenting more nuanced messaging to emphasize what communities could do to prevent it. Such messages--such as that the virus was deadly, and there was no vaccine or cure—succeeded more in stoking fear and panic than inducing meaningful preventative actions. This panic further undermined already weak public faith in the health system's capacity to successfully treat infected people. While conspiracy theories and rumors continued in earnest, mistrust in the health system drove infected people away from notifying symptoms to health authorities, further hampering the community-based surveillance and rapid response system and thus containment efforts.

Beyond negative, fear-based messages to combat denial, early risk communication efforts around Ebola were based on an assumption that simply disseminating factual, biomedical information about the virus would change people's behaviors. The "low-hanging" fruit of health messaging was employed, using simplistic slogans like "Wash your hands" and "Stop Ebola;" these phrases were helpful and easy for people to recall, but they did not inspire deeper thought and engagement, nor help communities to grapple with the realities of the newfound risk inherent in various social situations and interactions. The scientific uncertainty and rapidly changing information on the ground about the epidemiology of the disease further complicated communication efforts, as new information about the virus's characteristics was constantly emerging, which was communicated to the public but was later modified or disproven; this sparked doubt about the credibility of advice given by the authorities. Finally, the response strategy was dominated largely by players from outside the affected countries and especially from the global North, which focused on rapidly rolling out the highly technical aspects of outbreak response and failed to understand and engage meaningfully with the social, cultural and economic contexts that influenced an individual's risk assessments and decisions.

As the epidemic wore on, and it became clear that the Ebola response was largely failing in its efforts to bring communities to take preventative action, the communication strategy evolved. Implementing organizations began to consult with and involve religious and traditional leaders, traditional healers, youth groups and other formal and informal community structures in communication efforts, even if this process was more complex and required more time to coordinate than the prior top-down messaging strategy more closely. As these local players began to take on a larger role, there was evidence that communities were becoming more receptive to adopting some of the more challenging behaviors to reduce risks. The leadership of communities also allowed for the creation of feedback loops between communities and service providers, which did not exist before with the technocratic approach. The community-driven strategy was more effective but was introduced relatively late in the epidemic; had it been taken earlier on, more people may have taken preventative action sooner, likely altering the trajectory of the disease.

Mass communication efforts were also seriously challenged by the epidemic. Governments and their international partners were reluctant to release information about the disease locally and internationally. All countries, already economically impacted by unjustified negative perceptions in the Global North, were worried about bad publicity and wanted to protect their image in the eyes of foreign donors and investors, therefore delaying the release of information about the severity of the situation to international stakeholders and to the media. In some cases, an antagonistic relationship between journalists and official spokespersons in affected countries further delayed the release of public information. In Liberia, for instance, the government initially issued a state of emergency that prevented journalists from reporting on the outbreak, effectively silencing critical voices. The restrictions placed on journalists furthered exacerbated already weak media systems, which are marred by a lack of professionalism, inaccurate and sensationalist reporting, poorly trained and poorly paid journalists, self-censorship and government repression of critical voices. It later reversed the decision.

# CASE STUDY 2: SARS IN CHINA, HONG KONG AND VIETNAM

The outbreak of severe acute respiratory syndrome--the first new disease of the 21<sup>st</sup> century-- is widely considered a watershed health event of the era. Despite its relatively low rate of transmission, the virus managed to infect 8,000 people across 29 countries in a matter of just a few months. SARS not only demonstrated how quickly a new virus can piggyback on the modern tools of a global world to spread quickly across geographic boundaries, it also showed how quick decisive action and international cooperation can prevent a new disease from becoming endemic.

Initially, there were strong efforts by the Chinese government to control the narrative around the emerging disease and avoid mass panic by blocking the disclosure of information about the real magnitude of the health threat to the public—both nationally and internationally. This first strategy backfired dramatically as public ignorance and a lack of

reliable information about the disease facilitated its early unabated spread and affected public trust. During this period of official denial, news of the outbreak leaked out on the Internet, through rumors spread via mobile phone text messaging, and through brief news items in local newspapers that hinted at the presence of disease. The few statements made by local official spokespersons were all denying the existence of a serious disease rather than providing meaningful information about what was known at the time. During this period, the propaganda department of the Guangdong provincial party committee issued, almost on a daily basis, a series of directives, notices, warnings, and "unified official news releases" to the local media organization, trying to maintain control of media coverage on the epidemic. In the early stages, government secrecy significantly hampered later attempts to mobilize the public, as authorities had undermined public trust in the response effort.

From this initial stage of covering up and denying the existence of the disease, a second stage of the response included admitting the existence of the disease but playing down its severity. Finally, after failure of the first two approaches, the government adopted a strategy of greater openness about the situation and public mobilization to fight the disease.

Other countries took a contrasting strategy to the controlling approach of China. In Hong Kong and Vietnam, control efforts and a swift public health response were made a top priority among governments as containment of the disease was seen as critical to restoring tourism and regaining the confidence of international investors and trade partners. In both countries, the full participation of the public as a partner was considered critical to this effort, and accurate and timely information was considered the best way to secure this participation and maintain trust. Reporting on the outbreak by local authorities was open, honest, straightforward and constant.

Since it was a new disease, information about it was constantly changing, and it was challenging for authorities and communicators to provide the right level of assurance to the public when the biomedical information was incomplete. Authorities therefore recognized how important it was to be available and accessible to the media in this time of uncertainty, to give constant updates as new information came to light. Reporters shared the concerns of the public and replies to the media about the specific concerns expressed were widely publicized in lay language, which promoted public understanding of the issues, including what was known and what wasn't known. Not only did this approach instill public confidence in the government's concern for the wellbeing of citizens and commitment to the response effort, it also inspired people to take personal action. Rapid and reliable access to information translated into increased likelihood that citizens would follow outbreak containment measures, avoiding the early ignorance that stymied adoption of such measures in China.

#### CASE STUDY 3: COVID-19 IN THE UNITED STATES AND NEW ZEALAND

When COVID-19 became a global pandemic in early 2020, the United States and New Zealand were two countries that demonstrated divergent approaches to controlling the outbreak within their borders. The United States has long been regarded as a world leader in public health with top-notch scientific expertise and state of the art technology; the U.S.'s Centers for Disease Control and Prevention (CDC) trains public health officials around the world. As the mysterious virus came onto the global stage, there was a widespread early perception that this expertise, wealth and resources would most certainly insulate the

United States from the worst of any global pandemic.

While it is now recognized that there was enough reason to be concerned about the potential for COVID-19 to spread within the US by very early 2020, much of the months of January and February were spent with officials minimizing its potential impact even as some public health experts began to raise the alarm. Instead of directing top agencies to ramp up production of necessities such as personal protective equipment and ventilators, or instituting early closures or restrictions on non-essential businesses, top authorities focused heavily on the risk posed by international travelers and began implementing travel bans from heavily affected areas, further cementing the idea of COVID-19 as a "Chinese virus" and underestimating the risk or likelihood of extensive internal spread within the US.

Messages to the public were in constant flux, with confusion and contradictions amongst different officials and agencies charged with controlling the epidemic. Early communications from officials such as the US Surgeon General actually discouraged healthy people from using masks— driven by a concern of overwhelming the supply chain and not having enough PPE for health workers, along with the relatively low rate of transmission at that time. As evidence began to mount that masks were an important preventative tool and infections continued to rise exponentially, public health authorities were forced to backtrack their statements and encourage all Americans to wear masks in public. Various social media commentators and some politicians cast doubt on the efficacity of masks due to this shift in guidance, and compliance with mask-wearing guidelines fell short long after the reversal.

Additionally, in the first several months of the outbreak, individuals with no biomedical expertise promoted various experimental drugs and treatments which had not yet had proven efficacy against the virus; these communications fueled an "infodemic" of conspiracy theories and questionable prevention and treatment advice, flourishing on social media, which diverted public attention and a sense of urgency away from the everyday preventative actions shown to curb viral spread. Even fervent pleas from the nation's top public health officials to maintain compliance with prevention guidelines into the summer were consistently undermined by politicians eager to "open up" their states and project that the nation had the situation under control and was close to eliminating the virus. There were also premature projections about when a vaccine would likely be ready and widely available to Americans, which served to further divert focus from the individual prevention actions urgently needed to slow the spread.

At times, the US' decentralized public health system left decisions around messaging and restrictions at the mercy of the interpretation of state governors, who faced competing pressures to reopen their economies as quickly as possible and to safeguard public health. There is evidence that most Americans actually complied with early stay-at-home orders and other restrictions, although compliance varied by state, age, and political affiliation. However, as weeks and months wore on, public support for mask ordinances and stay-at-home orders waned quickly in some parts of the country, leading some state governments to force a reopening of businesses and schools far before CDC guidelines indicated they were ready to do so, based on rates of new infections. As a result of these pressures and premature re-openings, infection rates soared. As of early September, US infection totals far surpassed those of any other country worldwide.

The response to COVID-19 in New Zealand was very different to that of the US. Clear, decisive public health action was taken early on in the pandemic. All borders and entry ports of New Zealand were closed to all non-residents by 20 March 2020, with returning citizens and residents being required to self-isolate and mandatory quarantine policies closely enforced. A simple, easy-to-follow four-level alert system was introduced, and the country went into a nationwide lockdown in March, with the vast majority complying with all restrictions. Bars and restaurants were closed more quickly than in other affected countries.

Importantly, public health messaging in New Zealand was consistently clear and precise; this transparency helped achieve a high level of compliance with the country's strict measures, and therefore has been credited with helping to stem the tide of the pandemic in the country at a time when infections were rising exponentially in other nations. Prime Minister Jacinda Ardern hosted well-publicized televised roundtables with infectious diseases doctors; PM Ardern was widely lauded for her empathetic approach to communicating with the public about the shared responsibility of prevention (portraying the country's inhabitants as " a team of five million" in the fight for COVID19 elimination) , which garnered public confidence and facilitated cooperation with the strict, science-based control measures adopted by her administration. This strong compliance kept infection rates down and freed up critical resources for contact tracing and testing. No locally acquired COVID19 infections were reported in New Zealand from the start of May through early August.
# HANDOUT 7: ROLES AND RESPONSIBILITIES OF PUBLIC HEALTH SPOKESPERSONS AND JOURNALISTS

**Key Role of the Government Spokesperson in an Epidemic:** Communicate information that the public wants or needs; enable people to take informed action to protect themselves; strengthen trust; and minimize physical and mental harm. The spokesperson **does not accomplish these objectives** alone but works in close collaboration with key professionals with expertise in communication/SBC, relevant in-country Technical Working Groups, and other key actors in One Health (animal, human, environmental health); risk communication; and epidemic response.

Phase	Main Responsibilities	
	<ul> <li>Maintain an up-to-date understanding of the situation of the PZDs in the country.</li> </ul>	
	<ul> <li>Maintain regular attendance at One Health team meetings and a thorough understanding of the actors involved in risk communication, including the Technical Working Groups to be activated in the event of a public health emergency and the entities leading these groups as well as the key actors involved in collecting information about rumors emerging in geographic communities or online/on social media.</li> </ul>	
Before an epidemic	<ul> <li>Participate in preparedness exercises and/or emergency simulations to test the functionality of the communications processes in place; and communicate with the media and public about the importance of these exercises.</li> </ul>	
	<ul> <li>Take part in international webinars and meetings on zoonotic and infectious diseases, One Health, antimicrobial resistance, food safety, vector-borne diseases, recent outbreaks, and related health threats at the animal-human-environment interface.</li> </ul>	
	<ul> <li>Maintain and add to key expert contact lists for all One Health Ministries—Health, Livestock/Animal Health; Agriculture; Environment; other official spokespersons at different levels of government as well as leaders of community, religious and traditional networks.</li> </ul>	
During an active epidemic	<ul> <li>Actively coordinate with experts from the One Health sectors to present key information from each perspective.</li> </ul>	

#### **KEY ROLES AND RESPONSIBILITIES OF PUBLIC HEALTH SPOKESPERSONS**

Phase	Main Responsibilities
	<ul> <li>Collaborate with other spokespersons at various levels of government to strategize on sharing key information and messaging.</li> </ul>
	<ul> <li>Determine priorities for pushing out messaging around prevention, consistently highlighting those actions which are most critical.</li> </ul>
	<ul> <li>Acknowledge uncertainties to the public; craft messages that convey what is known and not known in a clear, precise and transparent way.</li> </ul>
	<ul> <li>Remain abreast of emerging data and research findings related to the epidemic, and craft precise, clear summaries of relevant results to share with the public; direct the media to official sources for up-to-date data.</li> </ul>
	<ul> <li>Give journalists a reasonable time frame in which new information will be released and establish a schedule for releases along with ground rules.</li> </ul>
	<ul> <li>Be readily available at all times to respond timely to concerns raised by the media and other actors; provide regular opportunities for questions, and respond to all questions transparently, accurately and to the best of one's knowledge while recognizing areas of uncertainty.</li> </ul>
	<ul> <li>Monitor social media; remain aware of emerging false information and rumors, and address them in briefings with factual information—while avoiding repeating the rumor itself</li> </ul>
	<ul> <li>Anticipate and prepare in advance for the questions that journalists are likely to pose during a response (see "Questions journalists might ask of official spokespersons" below)</li> </ul>
	Regularly offer the media:
	<ul> <li>Quotes and key, digestible background information about disease origins and spread.</li> </ul>
	<ul> <li>Synthesis of important data and studies about the outbreak.</li> </ul>
	<ul> <li>Insight into the human, animal and environmental health connections.</li> </ul>
	<ul> <li>Information about the impact of the epidemic on animals and humans.</li> </ul>

Phase	Main Responsibilities	
Following	<ul> <li>Communicate clearly and precisely about ongoing risk as an epidemic begins to recede.</li> </ul>	
an epidemic	<ul> <li>Review official messaging, successes and difficulties in the response, and support the transparent dissemination of these lessons</li> </ul>	

#### **KEY ROLES AND RESPONSIBILITIES OF JOURNALISTS**

**Key Role of the Journalist in an Epidemic:** Informing a majority of the public very quickly with critical, factual information that enables them to make informed choices to protect their lives and counter misinformation. This includes acting as public watchdog; interpreting official information; driving public agendas and reflecting what is already on communities' agendas.

Phase	Main Responsibilities	
	<ul> <li>Establish relationships with key public health officials and other One Health actors, as well as community leaders and representatives.</li> </ul>	
Before	<ul> <li>Become familiar with the One Health and risk communication infrastructure and emergency response protocols in the country.</li> </ul>	
an epidemic	<ul> <li>Cultivate an understanding of and raise public awareness about zoonotic disease risks and what is being done within the public health system to prepare for a possible outbreak.</li> </ul>	
	<ul> <li>Report regularly on the concerns of the community that affect preparedness for an epidemic—such as resources for the local health system, satisfaction and feedback linkages with health providers, etc.</li> </ul>	
	<ul> <li>Rapidly activate a network of diverse sources to get information out as timely as possible to inform and empower the public.</li> </ul>	
During an active	<ul> <li>Encourage people to adopt protective measures, health- seeking behavior, and direct people to services and information.</li> </ul>	
epidemic	Reach audiences in different locations.	
	<ul> <li>Build large or location-dependent audiences and attract readers and listeners.</li> </ul>	
	Counter misinformation with facts.	

Phase	Main Responsibilities	
	<ul> <li>Draw attention to the work that the government and its partners are doing to respond to the outbreak</li> </ul>	
	<ul> <li>Frame issues compellingly with "a good story" (see "What's a good story?" below).</li> </ul>	
	<ul> <li>Interpret or help explain official information coming from government sources so that it is understandable to the non- technical media consumer (in layman's language, distilled to key take-aways, highlighting the relevance of the information to the broader public).</li> </ul>	
	<ul> <li>Carefully verify and corroborate emerging information before reporting it; collect perspectives from multiple sources and always seek expert verification in checking facts.</li> </ul>	
	<ul> <li>Collect and report on the concerns of real community members; develop stories centered on the concerns of communities and groups whose perspectives may not easily be heard.</li> </ul>	
	<ul> <li>Serve as a watchdog to hold authorities to account, raising the concerns of the community when posing questions to authorities and investigating as necessary the cause, responsibility and adequacy of the response</li> </ul>	
	• Explore viewpoints that may differ from those of public health practitioners and authorities; point out apparent contradictions or misinformation in public health-related statements so that these points can be clarified for the public.	
	<ul> <li>Respect confidentiality and abide by all principles of journalistic ethics in reporting.</li> </ul>	
Following	<ul> <li>Continue to share information about the long-term impact of the epidemic.</li> </ul>	
an epidemic	<ul> <li>Report on any post-response action or reports, so that the public is aware and can hold officials accountable for continued investment</li> </ul>	

#### What's a "Good Story" in an Epidemic?

- One that speaks to the current moment and the public's most pressing concerns.
- One that captures the reality of ordinary people's experiences but avoids sensationalizing.
- One that helps people understand complex issues to make informed choices.
- One that can attract attention in a crowded media landscape with many voices.
- One with widespread appeal, that can grow the following of the journalist or media outlet.

# HANDOUT 8: PNEUMONIC PLAGUE SCENARIO

**Instructions**: Within your group, read the below public health emergency background and scenario around a plague outbreak. **After reading, you will have thirty minutes to discuss the following questions. One note-taker should record the highlights of your responses for reporting out to the larger group.** 

- 1. What is the **predominant emotion of the population**, and how does this affect the tone of your messaging?
- 2. Where would **coordination between media and public health professionals** most strengthen the messaging?
- 3. What **information and behaviors would you prioritize** for the public in the affected area?
- 4. Who are the potential audiences you would target your messages to?
- 5. What is **one example of an effective message** you would create for one of your audiences?

You may not feel you have all the information to respond fully to some of the above questions; that is expected. Note places where you think more information needs to be gathered and reflect upon the discussions in this workshop and your own professional and personal experiences.

#### SCENARIO

#### Background

Plague is one of the oldest – and most feared – of all diseases. Historically, plague has been responsible for widespread pandemics with high rates of death. It was known as the "Black Death" during the fourteenth century, causing more than 50 million deaths in Europe.

