



# Hantavirus pulmonary syndrome (HPS)

Last update: 2023-06-14

## Key facts

**Transmission: Airborne and, though less common, direct contact with rodent waste (the reservoirs of hantaviruses are rodents)**

- Breathing in airborne particles of rodent waste (urine and faeces)
- Touching the eyes, nose or mouth after touching rodent droppings, urine or nests (suspected, not confirmed)
- Rodent bite (suspected, not confirmed)
- Close contact with people who have HPS (very rare)

**Most vulnerable to contracting the disease**

- People who come in contact with rodents, their nests, droppings and urine

## Symptoms

- Tiredness
- Fever, chills
- Muscle aches, especially in large muscle groups (thighs, hips, back)
- Headaches and dizziness (sometimes)
- Nausea and vomiting (sometimes)
- Abdominal pain (sometimes)
- Diarrhoea (sometimes)
- Coughing (usually occurs after other symptoms)

- Shortness of breath (usually occurs after other symptoms)

# What can you do to prevent and control an epidemic?

## Reservoir control and prevention

- Promote the use of rodent traps inside and outside homes
- Promote the use of other rodent control measures such as keeping cats

## Monitoring the community and identifying sick people

- Identify people with suspected HPS quickly according to community case definition

## Treatment and management

- Refer sick people to health facilities
- Provide psychosocial support to the sick person and their family members

## Safe shelters and spaces

- Promote secured spaces and prevent rodents from entering houses or accessing stored food and water (including pet or animal food)
- Follow recommended environmental hygiene practices
  - Dispose of rubbish in rodent-proof containers to minimize possible nesting sites
  - Clean and disinfect areas where there is evidence of rodents

## Sanitation and waste management

- Encourage disinfection of homes and other spaces with evidence of rodents
- Promote proper and safe disposal of dead rodents
- Follow recommended kitchen hygiene practices (for example, clean floors and wash dishes and utensils immediately)

## Personal protection and hygiene

- Promote the use of personal protective equipment (PPE) and disinfectants when cleaning up rodent droppings and nesting materials
- Promote handwashing with soap
  - BEFORE: preparing food; eating; feeding a child; treating wounds; or caring for sick people
  - AFTER: using the toilet or cleaning a baby; touching garbage or waste, especially rodent waste; touching or feeding animals; blowing nose, coughing or sneezing; treating wounds; or caring for sick people

## Social mobilization and health promotion

- Find out the specific advice being given by health and other relevant authorities
- Model following this advice and inform community members of current health practice advice
- Offer support and encouragement to follow the advice
  - Try to gain understanding about if and why health practice advice is not being followed
  - With the guidance of your supervisor and health authorities, work with communities to overcome barriers to following health advice and recommended practices

# Mapping and community assessment

- Make a map of the community.
- Mark the following information on the map:
  - How many people have fallen sick with hantavirus? Where?
  - How many people have died? Where? When?
  - Who and where are the vulnerable people?
  - Where are the local health facilities and services? (include traditional healers)
- Record the following information on the back of the map:
  - When did people start to fall sick with hantavirus?
  - How many people live in the affected community? How many are children under five years?
  - How do people in the community store their food?
    - Are rats or other rodents able to eat it or contaminate it?
  - How do people in the community dispose of rubbish and solid waste? (put communal rubbish disposal sites on the map)
    - Have the authorities established a reservoir control programme?
    - Do community members have any risky habits or practices when they come into contact with live or dead rodents?
  - How do people dispose of dead rodents? (For example, are they buried, thrown in the river, burned?)
  - What handwashing facilities are available? (put communal handwashing stations on map)
    - Do they have soap?
  - What are the community's habits, practices and beliefs about caring for and feeding sick people?

Consider any differences in roles and responsibilities between women and men.

- When babies and infants are sick, do women continue to breastfeed them?
- Is a social mobilization or health promotion programme in place?
- What are the barriers people face in accessing water points and sanitation and hygiene facilities, of all gender identities, ages, disabilities and backgrounds?
- Which sources do people use/trust the most for information?
  - Are there rumours or misinformation about hantavirus? What are the rumours?