Managing disaster risks in communities

A community-based approach to disaster risk reduction

Training manual for the trainers of cluster representatives and volunteers

World Health Organization

Regional Office for the Eastern Mediterranean

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Acknowledgements

Summary

Disasters are one of the main challenges that face development and progress processes. Disasters can also negatively affect the achievement of development goals and affect people's health, lives, property and their living environment. Socioeconomic development can reduce disaster risks through improving access to health care services, safe drinking water, food, waste management and security, which can all be achieved through community disaster preparedness and response.

The impact of disasters is directly related to their severity and the level of vulnerability of individuals and communities. All countries are at risk of being exposed to any type of disasters, whether natural or man-made, so individuals should be prepared to protect themselves and help others by building community capacity and implementing mitigation activities.

Rationale for a community-based approach in disaster risk reduction

Community-based initiatives (CBI) are an instrument used to promote poverty reduction and improve the health and socioeconomic status of people. The CBI programme empowers and trains the community to participate in identifying problems and implementing needed interventions based on local needs, capacities and available local resources. The goal of such a research-based and developmental approach is to create policies and strategies that are supportive to health, community empowerment and local governance to ensure health equity and quality of life. Cluster representatives (CRs) and health volunteers (HVs), with their involvement in local health and development, are among those from the community structure who are trained on this type of approach.

"Community" is defined as a group of people living in the same environment, sharing the same livelihood. The following five elements should be considered when working with the community:

1. people
2. property
3. services
4. livelihood
5. environment.

Community members are the immediate victims of the adverse effects of disasters and they have the best knowledge about their local surroundings such as demographic, social, economic and cultural status, risky areas, water sources, roads and health facilities. In addition community members have information about the vulnerable groups such as: pregnant mothers, children, the disabled, the elderly, refugees, patients suffering from chronic disorders, etc.; and can assist health care

providers in giving priority to delivering the required assistance and care to the vulnerable groups. Empowering the community and sharing related information/experiences with them will help the entire society to be well prepared for disaster management.

During the planning and implementation processes of the community-based approach in disaster risk reduction (DRR); it is important to develop and enhance multisectoral collaboration between the local authorities, local health care facilities, communities and other key stakeholders.

All governments are responsible for protecting the community from disasters and strengthening their capacity to reduce disaster risks at the local level. As the government capacity to protect the population from different kinds of disasters is limited; communities cannot depend only on government actions to protect their own lives. Therefore it is important to develop the community disaster resilience, through the process of providing knowledge, skills, and the ability to mobilize their own resources in reducing disaster risk.

Appropriate disaster risk reduction measures in communities will enable the people to significantly reduce their exposure to risks from various hazards and also to minimize the adverse impacts. The community members have the capacity to cope with the impacts of a disaster and must be involved in the development of disaster risk reduction activities starting from the early planning stages. health facilties, research institutions such as academia and religious-based organizations can be involved in promoting disaster awareness and risk reduction efforts through implementing community-based disaster risk reduction activities. This manual can be used by the PHC workers to train health volunteers and cluster representatives in a three -days workshop at the community level, to promote their key role in reducing risks related to emergencies and disasters within their local areas.

Learning objectives and expected outcomes of the training workshop

By the end of the training participants will be able to:

1. Identify the differences between disaster, emergency, hazard, risk, vulnerability and capacity.
2. Identify types of hazards and their impacts.
3. Recognize the different phases of disaster risk management.
4. Identify vulnerabilities of communities and the capacity to reduce them.
5. Identify populations at risks and the different ways of protecting them.
6. Recognize the importance of networking and building partnerships with different stakeholders.
7. Develop a simplified plan of action on how to be prepared to manage disaster risks.

Introduction

Purpose and scope

This manual focuses on promoting the role of primary health care (PHC) facilities in strengthening community participation in disaster risk reduction (DRR) and helping the community to identify indicators of disaster risk and vulnerability. It provides guidance to assess the impact of disasters on social, economic and environmental conditions. The training also addresses the need to involve different stakeholders, ensuring that DRR is a local priority and sharing the local preparedness plan with the community with their defined responsibilities.

Why do we need this manual?

This manual has been designed to introduce different aspects of disaster risk management to PHC workers, cluster representatives (CRs) and health volunteers (HVs) at the community level in the Eastern Mediterranean Region. The PHC workers can then use the manual to train community members in their catchment areas on how they can be effectively prepared and contribute to reducing human, social, economic and environmental risks during emergencies.

Using this manual will enhance the role of PHC workers in strengthening the community's preparedness for, response to and recovery from disaster. The community will also be trained on how to assess the risks in their local area that result in a simple and practical plan of action that can minimize negative impacts of disasters. The manual has been prepared using simple language, including pictorial explanations, and was field tested in Sudan to ensure its validity.

Primary, secondary and end users

The manual can be used for the training of trainers at all different levels and categories as follows (see Figure 1):

- national, provincial and district master trainers (preferably officials responsible for emergency and humanitarian action (EHA) and PHC at each level);
- nurses, public health experts/ technicians, family health workers at the facility level (who can be assigned to train the health volunteers and cluster representatives);
- end users are cluster representatives and health volunteers at the peripheral level.