Plague is a zoonotic disease and can take two main forms: bubonic and pneumonic. Bubonic plague spreads only from fleas to humans and occurs when the causative bacteria invade the lymphatic system. In total, 30% to 60 % of people that get bubonic plague die. Bubonic plague can also evolve into septicemic plague, meaning that the bacteria invades the blood; this can lead to septic shock that is typically fatal. However, this form is rare and does not spread from person to person. Pneumonic plague is a more dangerous form of the disease that attacks the lungs and spreads from person to person through droplets from coughing, like a cold. Untreated pneumonic plague is always deadly, typically within 24 hours of disease onset.

Today, plague can be prevented through the use of standard precautions and can be treated with antibiotics if detected early enough.

#### Scenario

An outbreak of plague was reported in Region 1, of Country X. Though the bubonic form of the plague occurs with regularity in the rural regions, the pneumonic form is less familiar. Over the past month, the outbreak has rapidly expanded moving into densely populated urban areas and cases have far exceeded what is expected in a normal year. WHO announced that the outbreak is unusually severe with the majority of cases presenting as the more dangerous pneumonic plague. It is spreading rapidly from person to person in

densely populated urban centers, with high numbers of residents with limited literacy living in neighborhoods with poor sanitation infrastructure where rodents have easy access to living spaces. More than 80 health workers are reported to be infected, though none are reported to have died.

The Government and international response to date has been substantial and wellorganized, with strategies to address all of the key areas of prevention and control: active case finding and treatment; comprehensive identification and prophylaxis of contacts; rodent and flea control; safe and dignified burials; and departure screening and preparedness to prevent spread to other countries.



# HANDOUT 9: MESSAGES AND MATERIALS CHECKLIST

Before finalizing your messages and associated materials, ensure that:	
All messages and materials:	
Are accurate	
Are resented in clear language, without technical jargon or complex words	
Acknowledge feelings of fear and uncertainty, without elevating either	
Are written in a way that communicates empathy for the audience	
Are expressed in a concise manner, with only the information the audience needs to know	
Do not promote stigma or discrimination against a certain group(s) of people	
Were developed after considering feasibility of actions, cultural and religious practices, perceived risks and barriers and facilitators	
Are clear and attractive in presentation	
Consider different cultural context and linguistics	
Preventative action messages:	
Indicate the audience (s) for which the action is appropriate	
Have a clear and feasible call to action	
Are aligned with messages from other key actors (WHO, MOH, and partners), to avoid confusion	
Link to available services and resources	
Provide information on how or why as appropriate	
Outbreak updates and new information messages:	
Address current concerns of the community/public	
Clearly communicate what is known and not known about the disease and outbreak at the time	
Explain what is being done to understand the outbreak further	
If dispelling rumors, myths or misinformation, do so in a manner that is understanding, and not accusatory	
Indicate where to find the most updated information	

Before finalizing your messages and associated materials, ensure that:	
Additional considerations for messages prior to dissemination:	
Are contextualized according to local culture, linguistic preferences, and current data, on behavior change and social science data	
Are appropriate in length, format and content for the media channel/delivery method	
Have been pre-tested with key audience(s) and revised to incorporate and address feedback received	

# HANDOUT 10: ALPHA AND MOUSSA SCENARIOS (J)

**Instructions:** Read the below scenarios (1 or 2 based on your assigned group.) After reading and discussing the scenario, take **20 minutes** to discuss and take notes on the following questions for share-out:

- 1. Who do you need to talk with to confirm the accuracy of the information ?
- 2. Are there concepts or topics you need more information about?
- 3. What is the best source to learn more?
- 4. What angle would you take in reporting the story?
- 5. What are some of the potential unintended consequences the story could have?
- 6. What are some of the things people in the community would want to know?
- 7. How would you present the information in a useful and actionable way?

#### **SCENARIO 1: ALPHA**

You run into your cousin's friend, Alpha, a farmer in Rain Town, a small village not far from Sun Town, a larger market town. In catching up with him, he tells you this story. A few weeks ago, he came into Sun Town to visit market and ran into his friend, a popular traditional healer. The traditional healer says he has been receiving a very large number of visitors complaining of fevers, headaches and muscle pain and has treated them. He has heard of several people who have died and more keeping coming to visit him with the same symptoms. Two weeks later, at the next market day, Alpha looked for but could not find his friend; after asking around, a market vendor told him that the healer hasn't been seen for the past week and people are saying that he is very ill at home. When Alpha arrives back in Rain Town that evening, he returns to the news that the village chief has died. He usually doesn't travel outside of the village these days but had walked into Sun Town a week earlier to seek traditional medicine for a skin condition and became dramatically ill over the last two days. His wife was also beginning to develop a strong fever and was staying at home.

#### SCENARIO 2: MOUSSA

One of your neighbors tells you a story they heard at church from their friend Mousa. Moussa is a farmer who lives in Sun Town. Moussa shared that a lot of the poultry farmers in Sun Town are really worried about a spate of deaths of poultry in the past few weeks; the disease became quite widespread at one large farm and soon other farmers with much smaller flocks were sharing on a WhatsApp group for area farmers that their chickens were dying. He heard that one poultry farmer had become very ill. Government inspectors had been out to the large farm to investigate and ordered a number of flocks to be culled, generating press attention. Moussa says that villagers think that this is an attempt by a nearby large poultry farming enterprise to sabotage the business of small poultry farmers in the area, and that the media are exaggerating the story and the numbers of chickens affected; there is another rumor circulating that the national government is playing up the risk of this poultry disease to gain more funding from international organizations. Farmers are complaining that the new farm regulations the government is establishing to control the poultry disease are impossible for them to meet; some are avoiding informing the authorities of illness in their chickens for fear that the whole flock will be destroyed by inspectors and their livelihoods affected.

# HANDOUT 11: INTERVIEW ROLE PLAY (J)

#### **Group A Instructions:**

You will be role playing the below scenario within your group in order to practice what we have discussed about interviewing during a public health emergency.

Please select one person in your group to be the journalist in the scenario; this person will represent your group. As a group, you will have **ten minutes to work with your journalist and prepare for the interview role play**. The journalist should be prepared with questions and keep in mind all of the principles we have discussed in previous sessions.

After **ten minutes**, you will begin to act out the scenario in a ten-minute interview with Group B. Those group members without an acting role will be observing and taking notes on how the journalist applies, or does not apply, the principles we have discussed, such as: empathy, informed consent, considering the risks involved for informants, active listening and types of questions. After this ten-minute role play, we will come together to discuss these questions for the last five minutes.

#### Scenario

There has been a spate of reported illnesses in chickens in Sun Town over the past few weeks Since the first cases at a large commercial farm nearby, other small family owned farms have started to see their flocks affected. Animal husbandry and poultry rearing in particular is the most significant industry in Sun Town; many families rely on their flocks as a major source if not the only source of income for their families. there has been talk of the owner of the first commercial farm also becoming ill recently with flu-like symptoms, although these reports are unconfirmed. Government veterinary inspectors have been out to the large farm and have ascertained that the cause of the widespread chicken disease is most likely a form of influenza. They ended up culling a significant portion of the flock, but some were spared because the large farm had enough resources to space out the chickens into numerous chicken houses and limit its spread.

Now panic is spreading among the smaller family farms in Sun Town, most of which have far fewer resources than the commercial farm to protect their flocks or their families. Most only have one or two small chicken houses, with chickens overcrowded because of the limited land available.

As a journalist with the *Sun Town Times*, you have been covering the ongoing investigation into the chicken epidemic and the actions of the local public health and veterinary authorities. A contact from the local Farmer's Union puts you in touch with his friend Moussa, who he says has been greatly affected by the spreading epidemic as his own flock became infected following a visitor from the nearby commercial farm. The illness spread rapidly amongst his chickens and a visit from the veterinary inspector led to the vast majority of his flock being culled to avoid spreading the infection. Your contact tells you that Moussa's family is devastated and do not know how they are going to replace the income from their lost flocks, nor do they trust the government to offer the support promised to farmers whose animals must be culled due to disease. He says that Moussa is bitter with what he says has been a lack of understanding or empathy on the part of the veterinary services and the feeling that he and his family have been 'the sacrificial lambs' of a government trying to show that the epidemic is under control. He has also been active in a WhatsApp group discussing the rumor that the chicken disease is a political ploy to disempower the farmers of the region.

You contact Moussa, who agrees to be interviewed the next day at 10AM at the family farm. You immediately begin preparing for the interview.

#### **Group B Instructions:**

You will be role playing the below scenario with your group in order to practice what we have discussed about interviewing during a public health emergency.

Please select one person in your group to be Moussa, the person being interviewed in the below scenario; this person will represent your group. As a group, you will have ten minutes to work with your representative and get him into character for this role. Discuss what this character might be feeling and how he might respond to likely questions based on his story and experiences.

After **ten minutes**, you will begin to act out the scenario (a ten-minute interview) with Group A.

Those group members without an acting role will be observing and taking notes on how the journalist applies, or does not apply, the principles we have discussed, such as: empathy, informed consent, considering the risks involved for informants, active listening and types of questions. After this ten-minute role play, we will come together to discuss these questions.

#### Scenario

There has been a spate of reported illnesses in chickens in Sun Town over the past few weeks. Since the first cases at a large commercial farm nearby, other small family owned farms have started to see their flocks affected. Animal husbandry and poultry rearing in particular is the most significant industry in Sun Town; many families rely on their flocks as a major source if not the only source of income for their families. There has been talk of the owner of the first commercial farm also becoming ill recently with severe flu-like symptoms, although these reports are unconfirmed. Government veterinary inspectors have been out to the large farm and have ascertained that the cause of the widespread chicken disease is most likely a form of influenza. They ended up culling a significant portion of the flock, but some were spared because the large farm had enough resources to space out the chickens into numerous chicken houses and limit its spread.

Now panic is spreading among the smaller family farms in Sun Town, most of which have far fewer resources than the commercial farm to protect their flocks or their families. Most only have one or two small chicken houses, with chickens overcrowded because of the limited land available.

You are Moussa, a small-time farmer who has been greatly affected by the spreading epidemic. Your flock first became infected following a visit from your neighbor—worker at a nearby large commercial farm. The illness spread rapidly amongst your chickens and a visit from the veterinary inspector led to the vast majority of the flock being culled to avoid spreading the infection; they told you that it was a public health necessity even though you explained the impact this would have on your livelihood. Your wife and children are devastated; you do not know how you are going to replace the income from the lost flocks. The government inspector who culled the chickens promised that a program would offer your family support to replace the income from the culled flocks, but so far you have seen none of these promises come to fruition. You are bitter that the epidemic has hit small farmers like you so hard, while bigger farms scrape by and can more easily adapt. You hear rumors that this chicken disease is just a government conspiracy or political ploy to disempower the small farmers of the area; you don't know what to believe, but you think it is important that decision makers realize how difficult the culling policy has been to families like yours.

A friend of yours from the local farmers' union connected you with a reporter at the *Sun Town Times*. You have agreed to meet the reporter at your family farm for an interview tomorrow at 10AM. Now, you must prepare for what you want to say.

# HANDOUT 12: PITFALLS AND STRATEGIES: PRESS BRIEFINGS AND COMMUNITY MEETINGS (PHP)

Common Briefing Pitfall	Better Strategy
Defaulting to jargon, technical, language, or NGO lingo	<ul> <li>If it is necessary to use a technical term or acronym, take the time to introduce it and explain it to the audience, using short sentences and simple, plain language.</li> <li>Emphasize what you know; acknowledge what isn't yet known, and what type of process is in place to learn more.</li> </ul>
Referring to people with the disease or possible disease as "cases" or "victims" or "suspects"	<ul> <li>Use instead "people who have X"; "people who are being treated for X"; "people who are recovering from X" or "people who have died after contracting X" or "people who are presumptive for X", or "people who may have X"</li> <li>Commit to helping your audience understand how a disease may affect someone and the ways they can safely interact with them without stigmatizing or isolating them.</li> </ul>
Attaching locations or ethnicity to the disease	<ul> <li>Use the appropriate scientific names of the disease to avoid stigma -e.g. COVID-19, instead of "Wuhan Virus," "Chinese Virus," or "Asian Virus."</li> </ul>
Talking about a person "transmitting the disease," "infecting others," or "spreading the virus"	<ul> <li>Talk instead about people "acquiring" or "contracting"</li> </ul>
Using humor or off the cuff remarks like one-liners	<ul> <li>In line with the principle of offering authentic expressions of care, seek to acknowledge fears, uncertainty, and a shared sense of misery.</li> <li>Reinforce the steps that people can take.</li> </ul>
Repeating negative allegations or rumors	<ul> <li>Know the messages you want to emphasize and consistently use positive and neutral terms</li> </ul>

## Pitfalls and Strategies for Public Health Spokespersons Conducting Briefings

Common Briefing Pitfall	Better Strategy
Avoiding uncertainty, speculating, or making premature promises	<ul> <li>Emphasize what you know, acknowledge what isn't yet known, and what type of process is in place to learn more.</li> <li>If you anticipate the situation may get worse, always let people know what to expect to help manage expectations.</li> </ul>
Answering a question or offering information outside the scope of the emergency response	<ul> <li>Know your agency's policies about the clearance process and release of information and the scope of their responsibilities.</li> <li>Tell the truth and be open when challenged. Explain why a given question cannot be answered.</li> </ul>

## General Dos and Don'ts for Briefings and Community Meetings

Do's		Don'ts
• PREF 0	PARE: Make sure you are familiar with the format the briefing will be delivered in – radio, tv, webcam, so you know what is expected of you and you minimize distractions from technical glitches. Have a template with the information you want to share. Identify your key messages and behaviors you want to drive home no matter what happens - think about the final message you wish the public to	<ul> <li>Do not show anger.</li> <li>Do not rehash mistakes</li> <li>Do not offer immediate solutions to the problem without listening first to the community's concerns.</li> </ul>
0	Coordinate with others working on the various aspects of risk communication such as messaging and community engagement as well as other pillars of the response to make sure you understand the information you are delivering and can answer questions. Determine in advance who will answer questions about specific topics. Consider having various experts	

Do's		Don'ts
	available during the briefing as part of the team.	
0	Consider the audience and their needs – are your words and delivery accessible and appropriate to the needs of the most vulnerable? Prepare short brief answers to	
0	anticipated questions about uncertainties. Practice delivery and watch recordings	
	of yourself on the phone or previous briefings.	
• Show empathy.		
<ul> <li>Maintain calm and manage emotions.</li> </ul>		
<ul> <li>Listen carefully to feedback and ask questions</li> </ul>		
<ul> <li>Ackn to lo</li> </ul>	owledge mistakes and encourage people ok forward.	

# HANDOUT 13: SAMPLE PRESS BRIEFING (PHP)

#### **Group A Instructions:**

You will have 20 minutes to discuss the scenario below with your group, and prepare a fiveminute press briefing taking into account the techniques we have discussed for professionals delivering press briefings. Your goal is to <u>highlight best practices (the "dos")</u> to ensure the effectiveness of the briefing. Together, write a five-minute briefing and practice delivering it amongst your group. We will have ten minutes at the end to come together and present both groups' briefings.

#### **Group B instructions:**

You will have 20 minutes to discuss the scenario below with your group, and prepare a fiveminute press briefing around the situation that <u>demonstrates what NOT to do</u> as a spokesperson giving a briefing. Be sure to refer to refer to the best practices for press briefings and ensure that your briefing does <u>not</u> follow this guidance. Your goal is to highlight all the <u>mistakes or pitfalls</u> (the "don'ts") a spokesperson might make in giving a briefing on the situation. Together, write a five-minute briefing and practice delivering it amongst your group. We will have ten minutes at the end to come together and present both groups' briefings.

#### Scenario:

There has been an epidemic of Disease X in Country Y raging for the past seven months. Disease X is a new respiratory disease that is moderately easily spread; it has so far claimed many thousands of lives and continues to spread rapidly, particularly in crowded urban areas and during cold weather when other, commonly known infectious diseases routinely spread. Scientists have been rapidly working to find a vaccine for the illness; fortunately, they have finally found a candidate that made it through safety trials and is expected to be available for use in the coming month or two. There is much optimism about the vaccine amidst the rising incidence and mortality due to disease X; still, there is some public skepticism given that several other vaccine candidates' trials have been cancelled following reports of adverse events, although their relationship to the vaccine itself has still not been fully proven. At the same time, reports of the possible jump in infection rate if no widespread vaccine is available before the change in season have been alarming to the general public, creating a sense of urgency along with public pressure to release a vaccine as soon as possible.

As a public health practitioner, you have been asked to deliver a media briefing regarding the vaccine. You know that even through the vaccine is projected to be available very soon, there are unlikely to be enough doses for the entire population at risk of Disease X and there will need to be a prioritization process and phased rollout so that those who are most at-risk or most vulnerable to severe disease are able to receive it first. Key officials are still in the process of determining what that prioritization process will look like and what criteria will be used to determine who gets first access to the vaccine. While promoting the acceptance of this vaccine, there is a need to temper the public's expectations about the gradual rollout so as to avoid a possibly counterproductive outcry or refusal of the vaccine.

# HANDOUT 14: CASE STUDY INTERVIEW PREPARATION (PHP)

#### Instructions

In your group, decide on one person who will be the government spokesperson being interviewed. Read the below scenario and take the first ten minutes to prepare the person who will be doing the interview.

Discuss and coach your spokesperson from the initial contact with the reporter, to identifying key messages and dealing with potential challenging tactics by the journalist. You will want to refer to Handout 15 as a reminder of important aspects of preparation for an interview as a public health practitioner or spokesperson.

After about ten minutes of strategizing, start practicing the interview within your group. One person should play the journalist and pose questions of the spokesperson. You will have about fifteen minutes to role play with interview. If you finish the interview with time to spare, you may want to switch roles so that someone else can practice being the spokesperson.

We will come together after 25 minutes to briefly discuss your experience.

#### Scenario

Outside of Rain Town, in a small farming village, there has been a cluster of illness in households. At first, it seemed that people were only becoming mildly ill—headaches and short-lived fevers that gave rise suspicions of malaria-- but then there were more severe cases where people have died, sometimes after bouts of bleeding or after falling into a coma. A pregnant woman in Sun Town, in her eighth month of pregnancy, recently just died following this illness; her fetus did not survive. Following testing in the capital city, it has been confirmed that the disease affecting the village is not malaria, nor even the much-feared Ebola – it is in fact Lassa fever, carried into the village by a large population of rats--the natural vectors of the virus to humans.

