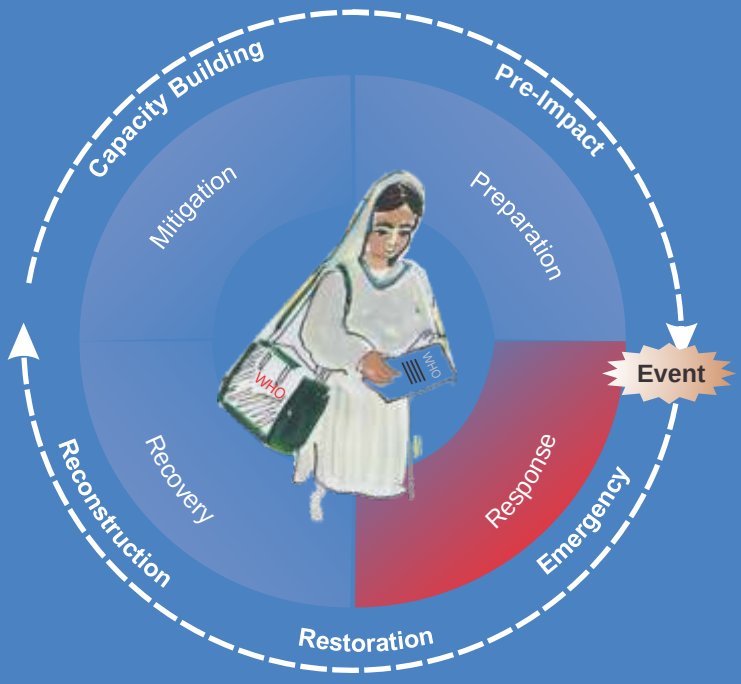
Module 3

Community Based Health workers Action During Emergencies



Community Based Health workers: Action During Disaster

Introduction

This module contains three sessions, each covering the concept of Emergency Response Management, including Search and Rescue and First Aid, Evacuation Management and health needs, the need for coordination with health service providers and local authorities respectively.

Module's Objectives

1. Know about the basic concepts, aims, and elements of emergency response management, including Search and Rescue and First Aid
2. Understand the basic concepts, types and various stages involved in evacuation before or during disasters and emergencies and the health needs that may arise
3. Understand the need for coordination with health service providers and local authorities in the area, and know strategies for coordination

Sessions to be covered in this module:

Session 3.1:	Understanding Emergency Response Management, including Search and Rescue and First Aid
Session 3.2:	Evacuation Management and health needs
Session 3.3:	Coordination with health service providers and local authorities

Session 3.1:

Understanding Emergency Response Management, including Search and Rescue and First Aid

Session Objectives

At the end of the session, participants are expected to:

- ✓ Define the different concepts in Emergency Response Management (ERM);
- ✓ Understand the different phases and key elements needed for emergency response management including local level Search and Rescue and First Aid activities.

3.1.1. Basic concepts of ERM

a. *What is an Emergency?*

Such an event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response.

Emergency Situation due to Fire

b. *What is Response?*

"Response is a reaction to such a situation or event". Response can from an individual to national level. The response phase of an emergency may commence with search and rescue but in all cases the focus will quickly turn to fulfilling the basic life saving and humanitarian needs of the affected population. Effective coordination of disaster assistance is often crucial, particularly when many organizations respond and local emergency management agency's capacity has been exceeded by the demand or diminished by the disaster itself.

