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The Nation's ability to respond to a mass casualty national emergency is the inherent capability of the federal government to respond and the composite of each state's ability to respond. They each present with their own limitations.

The federal government has limited resources to respond to overwhelming and widespread natural events such as Hurricane Katrina or a Pandemic influenza event. Overwhelming and widespread terrorist events will further challenge the nation's ability to respond, as there would be no advance warning, and there would be intentional attempts to injure as many civilians as possible including direct attacks on first responders, health care workers and medical facilities. Federal response to locally catastrophic events is limited by the time it takes for resources to arrive in a community. Many times death and injury occur during the event or within the first few hours of the incident, emphasizing the need for an appropriate local response. In these two cases, the federal response should be to anticipate, plan for, provide guidance and technical support, communicate with, and efficiently respond to communities where these incidents occur.

Individual states also have limited capacity to respond to overwhelming events. Each state should be broken down into sub-state regions that can provide critical response capabilities. Each state's capacity to respond to an overwhelming mass casualty event is then a composite of capabilities of sub-state regions. A Regional Response System (RRS) is sub-state region described as a metropolitan area, a sizable town and its surroundings, or multiple towns in a rural setting. An RRS is determined on its ability to plan for and provide critical services during the time of an overwhelming mass casualty public health emergency. Although all towns currently plan for and respond to a wide variety of emergencies, critical response capabilities necessary to respond to mass casualty events can only be provided by smaller towns or regions working together. Some examples include setting up community based mass prophylaxis and immunization sites, community based hospital surge capacity beds, or isolation and quarantine facilities. **The nation's capability to respond at this sub-state level is where a critical gap exists between resources needed and resources available.**

Hurricane Katrina in particular demonstrated how a catastrophic emergency can overwhelm local response and leave a critical gap in response efforts until massive Federal help arrived days to weeks later. During this gap in effective response, death, and suffering continued in an environment of hopelessness and chaos. Analyses of potential biological terrorist attacks involving tens of thousands of casualties predict a similar gap in response capabilities.

The timely and effective use of the vast, distributed regional response resources requires careful and practical planning among communities and States *before* the actual need arises. Once an incident occurs, it is too late to develop the relationships, policies, and procedures to figure out how to integrate and apply such diverse resources in a timely and effective manner.

The concept of using regional response resources is predicated on comprehensive planning for use of local, State, and Federal resources from within a region. This planning along with appropriate and realistic exercises is needed before a catastrophic emergency. During such an emergency, the local medical and emergency first response resources would be the first line of defense. Any serious flaw in this first response would seriously jeopardize all of the following responses. The first responders must be able to quickly build the foundation by which outside resources are efficiently integrated and effectively utilized within the community. The use of regional resources is necessary because their close proximity and they may possibly have sufficient numbers to effectively fill the gap between the local and state response and the subsequent Federal response.

Regional planning both interstate and intrastate can be useful tools for closing the gap between local state and federal response.

The intrastate Regional Response System (RRS) can facilitate planning and response to catastrophic emergencies for all types of hazards. Man-made and natural disasters include a vast array of threats from fires, floods, hazardous materials releases, transportation accidents, earthquakes, hurricanes, tornadoes, pandemics as well as the terrorist arsenal of chemical, biological,

radiological, nuclear, and high-yield explosive weapons. The development of Regional Response Systems (RRS), along with implementing *actions* in order to ready communities, States and, indeed, the entire Nation to respond effectively to *all-hazards catastrophic emergencies* will provide a long needed framework to incorporate local, state and federal resources during the time of an emergency.

If each state's sub-state region or regional response system (RRS) is tasked with critical capabilities such as setting up an alternative care center, then we begin to form the building blocks for a true and reproducible national response.

Estimates or predications of casualties anticipated during different types of outbreaks, natural disasters or terrorist attacks are a necessary first step to determining the types, numbers, location and timing of responders necessary to deal with varying mass casualty events. The next step would be to determine the medical care necessary, and the resources needed to give that care.

For example, if hospital bed surge capacity is the response required, the first step is to define the role and limitations of hospitals during the event. Hospitals are the only resource other than field treatment that have immediate or near immediate health care capabilities. During a Pandemic event, it is anticipated that hospitals will be filled to capacity with seriously ill patients and also severely limited in their response capability by staff (and their families) illness and death. Hospitals will also be compromised by the loss of critical medical supplies and pharmaceuticals, and possibly even power and communications failures.

Community based facilities extend the state's surge capacity beyond acute care hospitals. These facilities allow definitive health care for patients during mass casualty incidents that exceed hospital surge capacity. They also provide an alternative site for treatment should a hospital be evacuated or incapacitated. There are two different types of community based facilities: alternative care facilities (ACF) and acute care centers (ACC).