Master trainers at national and provincial level

EHA coordinators/focal points	PHC coordinators/focal points

Master trainers at district level

EHA coordinators/focal points	PHC coordinators/focal points

Health care providers at facility level

Cluster representatives	Health volunteers
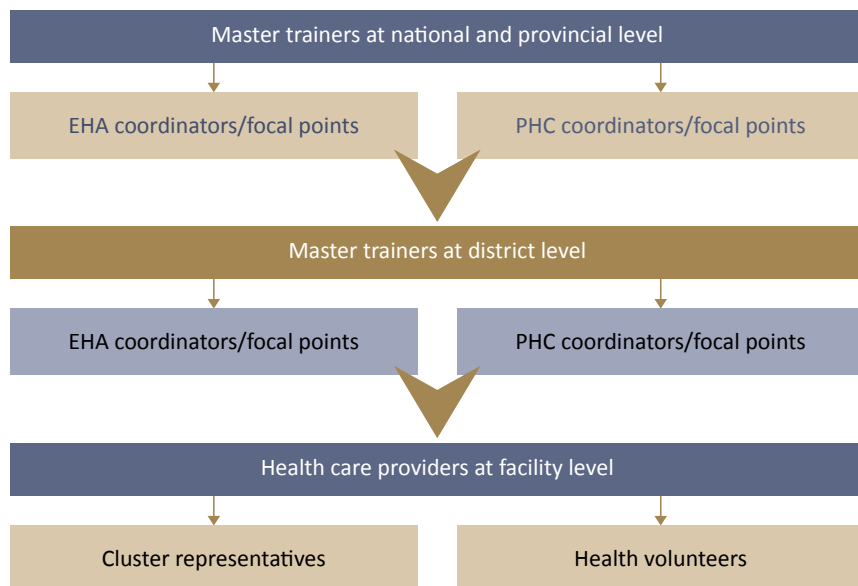
Figure 1. Country support process

Session 1. What is a disaster?

Learning objectives

By the end of this session participants will be able to:

1. Define a disaster in the context of a hazard, risk, vulnerability, emergency and capacity.
2. Define disaster risk.

Disaster

Any man-made or natural phenomenon that causes a situation involving massive destruction affecting a large number of people or livelihood and where the response to such an event goes beyond the community's capacity is called a disaster. In this situation local communities need external assistance. The 2005 earthquake of Pakistan, recurrent conflicts in the Gaza Strip, and disease epidemics are examples of disasters that have occurred in recent years in the WHO Eastern Mediterranean Region.

Hazard

The phenomena that cause such situations are called hazards. Hazards may be man-made or natural.

- Natural hazards: flood, cyclone, earthquake, tsunami etc.
- Man-made hazards: conflict, road traffic crash, chemical spill etc.

Risk

This is a combination of the probability of a hazard to happen as well as its negative impact. An example is the risk of death and injury from an earthquake.

Vulnerability

The impact of a disaster is affected by the communities and individual's social, physical and environmental status, expressed as vulnerability. Vulnerabilities expose communities to different kind of risks. For example, older persons and children are more seriously affected by hazards than young adults. People who are poor and malnourished are more susceptible to communicable diseases following any kind of disaster.

Emergency

An emergency is a situation that needs immediate action and response. Any man-made or natural phenomena may cause an emergency. In any community, floods or

a road traffic accident may cause an emergency situation. If the scale of the event is small, then the local community can manage such emergencies, but if the scale is beyond the capacity of the local community, it is called a disaster.

Capacity

Capacity is all the resources and strengths that are present within all components of the community that help the community to minimize risks from any hazards. For example, good health services save the lives of people.

What is disaster risk?

Disaster risk is the potential loss in terms of lives or property that could happen to a community, caused by any hazard.

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 1, Brainstorming) to help them to formulate a list of the most frequent disasters that have happened in their area within the past 10 years. Help them to remember the adverse effect of each disaster based on their own experiences. The outcome of this exercise will help you in performing the other exercises on planning for disaster preparedness and response based on the most frequent disasters that have happened in the area.

Exercise 1. Brainstorming

Objectives	By the end of the exercise participants will be able to: — Identify types, frequency and consequences of disasters. — Identify risk factors and preventive measures.
Method	Group discussion
Total time	1 hour • Introduce the exercise (5 minutes). • Conduct group work session (20 minutes). • Present the group work and conduct discussion (20 minutes). • Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers
When to use	Use before the presentation of types of disasters, risk factors and preventive measures.

Instructions to facilitator	• Introduce the exercise.
	• Ask participants to discuss the disasters that the community has faced during last 10 years in their local area.
	• To identify type, frequency and consequences of disasters:
	  — Ask participants if they remember the dates for each disaster? (it would be useful to know what type of disasters occurs most frequently in this area).
	  — What were the results? How many people died, were injured, made homeless? What was destroyed?
	• To identify risk factors and preventive measures:
	  — Who suffered most and why?
	  — Where (geographic area) did maximum destruction occur?
	  — Why in some particular areas?
	  — What type of facilities and buildings were destroyed?
	  — Was it possible to prevent destruction, death and injury?
	  — And if yes how?
	• Use flip chart to note inputs from facilitators.
	• After the participants have completed the group work, ask them to present their work.
	• Briefly discuss the types of disasters, risk factors and preventive measures.
	• Keep the results of discussions for future planning.

Session 2. Community-based approach to disaster risk reduction

Learning objectives

By the end of this session participants will be able to:

1. Determine the importance of a community-based approach to disaster risk reduction.
2. Identify successful disaster risk reduction measures that involve community members (from political, social and economic sectors) in the phases of planning, decision-making, and implementation of relevant activities.

Community-based disaster risk reduction

Community-based disaster risk reduction is based on the concept and practice of reducing disaster risks through the systematic efforts of assessing and communicating risks by the communities themselves, thus saving more lives.

Communities must be aware of the importance of disaster risk reduction for their own well-being. It is necessary to identify essential skills that are needed to take the necessary actions for risk management.

Community-based disaster risk reduction can be achieved through:

- Increasing community risk awareness and assessment including hazard and vulnerability analysis (details are introduced in sections 4 and 5).
- Building community capacity through the implementation of different interventions, such as briefing and training the community on community involvement in disaster risk reduction research activities, identifying the most vulnerable groups, mapping risk areas, communicating risks to the community etc.
- Public commitment towards supporting local emergency contingency planning.
- Application of measures including environmental improvement and the protection of critical facilities such as health centres, schools, fire stations, water sources, electricity etc.
- Partnership and networking for technical and financial support.

Advantages of the community-based approach in disaster risk management

Community ownership and sustainability

The community-based approach is based on people's involvement and gives the community ownership of the related interventions and activities, thus making it more effective and sustainable.