Evacuation of Victim

Box. 3.1: Characteristics of Emergency

Disruptive to individuals and communities:

- Not part of day-to- day experience;
- Unpredictable in occurrence and effects;
- Requires a response;
- local resources may be inadequate;
- Wide range of destructive effects and impacts on the humans, animal and/or plant life, health, property and/or the environment;
- Complex needs in dealing with them;
- Can be of sudden onset;
- Overwhelm normal prudent protective measures.

c. *Aim of the Emergency Response Management*

"To reduce mortality rate and damage to property thereby reducing the impacts of disaster and to ensure successful recovery of maximum number of people"

d. *Importance of a Timely and Coordinated Response*

Depending on injuries sustained by the victim, outside temperature, and victim's access to air and water, the vast majority of those affected by a disaster will die within 72 hours after impact.

e. *Activities included in Emergency Response Management*

- Search & Rescue
- Fire Fighting
- Emergency Medical Assistance including first aid, mass casualty management and physiological first aid etc
- Transportation of victims
- Need Assessment Survey

- Hospital Preparedness
- Evacuation
- Provision of food and non-food items
- Temporary shelter
- Emergency repair of critical facilities
- Security measures/tracing/family reunification

Box. 3.2: Emergency Response Management

Such a range of activities, which took place for managing the risks eminent to the communities and the environment. These measures are;

- Plans
- System & Policies
- Administrative decisions
- Operational activities which pertain to the various stages of an emergency at all levels
- Resource availability

f. *Preparedness for Effective Response*

Preparedness measures can take many forms including the construction of shelters, installation of warning devices, creation of back-up life-line services (e.g. power, water, sewage), and rehearsing evacuation plans. In the preparedness phase, emergency managers develop plans of action for when the disaster strikes. Common preparedness measures include:

- Communication plans with easily understandable terminology and methods
- Proper maintenance and training of emergency services, including mass human resources such as community emergency response teams
- Development and exercise of emergency population warning methods combined with emergency shelters and evacuation plans
- Stockpiling, inventory, and maintain disaster supplies and equipment

Box. 3.3: Principles of Emergency Response Management

- Comprehensive-risk assessment, prevention, preparedness, response and recovery
- All hazards- managing the large range of possible effects of risks and emergencies
- All agencies & integrated
- Appropriate resourcing

3.1.2. Local Level Search and Rescue Techniques

a. *Introduction*

Search and rescue functions are broken into two aspects:

a. Search: to carefully look for victims in order to find someone missing or lost

b. Rescue: to free a trapped victim/casualty from confinement or from under a rubble

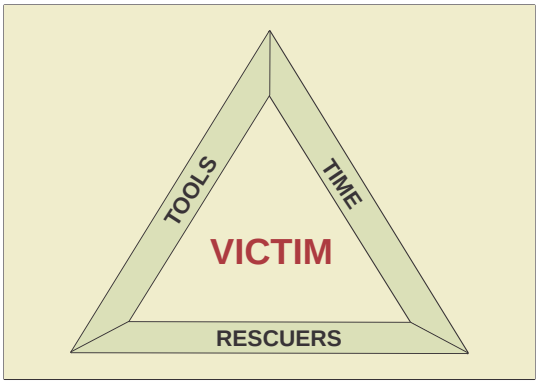
b. *Components of Search & Rescue operation*

1. Rescuers: includes trained personnel and volunteers.

2. Tools: depend on their availability and the needs of the situation. For example, storm or earthquake damage may require tools for lifting debris whereas flood damage may require boats and ropes.

3. Time: may be very limited for some victims. The first 24 hours after a disaster are called the "Golden hours" where injured or trapped victims has an 80 percent chance of survival, if rescued.

Tools for water rescue



c. *Principles of the Search and Rescue:*

These steps are;

- Search and Locate Victim
- Gain Access to the Victim
- Stabilize the Victim
- Extricate the Victim

Rescue of Trapped Victim

Box. 3.4: Steps for rescuer's safety

- Survey the scene (i.e. prevent further injuries by identifying potential environmental or other risks to the rescuer, victim or bystanders)
- Determine first aid needs
- Plan your course of action
- Build the rescue system

d. *Basic Principles to be Followed During the Search and Rescue Operation*

These principles are;

