



**Ethiopia One Health Steering Committee**  
Priority Zoonotic Diseases Prevention and Control

# Message Guide

Anthrax, Brucellosis, Highly Pathogenic Avian Influenza, Rabies, and Rift Valley Fever



**FEDERAL  
DEMOCRATIC  
REPUBLIC  
OF ETHIOPIA**



Anthrax,  
Brucellosis,  
Highly Pathogenic Avian Influenza,  
Rabies,  
and Rift Valley Fever



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- Environment, Forest and Climate Change Commission
- Ethiopian Wildlife Conservation Authority
- Regional, zonal, and woreda human health and animal health bureaus and offices
- United States Agency for International Development (USAID)
- United States Centers for Disease Control and Prevention, (CDC)
- Food and Agriculture Organization of the United Nations (FAO)
- Johns Hopkins University Center for Communication Programs (CCP)
- Human Resource for Health 2030 (HRH 2030)
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- Consortium of Christian Relief and Development Association CORE Group (CCRDA CORE Group)



# FOREWORD

To have maximum impact through effective coordination & collaboration, risk communication requires the concerted efforts of different stakeholders, including government agencies, donors, development and humanitarian partners, media outlets, and health workers at all levels. Coordination among these stakeholders is key for impactful risk communication interventions that enable dissemination of accurate and timely messages via various channels of communication.

The *National Zoonotic Diseases Message Guide* has been developed to support efforts by the Ethiopian government and its partners to address specific priority zoonotic diseases across the country. It is a step forward in ensuring that messages are technically accurate and consistent across all communication channels. We encourage human and animal health providers, program implementers, media professionals, and other stakeholders to use this guide to communicate accurate, timely, and reinforcing messages to communities and households.

The content of this guide was generated through the participation of technical experts from the key One Health stakeholders—Federal Ministry of Health; Ministry of Agriculture; Environment, Forest, and Climate Change Commission; and Ethiopian Wildlife Conservation Authority—and their partners in line with the intervention priorities of the National One Health Steering Committee. We would like to thank all partner organizations as well as the experts from the ministries and partners who contributed to making this guide possible.

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# BACKGROUND

The dangers associated with zoonotic diseases, antimicrobial resistance, and other emerging pandemic threats to public health security and socioeconomic well-being are increasingly critical global concerns. Ethiopia faces an especially elevated risk of emerging pandemic diseases due to the country's high livestock population, rich biodiversity, and close interaction between humans and animals. About 80% of Ethiopians are dependent on agriculture and have direct contact with livestock or other domestic animals.

The One Health concept is a collaborative, multi-sectoral, and transdisciplinary approach that optimizes the health outcomes of humans, animals, plants, and their shared environment. Recognizing the importance of this approach in Ethiopia, four sectors the Ministry of Health; the Ministry of Agriculture: the Environment, Forestry, and Climate Change Commission; and the Ethiopian Wildlife Conservation Authority signed a National One Health Memorandum of Understanding: in 2016;

Five zoonotic diseases (anthrax, echinococcosis, leptospirosis, brucellosis, and rabies) were identified as national priorities in 2015 by the One Health platform using the CDC's One Health Zoonotic Diseases Prioritization Tool (OHZDPT). Priorities change over time due to emergence of new infections or re-emergence of already existing diseases, and the OHZDPT recommends that countries may conduct the prioritization process approximately 3-5 years to update their priority zoonotic diseases list and associated action plans. As a result, the National One Health Steering Committee in collaboration with CDC and Human Resource for Health 2030(HRH2030\_ organized national level zoonotic diseases re-prioritization workshop from September 24-25, 2019 in Addis Ababa. In this workshop relevant experts from national and regional level key stakeholders of the National One Health Steering Committee (NOHSC) that includes the Ministry of Health; Ministry of Agriculture; Environment, Forestry, and Climate Change Commission; and the Ethiopian Wildlife Conservation Authority and partners such as USAID, CDC, FAO, WHO, and VSF-Suisse, among others, participated in the workshop. After the two days exercise anthrax, rabies, brucellosis, rift valley fever (RVF), and highly pathogenic avian influenza (HPAI) were selected to be the five national priority zoonotic diseases in Ethiopia.

Understanding the current behaviors and addressing behavioral barriers relevant to the effective prevention, detection, and control of these priority zoonotic diseases (PZDs) are important interventions for reducing their incidence. Key messages support this effort by raising awareness to increase knowledge and to promote uptake of healthy behaviors. Risk communication is most effective when the same messages are communicated through various channels.

The key public sectors and other stakeholders that are actively engaged in the implementation of the Global Health Security Agenda under the national One Health Steering Committee can increase the multisectoral coordination and impact of their risk communication efforts to ensure that the PZD messages delivered to communities across different health service delivery systems are consistent. This guide was developed to support One Health stakeholders in meeting this goal by providing a standard set of core messages for PZDs that can be used to design or implement communication interventions for the prevention, detection, and control of PZDs in Ethiopia.

# PURPOSE OF THE GUIDE

This message guide is intended to provide a reference for presenting accurate, standardized, basic health information in simple language, using a health message format relevant to the prevention and management of anthrax, brucellosis, HPAI, RVF and rabies in Ethiopia. It aims to:

Facilitate coordination across sectors to ensure effective, consistent, and credible communication of messages through multiple sources and channels.

- Inform the design of activities and materials about PZDs to raise awareness, promote healthy behaviors, and mobilize communities to take preventive action.
- Provide an informational foundation to which more detailed and specific information can be added in the event of an outbreak and throughout the response and recovery phases.

The primary intended audiences of this document include sector ministries, institutions, departments, agencies, media, and development partners that are designing or implementing programs, activities, or communication on zoonotic diseases.

The target audiences of the individual messages provided are communities, particularly health extension workers and animal health workers that are working at community level, livestock owners and those that work with animals.

This document provides standard core messages for anthrax, brucellosis, HPAI, RVF, and rabies. The four establishing sectors of Ethiopia's One Health Steering Committee—Ministry of Health, Ministry of Agriculture, Environment Forest and Climate Change Commission and Ethiopian Wildlife Conservation Authority—have endorsed the messages in this guide with the expectation that partners will adhere to the core messages, adapting them to fit the channels and context in which they choose to employ them.

## Role of Messaging in Preparedness and Response to Priority Zoonotic Diseases

Risk communication is the real-time exchange of information, advice, and opinions between experts or officials and people who face a threat to their survival, health, or economic or social well-being from a hazard, such as a zoonotic disease outbreak.<sup>1</sup> Effective risk communication can manage people's expectations during an emergency and assist response efforts by increasing efficiency and minimizing duplicated efforts or conflicting information.

An effective response can depend on changing behavioral and social norms. Such changes require robust, trustworthy communication and commitment to community engagement to support those affected by an outbreak to:

- Define the issue or problems affecting them.
- Reflect on the causes of the issues including how their behaviors affects them.
- Identify their ability to improve the issue.
- Organize themselves to address the issue.

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<sup>1</sup> World Health Organization. Risk Communication Learning Course. Retrieved from <https://www.who.int/risk-communication/training/en/>



Engaging communities prior to an outbreak event fosters trust and strengthens feedback loops between communities and health facilities, enhances surveillance and early reporting, and can accelerate the community-led action needed for a demand-driven response in an emergency. Community engagement helps to ensure that communities see the benefit in adopting the behaviors advocated in an emergency response and willingly cooperate with response teams.<sup>2</sup>

A strong and united voice heard through various sources at the community level can determine whether an emergency is brought under control as soon as possible. Without this voice, the situation may spiral out of control. Consistent messaging is key to the communication response, allowing multiple stakeholders to speak and engage with one voice in a clear and concise way across all channels of communication.

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<sup>2</sup> Health Communication Capacity Collaborative. (2017). *The SBCC Emergency Helix: A Framework for Strengthening Public Health Emergency Programs with Social and Behavior Change Communication*. Baltimore, MD: Johns Hopkins Center for Communication Programs. Retrieved from <https://healthcommcapacity.org/wp-content/uploads/2017/02/The-SBCC-Emergency-Helix5-ksm.pdf>

# METHODOLOGY

The core messages were developed through a review of existing information resources on the diseases and a consultative process that assessed the current state of PZDs in Ethiopia. This process involved a four-day workshop attended by experts from the ministries of health, agriculture and livestock resources, and wildlife and tourism, along with partners supporting the national One Health program. The workshop helped participants to:

- Systematically review the current situation.
- Identify and prioritize the health problems.
- Identify root causes of the problems.
- Identify audiences based on the root causes.
- Develop the core messages for each of the identified audiences.

During an additional consultative workshop held afterward, technical experts confirmed the accuracy of the messages developed by the participants.

## Working Definitions

**Core messages** are messages that help promote recommended behaviors for preventing, detecting, and controlling zoonotic diseases. Core messages relate to recommended actions that specific audience groups can take to address root causes of anthrax, brucellosis, HPAI, RVF, and rabies. Supporting messages that offer evidence or explain *why* and *how* the audience should practice the recommended behaviors are also provided to increase credibility of the messages and trust in them.

**Risk behaviors** are barriers or challenges that health communication interventions can and should address. Risk behaviors can be a root cause of specific prioritized problems.

# USING THIS DOCUMENT AND THE CORE MESSAGES

Consulting this guide is recommended when designing communication tools, messages, and/or interventions for the prevention and control of anthrax, brucellosis, HPAI, and rabies.

- Many of the behaviors promoted in this guide crosscut other priority health issues, such as water, sanitation, and hygiene; food safety; infection prevention control; and early care seeking for fever. Consequently, the messages are broadly relevant and well suited for easy integration into other health promotion and social mobilization activities.
- Using this tool for preparedness helps ensure that, in the event of an emergency, trusted information sources are already familiar with the messages and have had the opportunity to share them with their networks.
- During and following an outbreak, the foundational messages in this guide can be quickly adapted to respond to concerns, feedback, changing circumstances, and shifts in context.
- The messages can also be used both to encourage continuation of behaviors adopted during the outbreak to support community resilience and to prepare for potential future outbreaks.

This guide provides general messages that are adaptable to specific audiences. A table at the end of each disease section provides suggestions on key messages for individual audiences. The messages can be delivered through a full spectrum of communication activities and channels and in times of preparedness and response. These activities include but are not limited to:

- Public announcements and press conferences/releases
- Media communication (print, video, radio, and public awareness campaigns) and social media
- Social mobilization and partner engagement
- Interpersonal communication
- Community engagement activities such as community dialogues.

Not all messages are appropriate for every activity or channel of distribution. Depending on the context of when, where, and how the messages will be used, the messages may need to be adapted for the intended audience, channel, or activity being designed.

Identifying the intended audience and understanding their specific needs and barriers as much as possible are recommended prior to designing interventions or selecting messages to use.

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

## Principles for Effective Messaging

Technical information alone, even if formulated in simple, understandable language, is unlikely to prompt significant behavior change. Aside from providing accurate information that is actionable, messages and the ways in which they are delivered should be designed with respect for people's values; communicate care and concern; account for the local context, culture, and potential stigma associated with the situation; and be used as part of a responsive, two-way exchange with those at risk.<sup>3</sup> Messages that give specific information on an action, benefit, and risk are more likely to motivate behavior change than general messages.<sup>4</sup> The messages in this guide are designed according to the following principles:

- Provide essential health information in a positive way, and encourage simple, doable actions for prevention and management of zoonotic diseases.
- Present one main idea at a time that focuses on what people need to know and do, why they should do it (benefits and risks), and how they should do it.
- Acknowledge the concerns and/or emotions (e.g., fear, anxiety, and sadness) that people may experience as a result of the emergency or information presented.
- Appeal to emotions and the sense of individual and collective responsibility.
- Respect cultural beliefs and values.
- Recognize that animals are an important and valuable part of people's livelihoods and cultural lives.
- Focus on preventing animal–human and person-to-person transmission of disease in the event of an outbreak.
- Focus on available facts.
- Use short words and common conversational language, limiting the use of technical and scientific words as much as possible, while still maintaining accuracy and integrity of the concept.
- Maintain consistency in phrasing.

Use of these principles is recommended to guide further refinement and development of additional new messages for subsequent versions of this and related message guides.

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<sup>3</sup> Health Communication Capacity Collaborative. (2016). *Social and Behavior Change Communication for Emergency Preparedness: Implementation Kit*. Retrieved from [http://healthcommcapacity.org/wp-content/uploads/2017/01/SBCCforEP\\_I-Kit.pdf](http://healthcommcapacity.org/wp-content/uploads/2017/01/SBCCforEP_I-Kit.pdf)

<sup>4</sup> Health Communication Capacity Collaborative. (2017). *Malaria SBCC Evidence Literature Review*. Baltimore, MD: Johns Hopkins Center for Communication Programs. Retrieved from [http://healthcommcapacity.org/wp-content/uploads/2018/11/Malaria-SBCC-Evidence-Report\\_Final.pdf](http://healthcommcapacity.org/wp-content/uploads/2018/11/Malaria-SBCC-Evidence-Report_Final.pdf)

# ANTHRAX

Anthrax is a serious infectious disease caused by spore-forming bacteria called *Bacillus anthracis*. The spores of anthrax are naturally present in soil, where it can survive for many years.

In Ethiopia, anthrax is an endemic disease, with frequent outbreaks usually occurring between May and June (“anthrax season”). It affects both livestock and humans. The disease poses a significant risk in most regions of Ethiopia (pastoralist areas in the North and Northwest and the South and Southeast, as well as other sites). Anthrax is an immediately reportable disease in both animal and human health sectors.

Cattle and sheep are highly susceptible to anthrax and can suffer from hyper acute to acute disease effects, including sudden death without prior signs of illness. Upon exposure to air, bacilli from infected carcasses immediately form spores that contaminate the environment.

