



# 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?

## Volunteer actions

- 01. Community-based surveillance
- 02. Community mapping
- 03. Communicating with the community
- 04. Community referral to health facilities
- 05. Volunteer protection and safety
- 06. Personal protection equipment (PPE) for highly infectious diseases
- 19. Mental Health and Psychosocial support (MHPSS)
- 29. Hygiene promotion
- 34. Handwashing with soap
- 36. Vector and reservoir control
- 38. Waste disposal and clean-up campaigns
- 43. Social mobilization and behaviour change

# 01. Community-based surveillance

## Overview

- Community-based surveillance is the systematic detection and reporting of significant public health events (such as sudden illness or death in people or animals) within a community by community members and volunteers. It is a simple, adaptable, low-cost public health initiative designed to complement early warning systems for potential epidemic diseases.
- Volunteers use something called a “community-case definition” to detect and report signs and symptoms of potential diseases, health risks and events, and support in community actions and response of local health authorities. Community case definitions are designed to align with the local language and do not require medical training to report on.
- Information discovered during surveillance should be shared with the local branch and health authorities based on the agreed protocol. Where relevant, (e.g. for zoonoses or environmental health events) information should also be shared with animal health and environmental health authorities.
- Community-based surveillance (CBS) can be done alongside other health, WASH or community engagement activities in your community, and therefore is not a stand-alone activity, but one that is useful to partner with other community-based activities.
- Community-based surveillance aids in
  - Early detection of public health risks within the community
  - Complementing early warning systems, extending them to the community
  - Linking early detection to early action within the community

## What to do and how to do it

- Preparation activities
  - Work with supervisors in mapping community needs and human, animal and environmental disease priorities (see Action tool [Community mapping](#))
  - Familiarize yourself with the disease that may be present in your community including signs and symptoms
  - Establish who is vulnerable in the community. Doing this will help you to identify people who are more likely to fall sick
  - Ensure referral mechanisms are clear in case community members fall sick and require referrals to health facilities for care.
  - Engage in community engagement activities such as mobile cinema, house-to-house visits, etc. to remain active and a known resource in the community.
- Recognize
  - Detect signs and symptoms corresponding to human, animal or environmental health risks or events in your community aligned with community case definitions
  - When you detect people who are sick with the disease, assess how severely ill they are and whether they need to be referred to a health facility (see Action tool [Referral to health facilities](#)).
  - Record the health risk or event you detected to ensure it can be followed-up

- Report
  - Report on the detected health risks or event in your community to your supervisor based on the methodology you are trained on (for example, SMS, phone call, or mobile application). *Remember that reporting must be systematic. To avoid confusion, everyone who reports should follow the same methods agreed on in the protocol and in the training.*
  - Your supervisor will then cross-check the report ensuring it meets the community case definition or unusual event requirements agreed on with health authorities. If matching, the supervisor will escalate the alert to the local health authorities for a response or investigation
  - After verification, the supervisor will notify relevant authorities in animal and environmental health for significant animal, zoonotic and environmental health events, especially those that portend a risk to human health.
- React
  - Begin community-level activities based on the health risk following proper safety precautions
  - Referral or care at home
    - Communicate specific health messages and information, and refer sick people promptly to health facilities
    - If sick people can be cared for at home, show their families what to do and provide them with information and supplies, where possible. Use corresponding “volunteer actions” in the ECV toolkit corresponding to the suspected epidemic risk.
  - Support health authorities in their investigation or response following-up on the alert
  - Where relevant, collaborate with and support officials in the animal and environmental health sectors for joint investigation, response and information sharing.

Additional resources on community-based surveillance: <https://cbs.ifrc.org/>

## Community messages



24. Finding sick people

## 02. Community mapping

### Overview

A map of the community enables you to connect issues or problems with particular places and makes information easy to see. Maps are often easier to understand than words.

Mapping aids in:

- Identifying risks and exposure to risk
  - Who and what are most exposed
  - What are they exposed to
- Show existing problems and vulnerabilities (some might make the current threat more serious)
- Understanding resources within the community that might be useful in managing the epidemic
- Obtaining information about other sectors (such as livelihoods, shelter, WASH, infrastructure etc.) that might be influenced by the epidemic, or that might be useful in managing the epidemic
- Analysing links and patterns in the exposure and spread of the epidemic - which may include human-to-human transmission dynamics, exposure from animals, vectors or food, behavioural risks, and environmental health drivers.

It is important to create the map together with community members. This helps communities to be active and to be participating members in the care offered by the Red Cross Red Crescent and volunteers.

Community mapping is especially useful in epidemics because it helps to see where the biggest problems and needs are and helps to identify risks and resources such as health posts, emergency vehicles, access roads, shelters, water sources, and so on. Maps can be used to support prevention, preparedness and response to an epidemic.

### How to make a community map

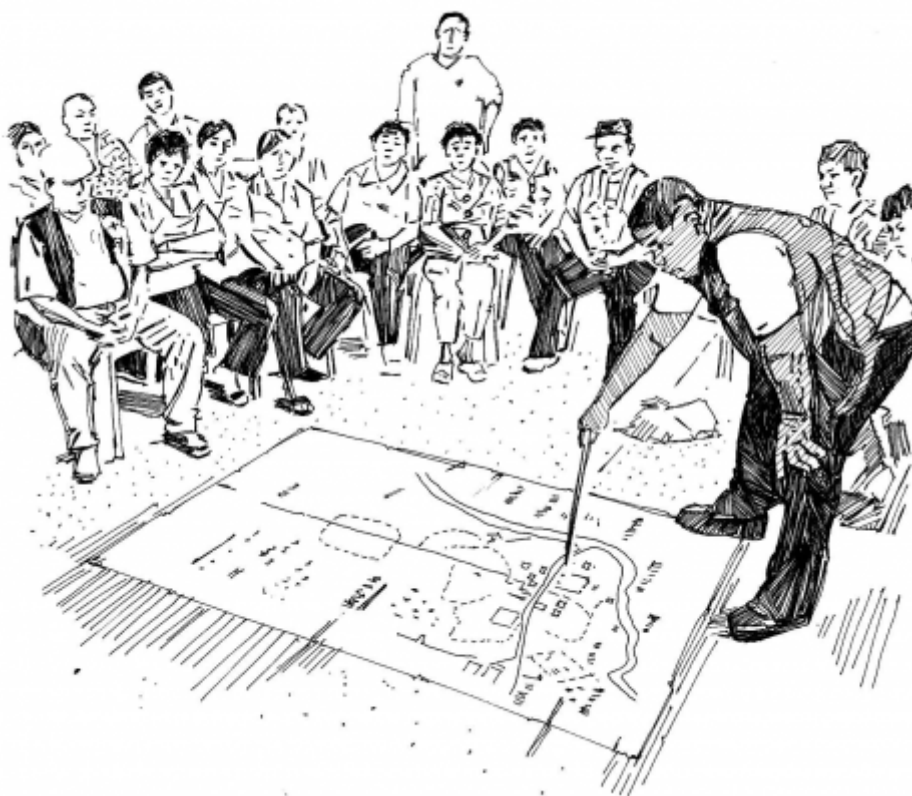
If possible, obtain or create a digital map of the community. If not available, it is possible to draw a simple spatial map that shows the community and all its key reference points. While keeping the fundamental principles of data protection, a community map should include the following:

- The whole community: concentrations of people, their houses, and who lives where
- The main shared/public locations in the community, such as schools, health centres, places of worship, water sources, markets, playgrounds and community meeting centres, communal livestock farming and livelihood areas such as cattle kraal, live bird markets, abattoirs, etc.
- The location of people who are most at risk [if you can identify them]
- Where the epidemic started and how it is spreading [if known and possible to identify]
- Health hazards and risks (e.g. improper rubbish disposal sites, large vector breeding sites)

## Using the community map

The map can be used to mark new cases and/or referred cases. Do as follows:

- Form teams to cover certain areas of the map.
  - Ensuring the participation of members from the community, each team should find out what it can about its area (how many people are sick, who is vulnerable, how many have been referred to health authorities, any other relevant information). If a zoonotic disease outbreak is suspected or implicated, find out who among the community members is keeping animals, how many animals are sick or have died, and/or presence of vectors in households, environment or even in surrounding water bodies. Work with your manager to target and prioritize those who are most at risk. This will require targeting geographically and, within those identified areas, targeting the most in need based on a vulnerability and capacity analysis that includes a gender and diversity analysis.
- Combine the maps of different teams. In doing this, you will be able to see:
  - Which areas of the epidemic you are covering, which areas you may not be covering, and details of each area. This will help you plan your actions. Some of these actions might include: environmental clean-up; distribution of bed nets; immunization campaigns; quarantine, animal biosecurity measures and other activities associated with managing the epidemic.



Making a community map

## 03. Communicating with the community

### Overview

Communicating during an epidemic can be difficult. Disease outbreaks, especially new ones, can cause uncertainty, fear and anxiety that can result in circulation of rumours, disinformation and misinformation. People may not trust the authorities, the health system or organizations including the Red Cross Red Crescent. They may not listen or may not believe the information they receive from people or organizations they do not trust. People may also be overcome with grief for those who are sick or who have died.

Sometimes, communities have strong beliefs that are different from the preventive and protective social measures promoted by the authorities and healthcare providers. They may believe strongly in their own cultural practices, traditional medicine, or other methods that might not prove effective against the disease. They may not accept certain treatments (including medicines and vaccines).

In many countries messages take the form of directives and one-way-communication. However, community engagement and participation have played a critical role in successful disease control and elimination campaigns in many countries

During a disease outbreak, trusted communication with the community is vital. To build trust, two-way communication is important. "Two-way" means volunteers should both *give messages to* AND *receive messages from* the community. Community members must feel respected and listened to and should have the opportunity to share their beliefs, fears and concerns. To accept volunteers' messages, community members must be able to trust you and have confidence in what you say. Once you understand the beliefs, fears and concerns of community members, you can provide them with truthful and accurate messages.

Providing health messages that are consistent, clear and easy to understand also helps to build trust. Giving accurate information to the community is critical, especially when it is necessary to persuade people to adopt safe practices (which might be different from what they would normally do). Some changes in behaviour that may be promoted are things such as:

- Accepting vaccinations or other medical treatments
- Washing hands with soap at crucial times
- Wearing personal protective equipment
- Burying loved ones in ways that are different from what they would normally do (safe and dignified burials)
- Practising social distancing
- Wearing insect repellent or sleeping under bed nets
- Agreeing to be isolated from others to avoid infecting them
- Preparing food and water differently (often by cleaning, boiling or cooking thoroughly)
- Quarantine and culling of animals (which in the case of livestock animals, is often a main source of food, nutrition and livelihood and may be difficult to accept by the farmers who own them)
- And other recommended public health measures

## What to do and how to do it

### *Communicating in an epidemic*

- Engage and involve community leaders and community members
  - Find out where the community obtains its information: Who do they trust to give them health information (for example: health authorities, community or religious leaders, doctors, traditional healers)
  - Work with communities to identify, choose and plan appropriate solutions for stopping the spread of disease
  - Talk to members of the community about their ideas, fears, beliefs and actions
    - Try to understand how much they know about the disease and its transmission
    - Try to understand beliefs and practices that might impact the spread of the epidemic
    - Try to understand what motivates or helps them to change behaviours
    - Try to understand what stops them from changing their behaviour
- Use different methods of communication
  - Use two-way communication when possible
    - When you understand the community's beliefs, fears and concerns, try to address these in your own messages
  - Sometimes, one-way communication methods are used to spread health messages to large numbers of people quickly
    - One-way communication methods should always be accompanied by two-way communication methods to ensure the community perspectives are known and listened to
  - People learn and retain information differently. It is important to use different methods
    - Communities are composed of different people and groups who may have different communication preferences or needs.
      - Think about how to target different groups, especially those who are hidden, stigmatized or considered "different" because of their religion, sexual orientation, age, disability, illness, or for any other reason:
        - Think about where you will go to reach them
        - Find out if they trust the same or different sources than other groups within the community
        - Discover if they have different access needs, such as language translation or in case of a disability – a different method of communication
    - When choosing methods of communication, consider what people prefer, trust and can access easily
      - Think about the characteristics of your target groups (for example, do they have access to media, such as radio or television? Can they read if they receive pamphlets of information and in what language? Are they accustomed to getting information from social media? Etc.)
      - Think about the resources you have access to (for example: do you have access to poster printing? Is there an appropriate location within the community where you can offer to answer questions or give out information? Etc.)
      - Consider the content of your message(s) and think about the most appropriate way to share that content in the specific context (for example: targeting men and women separately)
- Communication should be:
  - **Simple and short.** People should be able to understand messages easily and be able to remember and repeat them accurately and without difficulty.
  - **Trusted.** Delivered by people the community trusts, by a method the community trusts (for example:

- radio, television, posters, town-hall discussions, market meetings etc.).
- **Accurate and specific.** Always provide correct and precise information. Messages should be consistent and should not be cause for confusion. *If* messages must change (due to new and advancing information about the epidemic), be honest and clear about what has changed and why.
  - **Focused on action.** Messages should be action-oriented and should advise members of the community about what they can do to protect themselves and others.
  - **Feasible and realistic.** Make sure that people have the capacity and resources to carry out the actionable advice you give.
  - **Context-specific.** Information should reflect the needs and situation of the specific community. In all your messages, take account of social and cultural factors that might encourage community members to adopt safer behaviours (such as accepting vaccines) or prevent them from doing so.

### ***Different ways of communicating***

There are many, many ways to communicate with communities. The following one and two-way methods of communication are some examples you might consider. Methods can (and should) be combined to ensure accessibility to as many community members as possible.