- How to approach the damaged buildings
- Damaged buildings and facilities should only be approached from the least dangerous side
- While surveying indoor space in buildings, do not use open fire (torches, kerosene lamps) for lighting
- When searching for casualties DO NOT walk or stay near badly damaged and collapse-prone buildings
- Do not allow many people to gather in one spot, in shafts, or floors
- Do not go near collapse-prone walls or other constructions
- Move very carefully over building ruins (only if it is absolutely necessary) as they are unstable heaps of fragments
- When removing rubble from ruins, do not permit abrupt jerks, shaking, or strong blows at the site

e. *Basic rescue evacuation techniques*

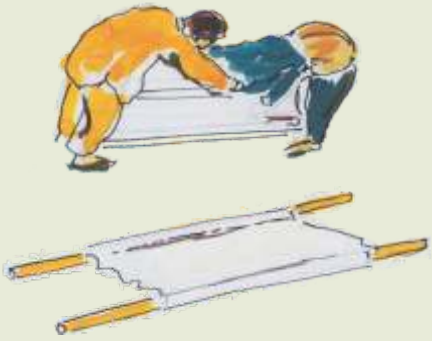
Evacuation and safe rescuing of victim by applying simple manual techniques can save the life of the victim. Regular hands on practice and drills will help the rescuer to safe lives in quicker and safer manners

There are many types of rescuing techniques but, we will discuss few important and improvised techniques as shown in table. 3.1 and 3.2.

Table. 3.1: Important rescue techniques (One Rescuer)

i.	Ankle pull	The ankle pull is the fastest method for moving a victim a short distance over a smooth surface. This is not a preferred method of patient movement.	
ii.	Shoulder pull	The shoulder pull is preferred to the ankle pull. It supports the head of the victim. The negative is that it requires the rescuer to bend over at the waist while pulling .	
iii.	One-person lift	This only works with a child or a very light person.	
iv.	Pack-strap carry	When injuries make the rescuer carry unsafe, this method is better for longer distances than the one-person lift.	

Table. 3.2: Important rescue techniques (Two Rescuers)

i.	Human crutch / two-person drag	For the conscious victim, this carry allows the victim to swing their leg using the rescuers as a pair of crutches. For the unconscious victim, it is a quick and easy way to move a victim out of immediate danger.	
ii.	Four-handed seat	This technique is for carrying conscious and alert victim's moderate distances. The victim must be able to stand unsupported and hold themselves upright during transport.	
iii.	Two-handed seat	This technique is for carrying a victim longer distances. This technique can support an unconscious victim.	
iv.	Chair carry	This is a good method for carrying victims up and down stairs or through narrow or uneven areas. Note: The chair used should be a sturdy one. Don't use aluminum beach chairs, resin patio chairs, swivel chairs, or lightweight folding chairs. Remember: Chairs with wheels can be used to roll the victim, but should not be used for a carry.	
v.	Improvised stretcher	This technique requires two poles/ pipes strong enough to support the victim's weight and at least two shirts. Remember: Rescuers should not give up clothing if, for any reason, this might affect their health, welfare, or reduce their effectiveness.	

3.1.3. Basic Medical First Aid Techniques

a. *Definition*

First Aid is the initial immediate assistance or treatment given to someone who is injured or has suddenly fallen ill before the arrival of an ambulance, doctor or other appropriately qualified person.

b. *First Aid Priorities*

- Assess the situation quickly and calmly
- Protect yourself and casualties from danger
- Assess the conditions of all casualties
- Comfort and reassure the casualties
- Deal with any life threatening conditions first
- Obtain medical aid if necessary

Medical First Aid

c. *Search and locate victims*

Following good practice guidelines will help to prevent the spread of infection

- If facilities are available, wash your hands thoroughly with soap and water before and after treating a casualty

- If possible, carry protective disposable gloves with you at all times and use them when you are giving first aid, if gloves are not available ask the casualty to dress his/her own wound or enclose your hands in clean plastic bag (shopping bag)

- Dispose off all waste safely

d. *Whom to approach first?*

There are three conditions that immediately threaten life:

- Breathing problems
- Heart problems
- Serious Bleeding

When there is more than one injured person, go to the quiet one first. They may be unconscious and need attention.

For Unconscious person: Open airway; Place one hand on forehead and gently tilt the head back and lift the chin.