This village has cyclical cases of Lassa Fever following the harvest each year—villagers report an increase in the rat population in and around their homes once the farmland has been harvested. However, this seems to be an unprecedented outbreak for this area in terms of scale. Nearly thirty people are reported to have been infected, and four-including the pregnant woman—have died.

You are the Communications Liaison at the Rain Town Office of Public Health and have been fielding questions from anxious community members and the media over the past several weeks. The Ministry of Health has sent contact tracers to the origin village and other villages in Rain Town, with ecology officers to trap rats. This has been met with resistance in some cases. Your office has been criticized for not doing enough to control the epidemic quickly or to discourage the sale and consumption of rodent meat, which is part of the reason people are saying that the virus has been able to spread; doctors and nurses unions, meanwhile, have been upset and vocal about the lack of protective equipment to deal with potential Lassa cases at the district hospital. There are rumors circulating in some villages that people with Lassa symptoms sent to the hospital who are determined lethally infected are being injected to die faster, as a dramatic means to control the spread of the disease. Others are

saying that the pregnant woman who died early on in the outbreak did not have Lassa, but rather died during a medical procedure and Lassa was being used as a cover-up to take the blame off of the health workers involved. For this reason, there have been reports that some communities are rejecting contact tracers.

In this context, you are asked to give an interview to the *Rain Town Times* regarding the government's response to the Lassa outbreak. You have agreed to do so and must now prepare for this interview.

# HANDOUT 15: STRATEGIES FOR SUCCESSFUL INTERVIEWS (PHP)

Domain	Specific Strategies	
	Know in advance:	
	• Who will be conducting the interview, what news outlet are the working with, and who is their audience?	
Due Desseuch	<ul> <li>What is the purpose of the interview and the subjects to be covered?</li> </ul>	
Pre-kesearch	• If the interview goes in a different direction, this will help you to refocus the conversation or indicate you are not the right person to answer the question at this time	
	Who else has/will be interviewed?	
	• What is the format and duration of the interview?	
	<ul> <li>Identify a clear purpose for your interview</li> <li>What are the core messages you want to deliver?</li> </ul>	
Preparation and practice	<ul> <li>Are there supporting papers (or weblinks) that you can have with you to give to the reporter after the interview that can be used as a way of confirming information and facts?</li> </ul>	
	<ul> <li>What are some anticipated questions?</li> </ul>	
	<ul> <li>Take time to thoroughly learn the ideas, facts, and anecdotes that apply to the interview topic.</li> </ul>	
Pacing	<ul> <li>Microphones and nerves tend to make people talk faster.</li> <li>Practice speaking at a measured pace with deliberate pauses between sentences.</li> </ul>	
	<ul> <li>Try to say the key point in 30 seconds and in fewer than 90 words.</li> </ul>	
Brevity	<ul> <li>Avoid lengthy scientific responses aiming to keep answers focused organized and no longer than 2 minutes.</li> </ul>	
	• Reporters may often hold a microphone in front of your face after you have answered. Resist the temptation to add to your response. Redirect the conversation instead.	

Domain	Specific Strategies		
	<ul> <li>Approaching the journalist and the interview with a sense of optimism and trust adds credibility and can help pave the way for a positive outcome.</li> </ul>		
	<ul> <li>Use simple, conversational tone and phrases for clarity and warmth.</li> </ul>		
Manage tone of voice and	<ul> <li>Use natural gestures and facial expressions. Remember the power of non-verbal communication and avoid expressions of annoyance, anger, hurry/rushed, confusion, or surprise.</li> </ul>		
mannerisms	<ul> <li>Look at the reporter or camera, try not to look at or shuffle your notes.</li> </ul>		
	• If a reporter offers rapid-fire questions, regain control of the pacing with a phrase like <i>"I would like to answer those questions one at a time."</i>		
	• <i>Reframe loaded or leading questions</i> in neutral terms and avoid repeating any inflammatory or emotional language.		
Reframe or redirect	<ul> <li>Reframe hypothetical or sensational questions in a way that addresses legitimate concerns of the public without being sensational or offering speculation.</li> </ul>		
	<ul> <li>Use positive words to correct any inaccuracies or reject the dilemma without repeating the negative words.</li> </ul>		
	<ul> <li>Use redirect phrasing (The overall issue is" "What is important to remember is" "What I am really here to discuss is")</li> </ul>		
	<ul> <li>Do not make up answers, over reassure, speculate, or distort the truth in any way. If the specific piece of information is not yet available, say so, along with what you are doing to find answers.</li> </ul>		
Transparency and	<ul> <li>Avoid responding to a question with "no comment". As we discussed yesterday, explain why you can't answer that question.</li> </ul>		
accountability	<ul> <li>Do not say anything before, during, or at the conclusion of an interview that you are not prepared to see in print the next day or uploaded to social media in the next hour.</li> </ul>		
	<ul> <li>Make yourself available to media even if only for a few moments. Try not to actively avoid media which can give a sense you have something to hide.</li> </ul>		

Domain	Specific Strategies		
Domain Reflection and follow-up following the interview	<ul> <li>Specific Strategies</li> <li>When reviewing the published story, ask yourself:</li> <li>Did the reporter effectively and accurately convey my message, or did they misquote me? Are the facts accurate?</li> <li>In case the answer is 'no', contact the journalist directly and ask for a correction to be issued. This is common practice in journalism.</li> <li>Is there anything I didn't convey in my interview that I wanted to express?</li> <li>Are my quotes succinct and clear?</li> </ul>		

#### Preparation is Critical: Questions Journalists Might Ask of Official Spokespersons

- ✓ What are you doing to bring the situation under control? Where is the funding going? What is going to happen next? How soon will this vaccine/therapeutic be rolled out? How long will it be until the situation returns to normal? Why did this happen? What is the cause of this outbreak?
- ✓ Why didn't the government react faster? Are you hiding information? Are you sure this isn't a man-made outbreak? Why didn't you do more to prevent this outbreak happening? What are you doing now? What is the worst-case scenario? What is the best-case scenario? Can you grant us access to hospitals and health facilities? Can you help journalists get the vaccine? What lessons are you learning, and are you going to implement them? Why aren't you telling us the name of patient zero?
- ✓ What are the most important things that people need to know? How can people protect themselves? Where can people get help/healthcare/food/money at this time? What is the meaning behind all this? How does the vaccine/therapeutic work? What does the disease do to the human body? When is the next press conference?

# HANDOUT 16: RESOURCE PACKAGE (PHP)

## NEEDS ASSESSMENT FOR CRISIS AND EMERGENCY RISK COMMUNICATION (CDC)

This checklist is a resource from the CDC's CERC Guide. A PDF of the checklist and many other useful risk communication resources is available at the CDC's CERC resource page: <u>https://emergency.cdc.gov/cerc/resources/templates-tools.asp</u>

### Planning, Research, Training, and Evaluation

□ Yes □ No Does your organization have an crisis and emergency risk communication operational plan for public information and media, partner, and stakeholder relations?

□ Yes □ No Have you coordinated your planning with the community or state emergency operation center?

□ Yes □ No Have you coordinated your planning with other response organizations or competitors?

□ Yes □ No Have designated spokespersons received media training and risk communication training?

□ Yes □ No Do the spokespersons understand crisis and emergency risk communication principles to build trust and credibility?

## If Your Organization Has a Plan, Does It Have the Following Elements:

□ Yes □ No Designated responsibilities for public information team?

□ Yes □ No Information verification and clearance procedures?

□ Yes □ No Agreements on information release authorities (who releases what, when, and how)?

□ Yes □ No Regional and local media contact list, including after-hours news desks?

□ Yes □ No Procedures to coordinate with the public health organization response teams?

□ Yes □ No Designated spokespersons for public health issues in an emergency?

□ Yes □ No Public health organization emergency response team after-hours contact numbers?

□ Yes □ No Contact numbers for emergency information partners such as governor's public affairs officer, local FBI public information special agent in charge, local or regional department of agriculture or veterinarian public information officers, Red Cross and other nongovernmental organizations?

□ Yes □ No Agreements and procedures to join the Joint Information Center (JIC) of the emergency operations center, if activated?

□ Yes □ No Procedures to secure needed resources such as space, equipment, and personnel, to operate the public information operation during a public health emergency 24 hours per day, 7 days per week, if needed?

□ Yes □ No Identified methods of information dissemination to public, stakeholders, and partners such as websites, Twitter feeds, e-mail lists, broadcast fax, door-to-door leaflets, and press releases, during a crisis?

## **Message and Audiences**

□ Yes □ No The following are types of incidents that could require intense public information, media, and partner communication responses: ‰ Infectious disease outbreak (e.g., pandemic influenza, cholera, E. coli infection)? ‰ Bioterrorism (e.g. anthrax, smallpox) ‰ Chemical emergencies (e.g., nerve agents, oil spill) ‰ Explosions (e.g., explosions, terrorist bombing) ‰ Natural disasters and severe weather (e.g. earthquakes, hurricanes, tornadoes) ‰ Radiation emergencies (e.g., dirty bomb, nuclear accident)

□ Yes □ No Have you identified special populations, such as the elderly, people who speak a first language other than English, Tribal communities, and border populations? List any specific subpopulations, such as tribal nations, persons with chronic respiratory illnesses, and unvaccinated seniors, that need to be targeted with specific messages during a public health emergency related to your organization.

□ Yes □ No Have you identified your organization's partners who should receive direct information and updates (not solely through the media) from your organization during a public health emergency?

□ Yes □ No Have you identified all stakeholder organizations or populations who should receive direct communication during a public health-related emergency? These are groups or organizations your organization believes have an active interest in monitoring activities, to whom you are most directly accountable, other than official chain of command.

□ Yes □ No Have you planned ways to reach people according to their reactions to the incident (fight or flight)? Are messages, messengers, and methods of delivery sensitive to all types of audiences in your area of responsibility?

□ Yes □ No Are there mechanisms and resources in place to create messages for the media and public under severe time constraints, including methods to clear these messages within the emergency response operations of your organization? Make sure to include cross clearance in this consideration.

□ Yes □ No Have you identified how you will perform media evaluation, content analysis, and public information call analysis in real time during an emergency to ensure adequate audience feedback?

□ Yes □ No Have you developed topic-specific pre-crisis materials for identified public health emergency issues, or identified sources of these materials if needed:

□ Yes □ No Topic fact sheet (e.g., description of the disease, public health threat, treatment?)

□ Yes □ No Public Questions and Answers?

□ Yes □ No Partner Questions and Answers?

- □ Yes □ No Resource fact for media, public, or partners to obtain additional information?
- □ Yes □ No Web access and links to information on the topic?
- □ Yes □ No Recommendations for affected populations?
- □ Yes □ No Background B-roll for media use on the topic?

□ Yes □ No List of subject matter experts outside your organization who would be effective information sources for the public and the media regarding your activities during a public health emergency?

#### Messenger

□ Yes □ No Have you identified public health spokespersons for media and public appearances during an emergency?

#### If Yes, Have You...

□ Yes □ No Identified persons by position, such as a media spokesperson or a community meeting speaker, to act as spokespersons for multiple audiences and formats about public health issues during an emergency?

□ Yes □ No Ensured that the spokespersons understand their communication roles and responsibilities and will incorporate them into their expected duties during the crisis? Methods of Delivery and Resources

□ Yes □ No Does your organization have "go kits" for public information officers who may have to abandon their normal place of operation during a public health emergency or join a JIC? Do the Kits Include...

□ Yes □ No Computer(s) with access to the Internet and e-mail?

□ Yes □ No CD-ROM, DVD, or flash drives containing the elements of the crisis communication plan, including media contact lists, public health contact lists, organization contact lists, partner contact lists, and information materials?

□ Yes □ No Cell phone or satellite phone, wireless device, etc.?

□ Yes □ No Funding mechanism, such as a credit card, that can be used to purchase operational resources as needed?

□ Yes □ No Manuals and background information necessary to provide needed information to the public and the media?

□ Yes □ No Care and comfort items for the public information operations staff? □ Yes □ No Have you identified the mechanisms that are or should be in place to ensure multiple channels of communication to multiple audiences during a public health emergency? Channels of Communication □ Yes □ No Have you identified the mechanisms that are or should be in place to ensure multiple channels of communication to multiple audiences during a public health emergency?

#### If Yes, Do Mechanisms Include...

- □ Yes □ No Media channels such as print, TV, radio, and Web?
- □ Yes □ No Websites, Facebook, Twitter, and other social media?
- □ Yes □ No Phone banks?
- □ Yes □ No Town hall meetings?
- □ Yes □ No Listserv e-mail?
- □ Yes □ No Broadcast fax?
- □ Yes □ No Letters by mail?
- □ Yes □ No Subscription newsletters?
- □ Yes □ No Submissions to partner newsletters?
- □ Yes □ No Regular or special partner conference calls?
- □ Yes □ No Door-to-door canvassing?

 $\Box$  Yes  $\Box$  No Are contracts or agreements in place to post information to broadcast fax or e-mail systems?

□ Yes □ No Have locations for press conferences been designated and resourced?

## Personnel

□ Yes □ No Have you identified employees, contractors, fellows, and interns currently working for you or available to you in an emergency that have skills in the following areas:

- □ Yes □ No Public affairs specialist?
- □ Yes □ No Health communication specialist?
- □ Yes □ No Communication officer?
- □ Yes □ No Health education specialist?
- □ Yes □ No Training specialist?
- □ Yes □ No Writer/editor?
- □ Yes □ No Technical writer/editor?
- □ Yes □ No Audio/visual specialist?
- □ Yes □ No Internet/Web design specialist?
- □ Yes □ No Social media specialist?

□ Yes □ No Others who contribute to public and provider information?

□ Yes □ No Have you identified who will provide the following expertise or execute these activities during a public health emergency (including backup)

#### **Command and Control**

 $\Box$  Yes  $\Box$  No Directs the work related to the release of information to the media, the public, and partners?

 $\Box$  Yes  $\Box$  No Activates the plan, based on careful assessment of the situation and the expected demands for information by the media, partners, and the public?

□ Yes □ No Coordinates with horizontal communication partners, as outlined in the plan, to ensure that messages are consistent and within the scope of the organization's responsibility?

□ Yes □ No Provides updates to the organization's director, EOC command, and higher headquarters, as determined in the plan?

□ Yes □ No Advises the director and chain of command regarding information to be released, based on the organization's role in the response?

□ Yes □ No Ensures that risk communication principles are employed in all contact with the media, the public, and partner information release efforts?

□ Yes □ No Advises on incident-specific policy, science, and the current situation?

□ Yes □ No Reviews and approves materials for release to the media, the public, and partners?

□ Yes □ No Obtains required clearance of materials for release to the media on policy or sensitive topic-related information not previously cleared?

□ Yes □ No Determines the operational hours and days, and reassesses throughout the emergency response?

□ Yes □ No Ensures resources are available, such as personnel, technical resources, and mechanical supplies?

□ Yes □ No Assesses media needs and organizes mechanisms to fulfill media needs during the crisis, such as daily briefings in person versus a website update?

□ Yes □ No Triages the response to media requests and inquiries?

□ Yes □ No Ensures that media inquiries are addressed as appropriate?

- □ Yes □ No Supports and briefs spokespersons?
- □ Yes □ No Develops and maintains media contact lists and call logs?
- □ Yes □ No Produces and distributes media advisories and press releases?
- □ Yes □ No Produces and distributes materials such as fact sheets and B-roll?

□ Yes □ No Oversees media monitoring systems and reports (e.g., analyzing environment and trends to determine needed messages, determining what misinformation needs to be corrected, identifying concerns, interests, and needs arising from the crisis and the response)?

□ Yes □ No Ensures that risk communication principles to build trust and credibility are incorporated into all public messages delivered through the media?

□ Yes □ No Acts as member of the JIC of the field site team for media relations?

□ Yes □ No Serves as liaison between organizations through the JIC? Direct Public Information?

□ Yes □ No Manages the mechanisms for responding to public requests for information via social media, telephone, in writing, or by e-mail?

□ Yes □ No Oversees public information monitoring systems and reports (e.g., analyzing environment and trends to determine needed messages; determining what misinformation needs to be corrected; identifying concerns, interests, and needs arising from the crisis and the response)?

□ Yes □ No Oversees and activates social media, telephone, public e-mail correspondence response systems?

□ Yes □ No Organizes and manages the emergency response Web sites, Web pages, Facebook page and other social media?

## **Direct Public Information**

□ Yes □ No Establishes and maintains links to other emergency response Web sites? Partner and Stakeholder Information

□ Yes □ No Establishes communication protocols based on prearranged agreements with identified partners and stakeholders?

□ Yes □ No Translates EOC situation reports and meeting notes into information appropriate for public and partner needs?

 $\Box$  Yes  $\Box$  No Works with subject matter experts (SMEs) to create situation-specific fact sheets, Q&As, and updates?

□ Yes □ No Manages the development and testing of messages and materials for cultural and language requirements of special populations?

□ Yes □ No Coordinates with other communication team members regarding content and message needs?

□ Yes □ No Adapts messages based on analysis from media, social media, public, and partner monitoring systems, SME clearance, and feedback?

□ Yes □ No Guides documents through formal clearance process before they are released to the media, the public, or partner organizations?

#### **Content and Material for Public Health Emergencies**

 $\Box$  Yes  $\Box$  No Develops and establishes mechanisms and protocols to rapidly receive information from the EOC

□ Yes □ No Translates EOC situation reports and meeting notes into information appropriate for public and partner needs

 $\Box$  Yes  $\Box$  No Works with subject matter experts (SMEs) to create situation-specific fact sheets, Q&As, and updates

□ Yes □ No Manages the development and testing of messages and materials for cultural and language requirements of special populations

□ Yes □ No Coordinates with other communication team members regarding content and message needs

□ Yes □ No Adapts messages based on analysis from media, social media, public, and partner monitoring systems, SME clearance, and feedback

□ Yes □ No Guides documents through formal clearance process before they are released to the media, the public, or partner organizations

#### **Suggestions to Consider about Resources**

#### Space

□ Yes □ No You have space to operate communication teams or the JIC outside the EOC. A place is also needed to bring media on site that is separate from the EOC and the JIC.

□ Yes □ No You have quiet space to quickly train and brief spokespersons.

□ Yes □ No You have conference space for team meetings.

□ Yes □ No You have office space dedicated for equipment exclusive to your use. You cannot stand in line for the copier when facing media deadlines.

