**MODULE 2 ASSIGNMENT**

**Question 1: Principles of emergency preparedness**

1. It is the responsibility of all: the major players in emergency preparedness include healthcare workers, mental health caseworkers, fire responders, fire fighters, police, utilities managers, voluntary agencies (Red Cross), volunteers, emergency medical services (EMS), the National Guard and morgue services on various levels. All those involved must recognize the importance of each other’s work ad the contribution it makes towards meeting the desired targets.
2. Emergency preparedness should be woven into the community and administrative context, and must be undertaken at all administrative levels of both government and non-government organisations: government agencies involved in response efforts should implement a transparent, representative, public process for the involvement of disaster impacted populations.
3. It is an important aspect of all development policy strategies: Emergency preparedness policies should gather the relevant data for everyone concerned in the emergency. In most cases, emergency preparedness policies fail to realise the reality of the situation on the ground and policies are formed with own assumptions and prejudices, own agenda, own pressure and concerns. Walker (1994:11-13) narrates an example of a drought situation where women had to travel longer distances to fetch water and that posed additional problems to their lives. As a result, it was difficult in such situations to speak to women or hear their concerns because men were responsible local authorities, guides and interpreters. In many cases the re-occurrence of emergencies or crises demonstrates the failure of the development strategies in which women have been engaged. Part of this has been the result of marginalising women’s needs and women’s role in production and development.
4. It should be based on vulnerability assessment: Once an emergency has been identified, a comprehensive assessment evaluating the level of impact and its financial implications should be undertaken. Following the assessment, the appropriate plan or response to activated will depend on a specific pre-set criteria within the emergency plan
5. It is connected to other aspects of emergency management: working in an emergency relief involves some form of management, from self-management to the organisation of a labour force of hundreds. A person working in an initial phase of an emergency may have to set up basic management procedures that can be developed at a later stage. Davis (1995:79) maintains that the most effective style will depend on the speed with which decisions need to be taken and the type of person being managed. For example, in the immediate aftermath of a disaster, when the immediate action is called for, the manager may need to adopt directive style which the leader directs with minimal subordinate participation in decision-making.
6. Emergency preparedness should concentrate on process and people rather than documentation: protecting worker, volunteer and resident safety and health must be the essential components of disaster preparedness and response. Experience shows that responses are more effective when the roles of different people are recognized and incorporated into plans. Davis (1995:63) adds that Public Health personnel should be aware of which groups are vulnerable and why, and the effect of relief interventions on this vulnerability.
7. It should not be done in isolation: When working in humanitarian relief, Public Health personnel will meet many different cultures. Cultural differences may be refreshing and may also lead to many problems, threatening the patience and security and increasing anxiety and stress. Being culturally aware means knowing to expect differences, keeping an open mind and taking time to find out what they really mean.
8. Emergency preparedness should not concentrate only on disasters, but integrate prevention and response strategies for any scale of emergency: In most cases, the responsibility for disaster management ultimately rests with the government of the affected country, whether it the country that has been directly affected or a nearby country. The co-ordination of the response to a disaster may be carried through a special forum comprising of representatives of government departments and other bodies including major donors, UN Agencies, non-governmental organisations and Red Cross. The forum may deal, not only with immediate disaster relief, but also with formulation of long-term planning and preparedness measures, including risk reduction and contingency planning.

**Question 2: Emergency Preparedness Process**

Emergency management is a range of activities to protect communities, property and the environment. Comprehensive emergency management entails developing and implementing strategies of different aspects of emergency management, i.e. prevention/mitigation, preparedness, response and recovery in the context of sustainable development. Emergency preparedness has been a hot topic since the terror attacks of September 11, 2001. Emergency preparedness means many things to many different people. There are many facets or components to emergency preparedness. Preparedness programs enable organisations and communities to deal with emergencies effectively and appropriately. Johnson et al (2005:125) emphasises that there are many facets or components to emergency preparedness:

Policy development: includes the development of emergency management legislation. Legislation is normally developed by a national government, and will mainly relate to responsibility for emergency preparedness and special emergency powers. There is also a need for central government, provincial and community organisations to develop subsequent policies. Similarly, non-governmental organisations that have emergency management responsibilities should develop appropriate policy

Vulnerability Assessment can be used to determine:

* Which parts of a community are vulnerable to hazards and in what ways;
* Which hazards may affect a community and how they affect it
* Which aspects of the community should be modified to decrease vulnerability and
* Which hazards should be considered for emergency prevention and preparedness.