Domestic and wild animals, such as cattle, sheep, goats, antelope, and deer, contract anthrax when they ingest spores from contaminated soil, plants, or water. Humans can become infected via multiple routes:

- Contact with infected meat, hide, skin, or bones
- Ingestion of meat or water contaminated with anthrax spores
- Inhalation of anthrax spores from the wool, hide, or skin of an animal with anthrax

## ***Priority Risk Behaviors for Anthrax Health Communication***

- Unsafe handling and disposal of dead animals
- Delay in seeking early care for affected humans and animals
- Consumption of the meat and blood from sick animals and animals found dead in the field
- Unsafe contact with the hide, wool, or skin of animal sick or dead with anthrax
- Not vaccinating at-risk animals against anthrax

## ***Barriers***

- Low risk perception of unsafe handling and disposal of dead animal body/carcass
- Limited awareness on how to properly handle and dispose of dead animals
- Preference for seeking care from uncertified traditional healers
- Limited understanding about the symptoms of anthrax as well as their severity and the consequences for humans and animals
- Limited awareness about the risks associated with cohabiting with animals and consuming the meat and blood of sick animals and animals found dead in the field

## ***Signs of Anthrax in Animals***

- The length of time from when anthrax enters an animal’s body to when the animal starts to show signs of anthrax ranges from one day to two weeks. The signs of anthrax in animals include:
  - Difficulty breathing
  - Sudden death
  - /Bleeding from the mouth, nose and other body openings after death
  - Swelling of the body after death
  - Lack of body stiffness after death

## ***Signs and Symptoms of Anthrax in Humans***

- The length of time from when anthrax enters a person's body to when signs and symptoms of anthrax begin to show ranges from one day to two months. The signs and symptoms of the disease vary depending on how anthrax entered a person's body.
- Anthrax through the skin is the most common type of anthrax in people. The signs and symptoms of this type of anthrax include:
  - An itchy bump that looks like an insect bite that quickly changes into a painless sore with a black center
  - Swelling around the sore
  - Sores are most commonly found on the face, neck, arms, or hands
- Anthrax caused by eating or drinking something contaminated with anthrax is less common, but it is more serious. Without early treatment, this type of anthrax can cause death. The signs and symptoms of this type of anthrax are:
  - Diarrhea that may contain blood
  - Nausea
  - Loss of appetite
  - Vomiting
  - Fever
  - Headache
  - Sore throat, hoarseness, and difficulty swallowing
  - Swollen neck
  - Flushing (red or hot face) and red eyes
  - Fainting
  - Swelling of abdomen (stomach area)
- Anthrax caused by inhalation of the disease through the nose or mouth is the most serious type of the disease. It will cause death without rapid treatment.
  - Livestock owners and people who work in slaughterhouses or process the wool, hides, or meat of an infected animal are the most likely to get this type of anthrax.
- The signs and symptoms of this type of anthrax usually start within one week after contact with anthrax, but may not appear for up to two months. They include trouble breathing and the following:
  - Fever and chills
  - Swelling of the neck or glands in the neck
  - Cough
  - Chest pain
  - Vomiting, especially vomiting blood
  - Headache
  - Stomach pain and swelling



# CORE MESSAGES FOR ANTHRAX

## How Anthrax Is Spread

- Anthrax is a disease that can spread between animals and from animals to humans.
  - It is rare for anthrax to spread from person to person.
- Anthrax can cause serious illness and death.
- Anthrax can spread from an animal to a person through:
  - Coming into contact with blood, body fluids, or meat from an animal that has anthrax or products from that animal, especially contact with a break or opening in the skin, such as a cut or a scrape.
  - Eating the meat or blood of a sick animal or animal found dead in the field.
  - Touching or inhaling anthrax spores from the bones, skin or hide of a dead animal that had anthrax.
- To stop the spread of anthrax, never eat, sell, or give away an animal that is sick or looks sick.
- To stop the spread of anthrax, avoid using the hides of animals that you think may have died from anthrax or that died suddenly.
- To stop the spread of anthrax, keep any sick animals away from other animals and people until an animal health worker can treat them.
  - Do not move the sick animal from the site. Call for the support of an animal health worker and wait them to come.

## Protecting Ourselves and Our Animals From Anthrax

- Anthrax vaccines are available at animal health clinics and posts. Vaccinate your animals every year to prevent them from getting anthrax.
- Prepare a separate house or room for your animals to keep your animals and your family healthy.
- Avoid touching the body or body fluids of an animal that looks sick or that has died from anthrax.
  - Sick or dead animals can spread disease to humans if we touch them or their body fluids such as urine, waste, blood and spit.
- Keep sick animals away from other animals and people until an animal health worker can check them and treat them if needed.
- Tell the nearest animal health worker, human health worker, health development army, or kebele administration about any unexpected or sudden animal death to get help to safely dispose of the dead body.
  - This information can help woreda human and animal health officials take action early before any sickness affects people.
- Avoid eating the meat and blood from a sick animal or animal that you find dead.
  - Eating the meat or blood from a sick or dead animal can spread disease from the animal to the human.
- Always immediately wash your hands and arms with soap and water after any contact with an animal.

## Dispose Of Dead Animals Safely

- Tell the nearest animal health worker, human health worker, health development army, or kebele administration about any unexpected or sudden death of animals to get help to safely dispose the dead body.
  - Telling an animal health worker, health extension worker, health development army, or kebele leaders about an animal that looks sick or that you find dead can help woreda human and animal health officials take action early before any sickness becomes a problem.
- If you think an animal may have died of anthrax, avoid touching the body and do not open it.
- Close off the area surrounding the dead animal to prevent other animals from coming into contact with it.
  - Call an animal health worker, health extension worker, or kebele leader for advice.
- An animal that has died of anthrax needs to be burned to ashes or buried at least 2 meters deep so that anthrax cannot be passed to other animals or people.
  - Do not leave a dead animal in an open field. This can easily spread anthrax to healthy animals when they are grazing or drinking water.
  - Contact your animal health worker or health extension worker for additional advice on proper disposal of dead body.
- Avoid touching an animal that you think may have died from anthrax.
  - Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.
  - Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible.
    - Choose a burial location that is far from water sources, such as wells, rivers, and lakes and is not used by animals. If you must move the body, take care to prevent spreading anthrax around the area.
    - Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.
  - Then immediately wash your hands and arms with soap and water.
- Any animal body fluids or waste and any protective equipment used for covering hands, mouth, nose, and eyes should be burned or buried with the dead body.

## **Kill or Slaughtering an Animal Safely**

- Always wash your hands and arms with soap and water before and immediately after killing or slaughtering an animal. This reduces your chance of getting anthrax or other diseases the animal may have.
- Cover your skin, eyes, nose, and mouth when killing or butchering an animal, even if the animal looks healthy. This action can help stop any sickness the animal may have from spreading to you.
  - If gloves are available, wear rubber gloves to protect your hands.
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves are used, wash them well with soap and water after killing or butchering an animal, while they are still on your hands.
  - Wash any tools used to kill or butcher an animal with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.
- When slaughtering an animal, if you notice the blood does not clot, the animal might have anthrax.
  - Keep all the equipment used to slaughter the animal together and immediately tell an animal health worker or health extension worker.
  - Do not move equipment because this could spread the disease.
  - Do not eat the meat or blood or use the hide from this animal until you receive advice from the animal health worker.

## **Vaccinate Animals against Anthrax and Seek Early Treatment for Any Sick Animal**

- Anthrax vaccines are available at animal health posts.
- Vaccinate your animals every year to prevent them and, yourself and your family from getting anthrax.
- You can find information on the schedule for regular animal vaccination from your nearby animal health clinics
- Anthrax-infected animals may be able to be cured.
  - If you think that your animal has anthrax, or has been near another animal known to have anthrax, do not move the animal and call your animal health worker.
  - If you move the animal it could spread the sickness to others.

## **Seek Early Treatment For Signs and Symptoms of Anthrax**

- If you think you may have come into contact with an animal that died from anthrax, or if you have any of the signs and symptoms of anthrax, go to your nearest health center or community health worker right away.
  - Getting early treatment for anthrax can save lives.
  - When someone gets early care and treatment, they have a better chance of recovering quickly and with fewer problems.
- If you have signs and symptoms of anthrax, make sure to tell your health worker if you have had recent contact with any animal or spent time in an area where animals live, visit, or are kept.
- If a person in your community gets sick or dies after contact with an animal, or eating meat from a sick animal, go to your nearest health center or health worker to protect yourself and others.
- Telling an animal health worker, health extension worker, health development army, or kebele leaders about an animal that looks sick or that you find dead can help woreda human and animal health officials take action early before any sickness becomes a problem for people.

## **Always Wash Your Hands After Any Interaction With An Animal**

- We use our hands for many things, so it is easy for sickness to spread when we touch something that carries the sickness and then touch our eyes, nose, mouth, another animal or person, food, and other things.
- Washing our hands with soap and water throughout the day is one of the best ways to keep healthy and help stop the spread of sickness.
- Always wash your hands and arms with soap and water immediately after any contact with an animal. It is very important to wash your hands:
  - After assisting animal birth
  - After caring for a sick animal
  - After cleaning or touching areas where animals are kept
  - After milking
  - Before and after preparing food
  - Before and after slaughtering any animal
  - Before eating
- You can stop the spread of sickness by washing your hands well.
  - Wet your hands with clean water.
  - Use enough soap or other detergent available to cover all hand surfaces.
  - Rub hands together and scrub the backs of your hands, wrists, between your fingers, and under your fingernails.
  - Rinse hands well with water.
  - Dry your hands with a clean towel or tissue, or swing your hands to dry them in the air.

## Table of Priority Audiences for Addressing risk behaviors for Anthrax

Risk Behaviors	Communication Related Root Causes	Priority Audiences	Core Messages
Unsafe handling and disposal of animals that are suspected to have died of anthrax	Lack of awareness on how to properly handle and dispose of dead animal bodies, low risk perception	<ul style="list-style-type: none"> <li>Individuals, families, and community members</li> <li>Livestock owners</li> <li>Shepherds</li> <li>Teachers and students</li> <li>Health extension workers</li> <li>Animal health workers</li> <li>Agricultural development agents</li> </ul>	<ul style="list-style-type: none"> <li>- Tell the nearest animal health worker, human health worker, health development army, or kebele administration about any unexpected or sudden death of animals to get help to safely dispose the dead body. <ul style="list-style-type: none"> <li>• Telling an animal health worker, health extension worker, health development army, or kebele leaders about an animal that looks sick or that you find dead can help woreda human and animal health officials take action early before any sickness becomes a problem.</li> </ul> </li> <li>- If you think an animal may have died of anthrax, avoid touching the body and do not open it.</li> <li>- Close off the area surrounding the dead animal to prevent other animals from coming into contact with it. <ul style="list-style-type: none"> <li>• Call an animal health worker, health extension worker, or kebele leader for advice.</li> </ul> </li> <li>- An animal that has died of anthrax needs to be burned to ashes or buried at least 2 meters deep so that anthrax cannot be passed to other animals or people. <ul style="list-style-type: none"> <li>• Do not leave a dead animal in an open field. This can easily spread anthrax to healthy animals when they are grazing or drinking water.</li> <li>• Contact your animal health worker or health extension worker for additional advice on proper disposal of dead body.</li> </ul> </li> <li>- Avoid touching an animal that you think may have died from anthrax. <ul style="list-style-type: none"> <li>• Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.</li> <li>• Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible. <ul style="list-style-type: none"> <li>• Choose a burial location that is far from water sources, such as wells, rivers, and lakes and is not used by animals. If you must move the body, take care to prevent spreading anthrax around the area.</li> <li>• Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.</li> </ul> </li> </ul> </li> <li>- If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>• This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>- Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>- Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>- Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. <ul style="list-style-type: none"> <li>• Then immediately wash your hands and arms with soap and water.</li> </ul> </li> </ul>