□ Yes □ No You have space where staff can take breaks when necessary, whether for eating, sensory deprivation, rest, or even a nap.

□ Yes □ No An offsite space is identified in case the crisis damages your original space. Contracts and Memoranda of Agreement(s)

□ Yes □ No Consider a contract with a comprehensive newswire service that will disseminate your information across a wide variety of platforms, such as print and broadcast news, Internet, and social media sites. Also consider using a variety of communication tools, such as press releases, videos, images, e-mail, and social media tagging.

□ Yes □ No Consider contracts with writers or public relations personnel who can augment your staff, especially persons with social media writing and monitoring expertise, if your organization doesn't have those personnel.

□ Yes □ No Consider a contract for administrative support and technical support.

## Contracts and Memoranda of Agreement(s)

□ Yes □ No Consider a phone system/contractor that can supply a phone menu that directs the type of caller and level of information desired:

- General information about the threat
- Tip line listing particular actions people can take to protect themselves
- Reassurance/counseling
- Referral information for media requests for information or interviews
- Referral information for healthcare/medical facility workers
- Referral information for epidemiologists or others needing to report cases
- Laboratory and treatment protocols
- Managers looking for policy statements for employees

#### Equipment

□ Yes □ No Computers (desktop or laptop) loaded with secure Internet access, software programs, and documents needed for crisis communication and information sharing. These items include e-mail lists, the crisis communication plan, and collaboration software.

□ Yes □ No Landline phones with dedicated lines and 800 MHz radios, in case of power outage or cell phone network overload

□ Yes □ No Fax machines with numbers preprogrammed for broadcast fax releases to media outlets and partners

□ Yes □ No Dedicated computer server with additional bandwidth to handle increased Internet traffic

□ Yes □ No Computer printers, including at least one color printer

- □ Yes □ No Tables (You will need a large number of tables.)
- □ Yes □ No Color copier machine and backup
- □ Yes □ No Cell phones, pagers, personal data devices, and e-mail readers
- □ Yes □ No Extension cords
- □ Yes □ No Visible calendars, flow charts, bulletin boards, and easels
- □ Yes □ No Designated personal message board
- □ Yes □ No Small refrigerator

□ Yes □ No A/V equipment to host press conferences such as portable microphones, sound system, multibox or press box, projector and screen, and recording devices

- 🗅 Yes 🗅 No Podium
- □ Yes □ No TVs with cable hookup
- □ Yes □ No DVD player
- □ Yes □ No Paper shredder
- □ Yes □ No Alternative power supply, such as a generator, for the EOC and the JIC

□ Yes □ No Portable cots

□ Yes □ No Supplies (all labeled "for emergency only use"):

- Copier toner
- Printer ink
- Paper, notepads, and notebooks
- Pens, pencils, markers, highlighters, and erasable markers
- Supplies for mail, FedEx, UPS, and other shipping services
- Sticky notes
- Standard press kit folders
- Flash drives and portable hard drives
- Color-coded everything (copy paper, folders, inks, etc.)
- Baskets to contain items that you're not ready to throw away
- Organizers to support your clearance and release system
- Expandable folders with alphabet or days of the month
- Staplers (lots of them)
- Paper punch
- Three-ring binders
- Organization's press kit or its logo on a sticker
- Organization letterhead
- Paper clips (all sizes)
- Tape

#### MESSAGE MAPS

#### What is a Message Map?

A message map is a roadmap for displaying detailed, organized responses to anticipated questions or concerns. Well-constructed and accessible message maps are useful tools during an emergency that, if shared with partners and stakeholders, can support harmonized messages.

Message maps are developed for each intended audience segment. There are generally three levels to a message map:

Audience:	<b>Level 1: Insert the audience to whom this message map is addressed.</b> It can be as broad as "the general public," or more specific. For example, the media, decision makers or at-risk individuals. Each message map should target ONE audience only.				
Concern or Question:	<b>Insert ONE anticipated concern or question</b> that the audience is likely to have regarding the emergency. Examples include: "What does one do to stop the outbreak?"; "What are the signs and symptoms of Covid-19?"				
Level 2 Key Message 1: Insert one message that can help answer the selected concern/question.		<b>Key Message 2:</b> Insert a second message that can help answer the selected concern/question.	<b>Key Message 3:</b> Insert a third message that can help answer the selected concern/question.		
<b>Level 3. Suppo</b> Write between points with inf supports and c key message.	orting Points: In two and five Formation that Carifies the	<b>Supporting Points:</b> Write between two and five points with information that supports and clarifies the key message.	<b>Supporting Points:</b> Write between two and five points with information that support		

#### How to Develop a Message Map<sup>1</sup>

Message maps are generally designed following seven recommended steps. For the case of emergencies, the seventh step has been adapted to ensure timely updates to the map. It is also recommended that partners and stakeholders convene and create message maps together, in order to ensure harmonization from the outset.

<sup>&</sup>lt;sup>1</sup> http://rcfp.pbworks.com/f/MessageMapping.pdf

Step	Details		
Identify audiences (or stakeholders)	Stakeholders include the general public as well as other interested parties who are in some way affected by the emergency. Examples include at-risk individuals, service providers, journalists and authorities. The list of stakeholders for a message map generally includes more parties than the intended audiences of a social behavior change (SBC) strategy. As the emergency evolves, in fact, the communication response becomes more focused through a SBC strategy in which primary and influencing audiences are identified.		
Identify anticipated questions and/or concerns of stakeholders	A list should be developed of potential questions and concerns relating to the emergency that each major group of stakeholders is likely to have.		
Identify frequent concerns	From the list of questions and concerns produced under point 2, select the most common categories of underlying concerns for each stakeholder. These common concerns will form the first level of the message map. Examples: include health risks, safety, environment, ethics, livestock or pets, religion.		
Develop key messages	For each concern, identify a maximum of three key messages that respond to it. These key messages make up the second layer of the message map.		
Develop supporting information	identify key supporting facts for each key message .		
Contextualizing messages	As messaging strategies evolve and become tailored to different audiences, also consider risk perceptions; knowledge about causes, symptoms, and transmission; beliefs, attitudes and concerns about these causes, symptoms and transmission; rumors or misinformation; social and cultural norms around behaviors and practices; habits; and key barriers and facilitators, including structural barriers that may inhibit practices		
Conduct pretesting	The pretest should be conducted both with technical experts to ensure that the information is factually correct, and with representatives of the target stakeholder group to ensure that it is understood and received as intended.		
Update and disseminate the maps	Even when maps are developed jointly with partners and stakeholders, they should be shared among all parties involved in communication. In emergency settings, a system should also be set up to update message maps with the most current information on the outbreak and disseminate the revised message maps to ensure continued coordination among communication partners.		

#### **Developing Message Maps**

**Directions:** Complete this worksheet together with stakeholders to promote a broad exchange and analysis. Wherever possible, access evidence-based data to complete this worksheet.

1. Brainstorm with your team to name all possible audiences that are in some way affected by the emergency. Consider some of the following categories of stakeholders to prompt your thinking; however, you may wish to add other categories specific to your context:

Category	Stakeholders/Audiences	Concerns/Questions
Individuals directly or indirectly affected	[E.g., Persons who have been in close contact with individuals who have had Covid-19 – persons who have recently traveled to Hubei, China]	
At-risk and vulnerable individuals	[E.g., Everyone is at risk. Elderly and people with underlying conditions (e.g., heart disease, diabetes) have been shown to be more at risk for severe disease.]	
Healthcare	[E.g., healthcare workers, etc.]	
Education	[E.g., School administrators, teachers, students, parents of school-aged children]	
Government	[E.g., Ministry of Health, Ministry of Education, Military, etc.]	
Decision makers/influential individuals	[E.g., Parent-teacher associations, respected religious leaders, respected/trusted cultural leaders, etc.]	
Response teams, organizations	[E.g., Case management, surveillance, IPC, food security, etc.]	
Other		

2. To help you identify possible concerns or questions an audience may have relating to the emergency, consider the various aspects that may be impacted by the outbreak or that impact the way the individual responds to the outbreak. Coordination with various sectors – contact tracers, burial teams, psychosocial teams, case management, as well as social mobilizers, hotline operators or social scientists – often helps identify these. For each audience, list possible concerns or questions relating to the following areas: access
to information, ethnicity, gender, health, susceptibility, economics/income generating activities, religion, trust, safety/security, livestock, other.

- 3. Review the questions/concerns in the table above and select the ones that you believe to be most pertinent. For each selected audience and question/concern, use the tables below to develop:
  - a. Three key messages that answer that question/concern
  - b. Three supporting facts for each key message, addressing **what** people need to know and do, **why** they should do it (benefits and risks), and **how** they should do it.
  - c. Be sure to align your messages and facts with the most updated information on the outbreak as provided by the WHO, MOH or other reliable sources of information.

#### **Choosing Communication Channels**

Some messages will not be appropriate for every channel of communication. Messages should be created with consideration of audience needs and **intervention activity**.

Understanding the behaviors, knowledge, aspirations, and feelings of an audience can help identify messages and activities that resonate and motivate behavior change. It also informs the selection of approaches and delivery channels to which audiences are more likely to respond for the desired changes to occur.

#### What Is a Communication Channel?

A communication channel is a medium or method used to deliver a message to the intended audience. A variety of communication channels exist, and examples include:

- Mass media, such as television, radio (including community radio) and newspapers
- **Community engagement**, also known as social mobilization with two-way participation that fosters community ownership, such as community dialogues, listening groups or action planning
- Print media, such as posters, flyers and leaflets
- Social and digital media, such as mobile phones, applications and social media
- Inter-Personal Communication, such as door-to-door visits, phone lines and discussion groups

Different channels are appropriate for different audiences, and the choice of channel will depend on the audience being targeted, the messages being delivered and the context of the emergency. Using a variety of channels or a channel mix, is recommended so that messages can be reinforced through multiple sources.

#### **Contextualizing Messages**

Messages will need to be contextualized to ensure they are culturally and linguistically relevant, and consider current behaviors, practices, attitudes, concerns, stigma, and rumors and misinformation.

As messaging strategies evolve and become tailored to different audiences, also consider the following information in relation to the audience. Where possible, use recent research/evidence to inform your messages:

- What are their general risk perceptions, emotions and fears associated with the outbreak?
- What is their level of knowledge about causes, symptoms and transmission?
- What are their common beliefs, attitudes and concerns about these causes, symptoms and transmission?
- What rumors or misinformation are prevalent and need to be addressed?
- What are the dominant social and cultural norms around behaviors and practices linked to the outbreak?
- What are the dominant current behaviors?
- What are the key barriers and facilitators to the desired behavior?

Social mobilizers, community workers and volunteers have an important role in providing timely and actionable information and promoting community dialogues with trusted community leaders to identify key knowledge gaps and address fears and anxiety. It is important to consider the following.

- Engage families and communities in a dialogue to share information and understand key concerns and questions, rather than telling people what to do. Asking people what they know, want and need, and involving them in designing and delivering Covid-19 related activities improves the effectiveness of our community interventions and sustains necessary changes.
- **Recruit and support peers and leaders to deliver messages**: People are more likely to pay attention to information from people they already know, trust and whom they feel are concerned about their wellbeing
- Encourage awareness and action: communication and community engagement typically contains information targeted to communities and should be action oriented, including:
  - o an instruction to follow (e.g. if you get sick, seek medical care at hospital x),
  - a behavior to adapt (e.g. wash your hands frequently to protect yourself and others from getting sick...) and information they can share with friends and family (such as where and when to access services, e.g. treatment is free of charge and available at health facilities).

Data Source	Details				
Rapid Needs Assessment	Provides insights and understanding about a range of factors that affect behaviors related to an outbreak and about how to best support the population to reduce their risk. Dedicating even just a few days to a needs assessment is important to obtain information about how households and communities perceive a potential or outbreak, what they know and do about it, what barriers and facilitators exist to the adoption of protective behaviors, and how cultural and social dynamics influence them. This knowledge supports program managers and implementers to develop targeted interventions and messages to support the success of all response efforts.				
Secondary data with epidemiological data	Often used to assess information that already exists about demographic, geographic, behavioral and social factors that affect how people respond to an outbreak.				
	Data to review can include WHO Situation Reports on the outbreak and other related data about the outbreak, such as inter-border exchanges that may affect how the disease spreads. Other examples of useful secondary data include knowledge, attitudes and practice (KAP) surveys, media consumption studies and project reports from organizations working in the affected areas. DHS data can provide information on literacy levels and health practices and behaviors.				
Knowledge, Attitudes, and Practices (KAP) surveys	Representative of a specific population to collect information on what is known, believed, and done in relation to a particular topic.				
	In an outbreak response, knowledge is usually assessed to see how far community knowledge corresponds to biomedical concepts. Typical questions include knowledge about causes and symptoms. Knowledge that deviates from biomedical concepts is usually termed as <i>beliefs</i> . Attitude has been defined as "a learned predisposition to think, feel and act in a particular way towards a given object or class of objects." As such, attitude is a product of a complex interaction of beliefs, feelings, and values. <sup>2</sup> Keep in mind that with KAP survey findings, there may be considerable gaps between what is said and done, and a lack of cultural/religious/social context. Knowledge is generally a poor predictor of behavior.				
Social Science studies	These studies might focus on culture and society, social risk factors and mechanisms for disease transmission, local				

<sup>&</sup>lt;sup>2</sup> https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-12-692

Data Source	Details
	cultural interpretations of disease and response interventions, and the functioning of the health system and local structures of power and authority.
	Studies by social behavior change experts, social scientists and/or medical anthropologists can fill in the gaps of KAP studies, particularly where geographic areas of an outbreak are more defined. This information can be essential in developing effective community engagement and health promotion strategies, and ensuring response pillars are fit-for- purpose at the local level.

## Choosing the Appropriate Communication Channel

Channel	In an outbreak context, this channel is most appropriate for
Community Engagement	Engaging communities
	<ul> <li>Promoting discussion and reflection among communities about the issues or regarding the adoption of complex prevention practices (ex. changes to burial practices, mixing chlorine solutions)</li> </ul>
	Modeling behaviors
	Communicating with low literacy and/or hard-to-reach audiences
	Raising awareness across audiences (informing and educating)
Mass Media	Modeling behaviors
	Reducing stigma and taboos
	Communicating with low literacy audiences
	<ul> <li>Obtaining wide regional and national reach</li> </ul>
	Rapid and/or frequent information sharing
	Supporting other communication channels
Print Media	<ul> <li>Providing more detailed information on a particular topic that individuals can look through at home</li> </ul>
	<ul> <li>Providing information about personal and confidential issues</li> </ul>
	Engaging with policy and decision makers
Social & Digital	<ul> <li>Obtaining a large reach (if Internet is widely available and accessible)</li> </ul>
Media	Promoting discussions through chat rooms or email exchanges
	Providing information about personal and confidential issues

Channel	In an outbreak context, this channel is most appropriate for
Interpersonal Communication	<ul> <li>Creating a two-way communication process with the audience</li> <li>Engaging community members and creating community action plans</li> <li>Promoting discussion, reflection and challenging dominant norms</li> <li>Informing and educating (increase knowledge)</li> <li>Imparting skills</li> <li>Discussing sensitive topics</li> </ul>

## HANDOUT 17: TECHNICAL BRIEF PACKAGE

## - A Technical Brief for Breakthrough ACTION Field Teams -USING SOCIAL MEDIA TO DISSEMINATE COVID-19 INFORMATION

May 14, 2020

This technical brief details the steps and considerations programs can take to develop an overarching social media strategy to disseminate COVID-19 messages and combat misinformation. This document also provides a list of relevant tools and resources for implementation.

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Breakthrough ACTION POR BOCKAL & BEHAVIOR CHANGE

#### What is social media?

Social media are applications or websites that allow users to connect in a virtual network or community, facilitating an unprecedented "reach, frequency, usability, immediacy, and performance" of shared information or content (Pavlik & McIntosh, 2015). This technical brief refers to major social media platforms (e.g., Facebook, Twitter, Instagram, WhatsApp); however, what is available and most popular will vary by country.

#### How can social media be used effectively?

Social media can be used to <u>collect and address rumors</u> or popular beliefs among target audiences, share evidence-based and timely health information, receive instant feedback on materials, conduct remote trainings, promote awareness of a project, its mission and events, and more. As increased numbers of people search online for health information, social media platforms are leading the lightning-speed spread of both dangerous coronavirus misinformation and the correct life-saving measures individuals, families, and communities can take to reduce their risk. Public health programs must have a proactive presence in these information-sharing spaces to provide access to trusted and accurate information.

#### Other Important Terms

Social media strategy: A detailed social media plan for disseminating content.

Platform: A social media site or network (e.g., Facebook, YouTube).

Content: Created or curated information that can take the form of text, photo, video, graphics, and more.

Users: Active social media accounts for individuals and organizations. This may include individuals with multiple accounts or bots (automated accounts that mimic human users). Interactions: The ways in which a user engages with social media content. This will not always be measurable (e.g., a person sharing a post via private message).

Metrics report: A document exhibiting measured progress across all owned accounts. This is sometimes called analytics and may include link tracking.

Editorial or content calendar: A forwardlooking timeline that details the content prepared for posts, campaigns, events, or observances.

Using Social Media to Disseminate COVID-19 Information: A Technical Brief for Breakthrough ACTION Field Teams

## The Social Media Strategy Checklist: Additional detail



#### Analyze existing accounts

Ministries of Health, prominent non-governmental organizations, public officials, and news organizations typically have a social media presence and use it to share important health information. Analyzing these accounts can give a better picture of how others are using social media in a local context, who is interacting with their content, and how they are presenting information. To guide your strategy, take notes on what could be strengthened and what posts garnered more engagement. Analyze how audiences interact with those accounts and platforms to help strengthen the content and increase user engagement. Continue to follow the accounts to see how they respond to certain events; this may help you create content.



#### Use your target audience to select the right platform(s)

RCCE Technical Working Groups and other multi-sectoral bodies leading the COVID-19 response have strategies that identify priority audiences for each country. To determine which social media platform will be most effective with each priority audience, compare audience demographics with the demographics of each social media platform. The right social media platform will vary by audience and by country.