Vulnerability assessment is also useful for response and recovery, as well as for prevention and preparedness where it can be used to:

Suggest areas that may sustain damage and assist in measuring harm to the affected community

Provide a baseline for recovery strategies, in that it will describe the ‘normal’ state of community.

Emergency planning consists of determining:

* Response and recovery strategies to be implemented during and after emergencies
* Responsibility for these strategies
* The management structure required for an emergency and
* The resource and information management requirements

Training and education concerns training personnel in emergency management skills and knowledge, and informing the community of the actions that may be required during emergencies and how the community can participate in emergency management.

Monitoring and Evaluation are methods of determining how well the preparedness program is being developed and implemented and what needs to be done to improve it.

Below is an emergency process

**Figure 1: An emergency preparedness process**

Develop Policy

Assess Vulnerability

Plan for Emergencies

Train and educate

Monitor and Evaluate

**Question 3: Potential impacts of emergencies on communities and the immediate response/intervention for each**

Impact of terrorism on communities and the immediate response

Stevens (2003:3) defines terrorism a premeditated, politically motivated violence perpetrated against non-combatant targets by sub national groups or clan-destine agents, usually intended to influence and audience. Federal Bureau of Investigations further defines terrorism as the unlawful use of force or violence against persons or property to intimidate or coerce government, the civilian population or any segment thereof, in furtherance of political or social justices. Common to these definitions are criteria that distinguish terrorism acts from those that are simply violent, illegal transgressions. First, fear is the ultimate goal. Secondly, the violence only has to be threatened. Third, the victims are not always the ultimate targets. Fourth, primary audience members are those who observe the terrorist act. Fifth, political or social change is the primary objective of terrorists. Terrorism then, means deliberately inflicting pain, suffering and death on civilians for the purpose of accomplishing specific goals, without regard for human rights, and creating a climate of fear through violent means (Dan O’ Hair et al: 2005:30).

Dan O’ Hair further argues that in the aftermath of 9/11 Americans are now facing enormous challenges overcoming political socialization biases from Islamic world. These biases stem from, among other things, new political challenges that followed the 9/22 attacks. While these political challenges affect United States as a nation on a macro level, we believe it is particularly important to understand how young adults are coping with these political challenges, as they experience terrorism and the first war of their lifetime. During adolescence and young adulthood, individuals begin to make greater cognitive sense of the world around them and try to determine their place in society. It is the period when young adult’s political becomes more manifested. They begin to form political attitudes and to develop patterns of civic participation. Crises such as terrorist attacks are characterized by uncertainty and intense emotional responses. After a terrorist event, people experience emotions such as shock, grief, anxiety and fear for their mortality and of uncertain future. Not surprisingly, terrorism disrupts communication practices at the individual, relational and societal levels which are closely related to psychosocial health.

Psychosocial problems include Post Traumatic Stress Disorder (PTSD), major depressive disorder, somatoform disorders and addictions to drugs and alcohol. After terrorist attacks, individuals may come to hospitals with medically unexplained physical symptoms, and psychological stress may exacerbate existing psychological and physical conditions.

On the other hand, social support is central to the recovery and healing process following trauma. For example, following 9/11, a plan called ‘Operation Solace’ was implemented to address behavioural health problems anticipated to occur primarily among Pentagon employees located in the national capital region affect by the terrorist attack.