Addresses community needs

The community-based approach targets and involves communities and addresses their short-term and long-term needs.

Relevant to community needs

Communities represent the best target for this type of intervention, since they know what works within their contexts. Moreover, the information can be presented in a way that people can easily understand and use for planning purposes, addressing local needs. For example, collecting and analysing information in the local language matches with people's culture and beliefs, while using the most appropriate mechanisms and tools that are available at the local level.

Provides knowledge and skills

The community-based approach empowers the community with the necessary knowledge and skills to help themselves and others before, during and after disaster occurrence.

Supports good practice

Best practice from a particular community can be shared across communities with similar risks. This helps in maximizing use of the resources available.

During the intervention phase for disaster risk reduction, the following must be considered:

- address gaps and weaknesses to enable the communities to be prepared in responding to disasters;
- establish community assistance committees and networks to ensure community participation in all emergency preparedness programmes;
- develop an employment protection programme;
- improve community access to information and policy-makers to advocate for:
  - making information available to the entire community in their own language or dialect;
  - the training of village development committee members including available professionals, such as engineers, planners, economists, social scientists and

other managers to include hazards and disaster risk reduction within their area of work;

− construction of hazard-resistant buildings and infrastructure, for example, strengthening of facilities including health and educational facilities.

Session 3. Hazards and impact

Learning objectives

By the end of this session participants will be able to:

1. Identify the destruction that hazards may cause and be able to assess the impact of hazards, for example, by knowing the number of dead or injured, affected infrastructure, level of water in floods, etc.
2. Determine possible actions to reduce the impact of hazards.
3. Know how to predict disaster occurrence and to warn people.
4. Identify people with vulnerabilities.

Hazards can lead to deaths, injuries, loss of property, and damage the social, environmental and economic status of the people. Impact can vary according to the type of hazard. For example, the destruction of buildings is more likely to occur in earthquakes and floods; morbidity is more likely to occur during epidemics; and injuries are more likely to result from wars and conflicts. It is important to know that some hazards can cause widespread and complex situations while others, like disease epidemics, may have health impact only.

Hazard analysis

Importance of hazard analysis

Hazard analysis can help the community to anticipate the impact of hazards and the contributing factors (vulnerabilities) to the magnitude of the impacts. Accordingly, they will be able to set their priorities to overcome these hazards.

How can the community perform hazard analysis?

Hazard analysis can be done by identifying:

- underlying causes of hazards
- frequency
- seasonality
- geographical area of occurrence
- hazard trends in the defined area
- past history of hazards
- impact of previous hazards (risks and vulnerabilities).

If the community has good knowledge of hazards in their local area, they can be better prepared to take the necessary decisions and plan for appropriate

interventions. The community can be prepared in different ways to avoid or decrease the impact of hazards by taking some precautions related to the types of hazard. These precautions include: building houses far from the rivers; self-hygiene to protect children from different types of communicable diseases; using impregnated bed nets to protect family members from malaria; good nutrition to decrease the degree of vulnerability during disasters; high immunization coverage to decrease adverse effect of epidemics; protective measures to decrease the number of deaths and burn injuries from fires .

Role of cluster representatives and health volunteers in hazard analysis

- Raising community awareness.

- Collecting information about hazards at the community level.

- Training community members on predicting the occurrence of hazards and communicating risks of different hazards.

- Warning the community as soon as possible to take necessary action, for example, in the case of epidemics when cases of a certain disease start to appear, or in the case of floods when there is an increase in water level etc.

- Establishing a background analysis and database about community members who are most at risk. This will decrease the hazards of a disaster by enabling the necessary action to be taken promptly to help vulnerable groups, such as children, elderly people, pregnant women, people who live in houses near to rivers in the case of floods, or close to mountains in the case of torrents or earthquakes.

- Engaging individuals and groups in producing local community hazard mapping and analysis through performing the following steps.
  1. Identify and prioritize a list of common problems and needs.
  2. Visit the area and sites, draw detailed hazard maps which show potential hazards, vulnerable people and resources in case of emergency.
  3. Organize a local disaster committee to plan risk reduction measures or to formulate a local emergency preparedness and response plan.

Any plans that are generated based on these maps need to be realistic and achievable and widely discussed and disseminated in the community. These maps can be useful for identifying the risks threatening a certain area, the capacity and resources (e.g. skills, food reserves, emergency housing options, community and social organizations, businesses, local leaders and transportation sources) of the community to overcome those risks. Teachers, schoolchildren, social and health care workers, staff and volunteers of nongovernmental organizations, and community members can participate in creating these maps using the available information and tools.

Table 1 gives some details and examples that could be of a great help to initiate a database about hazards and how to predict the populations at risk.

Table 1. Hazards and how to predict the populations at risk

Hazard	Impact	How to know the degree of severity	Impact indicators	Possible actions to reduce the impacts	How to predict/warn people	People at risk
Earthquake	Destruction of buildings	Based on the population affected	% of population affected % population killed	Building houses that are earthquake resilient Raising awareness of people as to what they should do to protect themselves in a earthquake	There is no early warning for an earthquake as it is a sudden onset hazard. However, preparing people to protect themselves from the impact of an earthquake will save lives	Population living in earthquake-prone areas
Epidemic	Mortality	Based on the population affected	Number of cases Number of deaths	Personal hygiene, regular checkups including immunization, and health care providers advice	Increased number of cases of certain diseases	Children, old people, pregnant women, people with chronic diseases or low immunity (e.g. HIV, tuberculosis)
War/conflict	Injuries and deaths	Based on the population affected	Number of injured people or deaths Number of houses and facilities destroyed	Raising awareness of people as to what they should do to protect themselves in cases of conflict Relocation when conflicts arise	Clashes between tribes, political groups	People living in conflict zones, soldiers, relatives of political leaders, security guards

Now take the participants into an interactive group discussion (Group work exercises, Exercise 2, Hazards and impact) to come out with a list of disasters, hazards, severity, how to assess hazards, protective measures and vulnerable groups.