#### Social Media Platforms At-A-Glance:

Platform		Type of Content	Largest Demographic	Global Audience
f	Facebook	Text, photo, video, links, images, animated graphics	25-34 years old	2.3 billion
y	Twitter	Text, photo, images, animated graphics	25-34 years old	330 million
	YouTube	Video, animated graphics	15-25 years old	2 billion
Q	WhatsApp	Text, photo, images, video, links, animated graphics, attachments	United States: 26–35 year sold	1.6 billion
in	LinkedIn	Text, photo, images, links	25-30 years old	310 million
0	Instagram	Photo, video, images	25-30 years old	1 billion
P	Pinterest	Photo, images, animated graphics	United States: 30–49 years old	265 million

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## The Social Media Strategy Checklist: Additional detail (Continued)

#### Free resources for demographic and country-specific research

- Facebook audience research: Facebook Audience Insights
- Demographic research by country: <u>NapoleonCat</u>
- Platform use by country: <u>StatCounter</u>
- Successful pages by country: <u>SocialBakers</u>



To build a social media account that is a <u>credible source of COVID-19 information</u>, consider setting specific and measurable goals. For example, providing real-time updates on governmental COVID-19 policy or responding to comments or questions with official guidance within 24 hours. If you want to <u>dispel rumors or misinformation</u>, specific goals could include identifying three rumors spreading online in a given country or creating content that dispels three rumors a week.

Most platforms give you access to metrics that will track your number of <u>followers, reach</u>, <u>impressions</u>, and <u>engagement</u>, but keep in mind that not all of these metrics are equal. Generally speaking, the more difficult or time-consuming the type of interaction is (i.e., follow, like, share, comment, click), the more valuable the interaction. This means that, contrary to popular belief, the number of followers is not necessarily the best measure of success. For example, the engagement rate will give you a better idea of how content is resonating with an audience. Or, clicks may be more valuable than likes when sharing an article.

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#### Analyzing sentiment and social listening

Social listening is a tool that gives insight into how and why people are talking about a particular topic. For example, is the sentiment for the word "coronavirus" negative? What other phrases or terms are often mentioned in conjunction with "coronavirus"? Social listening is useful for prioritizing messages, tracking rumors, and fine-tuning content creation. Be aware that social listening tools rely heavily on publicly-accessible social media content rather than private content and can, therefore, skew perceptions of online conversations.

Social media platform management software such as <u>Sprout</u> and <u>Hootsuite</u> provide access to social listening tools. To conduct social listening for a short period of time or if a subscription to a social media management program is not available, try using free trials or monthly subscriptions to programs like <u>Awario</u>.

## Generating metrics reports

<u>Metrics reports</u> are documents sent weekly or monthly that detail the performance of social media content across all platforms. In addition to presenting current data, these reports analyze which content has been successful and which has not. The methods used to collect and compare performance metrics will vary based on available resources in a particular country. See the Resources Matrix below for options.

The metrics offered within each social media platform (sometimes called native analytics), can be limited because they do not allow comparisons of overall performance across various platforms. Since each platform calculates metrics differently, cross-platform comparisons are difficult and time-intensive. The most common metric across all platforms is either impressions or reach. These two metrics will likely be the largest numbers of all forms of engagement because they encompass likes, retweets, shares, comments, and more.

The data presented in your metrics reports will depend on the software you use to track your social media metrics. The native analytics or Insights dashboard may include reach, engagements, followers, and likes but will likely be constrained to a set period of time (e.g., Facebook will not let you review overall page data older than 28 days). Paid services provide access to more valuable insights—usually impressions, engagement rate, volume, and sentiment—and have the ability to compare unique time periods (e.g., a Facebook campaign that ran for three weeks in June 2019). Sprout Social provides a good explanation of <u>social media metrics and how they differ</u>.

Using Social Media to Disseminate COVID-19 Information: A Tochnical Brief for Broakthrough ACTION Field Tooms

#### Using Paid Advertisements

To reach your target audience, consider setting aside a budget each week or month to promote critically important content through paid advertisements, or ads. On Facebook, a paid ads strategy is carried out by either <u>boosting posts or using Facebook Ads</u> Manager. The differences between the two are explained <u>here</u>. Facebook Ads Manager has valuable tools to reach specific demographics (age, gender, city, language, religion, interest). Specific guidance on <u>creating these ads</u> or <u>boosting posts</u> is available.

You can use paid ads to promote messages, <u>rapidly test messages</u>, and <u>optimize and update</u> the media accompanying those messages. Keep in mind that the best-performing ads are created with the target audience in mind so it is important to think critically during each step of <u>the ad creation</u> process.

If your team is already managing a social media account or accounts, **build on what they are already doing**. Use the Social Media Strategy Checklist to ensure you have clearly defined your audience and goals and find areas that you may be able to improve. For example, you may be checking your Facebook page's Insights tab but you are not generating metrics reports.

Utilizing user-generated content, or content created and published by unpaid contributors, is a very effective way to reach new users in your target audience, bolster trust in your account, and create a new bank of content to use. The <u>WHO</u> <u>#SafeHands Challenge</u> and the <u>ALS Ice Bucket</u> <u>Challenge</u> are good examples of promoting usergenerated content.

Identify and/or collaborate with local influencers

to reach their audiences, grow your following, and build your credibility by working with individuals trusted within a community. One way to identify local influencers is to use <u>Talkwalker</u>. This platform will search all publicly-available social media content and can be tailored by country, language, age, gender, and more.

If there are no appropriate individuals with a social media following, consider working with community leaders. Although community leaders might not have a social media presence, it is still a useful way to build credibility and increase engagement.

Using Social Media to Disseminate COVID-19 Information: A Technical Brief for Breakthrough ACTION Field Teams

#### **Best Practices**

- Build on what your team is already doing
- Utilize user-generated content
- Identify and/or collaborate with influencers
- Be social
- Research appropriate hashtags
- Leverage URL or link tracking



filtered by influencers in Nigeria for users ages 18–25.

#### Using Paid Advertisements (Continued)

Be social! Tag organizations, government agencies such as the Ministry of Health, or individuals. For example, if you share a video with a doctor discussing COVID-19, check to see if they have an account. If so, tag them. This increases the likelihood that they will see and share your post, which helps increase the reach of your message. However, be mindful of how many accounts you tag and how you tag them. Avoid tagging multiple accounts at the end of a post as this can be seen as spam and negatively impact engagement. First, write your post, then find ways to naturally tag individuals and their organizations. For example:



Research appropriate hashtags. Search your chosen platform to see what <u>hashtags</u> are being used to talk about a particular subject. For instance, a quick <u>Twitter search</u> on the hashtag #coronavirus in early April 2020 revealed that it was primarily being used by organizations and news outlets while the hashtag #COVID19 was being used by individuals.

If your post includes a link, URL or link tracking can provide deeper insight into how users are engaging with content (e.g., pageviews per visit, average time on site, % new visitors, bounce rate). Consider using <u>Google's free URL builder</u> or <u>bit.ly</u>. Link tracking is especially helpful when using WhatsApp due to the private nature of the app.

**Online Resources** 

#### CCP Resource Persons

#### Sloane Prince

- Anne Kott
- Marla Shaivitz
- Sample Breakthrough ACTION-Nigeria COVID-19 Social Media Strategy
- Using Social Media Platforms to Amplify Public Health Messages
- How to Use Social Media to Better Engage People Affected by Crises
- CERC, Social Media, and Mobile Devices (chapter 9)
- Best Practices: Facebook Guidelines
- COVID-19 Social Listening Global Report (April 10, 2020)

#### Cover photo credit:

KC Nwakalor for USAID, Digital Development Communications. Nigeria: the WeMUNIZE program uses a combination of digital record keeping and community engagement to increase early childhood immunizations and was one of five winners of the USAID 2018 Digital Development Awards. June 25, 2019. https://www.flickr.com/photos/121302193@N07/48128313928/in/photostream/ - A Technical Brief for Breakthrough ACTION Field Teams -

## COVID-19 RUMOR TRACKING

March 24, 2020

This is a short technical brief with important steps and resources on how country programs can track and address rumors around COVID-19 (as needed). The guide includes a number of great resources and links while also sharing nuggets from global, collective thinking around rumors.

This fact sheet was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of Breakthrough ACTION and do not necessarily reflect the views of USAID or the United States Government. The guidance includes contributions from the READY initiative funded by the Office of U.S. Foreign Disaster Assistance. Johns Hopkins Center for Communication Programs serves as a READY consortium member.





#### What are Rumors?

Rumors are **unverified information** that spread rapidly through a group or population. They can either be true or false. Often there is a bit of both in a rumor. Rumors are a natural response to uncertain or threatening times (Bugge: Rumour Has It, 2017).

Rumors often emerge when there is a **lack of accurate, credible, reliable information** or **too much of it**, resulting in conflicting information or an overload of information. In that case, it is hard to separate fact from fiction.

There are different kinds of rumors (CCP, GHSA Ethiopia: One Health Rumor Tracking 2020):

## Reports of events and/or risky behaviors

such as "people becoming sick with COVID-19 after eating Chinese food" or "the country has closed certain borders or shops."

#### Misunderstood or incomplete information

that is spread without ill intent but that may lead to the practice of risky behaviors or negative perceptions. For example, "black people are immune to COVID-2019" or "COVID-19 does not spread in hot climates."

## Disinformation or false information

that is spread with an intent to cause harm or take advantage of a situation. For example, "COVID-19 was developed by the West as a form of biological warfare" or "someone is going around deliberately infecting people in community Y."

#### Why is rumor tracking important?

The motivations for creating, sharing and amplifying rumors may vary from something as simple as trying to be helpful to needing to feel some sense of control in stressful times to wanting to position oneself as being "in the know" or even intentionally misleading (for economic or political gain). Whatever the motivations may be, rumors thrive when there is less certainty about an issue.

Rumors are a "social barometer" that can give us insight into how people are thinking or feeling about COVID-19. We can ignore them as unimportant, but as a Northern Nigeria polio immunization program discovered in 2003, **not listening to and addressing rumors can be expensive**. Rumors about the vaccine stopped people from vaccinating their children resulting in an outbreak response that cost nearly \$500 million more than anticipated.



COVID-19 Rumor Tracking: A Technical Brief for Breakthrough ACTION Field Teams

1.1

#### ) STEP 1 Discovering the Rumors (Continued)

- If a toll-free hotline is too expensive, use a central website, social media page, phone number, or email address where people can write or call-in with questions, hearsay, and rumors for clarification or reporting. Constantly monitor these sources for new or recurring rumors.
- Listening to rumors on social media is another important way to monitor what is being said. (See this useful guide to social listening.)
- Social Science in Humanitarian Action Platform created <u>this brief</u> on considerations relating to online information, mis- and disinformation in the context of COVID-19. This was identified as a key issue by the Social Science Working Group of the WHO Global Research Roadmap for COVID-19.
- Assess the potential consequences of the rumor. (Adapted from Bugge: Rumour Has It, 2017)
- Could cause harm: "Drink bleach to prevent spread of COVID-19"
- Could stop people accessing services: "Clinics will make your infection worse"
- Could cause conflict: "This is a biological weapon made by community X or country Y"
- Could result in risky behavior/put your staff, family, or community at risk: "You don't have to follow social distancing as long as you have not traveled out of the country or been in contact with someone who has"
- Could put certain groups put at risk: "You can hug your grandmother as long as you are not showing any symptoms of COVID-19"
- Could pose a risk to an organization or group's reputation: "Organization X is sharing information Y because they are a puppet of Z donor"
- Discuss rumors with colleagues and partners to get their added perspective
- Prioritize your response on risk assessment (low, moderate, or high-risk) rather than whether it
  is widespread. If it is widespread but harmless, don't waste your time. Here is a tool to <u>assess</u>
  the risk level of rumors.

## How can we start tracking and addressing rumors?

## **STEP 2** Verifying the Information

Once you have listened and determined the risk is high enough to warrant addressing, you need to verify the content. It is important to find out the facts behind the rumor and unpack why it came into being in the first place.

Know where and who to check with to verify the rumor. Your own country may have issued guidance around COVID-19 communication. That is a good place to start. Next, there are a few sites that are reliable sources of up-to-date information on COVID-19. The sites below include sections on FAQs and myth-busters.

- <u>https://www.epi-win.com/advice-and-information</u>
- <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public</u>
- https://www.cdc.gov/coronavirus/2019-nCoV/index.html

Reliable information on reported new cases globally, fatalities, and recoveries can be found at the Johns Hopkins University interactive map.

In addition to these sites, you can also connect with the RCCE coordinating mechanisms, especially if a sub-committee exists tasked with looking specifically at rumors and misinformation. (See the <u>RCCE Rumor Factsheet</u>.)

# **STEP 3** Engaging the Community

Once you have verified the content and gathered the correct information, you need to engage with the community. Understanding the issues and concerns highlighted by the rumor, overtly and implied, can help shape the response. There should be a short turnaround time from collecting information to acting on it. While it may be tempting to call out the rumor as "wrong," it will likely create defensiveness and a lot of "taking sides". Instead, it may be better to develop and deliver a new narrative to replace the rumor. To do this quickly and effectively you will need to:

- Accurately identify the key audience that needs to be influenced. Here is a guide to how you can identify your priority audiences.
- Use language the audience is most comfortable with and cite sources. Use quotes or testimonials from people that the audience trusts/identifies with. This will make the content more compelling. Content should be pretested with the key audience for comprehension, acceptability, and appeal.
- Once you develop the new content, ensure you have the support and buy in of the government and partners in your coordinating network.

COVID-19 Rumor Tracking: A Technical Brief for Breakthrough ACTION Field Teams

| 4

#### How can we start tracking and addressing rumors?

## STEP 3 Engaging the Community (continued)

You may need the help of your partners and their networks to disseminate this information. <u>Assess</u> available communication channels and then <u>match your audience to the right channel</u>.

You can amplify your message with the help of <u>influencers and spokespeople</u>. It is very important to accelerate accurate information about transmission and actions people can take to give them a better sense of control and reduce their sense of uncertainty.

Check if the messages and the new narrative are being received, understood, and believed. You can track progress in your rumor log (see examples of a <u>rumor log</u> and a <u>rumor tracker form</u>) or adapt the form to better suit the features of your system and interventions.

If the rumors are fairly complex, a more sophisticated SBC approach may be needed, like the "<u>Dey</u> Sey" campaign for Ebola rumors in Liberia.

Community-based partners can be a great resource in countering rumors. See the <u>COVID-19</u> community guidance for social mobilizers volunteers.

#### CCP Resource Persons Online Resources

- Liberia: <u>Anna Helland</u>
- Ethiopia: <u>Simon Heliso</u> and <u>Betemariam Alemu</u>
- Côte d'Ivoire: <u>William Benie</u>
   and <u>Cori Fordham</u>
- DRC: <u>Heather Forrester</u>
- <u>Kathryn Bertram</u> and <u>Stephanie Clayton</u>
- https://covid19communicationnetwork.org (Breakthrough ACTION, 2020)
- <u>Rumour has it: A practice guide to working with rumors</u> (CDAC Network, 2017)
- Global Health Security Agenda: Ethiopia Risk Communication Activity Key Findings and Recommendations or Strengthening One Health Rumor Tracking (Johns Hopkins CCP, 2020)
- Disinformation and Disease: Social Media and the Ebola Epidemic in the Democratic Republic of the Congo (Council on Foreign Relations, 2019)
- How to fight an infodemic (The Lancet, 2020)
- "Dey Sey" rumor tracking for Ebola in Liberia (HC3 and USAID, 2016)
- Managing Misinformation in a Humanitarian Context (Internews, 2019)
- SBCC for Emergency Preparedness Implementation Kit (HC3, 2016)
- <u>https://thecompassforsbc.org/trending-topics/coronavirus</u> (Johns Hopkins CCP, 2020)

Cover photo credit:

Paula Bronstein, Getty Images, Images of Empowerment. India: women gather in their neighborhood area in Ahmedabad, Gujarat. August 17, 2015. <u>https://www.imagesofempowerment.org/pa0050683-77/</u>

- A Technical Brief for Breakthrough ACTION Field Teams -

## CREATING A REAL-TIME RUMOR MANAGEMENT SYSTEM FOR COVID-191

April 22, 2020

<sup>1</sup>For more information about how to address rumors, see the <u>Breakthrough ACTION Technical Brief on</u> <u>COVID-19 Rumor Tracking.</u>

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## Introduction

Risk communication and community engagement (RCCE) are critical aspects of a robust public health response during infectious disease events like the COVID-19 pandemic. One aspect of RCCE is understanding rumors circulating in communities and addressing them through mass media, social media, and community engagement. In this technical brief, rumor management refers to a system to identify, track, and address rumors as well as to monitor how well the system is working to counter rumors. This document includes important considerations and resources to support country programs in creating a functional rumor management system, enabling two-way communication with affected communities. It also includes guidance on obtaining feedback from communities on their beliefs (including rumors, misinformation, and disinformation), disseminating accurate information, and monitoring these approaches. Implementing this system while maintaining physical distancing is particularly important during the COVID-19 pandemic.

#### Why is real-time rumor management essential?

The COVID-19 pandemic has fostered the spread of misinformation at a time when facts are crucial and lifesaving. While some rumors are harmless, others create a significant public health risk by stigmatizing protective practices or reducing trust in authorities or health providers.

Setting up a rumor management system<sup>2</sup> enables those working on COVID-19 RCCE to craft an evidence-based and effective response by better understanding the misinformation and rumors circulating in communities. A systematic communication strategy with associated monitoring can then be implemented.

#### Definition

Rumors are unverified pieces of information transmitted within communities that can take the form of misinformation (spread in good faith) or disinformation (spread intentionally to deceive).

<sup>2</sup>The <u>Joint External Evaluation Tool</u> (second edition) includes the presence of a functional "dynamic listening and rumor management system" in their risk communication domain. See also <u>WHO guidance</u> on risk communication related to rumors.

Creating a Real-time Rumor Management System for COVID-19: A Technical Brief for Breakthrough ACTION Field Teams

The comprehensive rumor management system detailed below describes a systematic, three-step approach; teams can select the components of the system that make the most sense for their context and their resources.

The three components of the system are:

- Collecting community feedback into a rumor tracking database
- Exploring beliefs through short message service (SMS) or interactive voice response (IVR) surveys
- Developing, pretesting, and monitoring the communication response.

#### Consider

Rumor management systems, including collecting rumors, SMS surveys, pretesting, and managing links may require formal ethical oversight. Consider both institutional and country-level institutional review boards.