- One-way communication methods
  - Video, films, television commercials
  - Songs, poems, drama, role-play or theatre, or other edutainment methods
  - Community announcements such as: community town-criers, loud-speaker announcements, SMS or WhatsApp, mass messaging, social media messages, radio broadcasts
  - Posters, billboards
- Two-way communication methods
- Door-to-door visits
- Meeting with key informants such as: community or religious leaders; traditional healers or midwives; teachers; elders, etc.
- Community discussions encouraging participatory methods such as: three pile sorting, voting charts, mapping, polling, barrier analysis, community planning
- Use of feedback and suggestion boxes or presence of trusted focal persons to receive anonymous feedback or messages from community members.

### ***Pay attention to rumours***

Rumours can cause panic and fear or can promote unsafe practices. Under the influence of the rumours, communities can lose trust in the health authorities, and they may lose belief in the ability to stop the epidemic. Rumours sometimes cause people to reject interventions that could prevent the spread of disease. Volunteers must:

- Listen for rumours or incorrect information.
  - Note when and where a rumour was heard and report it to your volunteer supervisor or National Society focal point immediately
  - Try to understand why the rumor is spreading fast and of what importance it is to the community. For example, is it just based on lack of knowledge or fear of the unknown, or is it associated with certain socio-cultural beliefs or associated with the stigmatization of a certain demography of people?
- Correct the rumour

- Give the community clear, simple facts about the disease
- Reiterate and explain clearly what they can do to protect themselves and others

## 04. Community referral to health facilities

### Overview

During an epidemic, sick people frequently cannot be treated at home or by volunteers or family. They require medical care and need to go for treatment to a health clinic or hospital.

When carrying out epidemic prevention and control activities in the community, always keep the idea of referral in mind.

A community referral is a recommendation (often made by a community volunteer) to seek services at a health facility or from a health care professional. This recommendation is usually based on the identification of signs of disease or the risk that a disease poses to a person, family or community. A community referral is not a confirmation of illness, nor is it a guarantee that any specific treatment will be given. A diagnosis, and any subsequent treatment, is determined by a health professional and not by the community volunteer.

### What to do and how to do it

#### *Identifying people who need to be referred*

- Learn the symptoms of the disease that is causing the epidemic and the signs that indicate that affected people should be referred to health facilities
- Always keep your own safety and protection in mind
  - With the advice of your supervisor, find out how you can tell when a person is severely ill and needs to be referred

#### *Map and visit referral facilities*

1. Unless there is only one referral facility in the community, the selection of a health facility for volunteers to which to send community referrals should be done by a health professional supporting or working at the National Society and validated by the National Society leadership. Volunteers cannot decide alone to which facilities they can send referrals.
2. Once a health facility has been identified and validated by the National Society, with the support of your manager, visit health facilities and talk to doctors and nurses to coordinate referrals
  - Inform them about Red Cross Red Crescent branch activities in which you are involved and how this may lead to community referrals from branch volunteers trained in epidemic prevention and control
  - Discuss the best method for sending sick people from the community to the health facilities:
    - Public transport?
      - Can people access it? Pay for it?
      - Can sick people use it?
      - Is there a risk of disease transmission to other passengers?
    - Ambulance services?
      - Does the health facility have ambulances?

- Does the Red Cross Red Crescent branch have ambulances?
- Can people access them? Pay for them?
- How do you contact the ambulance?
- Is the disease highly infectious and requiring special transport?
  - If the disease is highly infectious (like Ebola or Marburg), special transport must be arranged so that there is no risk that other people could not be infected
  - Tell them about your activities and how you plan to do referrals. Take advice from them

### ***Plan and prepare to make referrals***

1. Plan how referrals will be made and facilitated
  - Can the National Society provide transport?
  - Do people have money to pay for transport?
  - Does the health facility require prior notification of the referral? If so, how will the health facility be informed of the referral?
2. Always carry the relevant disease tool with you when you are doing community-based referrals
  - This will help you remember what you should know about the disease and its symptoms.

### ***Making a referral***

1. Volunteers act on behalf of their National Society and must have the consent of the National Society before undertaking activities. They should be trained in the principles of the Red Cross Red Crescent Movement and should have appropriate training and supervision before making community referrals.
2. Volunteers should obtain the consent of the person to the referral, or of the guardian if it is a child.
3. Volunteers should work to uphold these principles:
  - Confidentiality – It is important to keep information about community members private and not to discuss people's health, healthcare or other private details with others in the community. Remember that breaches of confidentiality often happen unintentionally, for example, when discussing the day's work with friends or family members.
  - Respect – It is important to respect people's choices and decisions, even if you do not agree with their choices.
  - Safety – If you have concerns about the safety or security of a person (in relation to the community referral, or any other aspect of their situation), you should discuss it with your supervisor to find a safe solution if possible.
4. When you refer, always explain clearly to the family concerned what the disease may be, what its symptoms are, and why you think referral is necessary.
  - Give the family information about the health facilities available and how to reach them by different means of transport
    - Help the family if special transportation is needed



Community messages



24. Finding sick people

## 05. Volunteer protection and safety

### Overview

Volunteers work in vulnerable situations and with people of many capacities. Working in epidemics can be risky because volunteers can also catch a disease and fall sick. In addition to physical risks, there may be risks to volunteers' emotional and mental well-being, due to the nature of the work they undertake. It is important to protect from and minimize the impacts of these risks.

Your National Society should provide proper protection for you and other volunteers who are working in epidemics. Your manager is a valuable resource for information and equipment to protect and preserve your physical, emotional and psychosocial wellbeing.

It is important to follow the guidance from your supervisor and National Society and use the level of protection that is appropriate for the situation you are in.

### What to do and how to do it

#### *Protecting yourself and others from disease*

1. You must be familiar with and trained to use protective equipment before you wear it in an actual disease environment. Try the equipment out beforehand and learn how to use it properly.
  - In certain epidemics like Ebola, Marburg, Lassa fever and plague, full protection should be used whenever you undertake high risk activities. Full protection requires use of personal protective equipment (PPE). (See Action tool *Personal protection equipment (PPE) for highly infectious diseases*)
  - In other epidemics, you should at least use masks and latex gloves and wash hands with soap after contact with an affected person or animal. (See Action tool *Handwashing with soap* for instructions in good hand hygiene.)
2. Volunteers should be vaccinated according to country-specific vaccination guidelines (see Action tool *Routine vaccinations*).
  - Volunteers should be vaccinated according to the routine vaccination schedule in the country
  - Volunteers may be eligible for vaccination during mass vaccination if applicable
3. Volunteers should be alert to their own physical and psychosocial well-being during an epidemic
  - Volunteers should be alert to stressors in their personal and working lives, and should have a plan in place for how to cope with stress and trauma in a healthy and helpful way
    - This may include stress management techniques that you already use such as exercise, meditation, taking part in hobbies, etc.
    - Your manager is a useful resource for information and tools to use to help you achieve and maintain psychosocial well-being