Check breathing: Look, Listen and feel for breathing for no more than ten seconds. Look for chest movement, Listen for sound and feel for breath on your cheek.

Table. 3.3: Action at an Emergency (DRABC)

D.	Danger	Assess the situation: are there any dangers to yourself or the injured person? If it is there, either remove the danger or take the casualty out of danger.	
R.	Response	Assess the person for responsiveness: do they respond to your voice and being gently shaken?	
A.	Airway	Check and open the airway; place one hand on the forehead, tilt the head back and lift the chin.	
B.	Breathing	Check breathing, Look, Listen and feel for breathing. Look for chest movement, listen for sounds of breathing and feel for breath on your cheek. Do this for no more than ten seconds. If the person is breathing normally, assess for life threatening injuries and then place in the recovery position and maintain an open airway.	
C.	Compre-ssions	If they are NOT Breathing normally, send a helper to call an ambulance and start Cardio-Pulmonary Resuscitation (CPR), cycles of 30 chest compression followed by 2 rescue breaths or only continue chest compression at the rate of 100 compression per minute.	
C.	Circulation	Look for blood pumping or pouring out of a wound, control it with direct pressure, look for normal tissue color.	

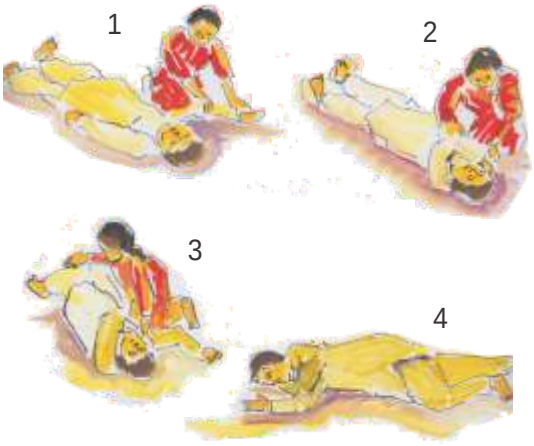
f. *Recovery Position:*

If an adult or child is unconscious but breathing normally, place them on their side in the recovery position.

i. Place arm nearest you at a right angle with palm facing up

ii. Move other arm, palm upwards against the person's cheek. Then get hold of knee furthest from you and pull up until foot is flat on the floor

Iii. Pull the knee towards you, keeping the person's hand pressed against their cheek and position the leg at a right angle



Recovery position

g. *Bleeding:*

Applying direct pressure to external wounds by using sterile cloth or gloved hands to control bleeding. Similarly blood loss can be serious and should be treated as quickly as possible.

Your main aim is to stem the flow of blood. If you have disposable gloves available, use them if not then wear any plastic bag (Shopping bag)

i. Check whether there is an object embedded in the wound

ii. If there is nothing embedded, press on the wound with your hand, ideally over a clean pad and secure with bandage

iii. Raise the wounded part above the level of the heart

How to stop bleeding

Applying direct pressure to external wounds by using sterile cloth or gloved hands to control bleeding

h. *Shock:*

The most common cause of shock is severe blood loss. This is life threatening condition and occurs when vital organs do not get enough oxygen due to reduced blood circulation.

Signs & Symptoms: Rapid weak pulse, Pale grey skin, sweating, cold & clammy skin.

Management: Treat the cause, help the person to lie down, raise and support the legs, loosen any tight clothing and reassure the casualty.

i. *Burns and Scalds:*

Burns and scalds are among the most common injuries requiring emergency treatment

i. Cool the burn area as quickly as possible by placing the affected area under cold running water for at least 10 minutes

ii. Cover the injury using a clean pad or cling film and seek medical advice. Call for help in severe cases

Burns and Scalds

j. *Strains & Sprains*

Management: Strain & sprain should be treated initially by the "RICE" procedure as given in box. 3.5

Box. 3.5: Strains & Sprains

R:	Rest the injured part
I:	Apply ice or a cold compress for first 30 min
C:	Compress the injury with a compression bandage
E:	Elevate the injured part

k. *Fractures:*

A fracture is a break or crack in a bone

Management: Encourage the casualty to keep still Steady and support the injured limb

If the fracture is open, cover with sterile dressing Immobilize the limb in two joints (before the fracture and after the fracture)

Before and After the Fractures

Exercise:

Q: Enumerate at least 4 methods of safe rescuing?