#### 1 Collecting community feedback through a rumor tracking system

Listening to the community—what they are hearing and saying expressed, to the greatest extent possible in their own words—is key to rumor management.

There are a variety of sources for rumors. Leveraging existing resources and mechanisms are critical for the COVID-19 response. For example:

- Add 1–2 questions to your current monitoring forms to prompt existing project staff who are engaging one-on-one with beneficiaries to collect rumors. For example, "What have you been hearing about COVID-19?"
- Engage and train key informants to recognize relevant rumors and submit them via WhatsApp, SMS, or a data collection app using their mobile devices.
- Create an online or app-based form with a link that the general public can access to submit rumors. Post the link on existing social media networks or promote it through other mass media channels. Do not make the rumors public to avoid amplifying misinformation; rather, simply use the form as a public feedback mechanism. Set an auto-reply that includes a link to accurate information.

#### Consider

Before proposing a new rumor tracking system, investigate whether the government or partners have a robust and functional system to hear community feedback already. If so, think about skipping to step 2.

Creating a Real-time Rumor Management System for COVID-19: A Technical Brief for Breakthrough ACTION Field Teams

(Continued)

#### 1. Collecting community feedback through a rumor tracking system (continued)

- Use a mobile survey provider (like Viamo or GeoPoll) to identify a sample of the population; contact them by SMS, IVR, or phone call; invite them to participate in a rapid questionnaire; and ask them to enter unstructured responses to an open-ended question. (See more details on using mobile surveys in below.)
- Provide agents for existing national hotlines with a simple log to document rumors mentioned during calls. Provide agents with an easy way to submit the rumors (e.g., a link to an online form or a mobile app). Since hotlines frequently identify callers by sex and location, rumors can be disaggregated according to that information. The frequency of recurrence and the prevalence of certain rumors can also be analyzed.
- Provide a simple <u>rumor log</u> to radio stations airing call-in shows and train and support radio hosts to recognize rumors, use the log, and submit the rumors to the online form or app.
- Conduct social media listening using a platform like <u>Hootsuite</u> to understand what people are saying about COVID-19 based on their public posts.

Some of these approaches can be integrated; for example, by having radio call-in shows use the same link as hotline workers and the general public.

#### Technical approach to documenting and storing rumors

Once there is a clear understanding of the source of rumors, the team must then decide how to document them in one place. Where rumors are stored and how they will be analyzed depends on the technology and approach used. Ideally, teams can collect rumors in a cloud-hosted, real-time online database and classify them by topic or belief. Social media listening platforms have their own methods for categorizing and visualizing the data. Another approach to collecting rumors from the general public, project beneficiaries, or key informants, includes using a platform with mobile data collection, data storage, and/or data visualization functionalities. Sometimes, one platform suffices; other times, integrating different platforms is preferable (for example, if a particular technology is already in use).

There are a number of **technologies** to choose for collecting, storing, and visualizing rumor data. Every technology has advantages and disadvantages, and the choice depends on the program's needs and resources.

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#### Consider

If a cloud-hosted database accessed through mobile devices is not an option, teams can track rumors using paper forms, Excel spreadsheets, and email. However, a system using these alternate data collection mechanisms may not be considered a real-time system.

| 3

(Continued)

#### 1. Collecting community feedback through a rumor tracking system (continued)

Platform	Collection	Storage	Visualization
WhatsApp	√		
ODK/ <u>Ona</u>	~	$\checkmark$	~
DHIS2	~	$\checkmark$	~
<u>PowerBl</u>			~
<u>GeoPoll, Viamo.</u> or other mobile survey providers	~	$\checkmark$	
Social listening (e.g., <u>Hootsuite</u> , <u>CrowdTangle</u> )	~	$\checkmark$	~

Seeing a visual display of summary graphics, updated in real-time, on custom **dashboards** is helpful for all stakeholders.

Creating dashboards involves developing topical categories for rumors and assigning them a code; these are then entered into a code book that the team sorting the rumors can use as a reference. Additional codes are included for new and emerging themes. For example, in the early stages of the COVID-19 response, there may not have been rumors pertaining to "quarantine" if countries had not yet instituted this public health measure. The dashboards can display summary graphics or raw data in real time (as rapidly as the rumors are able to be coded). It is useful to understand what types of graphs and tables will be most actionable for stakeholders when creating the dashboard. For example, risk communication actors may want visuals that summarize the total number of rumors on X topic by district or a list of the most common beliefs by week, while data managers may need a list of raw rumors being submitted to ensure consistent coding. See Figure 1 for an example dashboard built on DHIS2.

To set up an online database to collect, store, analyze, and visualize rumors, consider the costs for data collection, hosting cloud-based systems, and staff time to configure and maintain the system, ensure ethical oversight, and analyze data. For example, hosting a DHIS2 instance is USD\$150/month. Cost sharing is possible when multiple teams use the same platform. Ideally, the database would allow teams to <u>categorize rumors</u> and prioritize them for a response.

Creating a Real-time Rumor Management System for COVID-19: A Technical Brief for Breakthrough ACTION Field Teams

(Continued)

#### 1. Collecting community feedback through a rumor tracking system

(continued)



Creating a Real-time Rumor Management System for COVID-19: A Technical Brief for Breakthrough ACTION Field Teams

(Continued)

## ) Exploring beliefs through SMS or IVR surveys

<u>SMS or IVR surveys</u> can provide an approximate understanding of how widespread the beliefs received through the rumor tracker are and among which audiences they are prevalent (e.g., location, age, sex). For example, if five people submit a rumor that COVID-19 *does not* exist, it might be tempting to invest energy in discounting that rumor. However, if 98% of the population believes that COVID-19 *does* exist, it is helpful to know that a small portion of the population disagrees with that belief and that they are motivated enough to share it; however, resources could be better allocated elsewhere. Likewise, rumors related to protective practices may show up (e.g., physical distancing is effective or ineffective). If the majority of people feel that physical distancing is effective, but they have low self-efficacy to perform that behavior, the program can focus on messages that increase self-efficacy rather than spending unnecessary resources to persuade people that physical distancing works.

## 3 Developing, pretesting, and monitoring the communication response

#### Developing the communication response

2

Based on the findings from the initial community feedback and SMS survey results, programs will need to decide which <u>communication channels and messages</u> are the most appropriate. For example, the program can develop messages, FAQs, and message guides and also directly address local rumors without amplifying them. Local radio spots and engagement with community leaders were used effectively during the 2014–2016 Ebola epidemic. One rapid approach to addressing rumors is to have project staff who are in touch with beneficiaries, local leaders, or key informants return correct information directly to the people that originally submitted the rumors.

Certain rumors are widespread enough or potentially destructive enough that they should be addressed immediately through social media<sup>3</sup>, local health authorities, media briefs, or any other available channels.

#### Pretesting materials and messages

Pretesting materials is critical for ensuring that messages and channels resonate with the intended audiences. WhatsApp can be used for virtual pretesting<sup>5</sup> by sending prototype messages (print or audio) to rumor contributors or through existing social media groups (a technical brief on virtual pretesting is forthcoming). However, the program needs to consider how to prevent participants from saving and circulating materials during and after pretesting.

<sup>&</sup>lt;sup>3</sup>Technical Brief on Developing a Social Media Strategy forthcoming

<sup>&</sup>lt;sup>4</sup>Technical Brief on Virtual Pre-testing forthcoming

Creating a Real-time Rumor Management System for COVID-19: A Technical Brief for Breakthrough ACTION Field Teams

# 3. Developing, pretesting, and monitoring the communication response (continued)

#### Monitoring the communication response

Materials created or disseminated by the project online should be tracked through a <u>link</u> <u>management</u> application, such as <u>Bit.ly</u>, to monitor reach and engagement. A link management system allows public health responders to create custom domains for their links, build credibility, and help people identify trustworthy sources of information. These applications can also track reach (e.g., clicks, shares) in a centralized account.

The initial SMS or IVR survey can also serve as a "baseline" for monitoring. Additional surveys can be fielded at regular intervals (every 2–3 months, if funding permits) to monitor the reach and effectiveness of communication interventions.

Consider

If you plan to do multiple rounds of surveys over time, the most affordable option involves an up-front contract that includes multiple rounds of data collection. Involving the same respondents over multiple rounds is usually more expensive because of the need to oversample.

#### **CCP Resource Persons**

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- Amanda Berman, <u>amanda.berman@jhu.edu</u>
- Abdul Dosso, adosso@breakthroughactionci.org

#### Cover photo credit:

Jonathan Torgovnik, Getty Images, Images of Empowerment. Senegal: a mobile clinical outreach team from Marie Stopes International, visiting a health center in Laniar. August 14, 2014. https://www.imagesofempowerment.org/full\_release\_hewlett\_senegal\_087/

## HANDOUT 18: DISEASE Z SIMULATION ROLE PLAY

#### GROUP 1: PUBLIC HEALTH OFFICIALS (RED TEAM)

#### Instructions:

Within your group, carefully read the scenario below, which involves an entirely fictional zoonotic outbreak situation of a disease known as "Disease Z." In this exercise, you group will be representing the **role of public health officials/spokespersons**. Please choose one person to serve as the official spokesperson who will represent all the points of the group.

You will have ten minutes to discuss amongst yourselves the scenario and key aspects of the public health spokesperson's role. Then, you will conduct a short role play of a press conference and community meeting involving this outbreak.

#### Scenario:

In Village X, local animal health workers have been reporting an unusually high number of goats and cattle have been falling ill and dying over the past month. Some farmers have directly observed high fever or other signs of distress in the animal for a period of time prior to death, but others are finding their animals dead without having had any obvious symptoms. A number of carcasses have been found in areas surrounding the village. So far, there has been one case of a worker at the local slaughterhouse also falling ill; the worker eventually died. No other suspicious illnesses or deaths in humans have been reported. Residents of the village are becoming anxious following the death of the slaughterhouse worker and the rapid increase in animal deaths.

The local veterinary health team is conducting a joint investigation of the outbreak with the local health authorities. After consulting with the local animal health worker, investigators noted that few residents of the far-flung village have regularly vaccinated their animals. Further, many residents, when they find their animals dead, are moving as quickly as possible to either eat the animal or to sell the meat at local market while they can still fetch a reasonable sum. It appears that this practice is contributing to a high risk of further human transmission of disease Z. However, despite messaging on the radio and awareness sessions with local health teams, the population is reluctant to disrupt their livelihoods by stopping the sale of animal products at the local market, and the informal nature of the sale makes it very difficult to monitor or regulate.

You are a spokesperson of the local public health department and have decided to host a **press conference and community meeting** in Village X in light of the continued rapid spread of Disease Z.

Your main goal as a public health official is to convey the **three public health messages that are most critical** for the population of Village X at this time.

You will be providing a very brief summary of the current Disease Z situation and taking questions from the journalists and members of the community. You will have ten minutes to prepare your talking points. Remember to be brief and take into account the best practices you have learned in this course.

#### **GROUP 2: JOURNALISTS (BLUE TEAM)**

#### Instructions:

Within your group, carefully read the scenario below, which involves an entirely fictional zoonotic outbreak situation of a disease known as "Disease Z." In this exercise, you group will be representing the role of local journalists.

You will have ten minutes to discuss amongst yourselves the scenario and key aspects of the journalist's role in the situation and prepare points. Then, you will participate in a short role play of a journalist press conference and community meeting around this outbreak.

#### Scenario:

In Village X, local animal health workers have been reporting an unusually high number of goats and cattle have been falling ill and dying over the past month. Some farmers have directly observed high fever or other signs of distress in the animal for a period of time prior to death, but others are finding their animals dead without having had any obvious symptoms. A number of carcasses have been found in areas surrounding the village. So far, there has been one case of a worker at the local slaughterhouse also falling ill; the worker eventually died. No other suspicious illnesses or deaths in humans have been reported. Residents of the village are becoming anxious following the death of the slaughterhouse worker and the rapid increase in animal deaths.

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You are a local journalist attending a **press conference and community meeting** in Village X in light of the continued rapid spread of Disease Z.

Your goals in this role are to:

- Clarify the scientific facts of the outbreak with the public health experts.
- Hold local officials accountable for the timeliness and quality of the outbreak response.

As a journalist, you will be posing questions to the public health spokesperson during the press conference. You will have ten minutes to prepare your talking points/questions for the spokesperson. Remember to be brief and take into account the best practices you have learned in this course.

#### **GROUP 3: COMMUNITY MEMBERS (ORANGE TEAM)**

#### Instructions:

Within your group, carefully read the scenario below, which involves an entirely fictional zoonotic outbreak situation of a disease known as "Disease Z." In this exercise, you group will be representing the role of community members living in Village X, affected the outbreak.

You will have ten minutes to discuss amongst yourselves the scenario and key aspects of the community members' concerns and role in this situation. Then, you will participate in a short role play of a press conference and community meeting around this outbreak.

#### Scenario:

In Village X, local animal health workers have been reporting an unusually high number of goats and cattle have been falling ill and dying over the past month. Some farmers have directly observed high fever or other signs of distress in the animal for a period of time prior to death, but others are finding their animals dead without having had any obvious symptoms. A number of carcasses have been found in areas surrounding the village. So far, there has been one case of a worker at the local slaughterhouse also falling ill; the worker eventually died. No other suspicious illnesses or deaths in humans have been reported. Residents of the village are becoming anxious following the death of the slaughterhouse worker and the rapid increase in animal deaths.

The local veterinary health team is conducting a joint investigation of the outbreak with the local health authorities. After consulting with the local animal health worker, investigators noted that few residents of the far-flung village have regularly vaccinated their animals. Further, many residents, when they find their animals dead, are moving as quickly as possible to either eat the animal or to sell the meat at local market while they can still fetch a reasonable sum. It appears that this practice is contributing to a high risk of further human transmission of disease Z. However, despite messaging on the radio and awareness sessions with local health teams, the population is reluctant to disrupt their livelihoods by stopping the sale of animal products at the local market, and the informal nature of the sale makes it very difficult to monitor or regulate.

You are community leaders attending a **press conference and community meeting** in Village X in light of the continued rapid spread of Disease Z. Your main goal in this role is to **represent the concerns and fears of the community to public health officials and the media.** 

You will have ten minutes to prepare your points. Remember to be brief and take into account the best practices you have learned in this course.

## HANDOUT 19: POST-TEST

**SECTION 1:** Indicate whether the following statements are True or False. For each answer, circle either True or False.

**Q1.** One Health focuses on the health of animals.

#### True False

False

**Q2.** The main principles of effective risk communication are transparency, consistency, frequent communication, and empathy.

True

False

**Q3.** Messages given about a particular outbreak should include as much medical terminology as possible, so people know the disease is serious.

#### True False

**Q4.** When communicating to the public about a health risk, it is important for spokespersons to hide what they do not know about the disease.

#### True False

**Q5.** In order to address a rumor, it is important to understand why it is occurring and to understand the gaps in the public's knowledge and information.

True False

**Q6.** Journalists must obtain informed consent from the sources they interview.

True False

**Q7.** Different groups of people may have customs or beliefs that go against advice given during a disease outbreak.

True False **Q8.** Communication to the public via social media should be avoided during a public health outbreak because it is hard to control and spreads a lot of misinformation.

True False

**Q9.** The primary role of journalists during a disease threat is to criticize the government response.

True False

**SECTION 2:** Write your responses to the following questions.

**Q10.** Write down the name of two zoonotic diseases.

**Q11.** What is one way to identify rumors?

**SECTION 3:** Indicate whether you agree or disagree by circling your responses to the following questions.

**Q12.** I feel confident that I have the skills to communicate with the public and/or report during a disease outbreak.

5	4	3	2	1
Strongly Agree	Agree	Neither or N/A	Disagree	Strongly Disagree

**Q13.** I know best practices for coordination, trust-building, and cooperation between journalists and government spokespersons during a zoonotic disease outbreak.

5	4	3	2	1
Strongly Agree	Agree	Neither or N/A	Disagree	Strongly Disagree

## HANDOUT 20: WORKSHOP EVALUATION

**Instructions:** Please take a few moments to provide us with some important feedback about your experience with the PZD risk communication training program. Your responses are anonymous and will help improve future workshops.

#### Please indicate the extent to which you agree or disagree with the following statements:

STATEMENT	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Objectives		· · · · · · · · · · · · · · · · · · ·			
The workshop objectives were clearly stated and met.					
The workshop objectives met my expectations.					
The information in the workshop is relevant to my work.					
CONTENT					
The content was applicable to people with different experiences and skill levels.					
The content is relevant to my job.					
The difficulty level of this workshop was appropriate.					
FACILITATION					
The facilitator was knowledgeable.					
The facilitator provided ample time for questions and answered them satisfactorily.					
The facilitator spoke in a clear and easy-to-understand manner.					
The workshop was well-organized.					
The workshop provided several opportunities for me to practice the new skills I was learning.					

STATEMENT	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The activities helped me deepen my understanding of the material.					
The workshop format allowed for collaboration with other participants.					
Results					
I will be able to use what I learned in my work.					
I accomplished the objectives of this workshop.					
Additional Comments					

HANDOUT 21: CERTIFICATE TEMPLATE

# CERTIFICATE **AWARDED TO** FOR SUCCESSFULLY COMPLETING THE ONE HEALTH RISK COMMUNICATION TRAINING FOR MEDIA PROFESSIONALS AND PUBLIC HEALTH COMMUNICATORS held in \_\_\_\_\_, \_\_\_\_, on xx-xx Month, Year Serlenutsos **Elizabeth Serlemitsos** Local Official Project Director, Breakthrough ACTION Title Johns Hopkins University Organization **Center for Communication Programs**

# ANNEX 3: TRAINING OF TRAINERS COMPANION RESOURCE

This companion resource contains the following materials:

- TOT overview
- Sample 5-day TOT Agenda
- Handout 22: Self-Assessment Checklist for Practice Facilitation
- Content for 5 TOT specific sections Sessions
  - Session 1.2 A: Objectives of 5-day TOT
  - Session 1.2 B: Review of the 3-day training package
  - Session 1.4 A: Review of Facilitation Skills and Giving and Receiving Feedback
  - Session 1.4 B : Practice Facilitation Exercise
  - Session 6.2 A: Planning Session

## TOT OVERVIEW

The materials in this section are designed to serve as supplemental companion resources to the 3-day training package on the One Health Risk Communication Training for Media Professionals and Public Health Communicators.

