Evacuation issues: Part I

In the first of two articles, a panel of emergency management specialists consider the issues involved in getting a major city ready for evacuation.

The United States has focused on emergency management and evacuation issues in recent years, particularly in major cities, since the experiences of the September 11 bombings in New York City and Washington, D.C., and even more so since Hurricanes Katrina and Rita hit the southeast in 2005. A 2006 report by the US Department of Transportation and the US Department of Homeland Security questioned the evacuation readiness for catastrophic events of the 75 major urban areas in the United States.

The Ais Institute for Democratic Governance and Innovation at Harvard Kennedy School convened a panel of emergency management specialists for a webcast discussion in March 2008 to consider the issues involved in getting a major city ready for evacuation. The following expert insights from that discussion are the first of two articles to appear in CR/.

Arnold (Arn) Howitt: Getting ready for evacuation is a very complex challenge. And certainly, some threats, like hurricanes, will give advance notice, perhaps a week, perhaps a few days. But other threats, like earthquakes or terrorist attack, may be no notice events.

There's always a crucial question whether people should shelter in place or evacuate. Frequently, shelter in place will be the most sensible policy. But there will certainly be situations where evacuation is called for. Under these circumstances, government's role is going to be both facilitating the evacuation and providing aid to people. We look at different shelters, where you get your emergency support vehicles and resources into place, command systems, etc.

The real-time demographics, the real-time traffic conditions, the real-time weather situations, fire damage to the freeways, and incorporate it into our processes. In the planning phase, we need to be able to identify the evacuation scenarios. We do a lot of that through practicing and simulations with our partners in preparedness, such as the universities, to bring good, strong simulation methodologies to the table. Second, control points. Where do we have an evacuation route to follow? And we look at different shelters, where we would be hosting and relocating people. Then support. Where do you stage people? If you've got emergency going in, you'll need to get your emergency support and resources into place, command systems, etc.

One of the things that we think evacuations are a regional concept. You're not in this by yourself. And it's important that you approach it from a regional perspective, especially when you consider many of the aspects that you deal with: regional railroads, metropolitan transit authorities and bus systems. These are regional components in most instances. That's incorporated with those local or private resources that you would have. Special needs population planning is very important, not just identifying those that need relocating, but those that have to be in place. And then how do we make sure that the elected officials deal with that?

It's not a situation where we say, ‘We don't have conflicting information, the mayor saying one thing, the governor something else.’ It's important, as well, that we take those integrative tools that many cities have – such as traffic management centres – making sure they are incorporated into the process.

Frequently, shelter in place, we’re putting training in place, not only for our fire and law enforcement, but those other partners in preparedness, whether it’s Department of Transport, public works, etc.

Mike Montgomery: I'd like to turn, now, to Mike Montgomery. The Houston area was a reception centre for evacuees from Hurricane Katrina and has experienced massive traffic tie-ups in evacuation from Hurricane Rita.

Mike Montgomery: One of the key things that we learned was we had three times as many people on the road as we expected. We work with the governor on our plan, which is a one-size-fits-all in this process. In Los Angeles, where earthquake is the major hazard we plan for, there is quite a bit of uncertainty. And you have to deal with it from the standpoint of having some type of evacuation decision system. Because unlike hurricanes that typically are coming from one direction, there truly are many catastrophic events (for which we get no warning and have no way of knowing exactly where the danger is located).

So we have to look at creating a way to determine the real-time traffic conditions, and we've always had an issue with the real-time traffic conditions, ground or air ambulance is probably the most appropriate way to get these folks around. Some other alternatives may look good on paper. But these are fairly fragile folks, so we have to be very careful how we transport them. And then the thing to make sure, in our special needs sheltering, that we get people out of the danger zone, that we’re putting them in a shelter that is conducive to their needs, and that we match those shelter requirements with the folks that are coming in.