Delay in seeking early and timely care for both humans and animals	Poor care seeking or a preference for seeking care from traditional healers	<ul style="list-style-type: none"> <li>• Individuals, families, and community members</li> <li>• Livestock owners</li> <li>• Shepherds</li> <li>• Teachers and students</li> </ul>	<ul style="list-style-type: none"> <li>- Anthrax vaccines are available at animal health posts.</li> <li>- Vaccinate your animals every year to prevent them and, yourself and your family from getting anthrax.</li> <li>- You can find information on the schedule for regular animal vaccination from your nearby animal health clinics</li> <li>- Anthrax-infected animals may be able to be cured. <ul style="list-style-type: none"> <li>• If you think that your animal has anthrax, or has been near another animal known to have anthrax, do not move the animal and call your animal health worker.</li> <li>• If you move the animal it could spread the sickness to others.</li> </ul> </li> <li>- If you think you may have come into contact with an animal that died from anthrax, or if you have any of the signs and symptoms of anthrax, go to your nearest health center or community health worker right away. <ul style="list-style-type: none"> <li>• Getting early treatment for anthrax can save lives.</li> <li>• When someone gets early care and treatment, they have a better chance of recovering quickly and with fewer problems.</li> </ul> </li> <li>- If you have signs and symptoms of anthrax, make sure to tell your health worker if you have had recent contact with any animal or spent time in an area where animals live, visit, or are kept.</li> <li>- If a person gets sick or dies after contact with an animal, go to your nearest health center or health worker to protect yourself and others.</li> <li>- Tell an animal health worker, health extension worker, health development army, or kebele leaders about an animal that looks sick or that you find dead can help woreda human and animal health officials take action early before any sickness becomes a problem for people.</li> </ul>
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	<p>Limited understanding of the symptoms of anthrax and its severity/ consequence for humans and animals</p>	<ul style="list-style-type: none"> <li>• Livestock owners</li> <li>• Shepherd</li> <li>• Livestock trader</li> <li>• Teachers and students</li> <li>• Health extension workers</li> <li>• Animal health workers</li> <li>• Animal development armies</li> </ul>	<ul style="list-style-type: none"> <li>- Anthrax is a disease that can spread between animals and from animals to humans.             <ul style="list-style-type: none"> <li>• It is rare for anthrax to spread from person to person.</li> </ul> </li> <li>- Anthrax can cause serious illness and death.</li> <li>- Anthrax can spread from an animal to a person through:             <ul style="list-style-type: none"> <li>• Coming into contact with blood, body fluids, or meat from an animal that has anthrax or products from that animal, especially contact with a break or opening in the skin, such as a cut or a scrape.</li> <li>• Eating the meat or blood of a sick animal or animal found dead in the field.</li> <li>• Inhaling anthrax from the skin or hide of a dead animal that had anthrax.</li> </ul> </li> <li>- The length of time from when anthrax enters a person's body to when signs and symptoms of anthrax begin to show ranges from one day to two months, but is usually less than 2 weeks.             <ul style="list-style-type: none"> <li>• The signs and symptoms of the disease vary depending on how anthrax entered a person's body.</li> </ul> </li> <li>- Anthrax through the skin is the most common type of anthrax in people. The signs and symptoms of this type of anthrax include:             <ul style="list-style-type: none"> <li>• An itchy bump that looks like an insect bite that quickly changes into a painless sore with a black center</li> <li>• Swelling around the sore</li> <li>• Sores are most commonly found on the face, neck, arms, or hands</li> </ul> </li> <li>- Anthrax caused by eating or drinking something contaminated with anthrax is less common, but it is more serious. Without early treatment, this type of anthrax can cause death. The signs and symptoms of this type of anthrax are:             <ul style="list-style-type: none"> <li>• Diarrhea that may contain blood; nausea; loss of appetite; vomiting; fever; headache; sore throat, hoarseness, and difficulty swallowing; swollen neck; Flushing (red or hot face) and red eyes; fainting; swelling of the abdomen (stomach area).</li> </ul> </li> <li>- Anthrax caused by inhaling the disease through the nose or mouth is the most serious type of the disease but is not common.             <ul style="list-style-type: none"> <li>• It will cause death without rapid treatment.</li> <li>• Livestock owners and people who work in slaughterhouses or process the wool, hides, or meat of an infected animal are the most likely to get this type of anthrax.</li> </ul> </li> <li>- The signs and symptoms of this type of anthrax usually start within one week after contact with anthrax, but may not appear for up to two months. They include trouble breathing and the following:             <ul style="list-style-type: none"> <li>• Fever and chills; swelling of the neck or glands in the neck; cough or chest pain; vomiting, especially vomiting blood; headache; stomach pain and swelling.</li> </ul> </li> <li>- If you think you may have come into contact with an animal that died from anthrax, or if you have any of the signs and symptoms of anthrax, go to your nearest health center or community health worker right away.             <ul style="list-style-type: none"> <li>• Getting early treatment for anthrax can save lives.</li> <li>• When someone gets early care and treatment, they have a better chance of recovering quickly and with fewer problems.</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>- If you have signs and symptoms of anthrax, make sure to tell your health worker if you have had recent contact with any animal or spent time in an area where animals live, visit, or are kept.</li> <li>- If a person gets sick or dies after contact with an animal, go to your nearest health center or health worker to protect yourself and others.</li> <li>- Telling an animal health worker, health extension worker, health development army, or kebele leaders about an animal that looks sick or that you find dead can help woreda human and animal health officials take action early before any sickness becomes a problem for people.</li> </ul>
Eating the meat or blood of a sick animal or animal found dead in the field	Limited awareness of the risks associated with eating of raw meat, blood, and other products of animals	<ul style="list-style-type: none"> <li>• Livestock owner</li> <li>• Shepherds</li> <li>• Livestock traders</li> <li>• Religious leaders</li> <li>• Butchers</li> </ul>	<ul style="list-style-type: none"> <li>- Animals are an important food source. To keep healthy, never eat, sell, or give away an animal that is sick or looks sick. Sick animals can spread their sickness to those who touch or eat them.</li> <li>- Avoid eating the meat or blood from a sick animal or animal that you find dead. <ul style="list-style-type: none"> <li>• Eating the meat, blood, or dairy from a sick or dead animal can spread disease from the animal to the human.</li> </ul> </li> <li>- When slaughtering an animal, if you notice the blood does not clot, the animal might have anthrax. <ul style="list-style-type: none"> <li>• Keep all the equipment used to slaughter the animal together and immediately tell an animal health worker or health extension worker.</li> <li>• Do not move equipment because this could spread the disease.</li> <li>• Do not eat the meat or blood or use the hide from this animal until you receive advice from the animal health worker.</li> </ul> </li> </ul>

<p>Unsafe close contact / unsafe touching of animals</p>	<p>Limited awareness on risks associated with unsafe close contact and cohabiting with animals</p>	<ul style="list-style-type: none"> <li>• Livestock owner</li> <li>• Shepherds</li> <li>• Livestock traders</li> <li>• Religious leaders</li> <li>• Butchers</li> </ul>	<ul style="list-style-type: none"> <li>- Avoid touching the body or body fluids of an animal that looks sick or that has died from anthrax. <ul style="list-style-type: none"> <li>• Sick or dead animals can spread disease to humans if we touch them or their body fluids such as urine, waste, blood and spit.</li> </ul> </li> <li>- Keep sick animals away from other animals and people until an animal health worker can check them and treat them if needed.</li> <li>- Tell the nearest animal health worker, human health worker, health development army, or kebele administration about any unexpected or sudden animal death to get help to safely dispose of the dead body. <ul style="list-style-type: none"> <li>• This information can help woreda human and animal health officials take action early before any sickness affects people.</li> </ul> </li> <li>- Avoid eating the meat and blood from a sick animal or animal that you find dead. <ul style="list-style-type: none"> <li>• Eating the meat or blood from a sick or dead animal can spread disease from the animal to the human.</li> </ul> </li> <li>- Cover your skin, eyes, nose, and mouth when killing or butchering an animal, even if the animal looks healthy. This action can help stop any sickness the animal may have from spreading to you. <ul style="list-style-type: none"> <li>• If gloves are available, wear rubber gloves to protect your hands.</li> <li>• Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves are used, wash them well with soap and water after killing or butchering an animal, while they are still on your hands.</li> <li>• Wash any tools used to kill or butcher an animal with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Always wash your hands and arms with soap and water before and immediately after killing or slaughtering an animal. <ul style="list-style-type: none"> <li>• This reduces your chance of getting anthrax or other diseases the animal may have.</li> </ul> </li> <li>- When slaughtering an animal, if you notice the blood does not clot, the animal might have anthrax. <ul style="list-style-type: none"> <li>• Keep all the equipment used to slaughter the animal together and immediately tell an animal health worker or health extension worker.</li> <li>• Do not move equipment because this could spread the disease.</li> <li>• Do not consume this animal or use its products until advised by an animal health worker.</li> </ul> </li> <li>- If you think an animal may have died of anthrax, avoid touching the body and do not open it.</li> <li>- Close off the area surrounding the dead animal to prevent other animals from coming into contact with it. <ul style="list-style-type: none"> <li>• Call an animal health worker, health extension worker, or kebele leader for advice.</li> </ul> </li> <li>- An animal that has died of anthrax needs to be burned to ashes or buried in a special way so that anthrax cannot be passed to other animals or people. <ul style="list-style-type: none"> <li>• Do not leave a dead animal in an open field. This can easily spread anthrax to healthy animals when they are grazing or drinking water. Avoid moving the body, if possible.</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>- Contact your animal health worker or health extension worker for advice.</li> <li>- Avoid touching an animal that you think may have died from anthrax. <ul style="list-style-type: none"> <li>• Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.</li> <li>• Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. <ul style="list-style-type: none"> <li>- Choose a burial location that is far from water sources, such as wells, rivers, and lakes and is not used by animals. If you must move the body, take care to prevent spreading anthrax around the area.</li> <li>- Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.</li> </ul> </li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>- This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Any animal body fluids or waste and any protective equipment used for covering hands, mouth, nose, and eyes should be burned or buried with the dead body.</li> <li>- Always wash your hands and arms with soap and water immediately after any contact with an animal. It is very important to wash your hands: <ul style="list-style-type: none"> <li>• After assisting animal birth</li> <li>• After caring for a sick animal</li> <li>• After cleaning or touching animals areas</li> <li>• After milking</li> <li>• Before and after preparing food</li> <li>• Before and after slaughtering any animal</li> <li>• Before eating.</li> </ul> </li> </ul>
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# BRUCELLOSIS

Brucellosis is a zoonotic disease caused by *Brucella* bacteria. It affects humans, domesticated livestock, and wildlife, and is considered one of the most common and economically important zoonotic diseases globally. Human infection occurs from exposure to infected animals or contaminated animal products. Animals most commonly infected with brucellosis include sheep, cattle, goats, pigs, and dogs.

Brucellosis is commonly transmitted to humans through consumption of unpasteurized milk or dairy products and direct contact with the aborted fetuses or body fluids, such as blood, birthing fluids, and semen, of infected animals.

Wildlife can be reservoirs for *Brucella* as well. Brucellosis spreads rapidly between animals from the fluids associated with abortion and birth.

## ***Priority Risk Behaviors for Brucellosis Health Communication***

- Eating or drinking of raw dairy products
- Drinking the blood of an animal
- Direct contact with animals' blood, placenta, aborted fetus, and birthing fluids

## ***Barriers***

- Low risk perception of the disease
- Limited awareness of brucellosis transmission
- Common consumption of raw milk and dairy products
- Limited awareness on the risk of contact with aborted fetus, fetal fluids, placenta, and vaginal fluids

## **Signs of Brucellosis in Animals**

- Signs of brucellosis in animals include:
  - Abortion
  - Stillbirth (born dead)
  - Weakness in a newborn calf
  - Retention of fetal membranes
  - Signs of infection in the membranes
  - Swollen testicles in bulls
- Not all animals that have brucellosis will show signs or symptoms.

## **Signs and Symptoms of Brucellosis in Humans**

- The length of time from when brucellosis enters a person's body to when signs and symptoms of brucellosis begin to show ranges from five days to six months, but it is usually two to four weeks.
- Signs and symptoms of brucellosis in humans include:
  - Fever, joint and muscle aches, fatigue, headache, and night sweats
  - Weight loss
  - Anorexia (refusal to eat)
  - Meningitis (swelling of the membranes that surround the brain and spinal cord)

# CORE MESSAGES FOR BRUCELLOSIS

## How Brucellosis Is Spread

- Brucellosis is one of the most common diseases that spread from animals like cattle, sheep, and goats, to people, and it has the biggest loss on livelihood.
- Brucellosis spreads rapidly from animal to animal through contact with body fluids including blood, aborted fetus, birthing fluids, and unscreened semen of bulls.
- Brucellosis is spread to people when they touch the body fluids of infected animals, such as the blood (for example when slaughtering an animal), vaginal or fetal fluids (when assisting during birth), or tissues like aborted fetus or placenta, with bare hands.
- Brucellosis is spread to people from animals when people drink the blood or raw milk or eat raw milk products from an animal with brucellosis.
- It is uncommon for brucellosis to spread from person to person, but It can be spread from mother to child during pregnancy or delivery. In some cases, it can cause pregnant women to miscarry.

## Protecting Ourselves and Our Animals From Brucellosis Infection

- Abortions in animals are a sign of brucellosis and can indicate that an animal is sick and able to spread the sickness to other animals and humans.
  - Alert community health extension workers or animal health workers about any aborting animals in the community to help them track the number of abortions.
  - Tracking the number of abortions can help animal health workers take action to stop any outbreak before it causes big problems for people and their animals.
  - Keep in mind that infected animals may show no clinical signs at all.
- Selling or giving away an animal that is aborting or has the signs of brucellosis can spread brucellosis to other animals and people.
- Avoid touching body fluids, such as the milk, blood, fetal fluids, placenta, and vaginal fluids, or the fetus of an aborting animal. Avoid touching an animal giving birth with your bare hands, even if it looks healthy.
  - Aborting animals and animals that are giving birth can spread brucellosis to you and to other animals. The signs of sickness are not always apparent.
- Cover your skin, eyes, nose, and mouth, if you are assisting the animal during birth, even if the animal looks healthy. This action can help prevent any sickness being passed to you from the animal.
  - If they are available, wear rubber gloves or plastic bags to protect your hands.
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
  - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Wash any tools used with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.



- Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.
- Keep aborting animals and animals giving birth away from other animals and people until an animal health worker can advise you.
  - Keep animals giving birth out of your house to reduce the risk that they will spread brucellosis to you and your family.
- Boil milk and dairy products from any animal.
  - Not all animals that have brucellosis abort or show signs and symptoms, so it is best to avoid all raw milk and dairy products made from raw milk.
  - Do not eat or drink dairy products from any animal that has aborted or has other signs of sickness.
- Protect your health and the health of your family, check your health status regularly at your nearby health center or hospital if you work in dairy production, eat or drink raw milk or dairy products, slaughter animals, or handle animals or animal products as part of your normal activities

## **Safely Assist an Aborting Animal**

- Protect/separate an aborting animal to keep other animals away from the fluids and contact your animal health workers for advice.
- Avoid touching with your bare hands an aborted fetus or the fetal fluids, placenta, and vaginal and birthing fluids of an animal giving birth, even if it looks healthy.
  - If they are available, wear rubber gloves or plastic bags to protect your hands.
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Wash any tools used with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.
- Fence the area where the aborted fetus is for a few days and keep other animals away.

## Seek Early Treatment For Signs and Symptoms of Brucellosis

### ***For Animals***

- Brucellosis is a sickness that can spread from animals to other animals and to humans.
- If you see one of the following signs or symptoms in your animals, tell your animal health worker or animal health post:
  - Abortion
  - Stillbirth
  - Weakness in a newborn calf
  - Retention of fetal membranes
  - Signs of infection in the membranes
  - Swollen testicles in bulls
- Tell your animal health worker or health extension workers in the kebele if you notice many animals are aborting, or animals are aborting frequently. This could be sign of a brucellosis outbreak.

### ***For Humans***

- If you think you may have come into contact with brucellosis-infected animals, or if you have any of the symptoms of brucellosis, go to your nearest health center or community health worker right away.
  - Symptoms of brucellosis include undulating fever, fatigue, severe headache, and night sweats.
- If a person gets sick or feels sick after contact with an animal or its body fluids, or after eating or drinking raw milk or dairy products, they should go to their nearest health center or community health worker.
- Seek treatment early. If someone gets early care and treatment, they have a better chance of being cured.