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Q: How to bring patient with the help of chair?

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Q: The .....is the fastest method for moving a victim a short distance over a smooth surface. (ankle pull, one person left, pack strip carry)

Q: What does RICE means?

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Q5: What does DRABC means?

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Session 3.2:

Evacuation Management and health needs

Session Objectives

At the end of the session, participants are expected to:

- ✓ Define the basic concepts, types and various stages involved in evacuation before or during disasters and emergencies;
- ✓ Understand the health needs that may arise as a result of evacuation.

3.2.1. Basic concepts

a. *Evacuation:*

Evacuation is a temporary movement of people from identified danger zones to the designated safe houses/centers in order to protect their lives.

b. *Preventive Evacuation:*

Preventive evacuation refers to evacuating when the flood water and other hazards or threats have not yet reached the houses of peoples at risk.

c. *Warning System:*

Warning system includes actions to alert people about an upcoming hazardous event or circumstances in their location, which may threaten their safety and security, and which requires adaptive response.

3.2.2. Stages of evacuation

a. *Pre-evacuation*

Evacuation can be an important component of prevention, preparedness and response. It involves the temporary transfer of a population (and to a limited extent, property) from areas at risk of disaster to a safer location and do not create health hazards.

- Evacuation planning is an important part of the community disaster risk management plan
- This helps a greater number of people to escape and at a faster rate, it lessens the panic and confusion typically associated with evacuations, and it allows for a quicker return to normalcy once an emergency is dealt with.

Community health worker has to organize an Evacuation Committee among community members

1. Task of Evacuation Committee

i. Pre-evacuation:

- Prepare evacuation plan including warning system
- Training and education of community members
- Identify and prepare logistical needs for evacuation
- Networking, coordination and resource generation for the purpose of evacuation

ii. During evacuation:

- Give order to move
- Manage logistical needs for the evacuation
- Ensure orderly evacuation
- Identify a safe place for evacuation
- Act as marshals/guides during evacuation
- Health needs search and rescue
- Identify health needs

iii. In Evacuation Center:

- Coordinate with health, food, sanitation, security, information committee
- Manage relief operations while in evacuation center
- Networking, public information, advocacy, resource generation

iv. Pre-evacuation planning:

CHW may or may not support the evacuation committee for the following task:

- Establish early warning system
- Identify shortest and safest route
- Identify and prepare alternative routes
- Identify pick up points or assembly points for people
- Place "road signs" along evacuation routes
- Give special consideration for personal situations which may affect an individual's ability to evacuate
- Prepare master list of evacuees and check at each pick-up point if the group is complete
- Prepare evacuation schedules and groupings in case transportation will be used
- Set provisions and plan evacuation of animals and other properties of evacuees
- Identify and prepare requirements during evacuation (transport, gasoline, emergency kit, road signs, communication systems, etc.)

b. *Early Warning*

i. What is Early Warning?

Early warning is the relay of messages about the existence of danger and what they need to do to prevent, avoid or minimize the danger.

Tools use for early warning

ii. Why do we give warning?