Exercise 2. Hazards and impact

Objectives	By the end of the exercise participants will be able to:
	• Recognize the destruction that particular disasters may cause, bearing in mind that some disasters may cause more than one hazard (social, economic, environmental, health, infrastructure) while others may have only health impact. For example, destruction of property as in earthquakes and floods; mortality and morbidity as in epidemics; and injuries and death as in wars and conflicts.
	• Assess the hazards of the disaster. For example, the number of deaths or destroyed buildings, level of water in floods etc.
	• Identify the possible actions to take to reduce the hazards. For example, building houses far from the rivers, self-hygiene for protection from infections, using impregnated bed nets to protect people from malaria, good nutrition to increase immunity, following safety measures to protect from fires etc.
	• Help the community recognize warning signs. For example, when infection of a certain disease starts to spread, building community awareness will help prevent further disease spread and reduce potential workload of health care providers; or when the water level rises in a flood, informing the community will result in some precautionary actions.
	• Identify the people most at risk. For example, children, elderly people, pregnant women, people living near rivers in case of floods or close to mountains in case of torrent or earthquakes.
Method	Group discussion using the output of the first group discussion (the most frequent disasters during past 10 years in your area)
Total time	1 hour
	• Introduce the exercise (5 minutes).
	• Conduct group work session (20 minutes).
	• Present the group work and conduct discussion (20 minutes).
	• Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers, printout of the table below
When to use	Use after the presentation Hazards and impacts.

Exercise 2. Hazards and impact *(continued)*

Instructions to facilitator	
	• Introduce the exercise.
	• Ask participants to use the output of the first group discussion (the most frequent disasters during past 10 years in your area).
	• Assist the working groups to come out with the desired results. Discuss Table 1 with the groups and then ask them to fill in the following template for their local situation including:
	a) the destruction that particular disasters may cause, bearing in mind that some disasters may cause more than one hazard (social, economic, environmental, health, infrastructure) while others may have only health impact. For example: destruction of property as in earthquakes and floods; mortality and morbidity as in epidemics; and injuries and death as in wars and conflicts.
	b) how to assess the hazards of the disaster. For example, the number of deaths or destroyed buildings, level of water in floods etc.
	c) the possible actions to take to reduce the hazards. For example, building houses far from the rivers, self-hygiene for protection from infections, using impregnated bed nets to protect people from malaria, good nutrition to increase immunity, following safety measures to protect from fires etc.
	d) how to help the community recognize warning signs. For example, when infection of a certain disease starts to spread, building community awareness will help prevent further disease spread and reduce potential workload of health care providers; or when the water level rises in a flood, informing the community will result in some precautionary actions.
	e) the people most at risk. For example, children, elderly people, pregnant women, people living near rivers in case of floods or close to mountains in case of torrent or earthquakes.

Hazards and impact

Disaster	Kind of destruction it may cause	How to know the degree of severity	Hazard assessment	Possible actions to reduce hazard	How to predict/ warn people	People at risk
Earthquake						
Epidemic						
War/conflict						
Flood						
Fire						

Session 4. Vulnerabilities of communities

Learning objectives

By the end of this session participants will be able to:

1. Identify the vulnerabilities.
2. Determine the vulnerabilities of each component of the community.

Vulnerability is defined as the weaknesses associated with each component of the community (people, property, livelihood, environment and services) that make the community more exposed to risks from different hazards.

Almost all the countries of the Eastern Mediterranean Region experience one type of disaster or another (natural and manmade) every year. Although little can be done towards minimizing the magnitude of the event itself, the impact of any hazard can be substantially reduced by knowing the vulnerabilities within the community and building the capacity of the community to withstand the effect. Hazards can have equal impact on people, property, livelihood, environment and services.

The vulnerability can be decreased if the community is well prepared. A community is well prepared if they:

- can anticipate the risks;
- have good knowledge about the vulnerabilities associated with each component of community;
- have identified the most vulnerable groups within their community;
- have sufficient capacity to reduce the vulnerabilities and to respond to any hazard to save lives.

Vulnerability analysis

Vulnerability analysis is the process of developing a database on all five key components of the community and listing the weak points of each component.

Importance of vulnerability analysis

Vulnerability assessment can:

- provide a background about the level of risk exposure in a defined area toward potential/future hazards;
- help the community to better understand the nature and level of risk that vulnerable groups may face;

- support local, national and regional entities to advocate for and contribute to the development of effective risk prevention networks and plans that involve volunteers, communities and other key stakeholders.

The whole community should be involved in the process of vulnerability analysis to ensure sustainability.

How can the community perform a vulnerability analysis?

1. Identify:

a) critical facilities such as: shelters, schools, hospitals, clinics and fire stations;

b) utility services such as water, sanitation, tele-communications, energy and gas systems;

c) housing.

2. Determine characteristics of vulnerable populations:

a) the numbers of the vulnerable population and the causes of vulnerability (category);

b) their residence;

c) their health condition.

3. Assess community's response capability:

a) level of knowledge on risks;

b) readiness shown by the community;

c) level of community participation.

Table 2 provides a template for assessing vulnerability to hazards in different locations.