Arnold Howitt: Andrew Velasquez, as executive director of emergency management in Chicago, was concerned not only with his own emergency plans, but also with their relationships with other communities in Cook County and the surrounding metropolitan area. Now as director of the Emergency Management Agency for the State of Illinois, he is looking at problems of co-operation across all the local governments in Illinois, and between those governments and the state.

Andrew Velasquez: Often we talk about the importance of having to evacuate large cities. But we don’t think about where we are going to place these people. Are we going to have the appropriate plans in place to shelter individuals or to way stations to receive individuals who may need medical attention or be reunited with family members? The logistics of tracking and identification of individuals will require massive cross-jurisdictional co-ordination.

Participants

Arnold M. Howitt is executive director of the Ais Institute for Democratic Governance and Innovation and co-director of the Program on Emergency Preparedness and Crisis Management, both at the John F. Kennedy School of Government, Harvard University.

Ellis M. Stanley. Sr., is director of western emergency management services for Towers & Davies. He was general manager of the emergency management department of Los Angeles from 1997-2007 and previously served as emergency management director of Atlanta-Fulton County, Georgia.

Mike Montgomery is the fire marshal of Harris County, Texas (which includes the greater Houston area) and was previously the county’s emergency management co-ordinator.

Andrew Velasquez III is director of the Illinois Emergency Management Agency and previously served as executive director of the Chicago Office of Emergency Management and Communications. There’s always a crucial question whether people should shelter in place or evacuate. Frequently, shelter in place will be the most sensible policy.

Prior to 2005, with Hurricanes Katrina and Rita, some of the sheltering operations were very-resistant to accept, or had policies forbidding, pets or companion animals. This led to many pet owners refusing to evacuate. Pictured here is a New Orleans evacuee at a facility that welcomed pets.

Ellis Stanley: As Arn indicated, there's not a one-size-fits-all in this process. (In Los Angeles, where earthquake is the major hazard we plan for) there is quite a bit of uncertainty. And you have to deal with it from the standpoint of having some type of evacuation decision system. Because unlike hurricanes that typically are coming from one direction, there truly are many catastrophic events (for which we get no warning and have no way of knowing exactly where the danger is located).

Finally, evacuation involves intergovernmental relations – between local governments and the state, and between the state and the federal government.

So the question arises, how should we prepare for these kinds of situations? What do we need to do, both as government officials, but also among adjacent jurisdictions and those that are further up the line. Finally, evacuation involves intergovernmental relation – between local governments and the state, and between the state and the federal government.

Some of the key things that we learned was we had three times as many people as we thought we would. More importantly, over five times as many people as the weather evacuationscenario. To get it right, we need to get it right.

Players may need emergency medical treatment or be reunited with family members, and be in need of temporary shelter. So we have to look at creating a way to determine the real-time traffic conditions, ground or air ambulance is probably the most appropriate way to get these folks around. Some other alternatives may look good on paper. But these are fairly fragile folks, so we have to be very careful how we transport them. And then the thing to make sure, in our special needs sheltering, that we get people out of the danger zone, that we’re putting them in a shelter that is conducive to their needs, and that we match those shelter requirements with the folks that are coming in.

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Andrew Velasquez: Often we talk about the importance of having to evacuate large cities. But we don’t think about where we are going to place these people. Are we going to have the appropriate plans in place to shelter individuals or to way stations to receive individuals who may need medical attention or be reunited with family members? The logistics of tracking and identification of individuals will require massive cross-jurisdictional co-ordination.

Resources

From the perspective of the State of Illinois, we are looking to enhance our inter-community linkages within the state and, at the same time, expand our role in regional co-operation beyond the state’s borders. We need to ensure that a system is in place to link resources in communities to feed, care for, and shelter displaced individuals. The development of linkages has occurred within communities, among government, business, and non-governmental organisations, and between communities. Horizontal and vertical linkages to accommodate the pressures of massive numbers of displaced people are going to be critical. The regional collaboration component is the recognition that, while all disasters may start locally in our independent society, local disasters will always be part of regional concern, requiring regional solutions. So, to address our local problems, we are working with our partners at the Federal Emergency Management Agency (FEMA) Regional Office, to address some of those concerns. We also look at this from a hub-and-spokes-
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The United States has focused heavily on a range of operational capabilities, and the need for complex co-ordination. Not only within a given jurisdiction among the agencies that might be involved – police, fire, emergency management, transportation, public works and others – but also among adjacent jurisdictions and those that are far removed from the line. Finally, evacuation involves intergovernmental relations – between local governments and the state, and between the state and the federal government.