To inform about:

- Hazards
- Elements at risk (who and what might be affected)
- Risks
- The environment
- Potential needs

To advise on:

- Means of protection

Example: Warning on contamination of water sources either from natural or human made activities (contamination due to parasites/bacteria)

- Means of preparedness

Example: Preventive evacuation due to severe weather forecast/warning

- Means of mitigation

Example: Sandbagging to reinforce the dikes

- Means of response to threat

Example: Warning that flood water is about to breach dike and there is a need to reinforce dike (sandbag)

To instruct:

- What
- When
- How
- Who
- Where

iii. Different forms of giving warning and/or receiving warning

- Village/community meetings
- Notices/posters/billboards
- Verbal or pictorial messages
- Sirens
- Radio

- Television
- Newspaper
- Announcements
- Other indigenous forms and channels

iv. Things to consider when giving warning

1. Inform the people of the different phases of warning and their meaning

2. Inform or update the evacuees/community of the forecast and the warning using symbols or sounds that everybody can understand.

   a. If symbols are to be used, these can be painted or mounted in plywood or boards that can be read or seen even from afar

   b. Make sure to change the symbol or sound when a change in the warning or forecast is made by warning agencies or by the Evacuation Committee

3. "Information Boards" can be placed in strategic or conspicuous areas/places like:

- Mosque, schools or government buildings mountains or high places
- Stores / transportation facilities
- Other places where people frequently pass or gather

4. Organize a committee on information

The task of this committee will be to monitor and prepare all things for the dissemination of information regarding the warning/forecast or the monitoring of all hazards (natural or man-made).

The flow of information from the "field" until it is processed and packaged for information dissemination to the community should be clear.

5. The warning should be:

- Area specific and target sector/people specific
- Hazard specific
- Based on the Hazard, Capacity and Vulnerability Assessment
- Give advise on what to do
- Inform community of the possible effects / risks that may cause them if they don't follow
- or do what is advised

6. Community should know the meanings of actions to be taken. Or recommended action should be specific like: pack-up things, proceed to pick-up point or proceed to evacuation site

7. Warning is given in simple form and in the local dialect

Even if the warning creates awareness of an impending danger, people may fail to react, and it is likely that community health worker's will be part of a broad effort to convince the affected population that the warning must be taken seriously.

c. *Evacuation*

Evacuations are carried out before, during and after disasters.

When is the Right Time to Evacuate?

When . . .

- Inundation of living areas by flood, Storm surge or tsunami
- Volcanic eruption
- Serious damage to construction of homes (typhoon, earthquake, etc)
- Fire
- Situation of armed conflicts/civil war

Evacuation of Community Members

i. *Phases of Evacuation*

1. Warning
2. Order to Move
3. Actual Evacuation
4. Evacuation Center/shelter
5. Return to former or new place

ii. *Types of Evacuation*

iii. *Pre Impact Organized Evacuation*

Organized, pre-impact evacuation is commonly carried out on a massive scale in some countries in response to warnings of tropical storms or volcanic eruption (e.g. India, Bangladesh, Philippines). Various forms of evacuation may be organized as a precautionary measure in response to an impending threat like typhoon and slow onset floods.

iv. *Post Impact Spontaneous Evacuation*

Post-impact spontaneous evacuation occurs in response to the loss of shelter or essential services in the affected area. In tropical storms and flooding, there is a tendency to move to the periphery of an affected area, especially where some existing services remain, or to higher ground or raised roads. In many emergencies, affected people will move quickly to stay with friends and relatives, in preference to staying in public facilities (public buildings, schools, stadiums, military camps, tents, etc.).

d. *Health Needs of the Population Displacement in Emergencies*

Any large-scale population movements into an area are of primary concern for health workers. Such movements involve settlement in low conditions, usually away from basic services.

Below are the problems (Box. 3.2) that have great impact on the health of the displaced population during evacuation.

Box. 3.2: Problems that have great impact on the health of the IDPs during evacuation

- No reliable water supply for drinking water which may cause water born diseases.
- Increase risk of fecal–oral transmission of diseases related to poor hygiene.
- Presence of disease vectors (e.g. malaria mosquitoes).
- Increase risk of communicable disease transmission due to overcrowding in shelters. Measles is a particular risk when the population has low immunization coverage. Health conditions and nutritional status before displacement are also a contributing factor.
- Random defecation due to limited or no access to proper latrines spread different diseases.
- Insufficient supply of proper food that will lead to nutritional deficiencies.
- Psycho-social problems due to traumatic experience from the disaster.
- Disruption of health care delivery system (people with existing medical conditions will be affected, maternal and child care services limited).