Alternative care facilities are community based medical facilities usually used for outpatient treatment that during the time of a mass casualty event, can be

readily converted to care for patients needing hospitalization. An example of an ACF would be a nursing home or ambulatory surgery center.

Acute care centers are located buildings of opportunity. These are community facilities that simply provide space. Examples include armories, auditoriums, conference centers, and gymnasiums. The ability to provide treatment is dependent on all medical supplies and staffing being brought to the site. This type of facility would also be the receiving facility for outside federal resources such as the Federal Medical Contingency Station.

Using this scenario, local Medical Corps personnel can plan for and staff an alternative care facility. NDMS, and commissioned corps personnel can later provide backfill upon arrival.

A large gap exists in trained health care workers to staff community based health care facilities including alternative care centers, immunization and prophylaxis clinics and isolation and quarantine facilities.

To successfully recruit, train, exercise and sustain health care providers is a difficult task. Critical concerns by staff are very common sense and understandable:

- Am I safe, is my family safe?
- Where am I going to work and for how long?
- Am I protected from liability and workman's compensation issues?
- Am I trained to recognize and treat the disease or injury?
- If I take off work, will I be compensated?
- What is my specific job action, where do I fit within the chain of command?
- Am I qualified and trained to do the job?
- Do I have any physical limitations or restrictions that prevent me from responding?

Federal, state or private medical staffs that provide medical care as their full or part-time employment should be provided opportunities to train, exercise and drill for a wide variety of all hazards catastrophic events during the course of their employment.

One major objective for staffing would be to recruit volunteers before an incident occurs. This allows the opportunity to verify credentials, issue IDs, educate and train, and to participate in exercises and drills. The completion of the ESAR-VHP program would be valuable.

Interstate regionalization is also a tool for filling in the critical gap between local, state and federal response.

To fill this gap in Northern New England, the Northern New England Metropolitan Medical Response System (NNE MMRS) functions as a coordinating resource for Maine, New Hampshire, and Vermont in preparing for and responding to the health and medical consequences of a mass casualty event affecting the tri-state region. When the national MMRS program was founded in 1996, the intention was to mitigate casualties from terrorist events using weapons of mass destruction by improving and coordinating planning efforts within metropolitan areas. Recent events, such as Hurricane Katrina and fears of an Avian Flu Pandemic, have underscored the need to improve planning and response efforts for natural disasters and disease epidemics nationally.

The population of the three states exceeds 3 million with 52.6 percent of residents residing in rural areas. Major population centers and seasonal tourist attractions within the region represent vulnerabilities for terrorist attack. Furthermore, all three states share borders with Canada, necessitating close cooperation across an international boundary. Maine and New Hampshire both have active seacoasts, busy with commercial and leisure vessels.

In addition to the threats to northern New England, the region must be concerned with terrorism and disease epidemics occurring in southern New England. Due to geography, in the event of a mass casualty incident in the urban areas of southern New England, it is likely that the tri-state region will provide surge capacity for victims of the event. While some patients may be legitimately transported to northern hospitals, there is a distinct possibility that tens of thousands of individuals might flee the urban areas, overwhelming resources in the northern states and potentially spreading disease. There is also a need to be prepared to act on alerts from the Boston BioWatch program.

1) A large gap exists in trained health care workers to staff community based health care facilities including alternative care centers, immunization and prophylaxis clinics and isolation and quarantine facilities. Basic issues such as liability, workman's compensation, personal and family protection, education and training, motivation and sustainability are high priorities for this group of health care personnel.

Sub-state regionalization and inter-state regionalization are two useful tools that can fill the critical gap between local and state response, and the federal response. Critical health care staff, medical equipment and supplies and pharmaceuticals may be available within neighboring communities or adjoining states. An example of interstate regionalization is the Northern New England Metropolitan Medical System which provides a planning mechanism and response capability for Maine, New Hampshire and Vermont.

The Federal Government should provide concise planning guidance and technical information to communities that outline critical response capabilities. Common structures within states and across state lines allows for familiarity and cost effectiveness. A common structures would allow for seamless integration of staff, equipment and supplies

2) Significant logistical support for a massive federal response should be through the Department of Homeland Security. This would enable close support of multiple agencies within DHS, as well as with DOD. DHHS and DHS should identify strengths and weaknesses within their agencies, and combine efforts to insure a rapidly mobile and competent medical response system. To optimally support the federal response, a solid foundation in affected states and communities is needed to maintain an effective response capability. Strong medical direction at the senior level should direct the field deployment, response and logistical support.

3) Private health care delivery systems should be should be utilized as resources during the time of emergency and incentives should be in place for preparing for and responding to these emergencies. There should not be penalties or loss of income for private healthcare systems participating in emergency response. Participation of private health care can be easily added at the sub-state and community level.