## Protect Yourself When butchering An Animal

- Covering your skin, eyes, nose, and mouth when killing or butchering an animal, even if the animal looks healthy. This action can help prevent any sickness the animal may have from spreading to you.
  - If gloves are available, wear rubber gloves to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves are used, wash the gloves well with soap and water after killing or butchering an animal, while they are still on your hands.
  - Wash any tools used to kill or butcher an animal with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.
- Always wash your hands and arms with soap and water before and immediately after killing or slaughtering an animal.

**Table of Priority Audiences for Addressing risk behaviors for Brucellosis**

Risk Behaviors	Communication Related Root Causes	Priority Audiences	Core Messages
Consumption of unsafe raw dairy products	Low risk perception and low awareness of transmission	<ul style="list-style-type: none"> <li>• Individuals, families, and communities</li> <li>• Dairy farm owners</li> </ul>	<ul style="list-style-type: none"> <li>- Brucellosis is spread from animals when people drink the blood or raw milk or eat raw milk products from an animal with brucellosis.</li> <li>- Boil milk and dairy products from any animal.               <ul style="list-style-type: none"> <li>• Not all animals that have brucellosis abort or show signs and symptoms, so it is best to avoid all raw milk and dairy products made from raw milk.</li> <li>• Do not eat or drink dairy products from any animal that has aborted or has other signs of sickness.</li> </ul> </li> <li>- If you think you may have come into contact with brucellosis-infected animals, or if you have any of the symptoms of brucellosis, go to your nearest health center or community health worker right away.               <ul style="list-style-type: none"> <li>• Symptoms of brucellosis include undulating fever, fatigue, severe headache, and night sweats.</li> </ul> </li> <li>- If a person gets sick or feels sick after contact with an animal or its body fluids, or after eating or drinking raw milk or dairy products, they should go to their nearest health center or community health worker.</li> <li>- Seek treatment early. If someone gets early care and treatment, they have a better chance of being cured.</li> </ul>

<p>Unsafe contact with body fluids</p>	<p>Low risk perception and low awareness of transmission</p>	<ul style="list-style-type: none"> <li>• Butchers</li> <li>• Herders</li> <li>• Shepherds</li> <li>• Livestock owners</li> <li>• Dairy farm owners</li> </ul>	<ul style="list-style-type: none"> <li>- Brucellosis spreads rapidly from animal to animal through contact with body fluids including blood, aborted fetus, unscreened semen of bulls, and birthing fluids.</li> <li>- Brucellosis is spread to people when they touch the body fluids of infected animals, such as the blood (for example when slaughtering an animal), vaginal or fetal fluids (when assisting during birth), or tissues like aborted fetus or placenta, with bare hands.</li> <li>- Brucellosis is spread from animals when people drink the blood or raw milk or eat raw milk products from an animal with brucellosis.</li> <li>- It is uncommon for brucellosis to spread from person to person, but It can be spread from mother to child during pregnancy or delivery. In some cases, it can cause pregnant women to miscarry.</li> <li>- Tell your animal health worker or health extension workers in the kebele if you notice many animals are aborting, or animals are aborting frequently. This could be sign of a brucellosis outbreak.</li> <li>- Abortions in animals are a sign of brucellosis and can indicate that an animal is sick and able to spread the sickness to other animals and humans. <ul style="list-style-type: none"> <li>• Alert community health extension workers or animal health worker about any aborting animals in the community to help them track the number of abortions.</li> <li>• Tracking the number of abortions can help animal health workers take action to stop any outbreak before it causes big problems for people and their animals.</li> <li>• Keep in mind that infected animals may show no clinical signs at all.</li> </ul> </li> <li>- Selling or giving away an animal that is aborting or has the signs of brucellosis can spread brucellosis to other animals and people.</li> <li>- Avoid touching body fluids, such as the milk, blood, fetal fluids, placenta, and vaginal fluids, or the fetus of an aborting animal.</li> <li>- Avoid touching an animal giving birth with your bare hands, even if it looks healthy. <ul style="list-style-type: none"> <li>• Aborting animals and animals that are giving birth can spread brucellosis to you and to other animals. The signs of sickness are not always apparent.</li> </ul> </li> <li>- Protect/separate an aborting animal to keep other animals away from the fluids and contact your animal health workers for advice.</li> <li>- Avoid touching with your bare hands an aborted fetus or the fetal fluids, placenta, and vaginal and birthing fluids of an animal giving birth, even if it looks healthy. <ul style="list-style-type: none"> <li>• If they are available, wear rubber gloves or plastic bags to protect your hands.</li> <li>• Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>• This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Wash any tools used with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>- Fence the area where the aborted fetus is for a few days and keep other animals away.</li> <li>- Keep animals giving birth out of your house to reduce the risk that they will spread brucellosis to you and your family.</li> <li>- If you think you may have come in contact with brucellosis infected animals and have any of the symptoms of brucellosis, go to your nearest health center or community health worker right away. <ul style="list-style-type: none"> <li>• Symptoms of brucellosis include undulating fever, fatigue, severe headache, and night sweats</li> </ul> </li> <li>- If a person gets sick or feels sick after contact with an animal or its body fluids, or after eating or drinking raw milk or dairy products, they should go to their nearest health center or community health worker.</li> <li>- Seek treatment early. If someone gets early care and treatment, they have a better chance of being cured.</li> </ul>
Living in close proximity with animals	Lack of awareness on the risk of living with animals in same house	<ul style="list-style-type: none"> <li>• Individuals, families, and communities</li> </ul>	<ul style="list-style-type: none"> <li>- Keep aborting animals and animals giving birth away from other animals and people. <ul style="list-style-type: none"> <li>• Keep animals giving birth out of your house to reduce the risk that they will spread brucellosis to you and your family.</li> </ul> </li> <li>- If you think you may have come in contact with brucellosis infected animals and have any of the symptoms of brucellosis, go to your nearest health center or community health worker right away. <ul style="list-style-type: none"> <li>• Symptoms of brucellosis include undulating fever, fatigue, severe headache, and night sweats.</li> </ul> </li> <li>- If a person gets sick or feels sick after contact with an animal or its body fluids, or after eating or drinking raw milk or dairy products, they should go to their nearest health center or community health worker.</li> <li>- Seek treatment early. If someone gets early care and treatment, they have a better chance of being cured.</li> </ul>

		<ul style="list-style-type: none"> <li>• Animal health professionals</li> <li>• Assistants at Farmer Training Centers</li> </ul>	<ul style="list-style-type: none"> <li>- Brucellosis is one of the most common diseases that spread from animals like cattle, sheep, and goats, to people, and it has the biggest loss on livelihood.</li> <li>- Brucellosis spreads rapidly from animal to animal through contact with body fluids including blood, aborted fetus, birthing fluids, and unscreened semen of bulls.</li> <li>- Signs and symptoms of brucellosis in animals include: <ul style="list-style-type: none"> <li>• Abortion</li> <li>• Stillbirth (born dead)</li> <li>• Weakness in a newborn calf</li> <li>• Retention of fetal membranes</li> <li>• Signs of infection in the membranes</li> <li>• Swollen testicles in bulls</li> </ul> </li> <li>- Not all animals that have brucellosis will show signs or symptoms.</li> <li>- If many animals are aborting or aborting frequently this could be sign of an outbreak. <ul style="list-style-type: none"> <li>• Stay alert and track the number of abortions in your area.</li> <li>• Tracking the number of abortions can help you to take action to stop any outbreak before it causes big problems for people and their animals.</li> </ul> </li> <li>- Brucellosis is spread to people when they touch the body fluids of infected animals, such as the blood (for example when slaughtering an animal), vaginal or fetal fluids (when assisting during birth), or tissues like aborted fetus or placenta, with bare hands.</li> <li>- Brucellosis is spread from animals when people drink the blood or raw milk or eat raw milk products from an animal with brucellosis.</li> <li>- It is uncommon for brucellosis to spread from person to person, but It can be spread from mother to child during pregnancy or delivery. In some cases, it can cause pregnant women to miscarry. <ul style="list-style-type: none"> <li>• d water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Keep aborting animals and animals giving birth away from other animals and people.</li> <li>- Fence the area where the aborted fetus is for a few days and keep other animals away.</li> <li>- To protect your health and the health of your family, check your health status regularly at your nearby health center or hospital if you work in dairy production, eat or drink raw milk or dairy products, slaughter animals, or handle animals or animal products as part of your normal activities.</li> <li>- If you think you may have come in contact with brucellosis infected animals and have any of the symptoms of brucellosis, go to your nearest health center or community health worker right away. <ul style="list-style-type: none"> <li>• Symptoms of brucellosis include undulating fever, fatigue, severe headache, and night sweats.</li> </ul> </li> <li>- If a person gets sick or feels sick after contact with an animal or its body fluids, or after eating or drinking raw milk or dairy products, they should go to their nearest health center or community health worker.</li> <li>- Seek treatment early. If someone gets early care and treatment, they have a better chance of being cured.</li> </ul>
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# HIGHLY PATHOGENIC AVIAN INFLUENZA

Avian influenza is caused by Type A influenza viruses. These viruses have been identified in over 100 wild bird species and can be transmitted to domestic poultry and animals and to humans. Wild birds serving as reservoirs for these viruses include gulls, terns, shorebirds, and waterfowl such as ducks, geese, and swans.

Highly pathogenic avian influenza (HPAI) has seriously affected poultry farmers whenever and wherever it has appeared. The recent avian influenza epidemic, caused principally by a strain known as H5N1, has been ongoing in Vietnam since it was first recognized in December 2003.

Since 2014, HPAI clade 2.3.4.4 viruses (H5N1) have spread rapidly via migratory, wild, aquatic birds and have evolved through re-assortment with prevailing low pathogenicity avian influenza viruses<sup>5</sup>. Globally the case fatality rate associated with influenza A H5N1 infection is high, with 346 deaths (59%) reported from confirmed cases. In Indonesia the case fatality rate is 83% (153/185)<sup>6</sup>. In Africa, Egypt has recorded 15 human cases with seven fatalities<sup>7</sup>. Ethiopia has not yet experienced an outbreak of HPAI<sup>8</sup>, but is at risk of the disease because it is one of the destination countries in Africa for migratory birds from affected countries. The country also imports, annually, considerable amounts of poultry and poultry products from a number of countries<sup>9</sup>.

Human infection with HPAI viruses happens when a sufficient quantity of viral particles enter a person's eyes, nose, or mouth. People that own or live near birds, work in a poultry market, or kill, defeather, butcher, or prepare birds for cooking have a higher risk of getting HPAI.

## **Priority Risk Behaviors for HPAI for Health Communication**

- Lack of awareness on avian influenza
- Low biosecurity and biosafety measures
- Poor risk communication mechanisms

## **Barriers**

- Health professionals, poultry producers, and community have limited knowledge on HPAI
- Low risk perception of HPAI

## **Signs of HPAI in Poultry and Birds**

- HPAI is a sickness that affects all birds, including chickens, ducks, geese, turkeys, quail, and wild birds. HPAI can cause death as quickly as two days after signs appear. Signs of HPAI include:
  - Sudden death of many birds
  - Watery diarrhea
  - Trouble balancing, uneven walking, or sitting with head down
  - Significant drop in egg production
  - Lack of energy and appetite
  - Purple discoloration/cyanosis of the wattles, combs, and legs
  - Ruffled feathers

5 MOA -Ethiopia, and FAO. standard operating procedures for avian influenza prevention and control in ETHIOPIA. 2006

6 FLU NEWS SCAN: H5N1 case in Egypt, flu vaccine and birth weight. [http://www.who.int/influenza/human\\_animal\\_interface/EN\\_GIP\\_20120222CumulativeNumberH5N1cases.pdf](http://www.who.int/influenza/human_animal_interface/EN_GIP_20120222CumulativeNumberH5N1cases.pdf)

7 Data as reported by the WHO on November 13th, 2006 [www.who.int](http://www.who.int)

8 Gezahegne Ayele EB, Xinshen Diao, Dorene Asare--Marfo, Devesh Roy, Marcelle Thomas, Xinshen Diao, and Devesh Roy. Investigating Economy wide and House hold Level Impacts of Sector-Specific Shocks in a Poor Country : The Case of Avian Flu in Ethiopia. INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE. 2010.).

9 MOA -Ethiopia, and FAO. National Risk-Based Surveillance Plan for Highly Pathogenic Avian Influenza. In: Fisher A, editor. Addis Ababa. 2017

### ***Signs and Symptoms of HPAI in Humans***

- HPAI can also make people very sick. Any person who comes into close contact with sick or dead birds may be at risk of contracting HPAI. The length of time from when HPAI or HPAI enters a person's body to when the person starts to show signs and symptoms of HPAI ranges from 1 to 17 days. Signs and symptoms of HPAI in humans include:
  - Fever
  - Cough or sore throat
  - Difficulty breathing
  - Tiredness
  - Eye redness
  - Muscle aches
  - Abdominal pain, chest pain
  - Nausea, vomiting, diarrhea
  - Seizures/shaking

# CORE MESSAGES FOR HPAI

## How HPAI Is Spread

- HPAI spreads very quickly between birds and causes large numbers of them to die very quickly if the spread is not controlled.
  - HPAI spreads easily between animals/birds when they are kept close together, so it is important to ensure that they have enough space.
  - HPAI spread easily by water, feed, and contaminated equipment (feeder and drinkers materials), it is very important to keep water, feed and feeder/drinker equipment from contamination
- If you get new birds, keep them separate from the birds you already have for three weeks.
  - Watch the new birds for any signs and symptoms of sickness.
  - This way you can make sure they are not sick with bird flu or any other sickness and will not endanger other birds.
- Keep chickens separate from other birds such as ducks and geese. Some birds, especially ducks, often do not show signs and symptoms of HPAI, but can still spread it to other birds.
- If your birds are sick, do not sell them at the market and keep them separate from other birds for three weeks while you watch them for any signs and symptoms of sickness.
  - In this way you can make sure they do not spread bird flu or any other sickness to other birds at the market.
- Sick birds spread disease to other birds directly when they shake their heads, scratch themselves, flap their wings, and excrete waste. Keep sick animals separate from other animals/birds.
  - If any of your birds get sick or die, tell an animal health worker about the death, separate them from the healthy ones to stop the spread of sickness.
  - Then wash anything that touched the birds, the area where the birds were kept, and immediately wash your hands and arms with soap and water.
  - HPAI can live on surfaces, like tables or baskets, feed or drink equipment, working cloths, grass, or knives for hours and in the environment for days, so wash and disinfect all surfaces, house and equipment, and dispose of things correctly.
- HPAI can spread from a bird to a person, if a person:
  - Touches a bird that has HPAI and then touches their eyes, nose, or mouth.
  - Touches the feces/waste, mucus, or saliva of a bird that has HPAI and then touches their eyes, nose, or mouth.
  - Touches items and surfaces with which a bird with HPAI or its body fluids have been in contact and then touches their eyes, nose, or mouth.
  - Eats uncooked or undercooked meat or eats products such as eggs from a chicken or another bird with HPAI.