Table 2. Assessment of vulnerability to hazards in different geographical locations of the target areas

Type of vulnerability	Key elements	Location 1	Location 2	Location 3
Physical vulnerability	Geographic location (near river, mountains etc.)			
	Type of material used to build homes (clay, wood, concrete, other)			
	Source of water and its safety			
	Population density[a]			
Social vulnerability	Number of elderly, pregnant women, children under 5 years, orphans ,widows and people with disabilities			
	Literacy rate			
	Availability of active and interested nongvernmental organizations, community groups and social services volunteers			
	Availability and types of transportation			
	Availability and types of communication tools			
	Geographical accessibility to social services (school, health facilities, mark, etc.)			
	Is the region's population of one tribe or several? Is there any conflict between tribes?			
Economic vulnerability	Main jobs and sources of income			
	Unemployment rate			
	Absolute poverty rate (income of below US$ 1 per day per person)			

Table 2. Assessment of vulnerability to hazards in different geographical locations of the target areas *(continued)*

Type of vulnerability	Key elements	Location 1	Location 2	Location 3
Health vulnerability	Number of people with chronic health conditions (e.g. diabetes mellitus, kidney disorders, diagnosed heart disease, cancer)			
	Prevalence of disease (e.g. tuberculosis, malaria, HIV), malnutrition			
	Number and kinds of health facilities functioning			
	Immunization coverage in 1-year old children and pregnant women			
	Number of volunteers from the community trained on first aid and main health issues			
	Availability of essential medicine and first aid facilities including ambulances			

aPopulation density is mid-year population divided by land area in square kilometres.

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 3, Assessment of vulnerability to hazards in different geographical locations of the target areas). Assist participants to discuss and write down the status of their own locations in relation to different key elements of the physical, social, economic and health vulnerabilities.

Exercise 3. Vulnerabilities of communities

Objectives	By the end of the exercise participants will be able to: • Identify the vulnerability relevant to each type of disaster.
Method	Working groups
Total time	1 hour • Introduce the exercise (5 minutes). • Conduct group work session (20 minutes). • Present the group work and conduct discussion (20 minutes). • Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers, empty print out of the table
When to use	Use after the presentation of vulnerabilities of communities.
Instructions to facilitator	• Introduce the exercise. • Ask participants to fill in the table below based on their level of understanding. • Use the flip chart to note inputs from facilitators. • Keep the results of discussions for future planning. • Let participants debate and convince each other about the most common impact of each kind of disaster. • At the end ask participants how this can be practically reduced/ prevented in their area. The facilitators should encourage participants to give examples of risk factors by using brainstorming. This session should be facilitated by asking the following questions. • Who do you think are more at risk? Women, the elderly or children? Let the participants contribute by providing examples of physiological and human risks factors for their local situation. Do this for each of the following questions. • Who do you think are more vulnerable considering their social and income level? Encourage participants to highlight the poor, job-less, refugees, etc. • What location in your area is most vulnerable to emergencies and why? • What locations in your area do not have access to roads, transport, health services, water, electricity etc.? Ask participants to prepare a list of areas with the least access to services. This will be helpful in developing a plan of action. At the last stage and once the second column of the table below is prepared ask participants the following key question and record the responses: What could be the role of the community in reducing each category of risk? (Bear in mind that in some situations some factors are not in our hands, but that the risks can be reduced by some interventions or additional attention to high-risk groups).

Type of vulnerability	Key elements	Location 1	Location 2	Location 3
Physical vulnerability				
Social vulnerability				
Economic vulnerability				
Health vulnerability				

Session 5. Building community capacity to protect populations at risk

Learning objectives

By the end of this session participants will be able to:

1 Identify people with vulnerabilities that make them more likely to be affected.
2 Identify the role of the community in reducing risks.
3 Locate available resources within their communities that are needed in time of disaster.

Although all the people in the community could be affected by different hazards, some people are more affected than others due to the vulnerabilities that each person carries. For example, children and women suffer more from the effects of disasters, especially from displacement, physical injuries, diseases, hunger, malnutrition, separation of families, disruption of education, loss of family livelihoods and psychosocial trauma. Children and women are the most affected by the social and economic impact of hazards. There are people in the community who need special care due to their pre-existing health conditions, such as disabled people, people with physical or mental disorders and the elderly. It is important to build the capacity of communities to be able to identify such vulnerable groups and map their location such that they will be able to respond in a timely manner to their needs when disaster strikes.

Identifying vulnerable groups

To identify vulnerable groups the community can be screened according to their physiological, socioeconomic, environmental characteristics, place of residence, number of people per household, level of family income and their access to social services. This is shown in Table 3. It is also important to build baseline data to locate different groups of people with their risk factors and record it in the community contingency emergency plan.

Table 3. Populations at risk and the role of community

Risk factor category	Example	Community-based interventions to reduce the risks
Physiological/ human	Age, sex, pregnant women, elderly, handicapped, malnourished	• Prepare a list of the at-risk groups (pregnant women, children under 5 years, those above 65 years, patients suffering from chronic diseases, refugees, poor families, people with disabilities etc.)
Socioeconomic	Orphans, poor, jobless, women as head of the family, illiterate, refugees, homeless people, addicts, people suffering from noncommunicable diseases	• Update demographic data by gender and age groups • Locate patients with chronic diseases and disabilities
Environmental	Living in disadvantaged areas, homes near to dangerous areas like mines, rivers, mountainous areas, airports, military bases, industry, climate (e.g. very cold or hot)	• Coordinate with the health and social sectors to reduce vulnerabilities such as: regular growth monitoring of all children, full immunization coverage, regular antenatal care of pregnant mothers, creation of jobs for the jobless people, agree on construction of roads or communication facilities for disadvantaged areas, ensure access of the poor to safe drinking-water, self-care of elderly, training of youth and women groups on first aid, develop village or area profile and also an emergency contingency plan
Availability of services	No access to road and communication, non-availability of hospitals/ health care facilities, no community organization, no nongovernmental organizations, no private health care providers, no access to safe water and sanitation, no electricity, no school.	• Identify resource persons to be in touch with at-risk groups at the time of emergencies • Locate people living in danger areas and coordinate with the local authorities to reduce the risks of their living places • Establish a community emergency information centre • Locate the main sources of water • Collect contact details of hospitals, police, fire extinguishers, where and who to contact at the time of emergency • Ensure outreach health services when static centres are not possible • Build mass awareness on the prevention of diseases
Health conditions	Low immunization coverage, inadequate access and availability to primary health care	• Ensure and facilitate immunization • Ensure availability of primary health care

Now take the participants into an interactive group discussion (Group-work exercises, Exercises 4 and 5, Emergency risk factors and the community role and Preparing a map of vulnerabilities and available resources in the community). Guide participants to fill in the table based on the circumstances of their area and their previous experiences.

