

Developed on 30 April 2020

NOTE: This is an interim guidance document, representing sound public health practice and information as it is currently available. It will be updated any time any new guidance is released on this topic.

INFECTION CONTROL IN RURAL AREAS: Caring For Livestock and Compound Animals

How these guidelines reflect faithful Christian practice:

"I am the good shepherd; the good shepherd lays down His life for the sheep." John 10:11

Throughout many Biblical texts, shepherd metaphors describe God's caring nature toward all people. These metaphors reflect the importance of herding to the communities during the time those texts were written. Today, many rural households across the world still rely on herding of live animals, dairy or meat from compound animals such as goats, and other forms of animal husbandry for their core livelihoods. These animals may also be part of cultural traditions and hold increased significance. These rural households can consider the strategies outlined in *GUIDANCE FOR HOUSEHOLD LEVEL INFECTION CONTROL* for lessening the possibility of infection and spread of the virus among members of the household. The information in this document provides additional information for rural households to minimize the risk of infection when caring for animals.

Note: This document is not limited to COVID19 but offers general guidance that can help reduce the possibility of infection transmission between animals and humans. This is particularly important in contexts where animals reside within human dwellings or household compounds. The Food and Agriculture Organization of the United Nations (www.fao.org) and the World Organisation for Animal Health (www.oie.int) offer comprehensive guidance on these topics.

Animal Caretaking

Living and working with animals of any kind carry increased risk for disease transmission for those taking care of animals, particularly if those animals dwell inside of a family compound or highly utilized area.

- **Designation and Monitoring of Caretakers** – Create a zone like the one described in *GUIDANCE FOR HOUSEHOLD LEVEL INFECTION CONTROL* for at least two individuals to care for animals during an outbreak. Separate those caring for animals from the rest of the family into their own zones in a house or into a separate dwelling area within the compound. In many locations, shepherds are young children or youth. People of this age may be less likely to have severe symptoms from COVID-19 infection but they could potentially spread the infection to others in the household even if they have no symptoms; this is an important reason why those in different zones or different households should maintain physical distance. For other infections that may be transmitted via animals, children and youth may actually be at increased risk for infection. Caretakers must monitor themselves for any symptoms of illness, inform family members, and access healthcare promptly if possible.
- **Hygiene** – In the event of any outbreak (source known or unknown), avoid animal meat or milk from any animals displaying signs of sickness. If possible, avoid all animal products, including animal meat, milk, feces, urine, blood, and birthing materials since many may not display signs of illness early into an infection. To minimize risk of infection, wash hands thoroughly (at least 20 seconds) with soap and water, bathe (washing the skin with soap), and launder your clothes with soap and water.

Animal Containment/Quartering

Depending on the culture, certain animal types may live within human dwellings or compounds, based on the nature of the human-to-animal relationship. This is important to understand as grazing animals (livestock) and small ruminants (for example, goats or sheep) require different approaches to containment or quartering than birds and other domesticated animals may. Precautions must be taken for the separation of animals from human dwellings for all livestock, small ruminants, and birds when there is a known outbreak. For domesticated animals, it is important that there are separate eating and sleeping areas to reduce the likelihood of transmission. Separate animals of different species, to ensure infection does not cycle through from herding animals to birds, birds to dogs, and so on. Designated shepherds should take grazing animals and small ruminants into fields for grazing for a prolonged period in order to separate them from human dwellings and high traffic areas. Animals can also be contained into a separate enclosure that is nearby but still distant from main human dwellings.

Culling

Culling is the killing of animals showing symptoms of infections. Culling is not typically an initial approach to containing an outbreak of diseases that can be transmitted from animals to humans. In cases of a highly infectious virus, such as Avian Influenza, large-scale culling may be a necessary early action. Never eat culled animals to prevent infection transmission.

Animals that exhibit symptoms of illness should be separated from the rest of the herd into a separate pen/holding area. If treatment or vaccine is available, it should be provided. Contact local agriculture and health ministries, WHO, and/or veterinarians to inquire about low or no-cost treatment availability. If the animal can recover or the number of infected animals is few, these animals may be kept separate during a prolonged confinement period. However, when an animal is unable to be treated, contained, and/or there are large numbers of ill animals, culling is a critical last resort to prevent the transmission of a disease to humans that may make humans quite sick or even kill them. Culling of infected and diseased animals must be done with extreme caution, as strict hygiene practices are critical. All efforts should be made to reduce contact with the animal itself, blood, and/or other bodily fluids during a cull. If possible, wear protective aprons and thick waterproof gloves. Handwashing is critical during and after a cull. In addition to handwashing, those who carry out the culling should bathe with soap and water and launder their clothes with soap and water.

Vaccination Campaigns

A note for health providers, veterinarians, and rural communities: many diseases that can transmit to humans are vaccine preventable. It is important to prioritize vaccine campaigns for animals associated with communities' main livelihoods and/or food source. Typical routine vaccination campaigns for non-domesticated animals can include rabies, brucellosis, anthrax, rotavirus, and E. coli, as well as others. As many communities around the world do not possess the means to vaccinate animals, it is critical that both human and animal health agencies prioritize animal vaccination campaigns. Combining both animal and human vaccination campaigns is a successful strategy in many countries where agriculture and herding are a main form of subsistence. This should be a strongly considered approach in rural contexts.

Note: Nomadic communities are typically considered hard to reach populations with limited access to healthcare. Vaccination campaigns (animal) can be an entry point to these communities to access primary healthcare, including childhood vaccinations.