## Protecting Ourselves and Our Birds From HPAI

- House and care for birds outside the house where you live.
- Clean any tools or items used to care for birds, such as feed and drink equipment's, cages or food and water containers, outside the house.
  - Wear rubber gloves or plastic bags to protect your hands.
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth as necessary.
- Always wash your hands and arms with soap and water immediately after any contact with a bird, or after cleaning up after birds, even if they look healthy.
  - The signs and symptoms of HPAI are not always apparent.
- Avoid slaughter of sick birds or those that appear sick in your poultry center or home to reduce the chance of spreading HPAI in the environment.
  - HPAI can live on surfaces, like tables or baskets, feed or drink equipment's, or knives for hours and in the environment for days.
- When possible, avoid birds that look sick and those that you find dead.
- HPAI spreads through direct or indirect contact with infected birds. Do not touch the body or body fluids of a chicken or other bird that looks sick or that you find dead.
  - Sick or dead birds can spread the disease to us through their body fluids like snot, spit, and waste.
- Chickens and other birds are an important food source, but to stay healthy, never eat, sell, or give away any chicken or bird that looks sick.
- Do not bring sick chickens or other birds to market because they can easily spread the sickness to many others.
- If your birds do not sell at the market, keep them separate from your other birds for three weeks while you watch them for any signs and symptoms of sickness.
  - In this way, you can make sure they did not come in contact with bird flu or any other sickness at the market that they might spread to other birds.
- If you buy a new chicken or other bird, keep them separate from other birds for a period of three weeks while you watch them for signs of any sickness.
  - This reduces the spread of any sickness the new chicken or bird may have to your chickens/ at home.
- When you recognize that a bird is sick, immediately isolate it from healthy birds and consult the animal health workers in the nearby animal clinic.
- Maintain adequate space for your birds. HPAI spreads easily and fast between animals when they are kept closely together.
- Wash any equipment that comes in contact with birds and their waste or body fluids to reduce the spread of HPAI.
  - HPAI can live on surfaces, like tables or baskets, grass, or knives for hours and in the environment for days.
- Consult an animal health worker or health extension worker about any bird that looks sick or any that you find dead to obtain treatment for sick birds and guidance on how to properly dispose of dead birds and protect your other birds from getting sick.
- Tell an animal health worker or health extension worker if you see more than 10 birds get sick or die within a week's time. This can be a sign of an outbreak.
- Be watchful and immediately report to the next higher level when HPAI or a related sickness is suspected in a bird in your area.

- Ensure continuous and targeted surveillance around wetlands and other areas commonly used by wild migratory birds. Migratory birds can potentially introduce HPAI to Ethiopia.
- If a person gets sick or dies after contact with a bird, do not touch the person, their body fluids, or any items they or their body fluids have touched.
  - Touching them can spread sickness to other people.
- If a person gets sick or dies after contact with a bird, go to your nearest health center or community health worker.
- Telling a human or animal health worker about any sickness or death after contact with a bird can help authorities identify the cause of the sickness or death and provide support to prevent additional cases.

## Dispose Of Dead Birds Safely

- To avoid spreading disease to chickens and other birds, burn or deeply bury dead birds far from where water is collected and where household activities take place.
- Do not dispose of dead chickens and other birds in an open field. HPAI could spread to other birds.
- Burn or deeply bury contaminated bedding, manure, and other waste with the dead bird because they can spread HPAI to other birds and to humans.
- To dispose of a dead bird safely, do not touch the body or body fluids of the bird with your bare hands.
  - Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.
  - Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible.
    - Choose a burial location that is far from water sources, such as wells, rivers, and lakes and is not used by animals. If you must move the body, take care to prevent spreading HPAI around the area.
    - Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.
  - Then immediately wash your hands and arms with soap and water.
- Always wash your hands and arms with soap and water immediately after any contact with a bird, even if it looks healthy, because the signs and symptoms of HPAI are not always apparent.

## Slaughter A Chicken Or Bird Safely

- Always wash your hands and arms with soap and water before and immediately after killing or butchering a bird, even if it looks healthy, because the signs and symptoms of HPAI are not always apparent.
- Wash any tools you use to kill or butcher a bird with soap and water or disinfectant before and after their use.
- Cover your skin, eyes, nose, and mouth when killing or butchering a bird, even if the bird looks healthy.
  - If rubber gloves are available, wear them to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves are used, wash the gloves well with soap and water after killing or butchering a bird, while they are still on your hands.
  - Wash any tools used to kill or butcher a bird with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.

## Keep Your Home and Living Area Clean

- Keep chickens and other birds out of your house.
  - Close contact with chickens, ducks, and geese and their waste, mucus, or saliva can make it easier for HPAI to spread from our birds to us and our families.
- If you must bring birds indoors, keep them away from where the family sleeps and eats.
  - Sleeping with or eating near birds can allow sickness to easily spread from them to us and to our families.
- Keep birds brought indoors in a bag, basket, or covered cage, so they cannot roam freely.
- Regularly clean bird house/cage and birds' feeding place.
- Clean and sweep the house every day that chickens or other birds have been inside.
  - Close contact with them and their body fluids such as waste, snot, or spit can make it easier for HPAI to spread from birds with the sickness to us and to our families.
- When sweeping your house after chickens, ducks, or geese have been in the house, always make sure to:
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - Wet the floor with water before sweeping to prevent dust from rising.
  - Clear away dirt in and around the house and dispose of it far from the house.
  - Remove the glasses and mask or cloth from your face and wash them immediately with soap and water.
- Always wash your hands and arms with soap and water immediately after cleaning or sweeping an area where birds have been.
- Regularly wash the floors, mats, and walls; clothes and blankets; and all food and water covers and containers to remove any bird waste, mucus, or saliva.
- Keep food and water in covered containers that birds cannot enter and away from where people sleep. This helps to avoid close contact with birds and stops birds and other animals from eating and drinking your food and water.

## **Always Wash Your Hands After Any Contact With Birds**

- We use our hands for many things, and sickness can easily spread when we touch something that carries a disease organism and then touch our eyes, nose, mouth, another animal or person, food, and other things.
- Washing our hands with soap and water throughout the day is one of the best ways to keep healthy and help stop the spread of sickness. It is very important to wash your hands:
  - Before and after touching chickens or other birds
  - After cleaning bird houses/cages
  - Before and after collecting eggs
  - Before and after preparing food
  - Before and after slaughtering
  - Before eating
- Always wash your hands with soap and water immediately after touching any bird, even if it looks healthy. The signs and symptoms of HPAI are not always apparent.

## **Seek Early Treatment For Any Signs And Symptoms Of HPAI**

- When you recognize that chicken or other bird is sick, immediately isolate it from healthy chickens/birds and contact the animal health workers in the nearby animal clinic.
- If you have any of the signs and symptoms of HPAI, go to your nearest health center or other health facility right away.
  - Getting early treatment for HPAI can save lives.
  - Getting early treatment can also protect your family and others from getting HPAI.
  - When someone gets early care and treatment, they have a better chance of recovering quickly and with fewer problems.
- If you have signs and symptoms of HPAI, make sure to tell your health worker if you have had recent contact with any birds or spent time in an area where birds live, visit, or are kept.
- If a person gets sick or dies after contact with a bird, do not touch the person, their body fluids, or any items they or their body fluids have touched. Touching them can spread sickness to other people.
- If a person gets sick or dies after contact with a bird, go to your nearest health center or community health worker.
- Telling a human or animal health worker about any sickness or death after contact with a bird can help authorities identify the cause of the sickness or death and provide support to prevent additional cases.

## Table of Priority Audiences for Addressing risk behaviors for HPAI

Risk Behaviors	Communication Related Root Causes	Priority Audiences	Core Messages
Lack of awareness on avian influenza	Lack of knowledge on transmission and prevention HPAI	<ul style="list-style-type: none"> <li>• Poultry farmers</li> <li>• Individuals, and families</li> <li>• Poultry slaughters</li> <li>• People who prepare poultry for food</li> </ul>	<ul style="list-style-type: none"> <li>- HPAI is a sickness that affects all birds, including chickens, ducks, geese, turkeys, quail, and wild birds. HPAI can cause death as quickly as two days after signs and symptoms appear. Signs and symptoms of HPAI include: <ul style="list-style-type: none"> <li>• Sudden death of many birds</li> <li>• Watery diarrhea</li> <li>• Trouble balancing, uneven walking, or sitting with head down</li> <li>• Significant drop in egg production</li> <li>• Lack of energy and appetite</li> <li>• Purple discoloration/cyanosis of the wattles, combs, and legs</li> <li>• Ruffled feathers</li> </ul> </li> <li>- HPAI can also make people very sick. Any person who comes into close contact with sick or dead birds may be at risk of contracting HPAI.</li> <li>- The length of time from when HPAI or HPAI enters a person's body to when the person starts to show signs and symptoms of HPAI ranges from 1 to 17 days.</li> <li>- Signs and symptoms of HPAI in humans include: <ul style="list-style-type: none"> <li>• Fever</li> <li>• Cough or sore throat</li> <li>• Difficulty breathing</li> <li>• Tiredness</li> <li>• Eye redness</li> <li>• Muscle aches</li> <li>• Abdominal pain, chest pain</li> <li>• Nausea, vomiting, diarrhea</li> <li>• Seizures/shaking.</li> </ul> </li> </ul>



			<ul style="list-style-type: none"> <li>- When possible, avoid birds that look sick and those that you find dead. <ul style="list-style-type: none"> <li>• HPAI spreads through direct or indirect contact with infected birds.</li> <li>• Do not touch the body or body fluids of a chicken or other bird that looks sick or that you find dead.</li> <li>• Sick or dead birds can spread the disease to us through their body fluids like snot, spit, and waste.</li> </ul> </li> <li>- Chickens and other birds are an important food source, but to stay healthy, never eat, sell, or give away any chicken or bird that looks sick. <ul style="list-style-type: none"> <li>• Do not bring sick chickens or other birds to market because they can easily spread the sickness to many others.</li> </ul> </li> <li>- When you recognize that a bird is sick, immediately isolate it from healthy birds and consult the animal health workers in the nearby animal clinic.</li> <li>- Wash any equipment that comes in contact with birds and their waste or body fluids to reduce the spread of HPAI. <ul style="list-style-type: none"> <li>• HPAI can live on surfaces, like tables or baskets, grass, or knives for hours and in the environment for days.</li> </ul> </li> <li>- Consult an animal health worker or health extension worker about any bird that looks sick or any that you find dead to obtain treatment for sick birds and guidance on how to properly dispose of dead birds and protect your other birds from getting sick.</li> <li>- Tell an animal health worker, health extension worker if you see more than 10 birds get sick or die within a week's time. This can be a sign of an outbreak.</li> <li>- If a person gets sick or dies after contact with a bird, do not touch the person, their body fluids, or any items they or their body fluids have touched. <ul style="list-style-type: none"> <li>• Touching them can spread sickness to other people.</li> </ul> </li> <li>- If a person gets sick or dies after contact with a bird, go to your nearest health center or community health worker.</li> <li>- Telling a human or animal health worker about any sickness or death after contact with a bird can help authorities identify the cause of the sickness or death and provide support to prevent additional cases.</li> <li>- Keep chickens and other birds out of your house. <ul style="list-style-type: none"> <li>• Close contact with chickens, ducks, and geese and their waste, mucus, or saliva can make it easier for HPAI to spread from our birds to us and our families.</li> </ul> </li> <li>- If you must bring birds indoors, keep them away from where the family sleeps and eats. <ul style="list-style-type: none"> <li>• Sleeping with or eating near birds can allow sickness to easily spread from them to us and to our families.</li> </ul> </li> </ul>
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			<ul style="list-style-type: none"> <li>- Keep birds brought indoors in a bag, basket, or covered cage, so they cannot roam freely.</li> <li>- Regularly clean bird house/cage and birds' feeding place.</li> <li>- Clean and sweep the house every day that chickens or other birds have been inside. <ul style="list-style-type: none"> <li>• Close contact with them and their body fluids such as waste, snot, or spit can make it easier for HPAI to spread from birds with the sickness to us and to our families.</li> </ul> </li> <li>- When sweeping your house after chickens, ducks, or geese have been in the house, always make sure to: <ul style="list-style-type: none"> <li>• Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• Wet the floor with water before sweeping to prevent dust from rising.</li> <li>• Clear away dirt in and around the house and dispose of it far from the house.</li> <li>• Remove the glasses and mask or cloth from your face and wash them immediately with soap and water.</li> </ul> </li> <li>- Always wash your hands and arms with soap and water immediately after cleaning or sweeping an area where birds have been.</li> <li>- Regularly wash the floors, mats, and walls; clothes and blankets; and all food and water covers and containers to remove any bird waste, mucus, or saliva.</li> <li>- Keep food and water in covered containers that birds cannot enter and away from where people sleep. This helps to avoid close contact with birds and stops birds and other animals from eating and drinking your food and water.</li> <li>- We use our hands for many things, and sickness can easily spread when we touch something that carries a disease organism and then touch our eyes, nose, mouth, another animal or person, food, and other things.</li> <li>- Washing our hands with soap and water throughout the day is one of the best ways to keep healthy and help stop the spread of sickness. It is very important to wash your hands: <ul style="list-style-type: none"> <li>• Before and after touching chickens or other birds</li> <li>• After cleaning bird houses/cages</li> <li>• Before and after collecting eggs</li> <li>• Before and after preparing food</li> <li>• Before and after slaughtering</li> <li>• Before eating</li> </ul> </li> </ul>
			<ul style="list-style-type: none"> <li>- Always wash your hands with soap and water immediately after touching any bird, even if it looks healthy. <ul style="list-style-type: none"> <li>• The signs and symptoms of HPAI are not always apparent.</li> </ul> </li> <li>- When you recognize that chicken or other bird is sick, immediately isolate it from healthy chickens/birds and contact the animal health workers in the nearby animal clinic.</li> <li>- If you have any of the signs and symptoms of HPAI, go to your nearest health center or other health facility right away. <ul style="list-style-type: none"> <li>• Getting early treatment for HPAI can save lives.</li> <li>• Getting early treatment can also protect your family and others from getting HPAI.</li> <li>• When someone gets early care and treatment, they have a better chance of recovering quickly and with fewer problems.c</li> </ul> </li> </ul>