Exercise 4. Populations at risk and the role of the community

Objectives	By the end of the exercise participants will be able to: • Identify populations at risk and the role of the community.
Method	Working groups
Total time	1 hour • Introduce the exercise (5 minutes). • Conduct group work session (20 minutes). • Present the group work and conduct discussion (20 minutes). • Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers, printout of the table below
When to use	Use after the presentation of populations at risk and the role of the community.
Instructions to facilitator	• Introduce the exercise. • Ask participants to study Table 3 and fill in the table below based on their level of understanding. • Use the flip chart to note inputs from facilitators. • Keep the results of discussions for future planning. • The facilitators should encourage participants to give examples of populations at risk and the role of the community by using brainstorming.

Risk factor categories	Example	Community-based interventions to reduce the risks
Physiological/ human		
Socioeconomic		
Environmental		
Availability of services		

Exercise 5. Preparing a map of vulnerabilities and available resources in the community

Objectives	By the end of the exercise participants will be able to:
	• Prepare a map of vulnerabilities and available resources in the community
Method	Working groups
Total time	1 hour
	• Introduce the exercise (5 minutes).
	• Conduct group work session (20 minutes).
	• Present the group work and conduct discussion (20 minutes).
	• Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers
When to use	Use after the exercise of populations at risk and the role of the community
Instructions to facilitator	• Introduce the exercise.
	• Give each group a large sheet of paper and instruct them to draw a map of their area/village showing each of the boundaries, houses, hospitals, schools, roads and bridges.
	• Ask participants to identify key locations and resources using the symbols provided.
	• Ask them to identify any gaps by filling in the resources table below.

Community resources

Resource	Yes	No
1. Community members know the early warning signs		
2. Residents have adequate knowledge about disasters, including school children		
3. Established disaster risk reduction committee in the village or neighborhood		
4. Means of communication		
5. Trained volunteers on first aid, rescue and evacuation measures		
6. A suitable place for the evacuation of the population (for example school, stadium etc)		
7. Houses that consist of two floors		
8. Public sources of clean water and toilets in the vicinity		
9. Proper solid waste management		
10. Existence of a market		
11. Other sources of income in the community		
12. Neighbouring communities/villages ready to help each other		

Community resources *(continued)*

Resource	Yes	No
13. Availability of essential medicine and medical equipment		
14. All children less than 5 years were fully immunized		
15. Assistance from non-governmental organizations and government		
16. Community organizations, associations and groups, such as youth, women etc.		
17. Community are trained and capable to maintain security and property		

Symbols for community resources map

Place	Symbol	
Bakery	Bread	
Transport station	Bus	
Crops	Wheat	
Power station	Windmill	
Health centre	White box with cross or red crescent	
Hospital	Letter H or L	
Home	House with a door and windows	
Mud or wood house	House without door and windows	
School	3 blue boxes	
Market	Letter M or Q	

Symbols for community resources map *(continued)*

Place	Symbol	
Offices and other buildings	Building different from home	
Road/track	Thin black line	
Main road	Bold line	
Bridge	Black arc	
Communications tower	Tower with half circles	
Mosque	Crescent above box	
Church	Cross	
River	Blue line	
Lake	Blue space	
Well	Bucket and rope	
Water station	Box with small black squares	
Dangerous places	Danger sign	
Safe places	Green line	
Isolated areas	Black line around	

Session 6. Roles and responsibilities of stakeholders

Learning objectives

By the end of this session the participants will be able to:

1 Identify potential partners and stakeholders to decrease disaster risks.
2 Analyse stakeholders according to their different positions in relation to disaster risk reduction.

In this community-based approach, there is a need for coordination among all the stakeholders. The role and participation of each stakeholder needs to be clearly outlined at all levels to avoid overlap and confusion. The focus in identifying stakeholders should be the local people, who are at risk of being potential victims and who should also assume responsibility in managing that risk.

Stakeholders

An effective and successful community-based approach in reducing disaster risks is often attributed to the spontaneous participation and involvement of the following stakeholders (Figure 2):

- government
- nongovernmental organizations
- regional and international organizations/donor
- national/local organizations (women committees, youth groups, schools, etc)
- community workers
- policy-makers
- community and religious leaders
- research and academic institutions
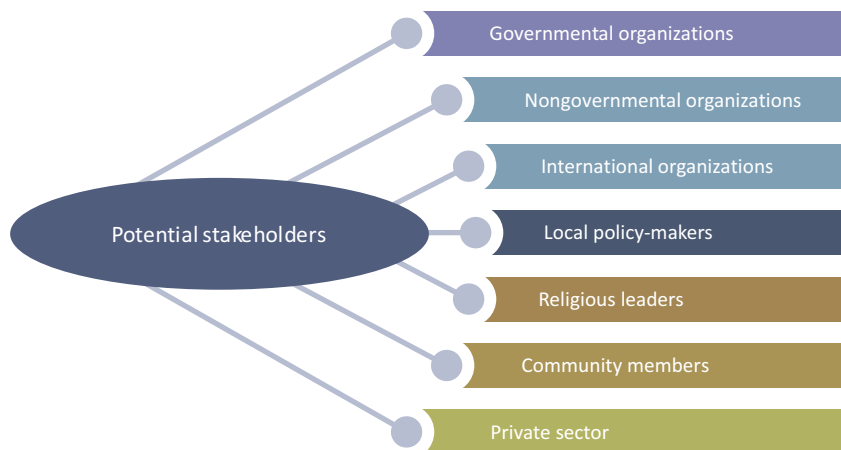- charity organizations
- private sector.

Figure 2. Potential stakeholders

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 6, Stakeholder analysis). Guide them to come out with an analytic matrix of stakeholders according to stakeholder positions.