Exercise:

Q: What is the existing evacuation plan in your com

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Q: In temporary shelters, what are the possible health needs of the displaced population?

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Q: In case of a major emergency, what are the possible places where you can evacuate?

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Session 3.3:

Coordination with health service providers and local authorities

Session Objectives

At the end of the session, participants are expected to:

- ✓ Understand the need for coordination with health service providers and local authorities in the area;
- ✓ Recognize strategies for coordination.

3.3.1. Importance of coordination

As front-line health workers and first responders, the community health workforce plays a pivotal role in emergencies. The key role of community health worker during emergency and within 2-3 days of disaster is to;

- Contribute to community emergency needs assessments and ongoing monitoring during emergencies
- Provide priority PHC services including referral, behaviour change communication, health promotion and education
- Conduct community-based surveillance and early warning of diseases of epidemic potential
- Provide first aid and basic life support, and support mass casualty management including essential trauma and surgical care
- Provide psycho-social services, community support and psychological first aid

This all requires coordinated efforts among all key stakeholders especially with local health service providers and other local authorities in areas

Coordination is even more important in emergency assistance operations than in development work because;

- Lives might be at risk,
- Logistic and other resources are likely to be limited, and
- Decisions are made quickly

There are many possibilities for duplicating effort, wasting resources, and leaving gaps in both geographic and sectoral coverage.

Timely, reliable information is crucial to planning and implementing emergency and post–disaster assistance operations, and to mobilizing local and national and resources.

The regular dissemination of relevant information is a precondition for effective coordination and co-operation at local and national levels between sectors, operational agencies and donors

3.3.2. Coordination role of community health worker

- Maintain frequent, direct contacts with local health focal point and service providers
- Establish linkages with Emergency Information and Co-ordination (EIC) support unit
- Maintain close contact and exchange information with the local authorities and other concerned parties like donors, NGOs
- Participate in and support local health cluster
- Disseminate health information regularly to all concerned departments, and local authorities
- Help direct the attention of NGOs to areas and activities where they can make the greatest contribution

3.3.3. Strategies for coordination

There are different coordination mechanisms during emergency and after disaster for improving the effectiveness of humanitarian response by strengthening partnerships between government, NGOs, international organizations, the International Red Cross and Red Crescent Movement and UN agencies. As a member of local emergency response team, CHW should be familiar with the most commonly used coordination mechanism i.e. cluster approach in order to play active role.

3.3.4. Cluster Approach

The "cluster approach" is a mechanism that can help to address identified gaps in response and enhance the quality of humanitarian action through partnership and coordination. Cluster is a group of organizations providing services within the same 'theme', e.g. health or protection with ONE lead.

a. *The Health Cluster*

- First set up in June 2005, with WHO as lead agency
- Members involve key UN and non-UN humanitarian actors

- A joint action plan developed to support implementation in pilot countries and strengthen health response during crises
- First implemented during the South Asia earthquake, October 2005, and

b. *Health cluster Coordination and it's significant*

- Health cluster works closely with Nutrition Cluster and WASH Cluster in all emergencies
- Depending on the situational context, the Health Cluster is also closely linked to the Shelter Cluster and the Camp Coordination and Management Cluster
- Due to health sectors commitment to cross-cutting issues, the Health Cluster also works with the Protection Cluster on issues of mental health and psycho-social support and with the Early Recovery Cluster on the health aspects of the recovery phase
- Through cluster approach, emergency response become more effective to fulfill the immediate health needs as well as to provide long term solution for affected population

Exercise

Q: When there's disaster in your community, what is the coordination mechanism that you follow in terms of:

1. Reporting of incident
2. Providing assistance to affected people
3. Who do you report to?
4. What is your role when there's a disaster?
5. What are the other organizations involved in the response operations?

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Q: Have you ever had a chance to become part of local health cluster? If yes; Who was lead that cluster? What are the other organizations involved in the cluster? What is your role in the cluster?

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