



## **Module 4: Emergencies: Prevention, Preparedness, Response and Recovery**

### Part 2: Prevention

Tamar: In this module, we'll be discussing emergency preparedness.

Our objective for this module is to evaluate methods for preparing for emergencies at the individual, community and governmental levels.

First, we'll discuss individual and family preparedness; then we'll discuss organizational preparedness; and finally, we'll discuss governmental preparedness.

The importance of preparedness cannot be understated. All of you have family responsibilities, and from a preparedness perspective, family responsibilities include making sure your family is safe as well as planning for evacuation and sheltering in place.

It's important that you assess the probability of dangers near your residence. For example, if you live near a nuclear power plant, you may need to know an evacuation route. If you live near a flood zone, you may need to know how to get to higher ground, et cetera.

Another key factor to consider is planning for evacuation and shelter in place. We're going to talk about how to do so in a few moments.

According to the Red Cross, personal disaster preparedness requires getting a kit, making a plan, and remaining informed. We're going to discuss how to do each of these in turn.

A disaster supply kit should include all of the following: water, flashlights and batteries, pet supplies, cash and coins, sanitary supplies, as well as contact information and a map.

Duct tape and plastic sheeting are needed to temporarily seal off a room in the case of sheltering in place. If local officials advise you to shelter in place, they mean for you to remain in your home or office to protect yourself there. It's best to shelter in place in an interior room with few windows that is above ground level.

It's important to also keep a current list of phone numbers for everyone in your household and for others you may need to contact, including doctors and other health care professionals. Make copies and file them at work, school, and other relevant places. Include the name and phone number of someone who lives out of the area who can serve as a relay for information. It may be easier to contact someone outside of the area affected by a disaster. Include cell phones and email addresses. It may be less difficult to communicate by email right after an emergency than by phone.

Another important way to stay prepared is to put an 'in case of emergency', or ICE, number in your cell phone. This way, emergency responders can look for the ICE number and contact your emergency contact.



If a family member is serving in the armed forces, be sure to have their social security number, military address where they're assigned, and/or home base unit in case you need to contact them.

Additionally, pack a map. Regardless of how well you know the area, it's a good idea to have one in case primary roads are blocked and you need an alternate route. Remember that GPS may not be working, depending on the kind of emergency that occurs.

The next important step is to make a plan. When a disaster or other emergency happens, those who plan ahead are calmer and more assured. A plan for what to do in an emergency applies to everyone, including those who live alone. Everyone should know what to do, where to go, and who to contact in case an emergency happens. Take the time to talk, plan, learn, check supplies, tell and practice your emergency response plan in order to ensure that everyone in your household is prepared.

Consider vulnerable family members and neighbors as well. Do you need medical forms, I.D. bracelets, durable medical equipment, medications? It's important to have a backup of these and know where they are at all times in case of an emergency.

Here is an example from the Centers for Disease Control and Prevention on how to be ready for winter weather. The CDC has a variety of infographics similar to this that can give good advice about how to be prepared for a variety of emergencies that are likely to happen.

Let's talk about some specific emergencies.

During the H1N1 pandemic, we saw tracking of flu-like symptoms, communication about what priority groups were at risk, school closures, and vaccination of the public, all of which were examples of preventing the spread of the pandemic to the public.

Next, let's discuss organizational preparedness. Continuity of operations planning is important for all organizations. Why do we do continuity of operations planning?

The list here gives specific examples of why we create continuity of operations plans. The reason to do so is to ensure that businesses or organizations can meet their priority needs both of their employees and for the community as quickly as possible after an emergency. Contingency planning goals number two, six, and seven are probably the first priority, because they involve the life and safety of human beings.

Some of the components of continuity of operations plans are listed below. A viable continuity of operations plan consists of these 10 critical elements, including essential functions, delegations of authority, alternate facilities, vital records, human capital and management, as well as reconstitution after an emergency.



Let's look again at the H1N1 pandemic as an example. During the H1N1 pandemic, schools, businesses, social services, and hospitals had various disruptions and closures.

Some of the things considered during the pandemic included school closures and where kids would go if they weren't going to school. Many students actually ended up going to other public places such as malls and libraries during the school closures, which actually reduced the effectiveness of school closures which was intended to keep students away from each other so as not to spread disease.