#### *Understanding common prevention and control measures*

Volunteers should learn additional prevention measures for use in epidemics (and before them). These include:

- Vector control measures (see Action tool *Vector control*)
- Safe handling of animals (Action tool *Handling and slaughtering animals*)
- Chemoprophylaxis (Action tool *Chemoprophylaxis*)
- Safe food and water (Action tools *Good food hygiene* and *Clean, safe household water*)
- Hand hygiene (Action tools *Handwashing with soap* and *Handwashing in a highly infectious epidemic*)

## Protecting volunteers from harm and liability to others

1. **Volunteers should be protected** if they suffer damage or injury in the course of their work. Accidents can happen, and volunteers can be injured or even killed. Equally, volunteers can harm other people and their property, especially if they have not been properly trained or given the correct equipment.
  - National Societies therefore need to have appropriate insurance policies. Insurance may be needed to pay compensation to volunteers or their families if they are injured or killed; to pay compensation to others if they suffer harm as a result of volunteer actions; and to cover legal costs. The nature of the cover will depend on the legal system in your country. The Movement urges the National Societies to acknowledge and uphold their duty of care towards volunteers, especially if something should happen to them while carrying out their duties. Ask your manager about the type of insurance or coverage through a “safety net” you can receive.
  - Prior to asking volunteers to perform activities that are high-risk (e.g. safe and dignified burials), National Societies should also ensure volunteers have received the necessary vaccinations and protective equipment. What this includes will depend on the context in which you are working and the health policies for staff and volunteers of your National Society.
2. **Volunteers should be informed** of and understand the National Society's security policy and follow the rules and regulations it sets out. You should also be informed of any changes in the policy and asked to report any incidents of concern.
  - Safety in the community depends on the personal attributes of volunteers, trainers and other team members – how they work together and how they collaborate with people in the community. Volunteers should be culturally sensitive. Your personal behaviour should never cause offence. You should show integrity and should never become a problem for the community. Correct, polite, impartial behaviour is always expected.
  - Volunteers should be proactive in managing and maintaining their own safety and security. This means you should not hesitate to ask your manager about safety and security risks and what you should do if you encounter any threats or have any problems. You should find out what protocols are in place if a safety or security incident occurs, including how and to whom you should report these events.



## 06. Personal protection equipment (PPE) for highly infectious diseases

### Overview

When working with certain epidemic diseases, especially highly infectious diseases such as Ebola, Marburg, Lassa fever and plague, it is vital to protect yourself when you touch affected people, their body fluids, or dead bodies or animals.

Like volunteers, PPE comes in different sizes and fits. Not every size of PPE will fit every volunteer appropriately (e.g. protective goggles may not be the right size or shape for some women or for people of certain ethnicities, leaving them at greater risk of exposure). It is very important that volunteers have the correct size and fit of all their equipment for optimum protection.

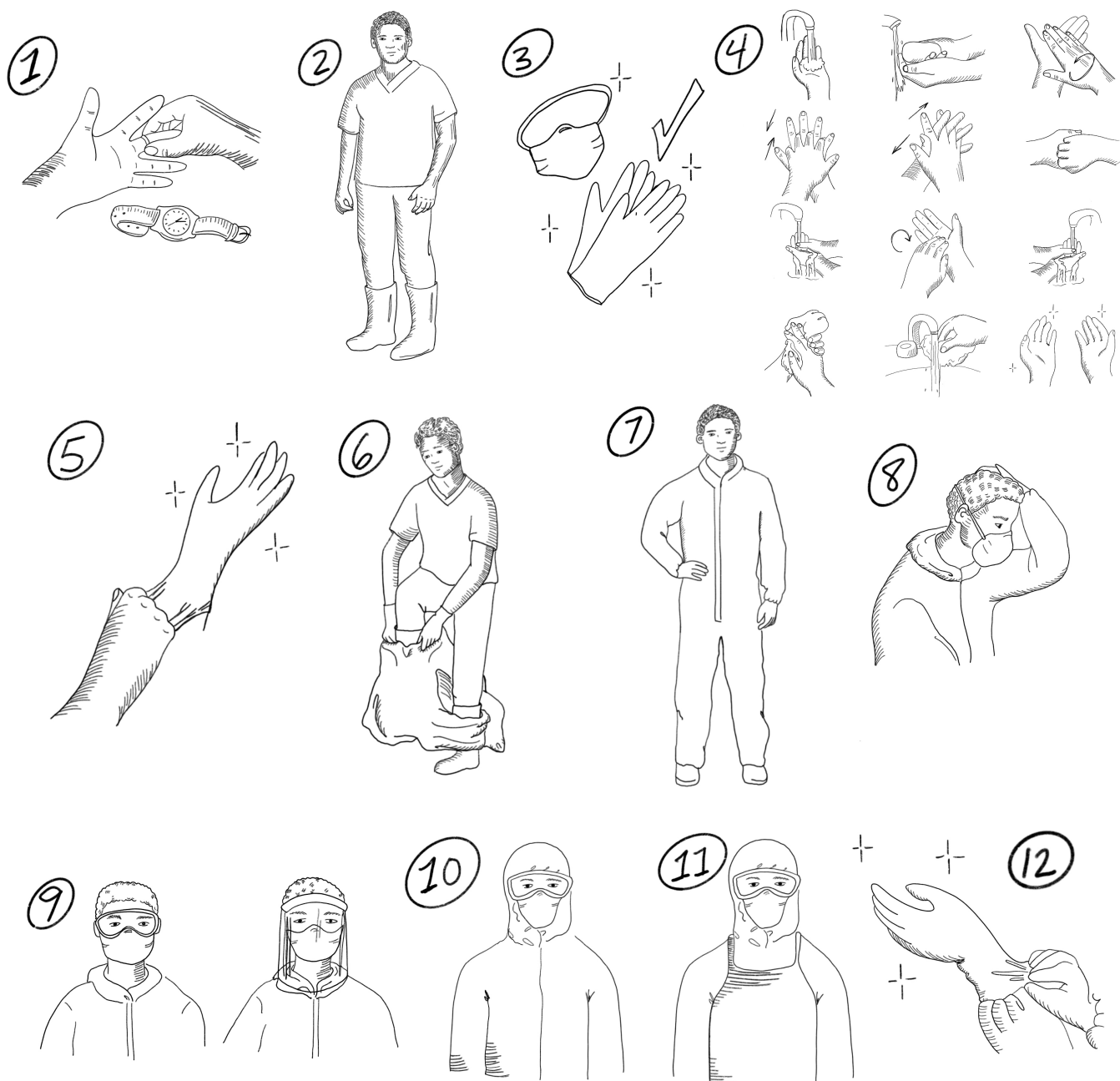
This tool shows you how to put on and take off PPE. \*\* Note: Different PPE types are used in different contexts, depending on the disease and the type of protection required (e.g. the components of the PPE for Ebola and for plague may have some commonalities but are not the same). Always ensure that you have been properly trained to use the type of PPE available in your context, for the specific disease you are addressing. \*\*

See Action tool *Volunteer protection and safety* for more information on volunteer protection.