Their purpose is to assist Master Trainers facilitate a 5-day Training of Trainers (TOT) to prepare trainers to conduct the 3-day training for government spokespersons and media professionals.

The primary objective of the 5-day TOT is to ensure that trainers master the content of the 3-day training package, and have the skills needed to deliver a consistent, quality training with it.

This resource is designed for use in conjunction with the *Facilitator Guide*, Handouts, and other components of the 3-day training package. The companion resource consists of the following components:

- 1. Sample 5-day TOT Agenda
- 2. 5-day TOT Companion Guidance
- 3. Self-Assessment Form for practice facilitation exercises
- 4. 5-day TOT Companion Slide Presentation

Instructions on when and where to introduce TOT content are provided in blue boxes at the beginning and end of relevant modules and individual sessions within the 3-day Facilitator Guide. New content and activities specific to the facilitation of the 5-day TOT are provided in the following sections of this annex.

When using this resource, trainers will need to have the 3 *Facilitator Guide* and all associated materials in front of them. Facilitators will use the 3 –day *Facilitator Guide* to lead the majority of the individual sessions for the 5 –day TOT. This companion resource details supplemental content only with a focus on:

- Introduction and objectives of the TOT
- Facilitation skills and giving receiving feedback
- Practice facilitation exercises

Material presented under each day uses the same organization and format used in the *Facilitator Guide*. To make the best of this *5-day TOT Companion Guide* an conduct and effective TOT, it is recommended that trainers:

- Review the Companion5-day TOT Agenda, the supplemental session guidance below and in the specially marked blue boxes in the *Facilitator guide*, and the supplemental slides carefully prior to use, and identify any changes may be needed for their context.
  - Trainers may, for example, want to integrate the companion slide deck and 3-day slide deck for smooth delivery.

- Trainers may also want to prioritize or extend the practice facilitation exercises for some sessions based on specific audience needs. There is buffer time built into the agenda to accommodate this or longer discussion sections as needed.
- Review the training agenda, objectives, methodology, materials, and time allocated for sessions and breaks for each module you will deliver, as well as make note of when to switch between the *Facilitator Guide* and this Annex. This will help ensure transitions between the *Facilitator Guide* and this Annex are smooth, and efficient.
- Practice activities before conducting them. Set aside adequate time to plan and seek assistance from co-facilitators, and prepare all handouts and materials in advance. During a TOT, trainees will be wearing multiple hats, that of trainee and trainer. The more organized and prepared you are moving participants between these roles as they learn the content, the better learning experience they will have.
- Learn the makeup of the training practice participants. Prepare to accommodate their education level; professional backgrounds; language, cultural norms and learning style; and level of knowledge, attitudes, and expectations.
- Conduct training with fewer than 30 participants, as possible, in order to adhere to the suggested times and allow for a participatory and interactive training.
# 5-DAY TOT AGENDA TEMPLATE

Day	Time	Topic/Session								
	8:30 – 9:00 AM	Registration								
	9:00 – 9:15 AM	Opening remarks, prayers, and other protocols								
	MODULE 1: Intro	duction								
	9:15 - 9:45 AM	Session 1.1: Welcome and Introductions								
	9:45 - 10:00 AM	Session 1.2 A TOT: Objectives of 5-day TOT								
	10:00 - 10:15 AM	Session 1.2 B TOT: Review of 3-day Training Package Materials								
	10:15 -10:45 AM	Session 1.2: Purpose, Learning Objectives, and Expectations								
	10:45-11:15 AM	Session 1.3: Ground rules, House-keeping, and Pre-test								
DAY 1	11:15 -11:30 AM	Tea Break + Energizer								
	11:30 AM -12: 00 PM	<b>Session 1.4 A TOT:</b> Review of Facilitation Skills & Giving and Receiving Feedback								
	12:00 - 1:30 PM	Session 1.4 B TOT: Practice Facilitation								
1: 30- 2:30 PM		Lunch + Energizer								
	MODULE 2: Overview of One Health and Priority Zoonotic Diseases									
	2:30 - 3:00 PM	<b>Session 2.1:</b> Setting the Foundations: Zoonotic Disease and the One Health Approach								
3:00 - 4:00 PM		Session 2.2: Priority Zoonotic Diseases – Country Level Focus 1								
4:00 - 4: 15 PM		Tea Break + Energizer								
4:15- 5:00 PM Session work)		<b>ession 2.3:</b> Priority Zoonotic Diseases – Country Level Focus 2 (group vork)								
	8:30 – 9:00 AM	Arrival								
ΠΑΥ	9:00- 10:00 AM	<b>Completion of Session 2.3</b> : <i>Priority Zoonotic Diseases – Country Level Focus 2</i> (report out)								
2	10:00 - 10:45 AM	Session 2.4: Risk Communication within a One Health Framework								
10:45- 11:00 AM		Tea Break + Energizer								

Day	Time	Topic/Session									
	10:45 AM - 12:30 PM	<b>TOT Practice Facilitation</b> : <i>Module 2</i>									
	12: 30- 1:30 PM	Lunch + Energizer									
	MODULE 3: Comr	nunicating for Behavior Change									
	1:00-1:15 PMSession 3.1: Review of Day 1 and Introduction to Day 2 (brief revision facilitation)										
MODULE 3: Comm		nunicating for Behavior Change									
	1:15 - 3:15 PM	Session 3.2: Trust and Principles of Effective Risk Communication-									
	3:15- 3:30 PM	Tea Break + Energizer									
	3:30-4:30 PM	<b>D-4:30 PM</b> Session 3.3: Roles and Responsibilities in Risk Communication									
	8:30 – 9:00 AM Arrival										
	9:00 -10:30 AM	Session 3.4: Elements of Effective Messaging									
10:30-10:45 AM 10:45 AM - 12:45 PM		Tea Break + Energizer									
		<b>TOT Practice Facilitation:</b> <i>Module 3</i>									
ΠΑΥ	12:45- 1:45 PM	Lunch + Energizer									
3	MODULE 4: Profe	ssional Breakout Sessions									
	1:45- 3:45 PM	<b>Breakout Session 4.1 (J):</b> Ethical Principles and Frameworks for Reporting in Public Health Emergencies									
	1:45- 2:45 PM	Breakout Session 4.1 (PHP): Understanding Media Needs									
2:45 -3:45 PM Breakout Session 4.2 (PHP): Best Practices Press Briefings and Community Meetings											
	3:45 - 4:00 PM Tea Break + End of Day (buffer as needed)										
	8:30 – 9:00 AM Arrival										
	9:00-11:00 AM	Breakout Session 4.2 ( J): Ethical Interviewing									
DAY	9:00- 10:30 AM	Breakout Session 4.3 (PHP): Considerations for Successful Interviews									
4	10: 30 -11:00 AM	<b>Breakout Session (PHP):</b> Best Practices: Risk Communication Plan and Media Strategy									
11:00- 11:15 AM		Tea Break + Energizer									

Day	Time	Topic/Session							
	11:15 AM -1:15 PM	TOT Practice Facilitation: Module 4							
	1:15 -2:15 PM	Lunch + Energizer							
	MODULE 5: Addre	essing Rumors and Misinformation							
	2:15-3:15 PM	Session 5.1: Overview: Defining, Assessing, and Responding to Rumors							
	3:15 -3:30 PM	Tea Break + Energizer							
	3:30 4:30 PM	<b>Module 5.2:</b> Using Media Monitoring to Manage Rumors in Traditional and Social Media							
	8:30 – 9:00 AM	Arrival							
	9:00- 11:00 AM	Module 5 Practice Facilitation (Session 1.4B TOT)							
	MODULE 6: Effect	LE 6: Effective Coordination							
11:00 - 11:15           AM           DAY           11:15 AM - 12:00 PM		Tea Break + Energizer							
		Session 6.1: Envisioning Effective Coordination							
5	12:00-1:00 PM	Session 6.2: Bringing it all Together							
1:00- 2:00 PM Lunch + Energizer		Lunch + Energizer							
1:45-2:45 PM		Module 6 Practice Facilitation (Session 1.4B TOT)							
	2:45-3:00 PM	Tea Break + Energizer							
	3:00-3:30 PM	Session 6.2A: Planning your training							
	<b>3:45 - 4:45 PM Session 6.3:</b> Post-Test, Workshop Evaluation, and Closing								

# HANDOUT 22 TOT: SELF-ASSESSMENT CHECKLIST FOR FACILITATION SESSIONS

Techniques		How did I do?							
			Mo	dule	1		Comments		
		2	3	4	5	6			
Covering all the material:									
Did I successfully follow the guide?									
Did I forget anything, or skip any sections?									
Non-verbal:									
Did I look at each participant at least once, and avoid just looking at the slides/manual/flipchart?									
Did I smile a few times?									
Did I use gestures to draw participants out or make them feel included?									
Interactive:									
Did I encourage the "trainees" to participate?									
Besides saying "Does anyone have an example or idea?", did I also say, "Does someone else have another idea or perspective about that?"									
Energy/movement:									
Did I speak loudly enough for everyone to hear?									
Did I show energy/enthusiasm with my body?									
Pacing:									
Did I speak with some momentum, but pause to let people think and respond?									
Did I keep the session moving along well?									
Positive reinforcement:									
Did I give praise for participation e.g. "Thanks, that's one example" or "good answer" or "great idea"									
Reflecting and summarizing:									

						H	ow did I do?
Techniques			Мо	dule			Comments
	1	2	3	4	5	6	
Did I reflect or summarize participant's statements? (e.g., "If I understood you correctly, you have a question about XYZ," or "Here are a few of the ideas that I am hearing from the group.")							
Other issues:							

# SESSION 1.2 A TOT: OBJECTIVES OF 5-DAY TOT

### Time: 10 Minutes

#### Materials:

- Blank flipchart, tape, and markers
- Projector, laptop, extension cord and presentation slides if using.
- Flip chart prepared in advance with learning objectives (if not using slides)
- Timer or watch

### PLENARY DISCUSSION

- Explain the following:
  - This training of trainers workshop has been designed to prepare you, as trainers, to carry out the 3-day training. This training of trainers or TOT will last for 5 days.
  - Our primary purpose during the 5-day TOT is to ensure that you as trainers have the skills to train government spokespersons and media professionals on the 3-day training package, and that you master the content of the 3-day training package in order to deliver a consistent, quality training.
  - The objectives for our 5 days together are that by the end of the training you will be able to:
    - Demonstrate familiarity and understanding of training content in the 3-day package, which aims to strengthen the capacity of government spokespersons and media professionals in the application of best

Session 1.2 A TOT TOT Objectives
By the end of our time together you should be able to:
<ul> <li>Demonstrate familiarity and understanding of training content in the 3- day package.</li> </ul>
<ul> <li>Demonstrate ability to use a standardized format &amp; materials to deliver high-quality, participatory training.</li> <li>Strengthen group facilitation skills grounded in adult learning principles and participatory approaches.</li> </ul>

practices for risk communication and effective collaboration to raise awareness of risks and prevention of priority zoonotic diseases (PZDs).

- Demonstrate ability to use a standardized format & materials to deliver high-quality, participatory training in your respective countries.
- Strengthen group facilitation skills grounded in adult learning principles and participatory approaches.
- So, the objectives of the TOT are to ensure you know all of the content in the 3-day training, and you have the skills to carry it out successfully.
- <u>Ask</u> if anyone have any questions and clarify as needed.
- Ask: Does anyone have any expectations for this TOT that they would like to add?
- <u>Write responses</u> on a flip chart and <u>clarify</u> that they will be incorporated as possible, if not already covered.

## • Explain the following:

• Now that we have looked at what we aim to achieve, let's briefly discuss how we are going to achieve it in our time together.

## • Briefly hold up a copy of each agenda as you speak.

- You have a copy of 2-different agendas at your seat:
  - a 5-day TOT agenda, for the TOT we are doing now, and
  - a model of a 3-day agenda, for the training you will be carrying out after this TOT.
- Since our schedule is tight, we are not going to go through the 5-day agenda together, but you will be able to follow along now and read through it later.
- The 5-day TOT includes the full 3-day package as well as additional time for practice facilitation, review of facilitation skills, and discussion about adapting the content for specific needs.
- It follows three guiding principles:
  - building on participant experiences,
  - step by step skill building, and
  - reinforcement of skills by practice.
- For this TOT, we will act as facilitators as we review the 3-day training with you, and then give you opportunities to practice facilitating the 3-day training yourself, further strengthening your facilitation skills.
- You will have opportunities to practice facilitate in small groups at the end of each module and receive feedback from your peers.
- Let's quickly review some basic housekeeping and establish some norms for our time together.
- <u>Allow 5 minutes for announcements about administrative and logistic tasks</u>, and basic norms such as silencing phones, etc.
- <u>Continue to Session 1.2B</u> TOT below.

# SESSION 1.2B TOT: REVIEW OF 3-DAY TRAINING PACKAGE

#### Time: 15 Minutes

#### Materials:

- Blank flipchart, tape, and markers
- Projector, laptop, extension cord and presentation slides if using.
- Timer or watch

- Introduces the Session with the following:
  - Now that we have a sense of what we will be doing in the TOT, let's take a quick look at the 3-day training package that you will be carrying out with media and public health professionals.
  - The intended audience for the 3-day training are government spokespersons/ public health communicators and media professionals broadly defined.



- For the purposes of this training, a government spokesperson is a government official at any level –tasked with communicating information the public wants or needs about a public health emergency or new disease threat that:
  - supports people to make informed decisions about their health
  - strengthens trust and confidence in public health systems and response, and
  - reduces the harm, including addressing misinformation.
- Media professionals, broadly defined, includes journalists and broadcasters working in print, television, national and community radio media as well as local social media influencers.
- The type, scale, and location of a public health emergency may also determine which media professionals are the most trusted in a locality or familiar with content and resources.
- For most of the training these two groups will be together for collaborative training and relationship building. For portions of days 2 and 3 however, they will be divided to provide targeted information more relevant to their individual professional roles and responsibilities.
- <u>Ask:</u> Who here knows who they will be training, once you finish this TOT?

- <u>Take a few responses or probe</u> with the below if no one answers.
  - National level spokes persons from different ministries or different levels of government?
  - o Community radio hosts from a particular area?
  - A mixed group of media professionals?
- <u>Ask:</u> How do you think you will be training- in mixed groups, or by category of personnel?
- <u>Take a few responses and ask:</u> who can name one advantage of training in mixed groups?
- Take a few responses and confirm:
  - It allows us to learn about other roles, experiences, structures and polices other groups are required to adhere to, other perspectives and tips.
  - Your group of trainees may be comprised of several different types of government spokespersons and media professionals, each with unique, yet complementary roles in ensuring that communities and the public at large have the health information they need to make informed decisions about their health in the event of a public health emergency or zoonotic disease outbreak.
  - Not only do their job descriptions and tasks vary, but it is possible that other key characteristics such as education levels, training, competencies, compensation, etc. also vary.
  - There will also be variation in terms of communication abilities, motivation levels, attitudes and experience.
  - These roles and characteristics are important to consider when planning and delivering training so that the training serves the needs of the participants.
  - As you plan your trainings, you may have to decide whether to train mixed categories together, or perhaps the decision has been made for you.
  - As a trainer, you must try to ensure that everyone's needs are being met to some extent. You cannot train to just the most experienced, or to the least capable. You must continually engage each end of the spectrum.
- <u>Review the resources in the training package holding up each as you speak:</u>
  - The training package for the 3-day consists of the following resources:
    - Facilitator Guide
    - Annexes to the facilitator guide that includes sample Training Agenda, Pre- and Post-Test Questionnaire, Training Evaluation and Handouts
    - Companion Resource to carry out the 5 Day Training of Trainers (Annex 3)
    - Presentation Slides

- Although in the future, you will be carrying out the training as the facilitators, in this workshop we will first go through the training process with us playing the role of facilitators, and you playing the role of the government spokespersons and media professionals who are being trained.
- Then you will have the opportunity to review the content in the *Facilitator Guide* and practice facilitating the sessions with it.
- $\circ$  So, you will need to wear two hats or play two roles, during this workshop.
- First, you need to imagine yourself as a government spokesperson or media professional who is going through the 3-day training, and see how understandable it is, how useful it is in your context and for the category of personnel you will be training.
- Think of how you could help make the training as useful as possible for those you will train.
- Secondly, you will practice facilitating the training using the Facilitator Guide that we are using. Try to see how you can improve the explanations and instructions that are included in the Facilitator Guide to help the training flow.
- Almost everything we will say is included in the *Facilitator Guide* as a script, so that even someone who hasn't participated in this TOT should be able to pick up the *Facilitator Guide* and run the training as we are doing it now.
- But, as we said, you may find ways to improve the clarity, make it more participatory, or to adapt it to your trainees' needs.
- When you are working as the facilitator, you will use your *Facilitator Guide* to guide you through the sessions. When exercises require handouts, these will also be indicated along with instructions on how to use them.
- The presentation slides also provide a helpful resource for many images and key points, but you should be able to completely facilitate the training with the *Facilitator Guide*, copies of the Handouts, pre-prepared and blank flip charts, and blank paper.
- This is a lot of information and a lot of moving pieces, but it will all come together once we get moving into the Sessions.
- We have reviewed the training objectives for the TOT. That was Session 1.2A TOT, which is part of the TOT resources, but we haven't reviewed the regular Session 1.2 in the regular 3-day training.
- So, now let's return to regular Session 1.2 which reviews the training objectives for the 3-day training.
- <u>Return to Session 1.2</u> (Workshop Purpose, Learning Objectives, and Expectations) in the Facilitator Guide and continue as per instructions, using the Facilitator Guide for Sessions 1.3.