			<ul style="list-style-type: none"> <li>- Always wash your hands and arms with soap and water before and immediately after killing or butchering a bird, even if it looks healthy, because the signs and symptoms of HPAI are not always apparent.</li> <li>- Wash any tools you use to kill or butcher a bird with soap and water or disinfectant before and after their use.</li> <li>- Cover your skin, eyes, nose, and mouth when killing or butchering a bird, even if the bird looks healthy. <ul style="list-style-type: none"> <li>• If rubber gloves are available, wear them to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves are used, wash the gloves well with soap and water after killing or butchering a bird, while they are still on your hands.</li> <li>• Wash any tools used to kill or butcher a bird with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- If you have signs and symptoms of HPAI, make sure to tell your health worker if you have had recent contact with any birds or spent time in an area where birds live, visit, or are kept.</li> <li>- If a person gets sick or dies after contact with a bird, do not touch the person, their body fluids, or any items they or their body fluids have touched. Touching them can spread sickness to other people.</li> <li>- If a person gets sick or dies after contact with a bird, go to your nearest health center or community health worker.</li> <li>- Telling a human or animal health worker about any sickness or death after contact with a bird can help authorities identify the cause of the sickness or death and provide support to prevent additional cases.</li> </ul>
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<p>Low biosecurity and biosafety measures</p>	<p>Professionals with limited knowledge disposal of dead chickens and other birds</p>	<ul style="list-style-type: none"> <li>• Frontline animal health experts</li> <li>• Public health experts</li> <li>• Wildlife experts</li> </ul>	<ul style="list-style-type: none"> <li>- To avoid spreading disease to chickens and other birds, burn or deeply bury dead birds far from where water is collected and where household activities take place.</li> <li>- Do not dispose of dead chickens and other birds in an open field. HPAI could spread to other birds.</li> <li>- Burn or deeply bury contaminated bedding, manure, and other waste with the dead bird because they can spread HPAI to other birds and to humans.</li> <li>- To dispose of a dead bird safely, do not touch the body or body fluids of the bird with your bare hands. <ul style="list-style-type: none"> <li>• Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.</li> <li>• Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible. <ul style="list-style-type: none"> <li>• Choose a burial location that is far from water sources, such as wells, rivers, and lakes and is not used by animals. If you must move the body, take care to prevent spreading HPAI around the area.</li> <li>• Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.</li> </ul> </li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>• This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.</li> <li>• Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Always wash your hands and arms with soap and water immediately after any contact with a bird, even if it looks healthy, because the signs and symptoms of HPAI are not always apparent.</li> <li>- Be watchful and immediately report to the next higher level when HPAI or a related sickness is suspected in a bird in your area.</li> <li>- Ensure continuous and targeted surveillance around wetlands and other areas commonly used by wild migratory birds. Migratory birds can potentially introduce HPAI to Ethiopia.</li> </ul>
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# RABIES

Rabies is a preventable viral disease of warm-blooded animals that is most often transmitted through the bite of an infected animal. The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The rabies virus is transmitted through contact of open wound or mucous membrane with saliva or brain/nervous system tissue from a rabid animal. Animals that are common sources of rabies are dogs, cats, hyena, bats, monkeys, and donkeys.

Among these sources, dogs are the most likely to transmit rabies to humans. More than 55,000 people, mostly in Africa and Asia, die from rabies every year—a rate of one person every 10 minutes, with children often being at the highest risk. In Ethiopia, 2,700 deaths are estimated to occur each year because of rabies. The country has a high population of dogs with an estimate of 225,078 in Addis Ababa alone. Rabies is also a reportable disease for both the animal and human health sectors.

## ***Priority Risk Behaviors for Rabies Health Communication***

After an extensive analysis of rabies-related problems and root causes, an interdisciplinary team of rabies experts prioritized the following health issues:

- Low rate of dog vaccinations
- High number of stray dogs
- Delay in care seeking

## ***Barriers***

- Information gaps on animal vaccine availability and its benefits
- Low community perception of risks associated with stray dogs
- Lack of knowledge on the transmission and symptoms of rabies

## **Signs of Rabies in Animals**

- When an animal is infected with rabies, several months may pass before signs appear, but it usually take 3 to 8 weeks. Once an animal begins to show the signs and symptoms of rabies, it will die within one to seven days. The signs and symptoms of rabies in animals include:
  - Acting mad/crazy, anxious
  - Trying to bite other animals or people, while showing no fear
  - Having a lot of saliva or foaming at the corners of the mouth
  - Sounding different than it normally would
  - Having difficulty eating or swallowing
  - Have difficulty moving (tired or lethargic) or unable to move (paralysis)
  - Difficulty walking in a straight line
  - Hypersensitive to light or sound

## Signs and Symptoms of Rabies in Humans

- The length of time from when rabies enters a person's body to when they start to show signs and symptoms of the disease ranges from a few days to as long as one year.
  - The length of time is different depending on the site of bite (the closer to the brain/head, the shorter the time). Rabies is a reportable disease in both animal and human health sectors.
- Once the signs and symptoms of rabies begin to show, it is too late for treatment.
  - A person with rabies usually dies within a few days after the signs and symptoms appear.
  - Consequently, it is critical to immediately go to your nearest health center or health worker after an animal bite for guidance.
- In addition to fever and headache, the signs and symptoms of rabies in people include:
  - Experiencing pain or an unusual tingling feeling around the bite
  - Being unusually active
  - Acting angry, easily annoyed, or depressed
  - Exhibiting nervousness, confusion, or both
  - Seeing things that are not really there
  - Demonstrating fear of water
  - Feeling disturbed by air or light
  - Being unable to move parts of the body

# CORE MESSAGES FOR RABIES

## How Rabies Is Spread

- Rabies is spread when the saliva of an animal with rabies enters an open wound, usually when the animal bites or scratches another animal or person.
- Rabies can also enter a person's body through the mouth or nose or through small cuts or openings in the skin. This can happen when an animal with rabies licks a person's face or skin, but it is not common.
- Any animal that has hair can get and spread rabies, including dogs, cats, monkeys, donkeys, cows, and bats.
- There is no evidence to show that rabies spreads from person to person, but to be safe avoid kissing or sharing spit with any person that may have rabies.

## Protecting Ourselves And Our Animals From Rabies

- Rabies prevention vaccine (anti rabies vaccine) stops your dog from getting rabies and is available at private animal drug shops or from door-to-door dog vaccinators and veterinarians.
- Giving rabies vaccine to your dog keeps them from getting rabies and protects you, your family, and other animals from getting rabies from them.
- Vaccinate your dogs every year to protect them and your family from rabies.
  - Remember to check the certificate/license of vaccinators to ensure they are legitimate.
- If your animals are not vaccinated and are bitten or scratched by another animal, tell your animal health extension worker.
- Keep your dogs in your yard or a closed area.
  - Dogs that roam freely are more likely to come in contact with rabies from other infected animals and can then spread the sicknesses to other animals and to people.
- Spay or neuter your dogs to reduce unwanted breeding of dogs and the risk of rabies.
- Do not let your pet or any animal lick your face or any breaks in the skins such as cuts, scratches, or sores.
  - Rabies is spread through the saliva of an animal, and the signs of sickness are not always apparent.
- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because the signs and symptoms of sickness are not always apparent.

## Avoid Animal Bites And Alert Animal Health Workers Of Strange Behavior

- If an animal shows signs and symptoms of rabies or is acting strangely, avoid it and immediately call an animal health extension worker or health worker in your community for advice and guidance on what to do next.
- If you find any bites on your animals or they are exhibiting strange behavior, separate them from other animals and people and call an animal health extension worker.
- Avoid dogs and other animals that are acting strangely.

- Do not touch or come close to stray dogs and animals that you do not know, even if they look friendly.
- Leave dogs and other animals alone when they are sleeping, eating, or with their young and avoid dogs that are behind fences or tied up.
  - Dogs and other animals may bite for many reasons. For example, they might bite because they feel afraid or are trying to protect something that is theirs, such as their home, their owner, their young, or their food.
- If you see a dog that is suspected to have rabies or is showing symptoms of the disease, immediately tell an animal health worker before it infects other dogs or people.
- Let your family and neighbors know if you see any unusual behavior in dogs, so that they can take care.
- Any animal that has bitten someone or another animal should be examined by an animal health professional and kept away from other animals and people for 10 days while it is observed for signs and symptoms of rabies.
- If it does not show signs of rabies after 10 days, post exposure vaccine (for people) can be discontinued.

## **Care For Any Animal Bite Immediately**

- Immediately wash any animal bite or scratch with soap and running water 20 times (for at least 15 minutes).
- Washing a bite or scratch well with soap and water can help stop sickness spreading from an animal to a person.
- After thoroughly washing a bite or scratch, go to the nearest health center or community health worker for advice and treatment.
- If any animal bites or scratches you or gets its spit on you, go to the health center immediately and tell the health worker.
  - Do not wait to see if you get signs or symptoms. Early treatment saves lives.
- To stop progress of rabies after exposure, you must get treatment before signs and symptoms begin to show.
  - A person showing signs and symptoms of rabies will not survive.
- Tell the health worker, about the animal that bit or scratched you and how you were bitten or scratched.
  - This information can help health workers learn more about the animal and help them protect other people.

## **Dispose Of Dead Animals Safely**

- Do not touch the body of an animal that looks sick or that you find dead.
  - Dead animals can spread disease to us if we touch them or their body fluids with our bare hands.
- If a dog or other animal dies after showing signs and symptoms of rabies, avoid the dead body and call an animal health worker to submit it for testing and for help to safely dispose of it.
- If an animal health worker does not respond in one day to advise on how to dispose of a dead animal safely, dispose of it very carefully.



- Even if the animal looks healthy, take care because the signs and symptoms of sickness are not always apparent.
- To safely dispose of a dog or other animal that is found dead, carefully burn or deeply bury it far from where water is collected and where household activities take place.
  - Avoid burying the dead body in wet areas, shallow bedrock areas, or near any water source such as wells, rivers, or lakes
- To dispose of a dead animal safely, do not touch the body or body fluids of the animal with your bare hands.
  - Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.
  - Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible.
    - Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.
  - Then immediately wash your hands and arms with soap and water.
- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because the signs and symptoms of sickness are not always apparent.

**Table of Priority Audiences for Addressing risk behaviors for Rabies**

Risk Behaviors	Communication Related Root Causes	Priority Audiences	Core Messages
High Number of Stray Dogs	Low community perception of risks associated with stray dogs	<ul style="list-style-type: none"> <li>• Individuals, families, and communities</li> </ul>	<ul style="list-style-type: none"> <li>- Any animal that has hair can get and spread rabies, including dogs, cats, monkeys, donkeys, cows, and bats.</li> <li>- Do not touch or come close to stray dogs and animals that you do not know, even if they look friendly.</li> <li>- Avoid dogs and other animals that are acting strangely.</li> <li>- Keep your dogs in your yard or a closed area.               <ul style="list-style-type: none"> <li>• Dogs that roam freely are more likely to come in contact with rabies from other animals and can then spread the sicknesses to other animals and to people.</li> </ul> </li> <li>- If your animals are not vaccinated and are bitten or scratched by another animal, tell your animal health extension worker.</li> <li>- Spay or neuter your dogs to reduce unwanted breeding of dogs and the risk of rabies.</li> </ul>
Low Rate of Dog Vaccination	Information gaps on vaccine availability and its benefits	<ul style="list-style-type: none"> <li>• Dog owners</li> <li>• Social networks</li> </ul>	<ul style="list-style-type: none"> <li>- Rabies prevention vaccine stops your dog from getting rabies and is available at private animal drug shops or from door-to-door dog vaccinators and veterinarians.</li> <li>- Giving rabies vaccine to your dog keeps them from getting rabies and also protects you, your family, and other animals from getting rabies from them.</li> <li>- Vaccinate your dogs every year to protect them and your family from rabies.               <ul style="list-style-type: none"> <li>• Remember to check the certificate/license of vaccinators to ensure they are legitimate.</li> </ul> </li> <li>- If your animals are not vaccinated and are bitten or scratched by another animal, tell your animal health extension worker.</li> </ul>