Impact of floods and the immediate response

When water inundates land that is normally dry, this is called flood. Floods can be caused by a number if processes and impact on both individuals and communities and have social, economic and environmental consequences. The consequences of floods, both negative and positive, vary greatly depending on the location and extent of flooding, and the vulnerability and value of the natural and constructed environments they affect. Floods disasters are destructive of life not only through drowning and direct injury, but also because of associated diseases and famine. Their impact must also be measured in terms of the disruption and destruction they cause to livelihoods, and the changes in the access profiles of affected people. The loss of assets or ability to work, or of land and animals, and the consequences of injury and illness may be felt for many months or even years after the inundation has subsided.

Blaikie et al (1994: 126) contends that floods are not only one of the most widespread of natural hazards; they also lead to the greatest loss of life, immediately through drowning and fatal injury and through illness and famine. In a wide range of Third World countries, floods frequently lead to large numbers of deaths. Flash-floods are particularly hazardous, because in many places there are people in locations where this risk is not offset by pre-cautions or warning systems. For example, in 1988 nearly 600 people were killed or reported missing following flash-flooding in China’s coastal province of Zhejiang.

On the other hand, precautionary measures and policies for dealing with floods are aimed at modifying or predicting the hazard involved in the triggering of flood disasters, rather than with other causes of vulnerability. They include strategies intended to reduce the intensity of the hazard, different forms of precautionary intervention, mitigation of floods effects, prediction and preparedness. In addition to that, one common response to riverine flood hazards is to attempt to ameliorate their disastrous impact by modifications of the stream flow. Discharge controls include a narrow range of measures which nearly always involve a high level of technical investment.

At local level, indigenous responses include people’s own strategies for dealing with flood risks. These entail a combination of self-protection and social protection by communities or non-governmental agencies. For example, in India and in Bangladesh, rural houses are usually built on artificial mounds that raise them above normal flood levels.

Impact of earthquake, volcanoes and landslides

Landslides are large masses of rock and soil that fall, slide or flow very rapidly under the force of gravity. These mixtures of debris move in a wet or dry state or both. Landslides commonly originate as massive rockslides or avalanches which disintegrate during movement into fragments ranging in size from small particles to enormous blocks hundreds of metres across. A landslide typically destroys everything in its path and may generate a variety of related activity. Historically, landslides have caused explosive eruptions, buried river valleys with tens of metres of rock debris, generated lahars, triggered waves and tsunami, and created deep horseshoe-shaped craters. A large landslide often buries valleys with tens of metres of rock debris, forming a chaotic landscape marked by dozens of small hills and closed depression. If the deposit is thick enough, it may dam tributary streams to form lakes in the subsequent days to months; the lakes may eventually drain catastrophically and generate lahars and floods downstream.

**Question 4**

Communication process with the public in anticipation of a disaster

Communication is a process in which messages are exchanged between a sender and a receiver. The sender, also referred to as the speaker, is the person who creates and delivers the message. The receiver, also known as the listener, is the person to whom the sender directs the message. Mitchell and Haroun (2002:296) add that communication is successful when the receiver interprets the sender’s message as it was sent. Throughout a communication encounter, the sender and receiver will exchange roles and messages can be exchanged in at least four ways:

* Orally
* Non-verbally ( facial expressions and gestures)
* In written form
* Electronically

In order to function effectively, modern health care systems rely on the efficient and accurate delivery of large amounts of information. It commonly believed that communication consists of simply talking and listening, activities that most people have been doing all their lives. Effective communication in health care is aimed at meeting the needs of patients or the public. It involves the application of highly developed skills, and acquiring these skills takes effort, concentration and practice.

Mitchell and Haroun continue to assert that like other health care skills, communication cannot be taken for granted or performed in a routine manner. Each communication encounter presents its own set of circumstances and demands public health personnel’s full attention and the 6 steps of the communication process are:

* Setting the communication goals: determine what is to be accomplished. This involves considering public needs, current circumstances and the duties of assigned to public health personnel.
* Creating the message: select and organise appropriate content based on the communication goals.
* Delivering the message: choosing the delivery method best suited for ensuring that the receiver (public) will understand the intent of the message.
* Listening to the response: employing listening and observational techniques to determine whether the message was received as intended.
* Offering feedback and seeking clarification: rephrase what is heard or ask questions to check your understanding of the response.
* Evaluation of the encounter and revision of the message: determine whether the goal was met. If not, why not? What other options are available? What should be the next step?