# SESSION 1.4 A TOT: REVIEW OF FACILITATION SKILLS AND GIVING AND RECEIVING FEEDBACK

## Time: 30 minutes

### Materials:

- Blank flipchart, tape, and markers
- Projector, laptop, extension cord and presentation slides if using.
- Flip chart prepared in advance with characteristics of good feedback if not using slides.
- Timer or watch

- Introduce the Session with the following:
  - As we discussed earlier, during this TOT we will have practice facilitation sessions after each Module.
  - We will do this in small groups in order to allow each person as many opportunities to practice delivering the content as possible.
  - Before we jump into our Module 1 practice facilitation session, however, we want to take a few minutes to review key facilitation skills<sup>3</sup>.
- Introduce short reflection with the following:
  - Think for 30 seconds about a training (or trainer) that you liked, or learned a lot from. Choose a few words that describe why the training experience was positive for you.
  - Now think about a training (or trainer) you have had that was less positive and identify a few words that describe why the training was not positive.
- <u>Ask:</u> Who can share their words for what made your training experience positive, words that could finish the sentence: A trainer should....
- <u>Take several responses until you stop getting new words.</u>
- <u>Ask:</u> Who can share their words for what made your training experience negative, words that could finish the sentence: A trainer should not....
- <u>Take several responses until you stop getting new words.</u>
- Thank them for their responses and review the following:
  - You have just listed a number of important points to keep in mind when running a workshop, training or group discussion. Good communication skills include:

<sup>&</sup>lt;sup>3</sup> UNICEF (2017) Facilitator's Guide: Interpersonal Communication for Immunization.

- Speaking clearly.
- Looking at various participants in turn, not just those in front.
- Encouraging participation by calling on shy participants or those who aren't paying attention.
- Using a moderate amount of gestures and movement to keep participants' attention.
- Knowledge of the content.
  - If you are familiar with the training content, you can put all of your effort to making sure your audience is participating and understanding.
  - In addition to the content, the more familiar you are with the flow of the exercises and the guide, the more attention you have for your audience. Take time to familiarize yourself with the material before facilitating.
- Knowledge of your audience.
  - The success of your training depends on your ability to share what you know in a way that your audience understands it.
  - It is important to adapt language and break down concepts to improve understanding.
  - It is likewise important to know if certain content is too much of a review and you can move more quickly to keep participants engaged.
- Ability to engage your audience and make learning fun.
  - If you can get participants to participate with questions, discussions, activities, images and jokes they are more likely to remember what they are learning.
  - If you have found that certain content is too much of a review, you can ask the participants to explain topics that you had planned on explaining.
- Ability to relate training to everyday life.
  - If you use stories, examples, and common explanations to connect the concepts you are teaching to the participants' everyday life and work, participants are more likely to see training as useful, and remember what you are teaching.
  - Many examples are provided in the sessions in the Facilitator Guide, but you may want to supplement with others that work better for your trainees.
- Ability to keep control of the group and maintain a supportive environment
  - Ensure no one dominates the discussion, and that everyone is encouraged to participate and treated with respect.

Spassing clearly Looking at participants in turn, not just toos in front Encouraging participants on yours on those that are shry, queter, or sit spring attention Using a moderate amount of gestures and movements extenses of movements on the set of the provider of the group andreament turnes movements on the set of the provider of the group andreaments on the set of the provider of the group andreaments on the set of the provider of the provider on the set of the provider of the provider of the provider on the set of the provider of the provider of the provider on the set of the provider of the provider of the provider on the set of the provider of the provider of the provider of the provider on the set of the provider of the provider of the provider of the provider on the set of the provider of t	Session 1.4 A TOT Good Co.	mmunication Skills for Training
Looking a participants in turn, ot just those in from sky quiet, or no hose that are sky quiet, or no kling a moderate amount of gesturets and movement	Speaking clearly	<ul> <li>Knowledge of the content</li> </ul>
Ability to engage audience and make learning fun     Ability to engage audience and make learning fun     Ability to engage audience and make learning fun     Ability to leage control of the group and maintain a supportive environment     Entrusison for what we are deline	Looking at participants in turn, not	Knowledge of your audience
Using a moderate amount of gestures and movement     Enthesiston for what you are doing	Encouraging participation by calling	Ability to engage audience and make learning fun
Using a moderate amount of gestures and movement     Enthusiacem for what you are doing	paying attention	Ability to keep control of the group
<ul> <li>Enthusiasm for what you are doing</li> </ul>	Using a moderate amount of gestures and movement	and maintain a supportive environment
<ul> <li>Ability to relate training to everyday life</li> </ul>	Ability to relate training to everyda life	<ul> <li>Enthusiasm for what you are doing y</li> </ul>

- Enthusiasm for what you are doing.
  - If you are not excited to share what you are teaching, you cannot expect anyone else to be interested in learning it from you.
- It is also helpful to keep in mind that even if we have been in trainings and are very knowledgeable about something, we may not facilitate well without practice. *Facilitation is a skill, and like any skill is strengthened by practice.*
- We are going to begin our practice facilitation with the sessions in Module 1. You will work in small groups.
- Each of you will take turns facilitating a session within your small group. You
  will use the *Facilitator Guide* and any associated handouts and facilitate
  according to the instructions in the *Facilitator Guide*, and the rest of the small
  group, your team, will act as your trainees.
- After you facilitate your session, you will have a moment to self-assess. This means you will reflect on what you think went well, and what you think you need to work on.
- Then, your team members will give you additional constructive feedback on how you can improve your facilitation skills, based on their observations.
- <u>Ask:</u> Who has an idea of why we suggest that the person who facilitates should do their own self-assessment to their team first, before the team gives their feedback?
- Take a response or two and confirm:
  - Yes, it's usually less painful if you can say how you feel you did first, before others give their opinions.
  - Giving and receiving feedback can be tricky. Let's take a few moments to discuss feedback.
- Ask: Can someone explain what we mean by feedback?
- Take a few responses and confirm:
  - Feedback is information that we give to others or a group about what they do or say, and how they affect others with their words and actions.
  - The purpose of feedback is to help the person identify what they are doing well and how they can improve. We use feedback every day in lots of situations- at work, at home, in a restaurant, etc.
  - In the practice training sessions, it may be helpful to think about two kinds of feedback- one on the training package itself, and one on how the person facilitated the session.
  - If we have comments about a session, or an exercise, and ways we think it could be improved, that's feedback about the training package.
  - If the session or exercise is okay, but the participant who is practicefacilitating it skipped some sections, or didn't speak loudly enough, or forgot to give the explanation of the group work, or kept their back to us the whole

time they were reading out a slide, we would give feedback on facilitation to that participant.

- As we just said, one of the best ways to do feedback is to let the person selfassess first, because it gives the person the chance to process how they did before others provide feedback.
- When the team gives feedback, it should be done in a *specific, positive and constructive manner.* This is supposed to be a learning experience. Everyone has room to improve their skills, so we need to make sure the feedback is helpful.
- <u>Ask:</u> Who can give me an example of a piece of specific and positive feedback you might give to someone after they have facilitated?
- <u>Take a response or two and confirm:</u>
  - An example may be: "we could all hear you very clearly; you showed good energy when you were presenting."
- <u>Ask:</u> Who can give me an example of constructive, negative feedback?



- An example may be : *If you would project your voice a little more, we could hear you "better."*
- In order for feedback to be useful, it should have certain qualities. When giving feedback to another person, it is important to give it in a way that is specific.
- I'm going to give four feedback phrases. Think about which of these you would find more useful.
- <u>Read out the numbered phrases in bold, and let them discuss. At the end,</u> <u>summarize if necessary by reviewing the notes in italics below the numbered</u> <u>phrases.</u>
  - 1. "You weren't very good."
    - Not useful- what wasn't good about it?
  - 2. "You looked nervous."
    - Bad example, but getting better- now we know what the problem was)
  - 3. "You seemed a bit nervous. Do you think you could look directly at the audience a bit more, and give a few smiles when you are speaking?"
    - Good- we've identified the problem, and there's a couple of ideas of the solution)
  - 4. "You seemed a bit nervous- did you feel that way? What do you think you could do to project more confidence and give a more relaxed, enjoyable feel to the session?"

- *Here, we check our impression of the problem, and we turn it over to the person to find a solution.*
- You want to be specific, positive and constructive. If you noticed a person used only yes or no questions, you don't want to say, "Hey, you should stop using yes or no questions."
- You need to open their ears with positive feedback, and then add the constructive feedback.
- <u>Ask:</u> How could you tell them in a specific, positive and constructive way that they should use open-ended questions?

## • Take a response or two and confirm:

- You could use phrases like:
  - "I think you did a good job projecting your voice. However, I noticed that many of your questions were yes/no questions. How about adding some open-ended questions?" or
  - "What about if you tried...."
- Try to give strength first. This helps the person relax enough to hear the "negative" feedback.
- Then provide an area for improvement, asking them to find solutions, if possible.
- Then finish with a positive remark, which leaves them comfortable enough to process and absorb the feedback. For example:
  - "You explained the diagram really well. But did you notice that when you were explaining the diagram, you had your arms crossed? It would help us understand better if you had pointed to the parts of the diagram as you were describing them. Your explanation was good, and pointing to the diagram would make it better and more lively."
- Another example would be:
  - "That was a really productive session, but the session ran too long because the discussions went on too long and got off-topic.
  - It was good that you eventually were able to get the participants back to the task at hand and bring the session to a close. What do you think might be helpful to help you with time keeping?
  - All in all, you did a great job keeping the group engaged."
- Finally, feedback *should only address things that can be changed* in relation to the situation at hand.
- Feedback should never be given as a judgment or evaluation of personal character or characteristics.
- Receiving feedback can be difficult; your feelings might be hurt.

- <u>Ask:</u> What are some things to keep in mind if you are on the receiving end of negative feedback?
- <u>Take a few examples and confirm:</u>
  - Try not to take it personally and focus on seeing how you can grow in your skills.
  - If you are receiving feedback that is disappointing, or difficult to understand, you might try using clarification and reflective listening.
  - Try re-stating what the other person said in terms of feedback. For example,
     *"Thanks for giving me feedback to help me improve my training skills. Help me understand, you are finding that I am not speaking loudly enough?"*
  - Because feedback can help us to improve, it is always nice to thank the person providing feedback, even if it kind of hurt!
- <u>Ask</u> if there are any questions and <u>clarify</u> as needed.
- <u>Conclude the session with the following:</u>
  - One of the best ways to improve your facilitation skills is to have someone take a video of you as you facilitate.
- Ask: Has anyone here ever had that done? How was it?
- <u>Continue:</u>
  - Yes, it is always a learning experience to see and hear yourself facilitating.
  - If you would like someone to video you using a phone, you can do so, and then watch the video after the session. This is a really powerful way to assess your own performance and see how you are doing.
  - Facilitation skills can be improved through practice, and through feedback. Self-assessment is the first kind of feedback to do, then others can give specific constructive suggestions for how to improve.
  - Giving a sandwich of positive feedback ("It went well overall"), constructive negative feedback ("Try moving out from behind the lectern to show more energy") then positive ("You really followed the session guide well"), will help the person hear and internalize the feedback.
  - o In the next session, TOT session, we will start our practice facilitating.
- Begin Session 1.4.B TOT

# SESSION 1.4B TOT: PRACTICE FACILITATION

### Time: 1 Hour and 30 minutes

### Materials:

- Blank flipchart, tape, and markers
- Projector, laptop, extension cord and presentation slides if using.
- Timer or watch
- Enough copies of the *Facilitator Guide* for each person
- Handout 22: Self-Assessment Checklist

- Introduce the Session with the following:
  - Now we are going to start practice facilitating, using the *Facilitator Guide*.
  - Module 1 is fairly easy and has short sessions, so this should be a good way to start practice facilitation.
  - We will use the same technique to practice facilitating each of the remaining modules.
  - $\circ~$  I am going to explain the instructions and then we will break into groups of three.
  - You will work in small groups. Your first task is to choose:
    - 1 person to be the facilitator, using the *Facilitator Guide*
    - 2 or 3 people to be the trainees and follow along in the *Facilitator Guide* (one could video the facilitator on their cell phone so they can review it after)
  - Each person will have the opportunity to play the role of the facilitator.
  - If you are new to training, let someone else in your group go first and take a later turn being the facilitator.
  - I am going to give each of you a *Facilitator Guide*.
- Distribute Facilitator Guide to each trainee and display the relevant sections as you explain:
  - The introduction section provides background the design and development of this training and instructions on how to use the guide.
  - Each Module has objectives, overall time allocation, and overview of learning methods used.
  - $\circ$   $\;$  There is also a checklist of things to do before the module starts.
  - There are a lot of things to prepare before facilitating Module 1, and then there are only a few additional things to prepare for the remaining Modules, such as handouts or pre-prepared flipcharts.

- Each Session also has a time allocation and materials checklist.
- The blue headers help you keep on track if you are leading plenary discussions or leading group activities with handouts or other materials.
- The guide is scripted with step-by-step instructions in order to:
  - Decrease lecturing
  - Increase participation
  - Make it easier for the facilitator to carry out the sessions
  - Ensure a relatively standardized approach and content, so that almost any trainer could pick up the package and carry out the training with fidelity and success.
- The black dots are instructions on what to do or ask and use **bold underline action words.**
- The open bullets are the talking points or things to say.
- The square bullets are details, examples, or answers to questions.
- At the end of each Module and relevant Sessions there is a blue box that contains notes for the facilitators of the TOT.
- We are using them along with the guidance and materials in Annex 3 for this TOT. You can ignore them when you are leading a 3-day training.
- <u>Ask</u> if there are any questions so far and <u>clarify</u> as needed.
- <u>Continue with the following:</u>
  - Let's look briefly at Module 1. The first facilitator will begin with Session 1.1, the 2nd person will continue with Session 1.2, and the third person with Session 1.3, rotating through the regular 3-day training sessions in Module 1 until our time is up.
  - If you have more than 5 members in your group, you will go back up to Session 1.1 and repeat the sessions until each group member has had a chance to facilitate a session.
  - The others will participate as the audience and make note of any feedback they have for the trainer.
  - After practice facilitation, there will be a few minutes for feedback.
  - First, the facilitator will take a minute or two to self-assess, based on a selfassessment checklist I will give you in a moment. We will do this practice facilitation exercise after each module and you can compare your progress with the self- assessment list.

#### • Distribute Handout 22: Self-Assessment Checklist and explain:

• After the facilitator has had a chance to self-assess, the "participants" will have a few minutes to provide any additional feedback on the facilitation.

- When you are providing feedback to the facilitator, start with something they did well. Use the checklist as a starting point to identify at least two strengths and one area that could be improved.
- These sessions have different lengths according to the number of activities.
- The point is to practice delivering the scripted content and small group instructions, especially the back and forth questioning, letting the "trainees" respond, encouraging them to respond if they don't answer, etc.
- The "trainees" do not need to actually do the small group activities in the session, but you should go through the process of explaining the instructions, dividing into groups, etc.
- Your group can move at your own pace, but to allow everyone the opportunity to practice with the content, please take no more than 15 minutes for each person's combined facilitation and feedback.
- <u>Ask</u> if there are any questions and <u>clarify</u> as needed.

# ACTIVITY: PRACTICE FACILITATION

- <u>Time</u> the groups for 1 hour, <u>checking in every 15 minutes to suggest the rotate</u> if they have not.
- Walk around to observe, and provide support and feedback.
- **Bring the group back** together for a brief feedback discussion after an hour.

- Ask: How did the practice facilitation exercise go?
- <u>Take a few responses.</u>
- Ask: What was easy or what was difficult or surprising about facilitating these sessions?
- <u>Take a few responses.</u>
- Ask: How was it to use the Facilitator Guide as a guide for facilitating the sessions?
- <u>Take a few responses.</u>
- Ask: What are some examples of facilitation feedback that your group discussed?
- <u>Take a few responses.</u>
- Ask: How do you think it will be different facilitating for the actual training?
- <u>Take a few responses.</u>
- Ask: Was this exercise helpful? How could we make it more helpful?
- Take a few responses and close the session with the following:
  - Facilitation is a skill that grows stronger with practice.
  - It is not always easy to stand up in front of others, especially if they are not engaged or if they are resistant to what you are saying.

- Hopefully, this exercise has helped illustrate that practice and feedback can help strengthen facilitation skills and the delivery of a successful training.
- We will continue practice facilitation after each module this week.
- Before delivering the training yourselves, it may be helpful to have a full practice session with your co-facilitators, and review who is doing what.
- $\circ$   $\,$  Thank you for your participation and valuable contributions. We will now continue with the next Module.
- <u>Continue to Module 2 in the Facilitator Guide.</u> You will use this same practice facilitation exercise at the end of each Module through Module 5 and again after Session 6. 2.

# SESSION 6.2 A PLANNING YOUR 3-DAY TRAINING

Time: 1 Hour and 30 minutes

#### Materials:

- Blank flipchart, tape, and markers
- Timer or watch

#### PLEANARY DISCUSSION

- Introduce the session with the following:
  - Now, we are going to dedicate a little time to planning the training you will deliver.
  - You will work in groups with those from your region or institution that you may work with to co-facilitate the 3-day training.
  - The groups should be no larger than 5-6 people.
  - You will have 30 minutes to discuss the following questions:
    - 1. When do we plan to schedule the training?
    - 2. What additional adaptation do we still need to do and how much time do we need to allow for it?
    - 3. Who will finalize any adaptations or translations needed for the Facilitator Guide, , Slides, handouts, etc.?

Session 6.2 A TOT	Planning Session				
Work in groups with those to co-facilitate the 3-day to	from your region or institution that you may work with aining.				
<ul> <li>Take 10 minutes to discuss</li> <li>1. When do we plan to s</li> </ul>	the following questions: schedule the training?				
<ol><li>What additional adaptive need to allow for it</li></ol>	tation do we still need to do and how much time do st?				
<ol> <li>Who will finalize any a Guide, , Sildes, hando</li> </ol>	adaptations or translations needed for the Facilitator uts, etc.?				
<ol> <li>Who will handle the w approvals, venue, trav</li> </ol>	vorkshop preparations and logistics [invitations, vel, food, equipment, etc.?				
5. Who will produce the	printed materials?				
<ol><li>Who will organize any official opening or closing, and any certificates of participation?</li></ol>					

- 4. Who will handle the workshop preparations and logistics (Invitations, approvals, venue, travel, food, equipment, etc.?
- 5. Who will produce the printed materials?
- 6. Who will organize any official opening or closing, and any certificates of participation?
- <u>Ask</u> if there are any questions and <u>clarify</u> as needed.

#### ACTIVITY: PLANNING GROUP WORK

- **Divide participants** into groups.
- **Post questions** (slide or flip chart).
- <u>Time them for 30 minutes walking around to support as needed.</u>
- Bring them back together.
- Ask: What did you take away from this exercise?
- Take a few responses.
- <u>Close the session with the reminder</u> that allowing adequate time to plan and prepare will help ensure a successful training for facilitators and participants.