	<p>Knowledge gaps on the transmission, signs and prevention of rabies</p>	<ul style="list-style-type: none"> <li>- Parents</li> <li>- Community leaders</li> <li>- Religious organizations</li> <li>- Community-based organizations</li> <li>- Traditional healers</li> <li>- School children</li> </ul>	<ul style="list-style-type: none"> <li>- When an animal is infected with rabies, several months may pass before signs and symptoms appear. <ul style="list-style-type: none"> <li>• Once an animal begins to show the signs and symptoms of rabies, it will die within one to seven days.</li> </ul> </li> <li>- The signs and symptoms of rabies in animals include: <ul style="list-style-type: none"> <li>• Acting mad/crazy</li> <li>• Trying to bite other animals or people, while showing no fear</li> <li>• Having a lot of saliva or foaming at the corners of the mouth</li> <li>• Sounding different than it normally would</li> <li>• Having difficulty eating or swallowing</li> <li>• Have difficulty moving (tired or lethargic) or unable to move (paralysis)</li> <li>• Difficulty walking in a straight line</li> </ul> </li> <li>- The length of time from when rabies enters a person's body to when they start to show signs and symptoms of the disease ranges from a few days to as long as one year. <ul style="list-style-type: none"> <li>• The length of time is different depending on the site of bite (the closer to the brain/head, the shorter the time).</li> <li>• Rabies is a reportable disease in both animal and human health sectors.</li> </ul> </li> <li>- Once the signs and symptoms of rabies begin to show, it is too late for treatment. <ul style="list-style-type: none"> <li>• A person with rabies usually dies within a few days after the signs and symptoms appear.</li> <li>• Consequently, it is critical to immediately go to your nearest health center or health worker after an animal bite for guidance.</li> </ul> </li> <li>- In addition to fever and headache, the signs and symptoms of rabies in people include: <ul style="list-style-type: none"> <li>• Experiencing pain or an unusual tingling feeling around the bite</li> <li>• Being unusually active</li> <li>• Acting angry, easily annoyed, or depressed</li> <li>• Exhibiting nervousness, confusion, or both</li> <li>• Seeing things that are not really there</li> <li>• Demonstrating fear of water</li> <li>• Feeling disturbed by air or light</li> <li>• Being unable to move parts of the body</li> </ul> </li> <li>- Rabies is spread when the saliva of an animal with rabies enters an open wound, usually when the animal bites or scratches another animal or person.</li> <li>- Rabies can also enter a person's body through the mouth or nose or through small cuts or openings in the skin. <ul style="list-style-type: none"> <li>• This can happen when an animal with rabies licks a person's face or skin, but it is not common.</li> </ul> </li> <li>- Any animal that has hair can get and spread rabies, including dogs, cats, monkeys, donkeys, cows, and bats.</li> <li>- There is no evidence to show that rabies spreads from person to person, but to be safe avoid kissing or sharing spit with any person that may have rabies.</li> <li>- Rabies prevention vaccine stops your dog from getting rabies and is available at private animal drug shops or from door-to-door dog vaccinators and veterinarians.</li> <li>- Giving rabies vaccine to your dog keeps them from getting rabies and also protects you, your family, and other animals from getting rabies from them.</li> </ul>
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			<ul style="list-style-type: none"> <li>- Vaccinate your dogs every year to protect them and your family from rabies. <ul style="list-style-type: none"> <li>• Remember to check the certificate/license of vaccinators to ensure they are legitimate.</li> </ul> </li> <li>- If your animals are not vaccinated and are bitten or scratched by another animal, tell your animal health extension worker.</li> <li>- Keep your dogs in your yard or a closed area. <ul style="list-style-type: none"> <li>• Dogs that roam freely are more likely to come in contact with rabies from other infected animals and can then spread the sicknesses to other animals and to people.</li> </ul> </li> <li>- Spay or neuter your dogs to reduce unwanted breeding of dogs and the risk of rabies.</li> <li>- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because the signs and symptoms of sickness are not always apparent.</li> <li>- If an animal shows signs and symptoms of rabies or is acting strangely, avoid it and immediately call an animal health extension worker or health worker in your community for advice and guidance on what to do next.</li> <li>- If you find any bites on your animals or they are exhibiting strange behavior, separate them from other animals and people and call an animal health extension worker.</li> <li>- Avoid dogs and other animals that are acting strangely.</li> <li>- Do not touch or come close to stray dogs and animals that you do not know, even if they look friendly.</li> <li>- Leave dogs and other animals alone when they are sleeping, eating, or with their young and <b>avoid dogs that are behind fences or tied up.</b> <ul style="list-style-type: none"> <li>• Dogs and other animals may bite for many reasons. For example, they might bite because they feel afraid or are trying to protect something that is theirs, such as their home, their owner, their young, or their food.</li> </ul> </li> <li>- If you see a dog that is suspected to have rabies or is showing symptoms of the disease, immediately tell an animal health worker before it infects other dogs or people.</li> <li>- Let your family and neighbors know if you see any unusual behavior in dogs, so that they can take care.</li> <li>- Any animal that has bitten someone or another animal should be examined by an animal health professional and kept away from other animals and people for 10 days while it is observed for signs and symptoms of rabies. <ul style="list-style-type: none"> <li>• If it does not show signs and symptoms of rabies after 10 days, post exposure vaccine (for people) can be discontinued.</li> </ul> </li> <li>- Immediately wash any animal bite or scratch with soap and running water 20 times (for at least 15 minutes).</li> <li>- Washing a bite or scratch well with soap and water can help stop sickness spreading from an animal to a person.</li> <li>- After thoroughly washing a bite or scratch, go to the nearest health center or community health worker for advice and treatment.</li> <li>- If any animal bites or scratches you or gets its spit on you, go to the health center immediately and tell the health worker. <ul style="list-style-type: none"> <li>• Do not wait to see if you get signs or symptoms. Early treatment saves lives.</li> </ul> </li> <li>- To stop rabies, you must get treatment before signs and symptoms begin to show. <ul style="list-style-type: none"> <li>• A person showing signs and symptoms of rabies will not survive.</li> </ul> </li> <li>- Tell the health worker, about the animal that bit or scratched you and how you were bitten or scratched. <ul style="list-style-type: none"> <li>• This information can help health workers learn more about the animal and help them protect other people.</li> </ul> </li> </ul>
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		<ul style="list-style-type: none"> <li>- Health extension workers</li> <li>- Animal health extension workers</li> <li>- Development armies</li> <li>- Traditional healers</li> </ul>	<ul style="list-style-type: none"> <li>- Any animal that has bitten someone or another animal should be examined by an animal health professional and kept away from other animals and people for 10 days while it is observed for signs and symptoms of rabies. <ul style="list-style-type: none"> <li>• If it does not show signs and symptoms of rabies after 10 days, post exposure vaccine (for people) can be discontinued.</li> </ul> </li> <li>- If a dog or other animal dies after showing signs and symptoms of rabies, avoid the body and call an animal health worker to submit it for testing and for help to safely dispose of it.</li> <li>- If an animal health worker does not respond in one day to advise on how to dispose of a dead animal safely, dispose of it very carefully. Even if the animal looks healthy, take care because the signs and symptoms of sickness are not always apparent.</li> <li>- To safely dispose of a dog or other animal that is found dead, carefully burn or deeply bury it far from where water is collected and where household activities take place. <ul style="list-style-type: none"> <li>• Avoid burying the dead body in wet areas, shallow bedrock areas, or near any water source, such as wells, rivers or lakes.</li> </ul> </li> <li>- To dispose of a dead animal safely, do not touch the body or body fluids of the animal with bare hands. <ul style="list-style-type: none"> <li>• Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.</li> <li>• Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible. <ul style="list-style-type: none"> <li>• Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.</li> </ul> </li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>• This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.</li> <li>• Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because the signs and symptoms of sickness are not always apparent.</li> <li>- Never dig up a dead animal that has been buried.</li> </ul>
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# RIFT VALLEY FEVER - VIRAL HEMORRHAGIC FEVER

Rift Valley Fever (RVF) is an acute, fever-causing viral disease most commonly observed in domesticated animals (such as cattle, buffalo, sheep, goats, and camels). RVF is most commonly transmitted by biting flies, including mosquitoes. RVF is a disease of animals that can also make people sick.<sup>10</sup>

RVF causes fever and abortion in pregnant domesticated animals as well as high mortality among new born animals.<sup>11</sup> High rates of death and abortion in domesticated animals can lead to significant economic losses for those that depend on them for their livelihood.

In people, the disease ranges from a mild flu-like disease to severe haemorrhagic fever that can be deadly. The majority of human infections result from direct or indirect contact with the faeces, body fluids, or organs of infected animals. The virus can be transmitted to people through the handling of animal tissue during slaughtering; assisting with animal births; conducting veterinary procedures; or from the disposal of carcasses or fetuses. The virus infects people when it enters the body through a wound from an infected knife or through contact with broken skin. It may also enter the body when a person breathes in the small droplets produced during the slaughter of infected animals.

There is some evidence that people may also 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 in the *Aedes* and *Culex* mosquitoes, as well as from the bites of hematophagous (blood feeding) flies.<sup>12</sup> RVF can be spread between animals and between people through the bite of a mosquito.

Certain occupational groups such as herdsman, farmers, slaughterhouse workers and veterinarians are therefore at higher risk of infection. There is no evidence to date that RVF is passed from person to person.

A number of questions and challenges remain in the control and prevention of RVF. No human vaccines are currently available. Different types of vaccines for veterinary use are available.<sup>13</sup>

## **Priority Risk Behaviors for RVF**

After an extensive review of documents and analysis of RVF related problems and root causes, an interdisciplinary team of RVF experts prioritized the following health issues:

- Unsafe contact with meat and other body products of sick/dead animals
- Unsafe disposal of dead animals
- Poor or delayed health care seeking

## **Barriers**

- Lack of knowledge about how RVF spreads
- Lack of knowledge of signs and symptoms of RVF
- Lack of knowledge on how to protect against RVF
- Lack of knowledge on safety and proper disposal of dead animal body
- Delay in early care seeking

10 Centers for Disease Control and Prevention, Rift Valley Fever (RVF), 2016, <https://www.cdc.gov/vhf/rvf/index.html>, (accessed 15 December 2019).

11 World Organisation for Animal Health, Rift Valley Fever (RVF), 2020, <https://www.oie.int/en/animal-health-in-the-world/animal-diseases/Rift-Valley-fever/>, (accessed March 4, 2020)

12 World Health Organization, Rift Valley Fever, 2019, <https://www.who.int/emergencies/diseases/rift-valley-fever/en/>, (accessed 15 December 2019).

13 Centers for Disease Control and Prevention, Rift Valley Fever (RVF), 2016, <https://www.cdc.gov/vhf/rvf/prevention/index.html>, (accessed 15 December 2019).

## SIGNS AND SYMPTOMS OF RIFT VALLEY FEVER IN ANIMALS

- Signs and symptoms of Rift Valley fever in animals include:
- Fever
  - Fluids leaking from the nose and eyes
  - Bloody diarrhea
  - Vomiting
  - Stomach pain
  - Yellowing of the skin and eyes
  - A large number of pregnant ewes, goats, or cattle losing their young before they are born
- Rift Valley fever harms sheep more than other animals and most newborn lambs that have the sickness will die.
- Young animals are more likely to die from Rift Valley fever than adult animals.

## Signs and Symptoms of Rift Valley Fever in People

- The length of time from when the Rift Valley fever enters a person's body to when the person starts to show signs and symptoms of Rift Valley fever ranges from two to six days.
  - The signs and symptoms of Rift Valley fever may show slowly, and some people with the sickness may not show any signs or symptoms.
- Signs and symptoms of Rift Valley fever in people include:
  - Fever
  - Feeling tired and weak
  - Generalized body pain
  - Sensitivity to light
  - Losing ability to see
  - Bleeding from the nose or mouth
  - Bloody feces/diarrhea or vomit
  - Seeing things that are not really there
  - Convulsions
- The signs and symptoms of Rift Valley fever when not too serious usually last for two to seven days.
- Many of the signs and symptoms of Rift Valley fever can be like those for malaria and typhoid, so it is important to go to a health facility for early testing and treatment for any fever.

# CORE MESSAGES FOR RIFT VALLEY FEVER

## How Rift Valley Fever is Spread

- Rift Valley fever can spread from an animal to a person through:
  - Touching the body parts or body fluids like blood, organs, faeces, urine or birthing fluids of an animal with Rift Valley fever when killing, or preparing and cooking its meat or when assisting it with birth or abortion.
  - Drinking uncooked animal products or raw milk from an animal that has Rift Valley fever.
  - A bite by an infected mosquito that has Rift Valley fever.
  - Breathing in the Rift Valley fever when killing or butchering an animal that has Rift Valley fever.
- Rift Valley fever enters a person's body through:
  - The mouth, nose, or eyes.
  - Small cuts or openings in the skin.
  - An insect bite.
  - Breathing it in.
- Rift Valley fever is not known to spread from person to person.

## Protecting Ourselves And Our Animals Against Rift Valley Fever

- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because we cannot always see the signs and symptoms of sickness.
- Rift Valley fever can spread from mosquito bites. Protect against mosquito bites by using personal insect repellent if available, by wearing light coloured, long-sleeved shirts and trousers, and covering collected water to reduce the number of mosquitos.
- Abortions in animals are a sign of Rift Valley fever and other diseases can indicate that an animal is sick and able to spread the disease to other animals and people.
  - Alert community health extension workers or animal health workers about any aborting animals in the community to help them track the number of abortions.
  - Tracking the number of abortions can help animal health workers take action to stop any outbreak before it causes big problems for people and their animals.
- Avoid selling or giving away an animal that is aborting or has the signs of Rift Valley Fever.
  - This can spread the disease to other animals and people.
- Avoid touching body fluids, such as the milk, blood, fetal fluids, placenta, and vaginal fluids, or the fetus of an aborting animal.
- Keep aborting animals and animals giving birth away from other animals and people until an animal health worker can advise you.
- Keep animals giving birth out of your house to reduce the risk that they will spread Rift Valley Fever to you and your family.
- Boil milk and dairy products from any animal.
  - Not all animals show signs and symptoms, so it is best to avoid all raw milk and dairy products made from raw milk.
  - Do not eat or drink dairy products from any animal that has aborted or has other signs of sickness.
- Dry food on a clean surface and on high ground away from where sheep, goats, cattle, and other animals can touch it or areas where animal wet or toilet has touched.