Communication concerns the means of relaying information between organisations, people and the community. Adequate information is essential to all aspects of response and recovery operations. The communication strategy should outline:

**Communication strategy:** who determines what information should be collected

Who collects and collates information

Who selects what information should be communicated

**Identify information:** who prepares messages

Who authorizes messages; and, who contacts media

**Prepare messages:** it is recommended that an experienced media relations officer be appointed to coordinate public information. This person should answer directly to the emergency controller

Establish contact with key media personnel, understand how the work, brief them on his role and determine how they can work together

**Select communication mechanisms:** liaise with national emergency task force and committees

**Send message:** develop timetable for disseminating emergency information, including advertisements for the emergency tone

Present messages as a media package including features, background information and messages, with audio or videos when possible and appropriate

**Monitor and evaluate:** to identify information the coordinator should consult emergency management authorities to: identify main issues, identify priority issues and collect data and prepare a profile for target audience. Monitoring and evaluation should focus on the effectiveness, efficiency and appropriateness of the public communication strategy and provide information for improving it.

**Question 5:**

1. Definition of the terms

Hazard refers to the extreme natural events which may affect different places singly or in combination (earthquakes, faults, savannas, rain forests etc) at different times (season of the year, time of the day). The hazard has varying degrees of intensity and severity (Blaikie et al: 1994: 21). Vulnerability is the degree to which a person or unit is likely to experience harm to exposure to perturbations or stress. On the other hand, exposure is the contact between a system and a perturbation or stress.

1. Difference between hazard exposure and hazard vulnerability

According to Blaikie et al, vulnerability is the characteristics of a person or a group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard. It involves a combination of factors that determine the degree to which someone’s life and livelihood is put at risk by a discrete and identifiable event in nature or in society. Some groups in society are more prone to others to change, loss and suffering in the context of differing hazards. Key characteristics of these variations of impact include class, caste, ethnicity, gender, disability, age or seniority.

The difference between hazard exposure and hazard vulnerability is that vulnerability is closely correlated with socio-economic position while hazard make vulnerable people to experience and suffer severe damage and or disruption of their livelihood. In other words, hazard exposure refers to people, property, systems or other elements present in hazard zones that are thereby subject to potential losses, while hazard vulnerability refers to the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

As a result, the severity of the impacts of disasters depends strongly on the level of exposure and vulnerability in the affected area, and evidence indicates that risk has increased worldwide largely due to increases in the exposure of persons and assets. For example, increasing exposure has been the major cause of long-term increases in economic losses from weather and climate-related disasters. Blaikie et al continue to assert that both exposure and vulnerability are dynamic, vary across temporal and spatial scales, and depend on economic, social, geographic, demographic, cultural, institutional, governance-related and environmental factors. Moreover, factors affecting exposure and vulnerability vary considerably by hazard context, disaster stage and national setting. High hazard exposure and hazard vulnerability are linked to skewed development processes, such as those associated with environmental mismanagement, rapid demographic changes, rapid and unplanned economic processes, urbanisation in hazardous areas, poor governance, and the scarcity of livelihoods options for the people particularly the poor.

**Question 6**

4 phases of emergency management

Mitigation: measures to reduce the impact of hazards

This phase includes any activities that prevent an emergency, reduce the likelihood of occurrence, or reduce the damaging effects of unavoidable hazards. Mitigation activities should be considered long before an emergency. For example, mitigation of bioterrorism threats begins with solid regulations to prevent acquisition of pathogens through strict control of potential bio threat agents, rapid detection of pathogenic releases, and protection of the susceptible populations through a strong preparedness infrastructure. In an effort to shore up these capabilities, the U.S government passed a variety of preparedness promoting legislation beginning with the Public Health Security and Bioterrorism Preparedness and Response act of 2002.