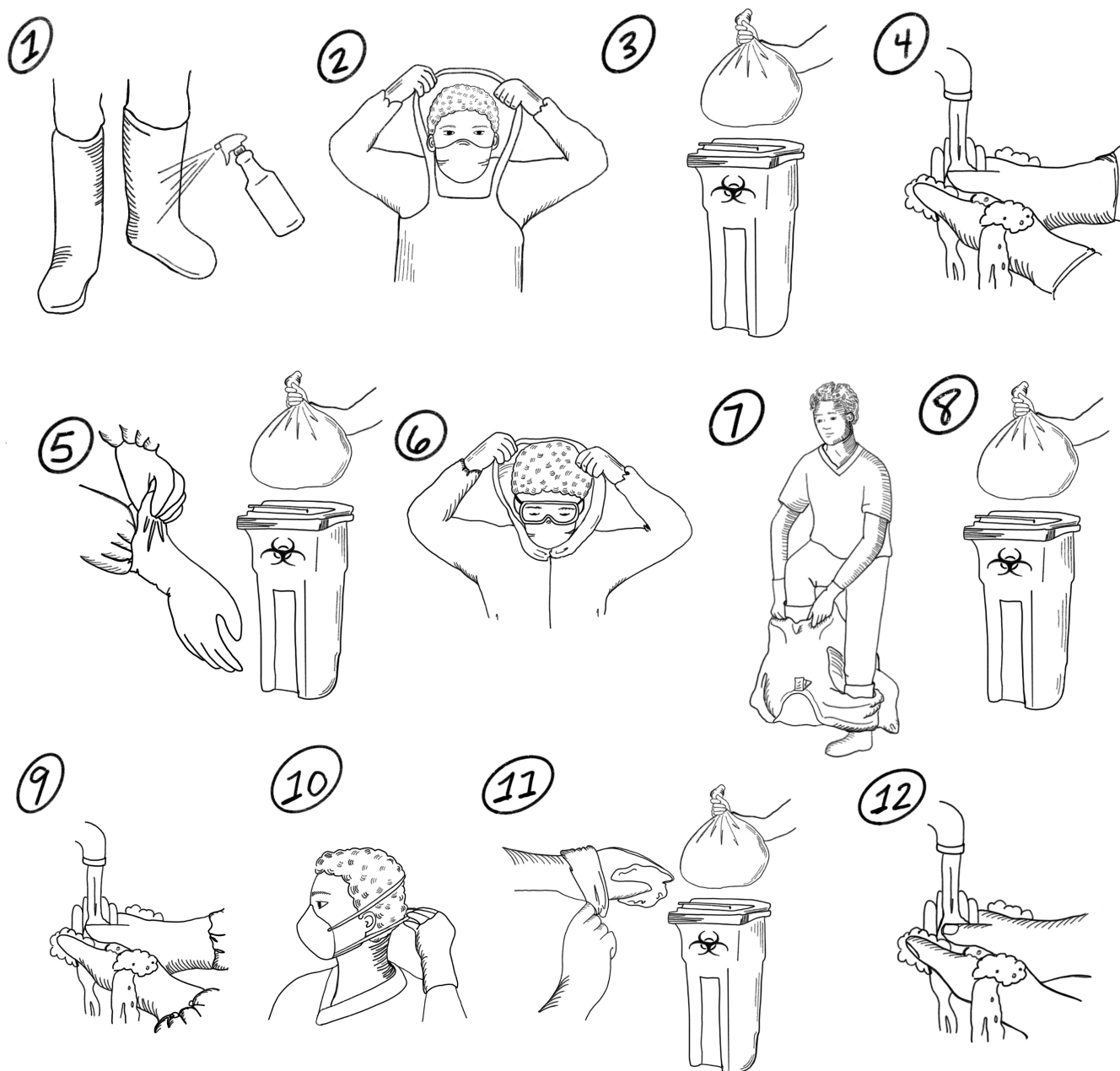
### What to do and how to do it

- Test the size and fit of your PPE by having your manager check the fit and coverage of all your equipment. If anything is incorrectly sized, be sure you obtain equipment of the correct fit before you begin work that puts you at risk of exposure.

### Steps for putting on protective clothing



**Steps for taking off protective clothing**



**Note:** Handwashing, with gloved hands, should be performed before starting to remove protective clothing (step 4), between removing protective clothing but before removing protective face mask (step 9) and at the end with un-gloved hands (step 12).

## 19. Mental Health and Psychosocial support (MHPSS)

### Overview

#### *Normal reactions to abnormal events*

It is normal and expected to have strong reactions to abnormal and difficult events. People and communities who experience difficulties may be affected emotionally, mentally, physically and/or socially. Some of these effects may include:

#### Normal reactions to abnormal events

- **Emotional.** Anxiety, grief, guilt, anger, irritability, frustration, sadness, shame, numbness, loss of hope, loss of meaning, feeling of emptiness.
- **Mental.** Loss of concentration, memory loss, confusion, intrusive thoughts, difficulties in decision making, disorganized thought.
- **Physical.** Increased heartrate, sleeping problems, aches (stomach, head), back and neck pain, muscle tremors and tension, loss of energy, inability to rest and relax.
- **Social.** Risk taking, over- or under-eating, increased intake of alcohol or cigarettes, aggression, withdrawal, isolation.

#### *Psychosocial support*

- The term “psychosocial” refers to the dynamic relationship between the psychological and social dimensions of a person, where the dimensions influence each other. The psychological dimension includes emotional and thought processes, feelings and reactions. The social dimension includes relationships, family, community networks, social values and cultural practices.
- “Psychosocial support” refers to actions that meet the psychological and social needs of individuals, families and communities. Psychosocial support (PSS) requires training and supervision. Your supervisor can help you access the appropriate training before you begin to offer PSS to community members. They will also provide you with supervision and support while you provide PSS.
- We provide psychosocial support to help people who have been affected by a crisis. Volunteers should explain what psychosocial support is and if they are appropriately trained, they should offer to provide it to those who wish to receive it. Early and adequate psychosocial support can prevent distress and suffering from turning into more severe mental health problems.
- Psychosocial support during emergencies should ensure safety and promote calm, connectedness, personal and collective efficacy, and hope.