Exercise 6. Stakeholder analysis

Severe disasters affect the entire society and community so they should be dealt with through collaboration among different partners and stakeholders.

The following exercise demonstrates a useful way of quickly assessing stakeholder positions, in order to help influence or engage more stakeholders. Follow the steps below and conduct analyses of 4 to 5 stakeholders identified as important in your local area (country, province or district).

Stakeholder analysis

Objectives	By the end of the exercise participants will be able to: • Assess stakeholder positions, in order to help influence or engage more stakeholders. • Conduct analyses of 4 to 5 stakeholders identified as important in your local area (country, province or district).
Method	Working groups
Total time	1 hour • Introduce the exercise (5 minutes). • Conduct group work session (20 minutes). • Present the group work and conduct discussion (20 minutes). • Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers , stakeholder analysis matrix
When to use	Use after the presentation of roles and responsibilities of stakeholders.

Instructions to facilitator	• Introduce the exercise.
	• Give each group a large sheet of paper and instruct them to do the following steps:
	1. Step 1:
	  a) Make a quick brainstorm to list as many different stakeholders who are interested in emergency preparedness and response in your area.
	  b) Select 4 –5 stakeholders identified and agreed by your team.
	2. Step 2:
	  a) Use the below stakeholder analysis matrix.
	  b) Write one stakeholder name on each form, and plot their current position in relation to emergency preparedness and response along each of the five axes:
	  c) Powerful ⇔ Weak
	  d) Supportive ⇔ Opposing
	  e) Engaged ⇔ Disinterested
	  f) Accessible ⇔ Remote
	  g) Flexible ⇔ Rigid
	  h) Review the profile. Discuss whether it is appropriate. If not, discuss what we need to do to change this stakeholder's position to be more favourable.

Stakeholder analysis *(continued)*

Instructions to facilitator	3. Step 3: Plot the scores into the stakeholder plotter, and generate spider or stacks diagrams to show the collective results.
	4. Step 4: In the analysis, think carefully about which stakeholders can be moved and what they need to hear to be moved.
	5. Step 5: Get ready to present the results to the plenary and discuss the results. Then discuss with the participants the following questions:
	• Which stakeholders should to be more active and involved?
	• What are the various reasons for lack of support or engagement? For example:
	a) unaware of the problem or issue
	b) unclear about what you want them to do
	c) do not care, does not apply to them, is not important to them, or, they have other priorities
	d) have received information from another source that tells them something different than what you are saying.
	• Who would they want to move? From where to where?

Stakeholder analysis matrix

Country		Stakeholder	

	1	2	3	4	5	
Weak						Powerful
Opposed						Supportive
Disinterested						Engaged
Remote						Accessible
Rigid						Flexible

Session 7. Preparing for an emergency: development of a local emergency response plan

Learning objectives

By the end of this session participants will be able to:

1. Define different phases of disaster risk management.
2. Identify the role of the community members in different phases of disaster risk management.

Planning steps for community-based disaster risk management

1. Conduct briefing meetings for the community leaders to explain the community-based planning process and to mobilize the different sectors and representatives of the community.
2. Collect background information (participants will use the vulnerability analysis matrix from session 5) such as:

a) basic statistics about the people who live in the community: e.g. number of people in different age groups, number of households, and different ethnic groups;

b) infrastructure information: e.g. number of streets, parks, social facilities, sanitation and water supply mechanisms, low-lying areas, bridges etc.;

c) demographic and household status: e.g. population in different age and sex groups, number of houses with and without pit latrines, number of households with access to safe drinking water etc.;

d) health records, disease patterns, understanding the main diseases that people suffered from and when (e.g. malaria, rainy season).

e) key facilities: e.g. hospitals/health facilities, ambulances, fire stations, electricity and telecommunication power stations.

The interventions needed for disaster risk reduction must be started before the occurrence of any event. The onset of some hazards is unpredictable (like earthquakes and tsunami). However the community can reduce adverse effect of these kinds of disasters by improving community preparedness and response and reduction of risks within the community. After any kind of disaster the community needs to recover and resume normal life as quickly as possible once the situation has improved.

The main idea is to help the community to develop their emergency response plan. This is a good start for community preparedness.

What to consider when preparing for an emergency

For better preparedness the community should have the following:

- plans for early warning of the communities, especially those lying in risky areas;
- evacuation plans, preparation for first aid training, rehearsals and practice;
- pre-positioning of drugs and emergency supplies and identification of safe areas for shelter;
- awareness-raising materials on the appropriate behaviour in such circumstances, so that communities know how to react and where to go;
- a comprehensive response plan detailing out the roles and responsibilities of each stakeholder within the community and linking this to a national response plan.

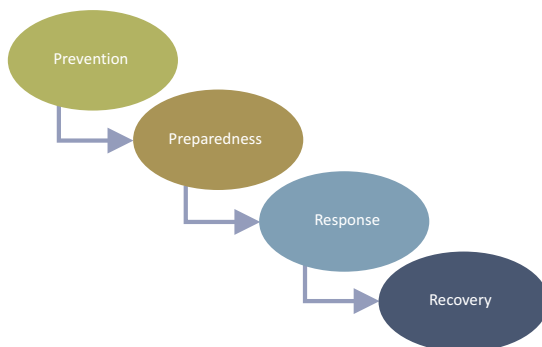The preparedness efforts/activities will be based on the phases shown in Figure 3.

Figure 3. Phases of disaster risk reduction

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 7. Role of the community in the development of a local emergency response plan). Guide them to come out with possible actions to contribute to each phase for disaster risk reduction.

Exercise 7. Role of the community in the development of a local emergency response plan

What are the practical interventions that can be performed to prevent and deal with disasters in your area? The participants' inputs can be used later to draft a disaster management contingency plan for the targeted local area.