- Cook food well to help stop the spread of any sickness. Food should be hot to the touch all the way through.
  - Beef should be cooked until no pink is left.
  - Drink only cooked milk.
  - Bring foods like soups, and stews to boiling before eating.
  - Eat food while it is hot.
  - Reheat cooked food very hot.
- When possible, avoid animals that look sick and animals that you find dead.
- Do not touch with bare hands the body or body fluids, such as wet, toilet, blood, and spit, of an animal that looks sick or that you find dead.
  - Sick animals and animals we find dead can spread their sickness to us if we touch them or their body fluids.
- Animals are an important food source. To keep healthy, it is important to never prepare or eat, sell, or give away an animal that looks sick or that you find dead.
  - Sick animals and animals we find dead can spread their sickness to those who touch them.
- If one or more of your animals get sick or dies, separate the sick or dead animals from the healthy ones to stop the spread of sickness.
  - Tell an animal health worker, community health worker, environmental officer, religious leader, or your supervisor.
  - Telling an animal health worker, community health worker, environmental officer, traditional healer, religious leader, or your chief about an animal that looks sick or that you find dead can help district authorities know about sicknesses before they become a problem for people.
- If you buy or get new animals, keep them separate from other animals for a period of three weeks while you watch the new animals for any signs and symptoms of sickness.
  - This way you can make sure they are not sick with Rift Valley fever or any other sickness and do not spread any sickness to other animals.
- If your animals do not sell at the market, keep them separate from other animals for a period of three weeks while you watch them for any signs and symptoms of sickness.
  - This way you can make sure, they encounter Rift Valley fever or any other sickness at the market that they might spread to other animals.

## Safely Assist an Aborting Animal

- Protect/separate an aborting animal to keep other animals away from the fluids and contact your animal health workers for advice.
- Avoid touching with your bare hands an aborted fetus or the fetal fluids, placenta, and vaginal and birthing fluids of an animal giving birth, even if it looks healthy.
  - If they are available, wear rubber gloves or plastic bags to protect your hands.
  - Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
- Wash any tools used with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
- Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
- Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.
- Fence the area where the aborted fetus is for a few days and keep other animals away.

## Dispose of Dead Animals Safely

- To dispose of a dead animal safely, carefully burn or deeply bury the dead animal far from where water is collected and where household activities take place.
- Burning a dead animal is best in areas with plenty people and where space is too small for safely bury the dead animal.
- To dispose of a dead animal safely, do not touch with bare hands the body or body fluids of the animal.
  - Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.
  - If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.
  - Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible.
    - Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.
  - If plastic bags or gloves are used, wash them with soap and water while they are still on your hands.
    - This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.
  - Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.
  - Then immediately wash your hands and arms with soap and water.
- Always wash your hands and arms with soap and water immediately after disposal (burying or burning) of dead animal body
- Never dig up a dead animal that has been buried.

## Protect Yourself When Slaughtering an Animal

- Always wash your hands and arms with soap and water before and immediately after killing or butchering an animal, even if it looks healthy, because we cannot always see the signs and symptoms of sickness.
- Wash any tools you use to kill or butcher an animal with soap and water or disinfectant before and after their use. This helps keep sickness from spreading to you and others.
- Covering your skin, eyes, nose, and mouth when killing or butchering an animal, even if the animal looks healthy, can help stop any sickness the animal may have from entering your body.
  - If gloves are available, wear rubber gloves to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth so any sickness cannot enter.
  - If rubber gloves are used, after killing or butchering an animal, wash the gloves well with soap and water while they are still on your hands.
  - Wash any tools used to kill or butcher an animal with soap and water or disinfectant. Then wash your hands and arms, or gloves if using them, immediately with soap and water.
  - Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.
  - Wash the rubber gloves well once more with soap and water and dispose of safely. Then wash your hands and arms immediately with soap and water.

## Seek Early Treatment for Signs and Symptoms of Rift Valley Fever

- If you have any of the signs and symptoms of Rift Valley fever, go to your nearest health facility or community health worker right away.
  - Many of the signs and symptoms of Rift Valley fever are like those for malaria and typhoid, so it is important to go to a health facility for early testing and treatment for any fever.
  - When someone gets early care and treatment, he or she has a better chance at healing quickly and with fewer problems.
- If you have signs and symptoms of Rift Valley fever, make sure to tell your health worker if you have had recent contact with any animal or spent time in an area where animals live, visit, or are kept.
- If a person gets sick or dies after contact with an animal, go to your nearest health facility or community health worker.
- Telling a health worker about any sickness or death after contact with an animal can help district authorities find the reason for the sickness or death and can save the lives of others in Ethiopia.

**Table of Priority Audiences for Addressing risk behaviors for rift valley fever**

Risk Behaviors	Communication Related Root Causes	Priority Audiences	Core Messages
<p>Unsafe contact with meat and other body products of sick/ dead animals</p>	<p>Lack of knowledge about how RVF spreads</p>	<ul style="list-style-type: none"> <li>• Herders</li> </ul>	<ul style="list-style-type: none"> <li>- People most likely to get Rift Valley fever are people that work closely with animals such as herders, veterinarians, and people that kill or butcher animals</li> <li>- Rift Valley fever can spread from an animal to a person through:               <ul style="list-style-type: none"> <li>• Touching the body parts or body fluids like blood, organs, faeces, urine or birthing fluids of an animal with Rift Valley fever when killing, or preparing and cooking its meat or when assisting it with birth or abortion.</li> <li>• Drinking uncooked animal products or raw milk from an animal that has Rift Valley fever.</li> <li>• A bite by an infected mosquito that has Rift Valley fever.</li> <li>• Breathing in the Rift Valley fever when killing or butchering an animal that has Rift Valley fever.</li> </ul> </li> <li>- Rift Valley fever enters a person's body through:               <ul style="list-style-type: none"> <li>• The mouth, nose, or eyes.</li> <li>• Small cuts or openings in the skin.</li> <li>• An insect bite.</li> <li>• Breathing it in.</li> </ul> </li> <li>- Rift Valley fever is not known to spread from person to person.</li> </ul>

	Lack of knowledge of signs and symptoms of RVF	<ul style="list-style-type: none"> <li>• Herders and people that kill or butcher animals.</li> </ul>	<ul style="list-style-type: none"> <li>- Signs and symptoms of Rift Valley fever in animals include:</li> <li>- Fever <ul style="list-style-type: none"> <li>• Fluids leaking from the nose and eyes</li> <li>• Bloody diarrhea</li> <li>• Vomiting</li> <li>• Stomach pain</li> <li>• Yellowing of the skin and eyes</li> <li>• A large number of pregnant ewes, goats, or cattle losing their young before they are born</li> </ul> </li> <li>- Rift Valley fever harms sheep more than other animals and most newborn lambs that have the sickness will die.</li> <li>- Young animals are more likely to die from Rift Valley fever than adult animals.</li> <li>- The length of time from when the Rift Valley fever enters a person's body to when the person starts to show signs and symptoms of Rift Valley fever ranges from two to six days. <ul style="list-style-type: none"> <li>• The signs and symptoms of Rift Valley fever may show slowly, and some people with the sickness may not show any signs or symptoms.</li> </ul> </li> <li>- Signs and symptoms of Rift Valley fever in people include: <ul style="list-style-type: none"> <li>• Fever</li> <li>• Feeling tired and weak</li> <li>• Generalized body pain</li> <li>• Sensitivity to light</li> <li>• Losing ability to see</li> <li>• Bleeding from the nose or mouth</li> <li>• Bloody feces/diarrhea or vomit</li> <li>• Seeing things that are not really there</li> <li>• Convulsions</li> </ul> </li> <li>- The signs and symptoms of Rift Valley fever when not too serious usually last for two to seven days.</li> <li>- Many of the signs and symptoms of Rift Valley fever can be like those for malaria and typhoid, so it is important to go to a health facility for early testing and treatment for any fever.</li> </ul>
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	Lack of knowledge on how to protect against RVF	<ul style="list-style-type: none"> <li>• <b>Herders</b></li> </ul>	<ul style="list-style-type: none"> <li>- Always wash your hands and arms with soap and water immediately after any contact with an animal, even if it looks healthy, because we cannot always see the signs and symptoms of sickness.</li> <li>- Rift Valley fever can spread from mosquito bites. Protect against mosquito bites by using personal insect repellent if available, by wearing light coloured, long-sleeved shirts and trousers, and covering collected water to reduce the number of mosquitos.</li> <li>- Abortions in animals are a sign of Rift Valley fever and other diseases can indicate that an animal is sick and able to spread the disease to other animals and people. <ul style="list-style-type: none"> <li>• Alert community health extension workers or animal health workers about any aborting animals in the community to help them track the number of abortions.</li> <li>• Tracking the number of abortions can help animal health workers take action to stop any outbreak before it causes big problems for people and their animals.</li> </ul> </li> <li>- Avoid selling or giving away an animal that is aborting or has the signs of Rift Valley Fever. <ul style="list-style-type: none"> <li>• This can spread the disease to other animals and people.</li> </ul> </li> <li>- Avoid touching body fluids, such as the milk, blood, fetal fluids, placenta, and vaginal fluids, or the fetus of an aborting animal. <ul style="list-style-type: none"> <li>• If they are available, wear rubber gloves or plastic bags to protect your hands.</li> <li>• Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>- This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Wash any tools used with soap and water or disinfectant. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely. Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Keep aborting animals and animals giving birth away from other animals and people until an animal health worker can advise you.</li> <li>- Keep animals giving birth out of your house to reduce the risk that they will spread Rift Valley Fever to you and your family.</li> <li>- Boil milk and dairy products from any animal. <ul style="list-style-type: none"> <li>• Not all animals show signs and symptoms, so it is best to avoid all raw milk and dairy products made from raw milk.</li> <li>• Do not eat or drink dairy products from any animal that has aborted or has other signs of sickness.</li> </ul> </li> </ul>
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		people that kill or butcher animals	<ul style="list-style-type: none"> <li>- Always wash your hands and arms with soap and water before and immediately after killing or butchering an animal, even if it looks healthy, because we cannot always see the signs and symptoms of sickness.</li> <li>- Wash any tools you use to kill or butcher an animal with soap and water or disinfectant before and after their use. This helps keep sickness from spreading to you and others.</li> <li>- Covering your skin, eyes, nose, and mouth when killing or butchering an animal, even if the animal looks healthy, can help stop any sickness the animal may have from entering your body. <ul style="list-style-type: none"> <li>• If gloves are available, wear rubber gloves to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth so any sickness cannot enter.</li> <li>• If rubber gloves are used, after killing or butchering an animal, wash the gloves well with soap and water while they are still on your hands.</li> <li>• Wash any tools used to kill or butcher an animal with soap and water or disinfectant. Then wash your hands and arms, or gloves if using them, immediately with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves well once more with soap and water and dispose of safely. Then wash your hands and arms immediately with soap and water.</li> </ul> </li> </ul>
Unsafe disposal of dead animal body	Lack of knowledge on safety and proper disposal of dead animal body	<ul style="list-style-type: none"> <li>• Herders and people that kill or butcher animals.</li> <li>• veterinarians</li> </ul>	<ul style="list-style-type: none"> <li>- To dispose of a dead animal safely, do not touch with bare hands the body or body fluids of the animal. <ul style="list-style-type: none"> <li>• Wear rubber gloves or plastic bags to protect your hands. Cover your eyes with glasses and your nose and mouth with a mask or cloth.</li> <li>• If rubber gloves or plastic bags are not available, use banana leaves, cloth, or another item to cover the dead animal so you can avoid touching it with your bare hands.</li> <li>• Use a shovel, wheelbarrow, or other tools to move the dead animal to where you will burn or bury it. Avoid moving it at all, if possible. <ul style="list-style-type: none"> <li>• Burn to ash or deeply bury the dead animal in a pit that is at least four arm lengths deep (2 meters) and cover it with soil properly.</li> </ul> </li> <li>• If plastic bags or gloves are used, wash them with soap and water while they are still on your hands. <ul style="list-style-type: none"> <li>• This is very important. Removing dirty gloves or bags is a main way disease can spread, so it is important we wash them after each step before we finally take them off.</li> </ul> </li> <li>• Pour soapy water or disinfectant over the shovel, wheelbarrow, or other tools used to move the dead animal and place the tools in the sun to dry. Then immediately wash your hands and arms, or gloves/bags if using them, with soap and water.</li> <li>• Remove the glasses and mask or cloth from your face, wash them immediately with soap and water or disinfectant, and place them in the sun to dry.</li> <li>• Wash the rubber gloves/bags well once more with soap and water and dispose of them safely.</li> <li>• Then immediately wash your hands and arms with soap and water.</li> </ul> </li> <li>- Always wash your hands and arms with soap and water immediately after disposal (burying or burning) of dead animal body</li> <li>- Never dig up a dead animal that has been buried.</li> </ul>



Poor health care seeking	Lack of early care seeking	<ul style="list-style-type: none"> <li>• Herders</li> </ul>	<ul style="list-style-type: none"> <li>- If one or more of your animals get sick or dies, separate the sick or dead animals from the healthy ones to stop the spread of sickness and tell an animal health worker, community health worker, environmental officer, traditional healer, religious leader, or your chief.</li> <li>- If you have any of the signs and symptoms of Rift Valley fever, go to your nearest health facility or community health worker right away.               <ul style="list-style-type: none"> <li>• When someone gets early care and treatment, he or she has a better chance at healing quickly and with fewer problems.</li> </ul> </li> <li>- If you have signs and symptoms of Rift Valley fever, make sure to tell your health worker if you have had recent contact with any animal or spent time in an area where animals live, visit, or are kept.</li> <li>- If a person gets sick or dies after contact with an animal, go to your nearest health facility or community health worker.               <ul style="list-style-type: none"> <li>• Telling a health worker about any sickness or death after contact with an animal can help district authorities find the reason for the sickness or death and can save the lives of others.</li> </ul> </li> </ul>