## What to do and how to do it

Psychosocial support activities include:

- Psycho-education
  - Explain how to identify signs of psychosocial distress
  - Provide advice on how to cope during outbreaks (e.g. maintaining a daily routine as much as possible; calling friends and family to keep in touch and show care for each other; fact-checking information about a disease against trustworthy sources)
  - Share tips about relaxation
- Health education can have a positive psychosocial impact:
  - Health education can help community members to better understand their health status, regain a sense of control and cope with their situation
  - While being ill, and even after medical clearance, it can be difficult for people suspected of infection to resume normal life. Educating communities about the nature of the disease, how it spreads – and does not spread – and how to protect against it is an important tool against fear and stigma
- Active listening: Ensure the affected population can raise their concerns, provide suggestions and feedback. This information is used to reduce fear, address rumours and misinformation and increase sense of agency and dignity of the affected population.
- Life skills and vocational skills activities/lessons.
- Creative activities, sports and physical activities.
- Restoring family links.
- Child friendly spaces.
- Supporting memorials and traditional burials.
- Support and self-help groups
  - These include efforts to help people in isolation or quarantine maintain contact with their relatives and friends.
  - Community volunteers that respond to crises are also exposed to loss, devastation, injury and death. It is therefore important to seek support from managers when needed, and to create a supportive environment by showing concern for staff and other volunteers.
- Psychological first aid

## 29. Hygiene promotion

### Overview

Hygiene promotion is a term used to cover a range of strategies aimed to improve people's hygiene behaviour and prevent the spread of disease. Hygiene promotion enables people to take action to prevent water, sanitation and hygiene-related diseases by mobilizing and engaging the population, their knowledge, and resources.

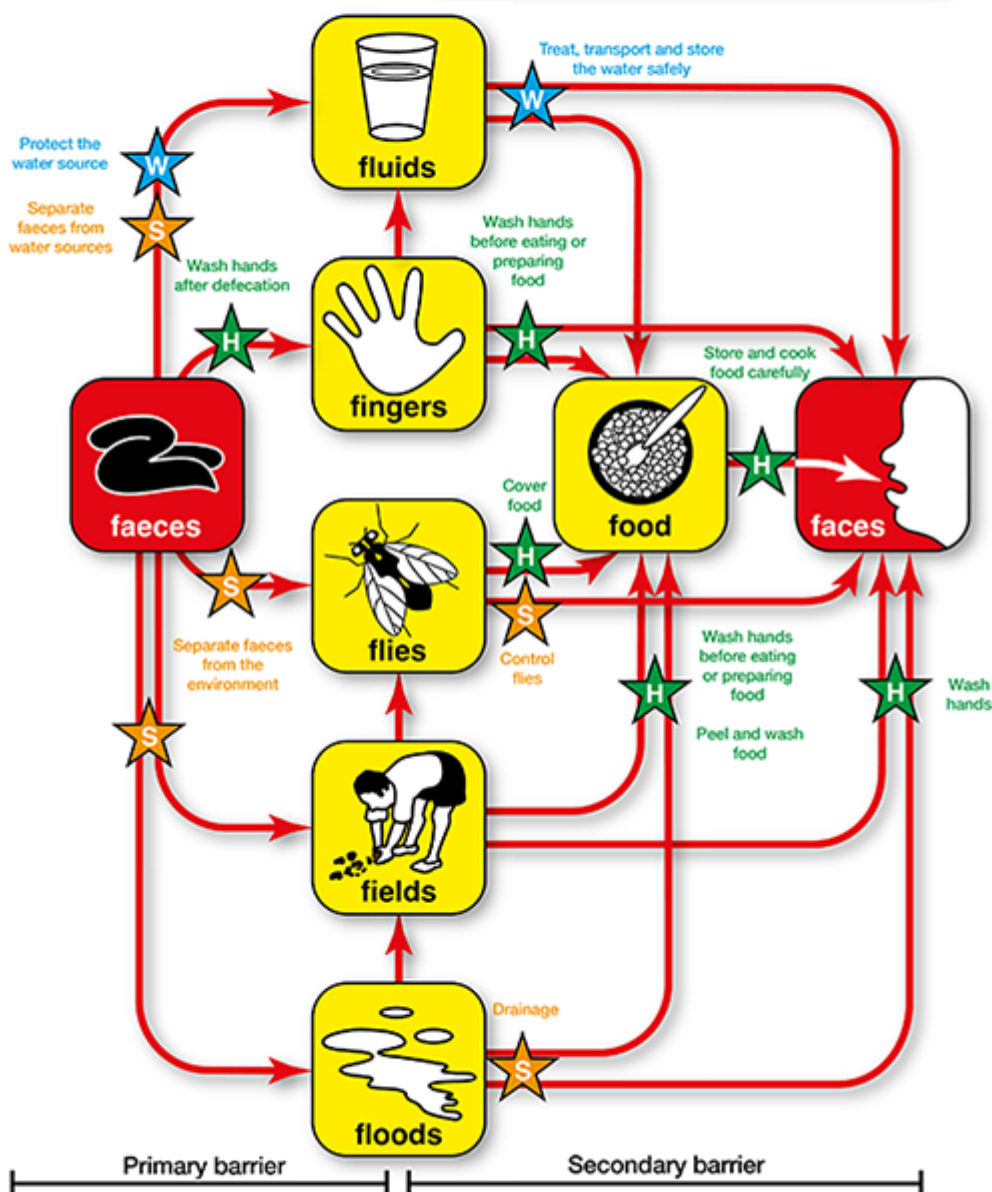
The focus of hygiene promotion is determined based on the health risks. By creating a series of barriers to infection, hygiene behaviour has a critical influence on the transmission of water- and sanitation-related diseases as shown in the 'f' diagram[1] below:

# The 'F' Diagram

The movement of pathogens from the **faeces** of a sick person to where they are ingested by somebody else can take many pathways, some direct and some indirect. This diagram illustrates the main pathways. They are easily memorized as they all begin with the letter 'f': **fluids** (drinking water) **food**, **flies**, **fields** (crops and soil), **floods**, **fingers** and **faces** (and surface water generally).

- ★ WATER
- ★ SANITATION
- ★ HYGIENE

Barriers can stop the transmission of disease; these can be primary (preventing the initial contact with the faeces) or secondary (preventing it being ingested by a new person). They can be controlled by water, sanitation and hygiene interventions.



Note: The diagram is a summary of pathways; other associated routes may be important. Drinking water may be contaminated by a dirty water container, for example, or food may be infected by dirty cooking utensils.

© WHEC

Source: McMahon, Glenda; Davey, Kay; Shaw, Rod (2020): P004 The F Diagram. Loughborough University. Poster. <https://doi.org/10.17028/rd.liboro.12738692.v1>

## What do to and how to do it

### ***Understand the community***

1. Familiarize yourself with the ways in which people collect water, store food and water, dispose of rubbish, wash themselves and use latrines.
  - Identify key places where hygiene is important not only on an individual, but also on a communal level, such as markets, schools, restaurants or churches. Find out if you can work with them to promote good hygiene practices.
    - You might hold a hygiene session for students or teachers or help the market sellers to build a handwashing station and outside latrine for users.
2. Have a conversation with members of your community about hygiene.
  - Include women, community leaders, caregivers and decision-makers.
    - Make sure they understand that good hygiene is important and can stop the spread of disease.
3. Be a role model for others in your community. Use a clean latrine, dispose of your rubbish, wash your hands often.