Objectives	By the end of the exercise the participants will be able to:
	● Identify their role in the development of a local emergency response plan.
Method	Group discussion
Total time	1 hour
	● Introduce the exercise (5 minutes).
	● Conduct group work session (20 minutes).
	● Present the group work and conduct discussion (20 minutes).
	● Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers, empty printout of the table
When to use	Use after the presentation of the role of the community in different phases for disaster management
Instructions to facilitator	● Introduce the exercise
	● Ask participants to fill in the blank local emergency response plan below based on their level of understanding
	● Keep the results of discussions for future planning
	● Let participants argue and convince each other about the needed intervention for each kind of disaster
	● At the end ask participants how they can contribute in their areas.

Local emergency response plan

Disaster	Phase 1: Prevention	Phase 2: Preparedness	Phase 3: Response	Phase 4: Recovery	Key role of the community representatives

Session 8. Common disasters in the Eastern Mediterranean Region

Learning objectives

By the end of this session participants will be able to:

1. Identify disasters that commonly occur in the Region.
2. Be aware of the key messages that need to be disseminated regarding the common disasters in their area.

Common disasters

- floods
- drought
- displacement
- earthquakes
- war/conflict
- disease outbreaks e.g. diarrhoeal diseases (including cholera), meningitis, measles, haemorrhagic fevers, influenza.

Role of cluster representatives and health volunteers

- Be aware of the common disasters in their area
- Have advance knowledge regarding the key messages to be shared within the community regarding common disasters
- Provide advice to communities on what should be done during each phase of the disaster.

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 8, Role of cluster representatives and health of volunteers in relocation). Guide them to formulate possible actions to contribute to the transfer of community members during relocation.

Exercise 8. Role of cluster representatives and health volunteers in relocation

Objectives	By the end of the exercise participants will be able to: • Identify their role in helping community members during relocation or in receiving relocated communities.
Method	Group discussion
Total time	1 hour • Introduce the exercise (5 minutes). • Conduct group work session (20 minutes). • Present the group work and conduct discussion (20 minutes). • Facilitator's comments and feedback (15 minutes).
Materials	Flip charts, markers
When to use	Use after the presentation of role of cluster representatives and health volunteers in relocation.
Instructions to facilitator	• Introduce the exercise. • Let participants discuss and convince each other about the needed intervention for each kind of disaster. • Ask the particpants to list the Role of cluster representatives and health volunteers when receiving relocated communities. • At the end ask participants how they can contribute in their areas.

Session 9. Relocation of an internally displaced population

Learning objectives

By the end of this session participants will be able to:

1. Define relocation and perform it as a lifesaving intervention.
2. Determine the community role in pursuing relocation.

Relocation

When there is severe destruction within the area and/or a life threatening situation, the government authorities may decide to relocate the affected population. Relocation of an affected population should be decided in consultation with community leaders in order to ensure ownership and acceptance of the need to relocate. This consultation can be done through: discussing the situation and options, including the new site to which disaster victims may be transferred; mapping the route of transfer; briefing the community leaders and using them in implementing the relocation; and taking care of the most vulnerable groups of the community. Some people may need special care at the time of relocation.

Role of cluster representatives and health volunteers

- Transfer people to the new sites
- Receive and assist people from another area exposed to disaster

Now take the participants into an interactive group discussion (Group-work exercises, Exercise 8. Role of cluster representatives and health volunteers in relocation). Guide them to formulate possible actions to contribute to the reception of community members during relocation.

Course methodology

Trainers can choose one or a combination of the following training methodologies depending on how the manual is structured:

- group discussions
- simulations/role plays
- videos
- review sessions
- self-assessment exercises
- combination of the above methodologies.

Training materials

- Banner
- Blackboard, chalk, duster, or white board and markers
- Flip charts
- Marker pen, drawing paper
- Print outs of the exercises in this manual and the training manual
- Training agenda
- Manila (poster) paper

Group-work exercises: general advice to facilitators

Try to design or phrase your key messages to the participants in a way that makes them meaningful and easy to memorize. As far as possible the sessions should be interactive and participatory so that there is a friendly atmosphere and the participants should be able to ask their questions and queries freely. Below are some general tips to be remembered.

- Introduce yourself and ask participants to introduce themselves in an innovative manner (gather in a circle, throw a ball to each person asking him/her to share their name, profession, hobby or ask two people sitting adjacently to introduce themselves to each other).

- Before the commencement of each session in the training programmeme deliver a brief introduction about the objective of the session and at the end wrap up the session with a summary containing the key messages.

- Hang all outputs of group discussions on the wall (flip charts, posters); these will be used as a basis for preparing the local emergency contingency plan.

- The trainers should:
    - have a clear idea and some knowledge about the subject;
    - be specific;
    - use posters, training materials and different instruments as much as possible (training tools);
    - encourage participants to participate;
    - use realistic examples;
    - be brief (talk less and listen more);
    - use the local language and maintain eye contact with participants while communicating with them;
    - set the rules and regulations, such as putting mobile phones on silent mode, listening to and respecting each other's ideas, be on time, participate in discussions etc.
    - be sensitive with humour, not everyone will appreciate the same type;
    - be enthusiatic;
    - assess participant's understanding frequently.

- Address only disasters that pertain to the area. If the area is subject to various forms of disasters, address the two most common disasters that communities

are likely to be exposed to. For disease outbreaks, facilitators should not go into clinical details but should focus on the role of the community in addressing the specific condition. Diarrhoeal outbreaks occur in most disasters and should be addressed in most training. Special attention should be given to issues of personal hygiene, safe water, waste management, food safety and vector control, where relevant.

Disasters are one of the main challenges that face development and progress processes. The impact of disasters is directly related to their severity and the level of vulnerability of individuals and communities. Community members are the immediate victims of the adverse effects of disasters and they have the best knowledge about their local surroundings. This manual focuses on promoting the role of primary health care facilities in strengthening community participation in disaster risk reduction and helping the community to identify indicators of disaster risk and vulnerability. It has been designed to introduce different aspects of disaster risk management to primary health care workers, cluster representatives and health volunteers at the community level in the WHO Eastern Mediterranean Region.