In addition to that, limiting the impact of bioterrorism attack requires healthcare providers with sufficient training and support to remain diligent. Clements (2009:54) also adds that disease surveillance is an essential and familiar function of local and state agencies. Regular disease surveillance includes mandatory disease reporting by local healthcare providers, data entry and analysis by local or regional public health agencies and additional analysis, reporting and allocation of needed resources by state and federal public health agencies.

Preparedness: efforts to prepare for a potential hazard

This phase includes developing plans for what to do, where to go or who to call for help an event occurs; actions that will improve your chances of successfully dealing with an emergency. For example, to advance United States of America preparedness and resiliency, President Bush began issuing Homeland Security Presidential Directives following the terrorists attacks of 2001 (Clements: 2009: 5). These directives are intended to enhance preparedness and reduce risk by defining the federal infrastructure, including the establishment of threat conditions, development of National Incident Management System, instituting a national domestic all-hazards preparedness goal and a variety of related measures.

Personal and home preparedness is the bedrock of a resilient community. Individual and home preparedness begins with a written plan. Clements (2009:18) adds that the U.S Department of Homeland Security has developed a basic template with associated pocket cards. The plan needs to consider a variety of scenarios. Consider what you would need to do to sustain yourself at home for several days without utilities or communication.

Response: actions taken to respond to an emergency or disaster

The safety and well-being in an emergency depend on how prepared a person is and how they respond to a crisis. By being able to act responsibly and safely, a person will be able to protect themselves, their families and others around them. If a major chemical release occurs, the response officials assess the circumstances and make decisions on what is best for the surrounding community. They will then provide information to the public on:

* Who is at risk of exposure
* What the hazard includes
* Where should or should not go for information, healthcare or evacuation
* When they should take action
* Why these recommendations are important
* How to carry out suggestions that have more detail, such as sheltering in place

Residents who are sheltered in place should immediately get all family members and pets inside. Shut down heating, ventilation, and air conditioning systems. Close all openings including windows, doors and fireplace dampers. Plastic tape may be used to seal around windows, vents, doors and outlets to minimize what can slip through the cracks and expose those inside.

In the case of bombings and explosions, a triage area is established upwind from the immediate blast area to minimize the possible exposure to inhalation hazards resulting from, a blast. If a threat necessitates an evacuation from a building, occupants should quickly collect personal items such as purses and briefcases so they are not among possible threats needing to be assessed by bomb technicians.

Recovery: measures taken to return an area to normal following a disaster

After an emergency and once the immediate danger is over, the public’s continued safety and well-being will depend on the ability to cope with rearranging the life and environment. During recovery period, the community must take care of themselves and their belongings to prevent stress-related illnesses and excessive financial burdens. During recovery, the public should also consider things to do that would lessen (mitigate) the effects of future disasters. Clements (2009: 115) reiterates that once a chemical emergency is over, residents of the affected area should not re-enter the area until local authorities announce that it is safe to return. When building owners and residents return to the area, they should thoroughly ventilate the structure by opening all windows and turning the air handling systems on.

If at any point they begin to detect the presence or feel of a chemical exposure, they should immediately leave the facility and contact authorities. A variety of other safety issues must be considered. The public should be made aware to avoid any potentially contaminated food or water and watch for household hazardous materials. If the disaster is not a chemical incident, but one that causes structural damage, it is possible that hazardous chemicals have been spilled and possibly mixed with others to create a potentially toxic exposure. As a result, public agencies establish drop-off locations to bring hazardous materials in for a proper disposal. If there is structural damage, utilities should be turned off and they should use a battery powered flashlight when entering the building.

**Question 7**

Relationship between disasters and public health

Disaster is a natural or man-made event that disrupt normal community function due to losses that exceed the ability of the affected community to manage. According to Davis (1995:1), a disaster results in a serious disruption of society, causes widespread human suffering and physical loss or damage and stretches the community’s normal coping mechanisms to breaking point. Emergency is the crisis that arise when a community has great difficulty in coping with a disaster. External assistance is needed, sometimes lasting for months, perhaps years. Complex emergencies have a number of causes arising, for example, from a political or military action which may exacerbate drought, famine and poor living conditions or which result in conflict and disruption of normal life.