### ***Promote community hygiene messages***

Normally the key issues to address include the following. Click on the corresponding action cards to obtain the information you need:

- Food hygiene
- Clean and safe household water
- Personal and hand hygiene
- Environmental sanitation
- The control of flies, mosquitoes and other disease vectors

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[1] Shaw, R. 2013. *The 'f' diagram - Landscape*. WEDC Graphics: Disease, Water, Engineering and Development Centre (WEDC): Loughborough University, UK.

## Community messages



04. Storing water properly



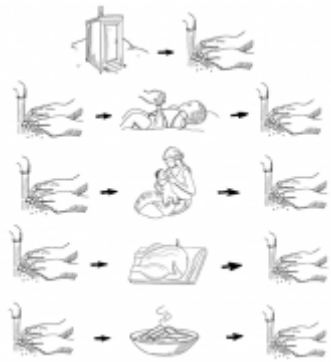
05. Using clean safe drinking water



06. Using a clean latrine



08. Washing hands with soap



09. When to wash hands



11. Cleaning up places where mosquitoes breed



12. Good food hygiene



13. Good personal hygiene



20. Collecting and disposing of rubbish

## 34. Handwashing with soap

### Overview

Handwashing is one of the most important ways to prevent the spread of several epidemics, especially diarrhoeal diseases. Handwashing is easy and everyone (including children) can and should do it. To wash hands people must have access to water and soap.

Hands should be washed with soap:

- **BEFORE:**
  - Preparing food
  - Eating
  - Feeding a child
  - Breastfeeding
  - Caring for someone who is ill or treating a wound (yours or someone else's)
- **AFTER:**
  - Using the toilet
    - Men, boys, women and girls should wash their hands after using the toilet
    - Women and girls should engage in menstrual hygiene during their monthly menstrual cycles
      - Promote the use of clean, dry materials (disposable or reusable)
      - Promote changing menstrual materials and bathing as often as needed.
      - Discourage sharing reusable pads with anyone else
  - Cleaning a baby
  - Touching garbage or waste
  - Touching or feeding animals; handling raw meat
  - Blowing nose, coughing or sneezing
  - Treating wounds or caring for sick people
  - Coming into contact with a sick person in an epidemic (see Action Tool *Handwashing in a highly infectious epidemic*)

### What to do and how to do it

#### *How to wash hands*

1. Wet your hands and rub them with soap.
2. Rub all parts of your hands together for 10 to 15 seconds.
3. Use lots of force (push your hands together hard) and remember to wash all surfaces, including the backs of the hands and between the fingers.

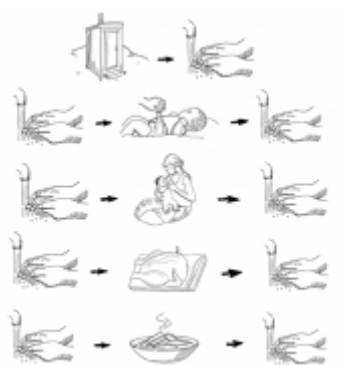
4. Rinse hands well so they are free of soap.
5. Dry hands with a paper towel. If there is no towel, wave them in the air until they are dry.



## Community messages



08. Washing hands with soap



09. When to wash hands

## 36. Vector and reservoir control

### Overview

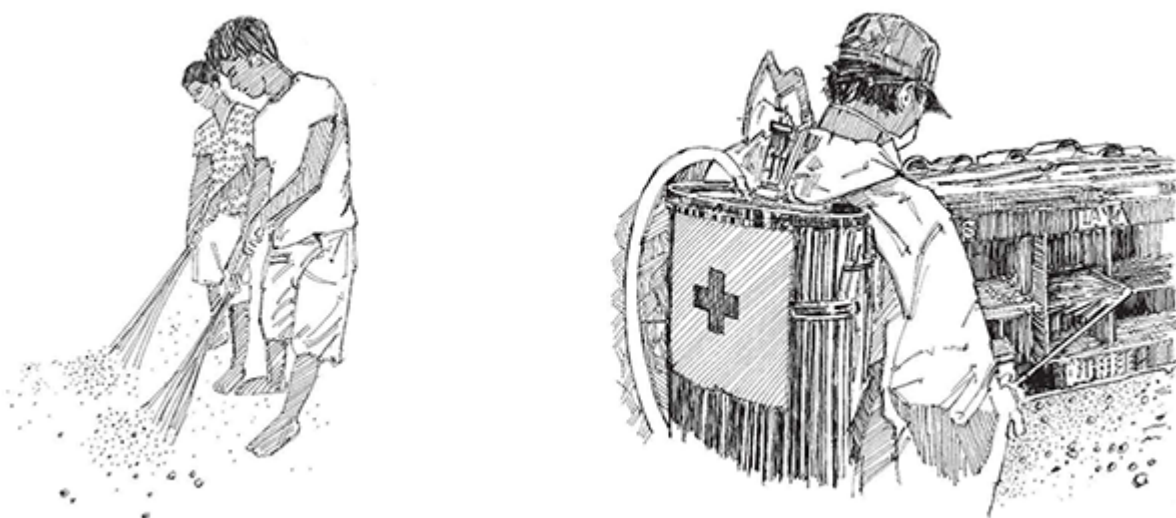
- Vectors are insects or animals that spread infectious diseases through a bite, or contact with their urine, faeces, blood, etc. Many diseases are spread by vectors. Some of these diseases include malaria, dengue fever, Zika, chikungunya, yellow fever, Lassa fever, Rift Valley fever and plague.
- Vectors sometimes live and thrive on other host animals, called reservoirs, before they reach the human population. To protect people from disease, it is important to control both vectors and reservoirs. Vectors and reservoirs include animals and insects such as mosquitoes, ticks, rodents, fleas, etc.