Some businesses closed as well. How would essential services be taken care of in the future if businesses closed?

Social services also had many closures and disruptions. Many local health departments had to suspend normal activities in order to launch a vaccination campaign during H1N1 and had to consider how to maintain essential services during that time.

Many hospitals were disrupted as well. In some cities, hospital emergency rooms had to set up separate entrances to deal with patients who arrived with influenza-like illness. Dealing with changes to hospitals, including an influx of patients or other hospital disruptions, is another key component to preparedness.

Now, let's talk a little bit about governmental public health preparedness.

Public health emergency preparedness is the capability of the public health and health care systems, communities, and individuals to prevent, protect against, quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to overwhelm routine capabilities.

Public health emergency preparedness focuses on those times where normal services might be suspended or put in jeopardy due to a large event.

The goal of public health preparedness is to mitigate the mortality, morbidity, psychological and social consequences of a public health emergency. Effective actions in response to an emergency can greatly reduce consequences, especially for contagious diseases, but 100% prevention is never possible. When preparing for an emergency, we are preparing for the least amount of harm possible, but we can never protect everyone.

Some public health emergency preparedness system capabilities are listed here below, as well as the public health preparedness system. You can see in the graphic that inside is the governmental public health infrastructure, but it must coordinate with the healthcare delivery system, Homeland Security and public safety, employers and businesses, media, academia, and communities.



Capabilities are important at all levels of government, but it's important to remember that local health departments are first responders and must be ready first when there's a public health emergency.

The capabilities include surveillance and epidemiology; disease control and prevention; mass care; communicating with the public; information sharing within the public health system, which includes all of the agencies listed on the left; as well as leadership and management.

Some of the considerations during a disaster plan include: community demographic characteristics, what kinds of populations are living nearby who might be affected by an emergency; what cultural groups, including language considerations or other cultural considerations must be thought about as well as special needs populations, if there are people who have intellectual or developmental disabilities or physical disabilities that need to be considered when planning for an emergency.

Socioeconomic factors also must be considered. This came into play during Hurricane Katrina in 2005 when those who were low socioeconomic status did not have the resources to leave the city of New Orleans prior to Hurricane Katrina hitting New Orleans and the flooding occurring.

Also, mental health resources; are there mental health responders nearby, or can the local community depend on Red Cross or other agencies to provide mental health services?

Government roles and responsibilities; whose responsibility is it to make particular policy decisions? For example, whose responsibility is it to close schools in a pandemic or other emergency?

Also, nongovernmental organizations roles and responsibilities. What are NGOs roles during an emergency? How can they respond appropriately? For example, retirement communities may need to take responsibility for their populations, or other nonprofit agencies may need to take responsibility for the populations they serve.

Additionally, community partnerships should be considered prior to an emergency. Ensuring partnerships between agencies and governmental partners can really help to mitigate the impact of an emergency when the time comes.

Let's look at a specific example of the H1N1 pandemic. H1N1 was detected by individual physicians who knew who to contact when they saw something unusual. Those systems have to be in place prior to an emergency occurring.

Communication infrastructure also includes redundant communication systems that should exist to ensure that if one communications system is knocked out, that there are other contingency plans in place.



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Organizations like the World Health Organization and the Centers for Disease Control have to cooperate prior to an event occurring. During H1N1, the outbreak was detected early, surveillance was set up quickly, and the threat was characterized very rapidly. The communication infrastructure worldwide was used to ensure that the World Health Organization and organizations such as the CDC and Pan American Health Organization and other similar organizations around the world were coordinated, and agencies across both local, state, federal, and international groups were coordinated and cooperated to ensure a timely response to the pandemic.

In summary, for this module, we've learned that emergencies are quite challenging, but planning can definitely help with the response and help mitigate the impact of emergencies.

Additionally, emergency preparedness occurs at the individual, community, and governmental levels. It's important that each of these groups take responsibility for preparedness.

There are also various capabilities, considerations, and strategies that must be considered when preparing for an emergency. If you look back to previous emergencies, you can see how those capabilities, considerations and strategies were used to help mitigate the impact of specific emergencies. The example that we talked about was the H1N1 pandemic, but you could apply that to any kind of public health emergency that has been experienced.