Public health emergency preparedness is activities taken by healthcare and public health organizations to ensure effective response to emergencies that impact health, especially events that have timing or scale that overwhelms normal capacity (Clements:2009:4). Public health emergencies are multidimensional, dynamic situations that overwhelm existing healthcare and public health infrastructure resulting in adverse community health effects. Large scale, unanticipated events can pose extraordinary challenges. This includes natural or man-made, accidental or intentional events, with chronic or acute health effects. Many public health emergencies generate a variety of these facets.

For example, the September 11, 2001, terrorist attacks on America killed thousands on the day of the attacks, but the impact on the health of those present will be felt for years to come. Chronic respiratory disease among those excessively exposed to dust and debris during clean up and mental health issues for those exposed to the trauma of the attacks are the two examples of the lasting public health impact that 9/11 will have on New York. In that regard, public health impact was acute and intentional on the day the planes hit the World Trade Centre but also chronic and accidental to many exposed to the dust during the recovery. Sustaining the public’s health through the lifecycle of a disaster such as 9/11 requires broad preparedness and profound resiliency.

Clements (2009:2) explains the word ‘resilience’, taken from Latin word ‘resilire’, as to bounce back or rebound. As it relates to preparedness, resiliency is the ability to anticipate, prepare for and recover from the physical and psychological challenges of man-made and natural disasters. How well we bounce back from the adversity of a disaster is largely dependent on how well we have prepared ourselves for it. A resilient individual will have a more resilient home. A resilient community is comprised of resilient homes and a nation becomes resilient one person, one family, one home and one community at a time.

**Question 8:**

**Importance of training and educating the community on disaster preparedness**

According to John et al (2005:130) contends that education is an important facet of emergency preparedness because a well informed community will be better educated regarding steps to take in identifying suspicious behaviour or during an actual emergency event. The community is the building block of the nation and it is of paramount importance to ensure that they are adequately trained and equipped with skills to defeat their daily challenges. Starting at community level would provide crucial information to assist in developing a systematic, organized method of providing the resources to a particular area when the need arose, regardless of that area’s size. Building a community risk assessment database would provide the necessary building blocks required to establish a comprehensive emergency preparedness plan. The training in community risk assessment would assist in identifying areas of weakness and strength in each community. It would also allow communities to their particular ranks relative to other communities.

Identifying strengths and weaknesses would be instrumental in enabling the community to develop a comprehensive emergency preparedness plan to truly meet that community’s particular needs. Each community must know what is required of it to be considered prepared for an emergent event. Communication is essential to successful outcomes and without communication, there is little information or vital updates obtained. There is also an increased risk of unsuccessful event outcomes.

Education for disaster preparedness can provide life-saving and life-sustaining information and skills that protect in particular children and young people during and after emergencies. Disasters are not natural, they only occur when people lack preparedness or the ability to cope with hazards: it is the combination of exposed and ill-prepared population or community with a hazard event that results in a disaster. Education therefore has a vital role to play in preparing communities and building disaster resilient societies and safe lives.

Fundamental to disaster readiness planning is developing training strategies to compensate for the limited opportunities for acquiring actual disaster-response experience. Regarding communication, decision making and integrated emergency management response, the need to develop mental models capable of reconciling knowledge of multiple goals with the collective expertise of those responding is a significant challenge for training.

Walker (1994:13) provides a clearer picture on the role of women in disaster preparedness. Training and effective staff development policies should focus on strategies to bring more women into decision-making positions in relief and development organisations. For too long it has been perceived as women’s responsibility to ensure that women’s needs are addressed and met. Through gender awareness training the male colleagues can be encouraged to see how attention to gender issues will ultimately strengthen programmes and make them more effective in reaching their targets and fulfilling the community’s needs.

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