### What to do and how to do it

#### *Vector and reservoir control in the community*

- Promote hygiene, sanitation and protective practices (\*\* the specific practices you will encourage are dependent on the type of vector or reservoir of concern \*\*). Talk to people in the community about environmental protection strategies against mosquitoes:
  - Repair and close any holes in windows, walls, roofs
  - Use insecticide-treated screens on windows and doors, if available
  - Drain stagnant and standing water, cover water containers
  - Find professionals to spray or larvicide against vectors - spraying chemicals to get rid of vectors can be dangerous, especially if you do not have the proper equipment or materials and do not know how to spray safely. (Only help if you are trained or guided by a trained person.)
    - Outdoor spraying
    - Indoor-residual spraying
- Talk to people in the community about environmental protection strategies against rodents, other small animals and the ticks or fleas that live on them:
  - Store food and water properly, in rodent-proof containers
  - Keep shelters and houses clean
  - Repair and close any holes in windows, walls, roofs
  - Clean the environment of rubbish and waste
  - Keep livestock outside the household (to prevent humans and animals sharing living space)
  - In communities and households infested with rodents, engage environmental health professionals to conduct deratisation exercises
- Talk to people in the community about personal protection strategies against mosquitoes:
  - Use insecticide-treated bed nets to prevent diseases like malaria (not for general use in diseases transmitted by *Aedes* mosquitoes)
  - Wear protective clothing (for example, with long sleeves)
  - Get vaccinated
  - Chemoprophylaxis (preventive treatment)

- Talk to people in the community about personal protection strategies against rodents, other small animals and the ticks or fleas that live on them:
  - Wear protective clothing (for example, with long sleeves)
  - Chemoprophylaxis (preventive treatment)
  - Sleep on raised platforms or beds



**Community messages**



04. Storing water properly



06. Using a clean latrine



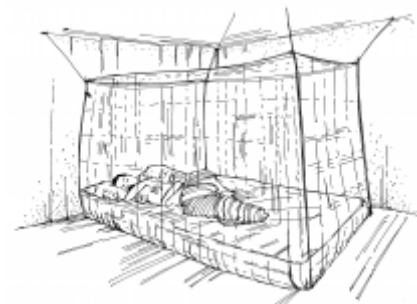
07. Protecting yourself against mosquitoes



11. Cleaning up places where mosquitoes breed



12. Good food hygiene



17. Sleeping under mosquito nets



20. Collecting and disposing of rubbish



27. Keeping rodents out

## 38. Waste disposal and clean-up campaigns

### Overview

- Diseases can spread easily in environments where there is waste and lack of sanitation. Rubbish can attract rodents and create breeding and feeding sites for various domestic, wild and scavenging animals and insects (including mosquitoes and flies). Human or animal faeces can also attract flies and other insects that carry germs, cause diseases and contaminate water sources.
- Human and animal waste infected with certain diseases (including animal carcasses, hospital waste, etc.) can also attract different animals and insects which may then spread the diseases to other animals and to humans.
- Standing and stagnant water provide breeding sites for various insects, including mosquitoes.

### What to do and how to do it

#### *Planning and preparing for clean-up*

- Work with traditional and community leaders, the village health committee and other community partners to decide what needs to be cleaned up and how to go about it.
  - Help to organize activities on agreed "clean-up" days.
  - Ask community leaders to organize volunteer groups for each clean-up initiative.
- Speak with community members about the importance of keeping their community clean.
- Organize a community initiative to plan and create a central garbage disposal area.
- Make sure to have the cleaning tools and supplies available in advance to distribute among the community.

#### *Facilitating community clean-up*

- Organize special clean-up days in which all members of the community participate (twice a year or more often if possible).
- Motivate and support the community to work together to:
  - Keep the community free of animal faeces and urine.
  - Keep the community free of puddles and other mosquito breeding sites.
  - Keep the community free of rubbish and garbage (by burning or burying it).
  - Clear vegetation from around riverbanks and ponds near the community
  - Clean the areas around water sources (such as pumps and wells).
  - Create and maintain water soak pits around water sources.



**Tell community members how important it is to keep their community clean. Organize regular clean-up campaigns. Include houses and latrines, etc.**

### **What you can do**

- Work with traditional and political leaders, the village health committee and other community partners to decide what needs to be cleaned up and how to go about it.
- Help to organize activities on agreed “clean-up” days.
- Ask community leaders to organize volunteer groups for each clean-up initiative.
- Organize special clean-up days in which all members of the community participate (twice a year or more often if possible).
- Organize a community initiative to plan and create a central garbage disposal area.

Motivate and support the community to work together to:

- Keep the community free of animal faeces.
- Keep the community free of puddles and other mosquito breeding sites.
- Keep the community free of rubbish and garbage (by burning or burying it).
- Clean the areas around water sources (such as pumps and wells).
- Create and maintain water soak pits around water sources.



Make sure to dispose of waste properly. This will help to protect the community from germs.

## Community messages



07. Protecting yourself against mosquitoes



17. Sleeping under mosquito nets



20. Collecting and disposing of rubbish

## 43. Social mobilization and behaviour change

### Overview

There are many reasons why people practise unhealthy behaviours. People are affected by access to services or facilities, social norms and influences where they work, live or play. Behaviour change is the study of how and why people change some habit or action in their life. As volunteers, we need to understand WHY the behaviour is happening and WHAT actions will lead to change to create healthy behaviours. Examples of healthy behaviours include handwashing, breastfeeding, immunizations, consistent condom use and use of bed nets.

In any culture and context, behaviour change involves three elements. Before people will change their behaviour:

1. They need to know what, why and how they should change. They need knowledge.
2. They need to have the right equipment, access and capacity. They need an enabling environment.
3. They need to be motivated to change.



The social-ecological model below shows how each person's behaviours are affected by many different levels of influence including the individual level, the interpersonal level, the community level, the organizational level and the broader policy level which includes laws and policies that allow or restrict a behaviour. In order to promote health, it is important to consider and plan behaviour change activities across multiple levels at the same time. This approach is more likely to result in successful behaviour change over time. As a volunteer, it is helpful to understand that behaviour change is difficult for many people because of these many levels and the complex interactions and expectations across the different levels. If you consider how each of the levels affects the behaviour of the person you want to help, you can try different interventions at each level that is specific to their needs.



Socio-ecological model

### What do to and how to do it

The general process for developing a behaviour change intervention includes staff and volunteers working through the general steps of:

1. Sensitizing the community to the behaviour change process using the theory of change model.
2. Assessing the problem behaviour – why it is practised, who practises it, when it is practised and what factors in the environment or society encourage the behaviour. Assess this information at the different levels of the social-ecological model for each community you serve.
3. Identifying an appropriate behaviour goal based on your assessment.
4. Reviewing the causes or barriers at each level that allow the behaviour to continue. Identify interventions

that align with each cause or barrier and that can be used at different levels.

5. Discussing the suggested interventions for each social-ecological model level with the community.
6. Identifying appropriate interventions for the context at each level. Interventions should be planned to address the stages of the theory of change by first giving knowledge and addressing environmental factors, motivating key people to gain approval and intentions, and ultimately inciting people to action that contributes to the overall goal.
7. Implementing the interventions at each level.
8. Monitoring to see if change is happening. Change takes time but it must be monitored to ensure that it is happening, even slowly. Additionally, as people go through the change process, their barriers and causes will change. The behaviour change interventions should adjust to these changes to ensure that change can continue.
9. Recognizing that when change is not happening as intended, further assessment and intervention tweaking is needed.
10. Continuing to implement, monitor, assess and adjust as the change process happens.

For more information, please consult the eCBHFA Manual for volunteers on Behaviour Change, including:

1. Principles of behaviour change
2. The social ecological model
3. The stages of behaviour change
4. Activities for behaviour change

## Community messages



23. Encouraging healthy behaviours in a community