So the question arises, how should we prepare for these kinds of situations? What do we need to do, both as government officials and citizens? How do we ensure that we are ready to handle these kinds of circumstances? And what obstacles are faced, as we make plans for them?

In the planning phase, we need to be able to identify the evacuation scenarios. We do a lot of that through practising and simulating with our partners in preparedness, such as the universities, to bring good, strong simulation methodologies to the table. Second, control points. Where do you evacuate to? And we look at different shelters, where we would be hosting and relocating people. Then support. Where do you stage people? If you’ve got emergency-giving it in the right place. If you’ve got your emergency support vehicles and resources into place, command systems, etc.

One of the things that we find is that evacuations are a regional concept. You’re not in this by yourself. It’s important that you approach it from a regional perspective, especially when you consider many of the aspects that you deal with are regional: railroads, metropolitan transit authorities and bus systems. These are regional components in most instances. That’s incorporated with those local or private resources that you would have. Special needs population planning is very important, not only from the standpoint of relocating, but those that have to be in place. And then how do we make sure that the elected officials do not start that question one that we don’t have conflicting information, the mayor saying one thing, the governor something else? It’s important, as well, that we take those information systems that many cities have – such as traffic management centres – making sure they are incorporated into the process. Finally, shelter. Is this where we’re putting our training in place, not only our fire and law enforcement, but those other partners in preparedness, whether it’s Department of Transport, public works, etc.

Arnold Howitt: I’d like to turn, now, to Mike Montgomery. The Houston area was a reception centre for evacuees from Hurricane Katrina and has experienced massive traffic tie-ups in evacuation from Hurricane Rita.

Mike Montgomery: One of the key things that we learned was that the evacuation sites have to be different than what we originally envisioned. The key factor here is the variations in the population dependent on the gathering point. Some of these sites are used by thousands of people and some by less than 100.

Andrew Velasquez: The sheltering operations were very reluctant, or actually had policies where they could not accept pets or companion animals. So the State of Texas has grouped our special needs residents into six categories. The first of these, Level Zero, are those that simply need additional transportation assistance. Levels One through Five are those that have varying degrees of medical care which...
shelter approach. Hub processing centres will be organised in the largest shelter possible for that city. Hub centres may include arenas, convention centres, stadiums, university buildings, and other large open-space facilities. The main goal for a hub or a processing centre is to evaluate evacuees for any special needs or sheltering issues.

We also have to make sure that we have the appropriate measures in place to receive individuals who have special needs. Once adequately evaluated, we may place that evacuee in a nearby shelter, to ensure that he or she resolves any situation or problems that occurred from the disaster or the evacuation.

It will be very important for institutional players to co-ordinate and address the many obstacles in planning for a mass evacuation. Each local state and federal representative will bring their areas of expertise, and create a response, a realistic response to an evacuation.

**Responsibilities**

We’ve had a number of regional collaboration meetings. That has worked exceptionally well because we brought partners together from Cook County and a number of the other large counties within the State of Illinois to talk about the importance of evacuating folks out of the City of Chicago and even beyond areas within the State of Illinois.

Awareness of responsibilities and execution of those responsibilities will provide for a flexible response, ensuring mitigation measures at all levels. (This requires us to) establish an organisational structure for regional collaboration, identify key stakeholders that should be a part of that organisational structure, develop a governance structure, set organisational goals and objectives, and develop required agreements when we get to the area of communication.

The full discussion excerpted here can be accessed at: www.innovations.harvard.edu/xchat-transcript.html?chid=151.