Bioterrorism and Other Public Health Emergencies

Tools and Models for Planning and Preparedness

Nursing Homes in Public Health Emergencies

Special Needs and Potential Roles

Focus Group Discussions of Disaster Planning at Nursing Homes

Suggested Citation:

Root ED, Amoozegar JB, Bernard S. Nursing Homes in Public Health Emergencies: Special Needs and Potential Roles. Prepared by RTI International under Contract No. 290-00-0018. AHRQ Publication No. 07-0029-1. Rockville, MD: Agency for Healthcare Research and Quality. May 2007.

Contents

Executive Summary

The events of September 11th and the devastation caused by hurricane Katrina demonstrate the impact of such events on the public health infrastructure and the importance of emergency preparedness activities. In addition, the reality of bioterrorism, as exemplified by the anthrax cases reported in the U.S., underscores the importance of preparing for possible bioterrorist attacks. To date, most health care preparedness planning efforts are focused on hospital and first responder preparedness. Nevertheless, we know that the elderly population is particularly vulnerable to bioterrorism and other public health emergencies due to their complex physical, medical and psychological needs. The potential role and question of preparedness on the part of nursing homes has emerged in local and national preparedness discussions. However, we have little understanding of the extent to which nursing homes have planned for and/or been incorporated into regional planning efforts (Saliba et al., 2004; Dosa et al., 2003; Helget et al., 2002).

To address this issue, a series of focus groups were conducted to collect information about disaster and bioterrorism related planning activities among nursing homes in five States -- North Carolina, Oregon, Pennsylvania, Washington, and Utah -- and Southern California. The aims of the focus groups include:

- Determine if nursing home administrators have prepared and trained staff on disaster plans, including bioterrorism response
- Assess the special needs of the elderly population in nursing home settings during a public health emergency
- Determine if nursing homes are able to accommodate patient flows from acute care hospitals or provide other resources
- Assess the impact of State regulations on the ability of nursing homes to offer support and/or surge capacity

Focus Group Methods

The focus group discussions included topics such as the level of preparedness activities, special needs of nursing home environments/populations, ability to accept transfers, provide basic medical care and other support, and the influence of State regulations on disaster planning.

Using a convenience sampling strategy, RTI used its Integrated Delivery System Research Network (IDSRN) partners to assemble the focus groups. The IDSRN is a model of field-based research designed by AHRQ to link the Nation's top researchers with some of the largest health care systems to conduct research on cutting-edge issues in health care on an accelerated timetable.

IDSRN partners were asked to recruit staff from three to six nursing home facilities in their respective State(s) to participate in the focus group. Each focus group consisted of between 4 and 10 participants for a total of 49 participants. In selecting participants, IDS partners were asked to identify facilities characterized by: (1) high patient flows to one of their hospital facilities or (2) a rural location or strategic location in vulnerable communities where hospital

capacity or even response planning is low. Standard focus group techniques were used (Morgan and Kreuger, 1998) to collect and analyze data. Results across all focus groups were compared to identify major themes present in all six States as well as situations unique to one or two States or facilities.

Disaster Preparedness and Planning Activities

While all nursing homes we spoke with engage in some form of disaster planning, the focus, frequency and coordination of these activities varied by facility:

- Nursing homes have plans in place for some public health emergencies, but had not done planning specific to bioterrorism. Disaster plans appear to focus on natural disasters most prevalent in a region (e.g. wild fires, earthquakes, floods, hurricanes).

- All nursing homes conduct quarterly fire drills, staff in-service trainings, and annual or semi-annual disaster drills. The topics addressed in trainings are highly dependent on facility location and State requirements.

- The level of local coordination around disaster planning differs by State. Nursing home representatives, for the most part, reported little involvement in regional coordination efforts.

Special Needs of Nursing Homes

Focus group participants voiced a variety of needs, some of which were unique to nursing homes and some which would be problematic to a variety of health facilities:

- Nursing homes are concerned about caring for special patient populations during an emergency (e.g. Alzheimer's, cognitively impaired, or high fall patients).

- Concerns about staffing in an emergency were universal, since many staff members will want to care for their own families during an emergency.

- Nursing home representatives are concerned about running out of pharmaceutical and other medical supplies in a disaster.

- The adequacy of fuel supplies to power generators is a major concern because power serves a number of important functions in these facilities.

- Nursing homes are concerned about having sufficient food and water supplies.

Potential Roles of Nursing Homes

Focus group participants suggested a number of activities nursing homes could engage in during a public health emergency:

- Nursing homes represented are willing to accept residents from area hospitals but voiced concerns about patient acuity and facility capacity and staffing.

- Nursing homes could provide basic medical care and short term shelter for community residents.

- Nursing home facilities have little excess space and should not be used to store equipment or stockpile drugs.

Influence of State Regulations on Nursing Homes

State regulations did not appear to be a strong factor influencing how nursing homes would respond during a public health emergency:

- Participants were largely unaware of State regulations governing nursing homes during a disaster or public health emergency.

- Nursing homes need formal guidance as well as resources to develop disaster plans.

Two additional themes emerged in several of the focus groups, one related to the role of the Red Cross and the other was motivated by Hurricane Katrina:

- Nursing homes are uncertain about the role of the Red Cross during a public health emergency.

- Hurricane Katrina provoked fears of liability and judgment, decreased confidence that the government will be a source of support in an emergency, and resulted in changes to the duration of time for which nursing homes think they need to be self-sustaining in an emergency.

Section 1. Introduction

1.1 Background on Nursing Home Disaster Preparedness

The events of September 11th and the devastation caused by hurricane Katrina demonstrate the long-term impact of such events to the public health infrastructure and the importance of emergency preparedness. In addition, the reality of bioterrorism, as exemplified by the anthrax cases reported in the U.S., underscores the importance of preparing for possible bioterrorist attacks. Despite the fact that significant progress has been made in overall preparedness, our ability to detect bioterrorist threats, communicate these in real time to the clinical, public health, and lay communities, and effectively triage and treat afflicted populations continues to raise concern. This is especially true for certain vulnerable populations, such as the elderly, whose unique psychological and medical needs require special attention.

As the U.S. population continues to age, nursing homes have become an increasingly important component of the U.S. health system. The 2004 National Nursing Home Survey estimates that nearly 1.5 million adults are admitted to the Nation's 16,100 nursing homes each year (CDC, 2004). Nearly half of all women and a third of all men are expected to use nursing home care at some point during their lives (Spillman and Lubitz, 2002). Despite their role in serving an increasing proportion of the Nation's population, nursing facilities have been overlooked as health resources and are often not incorporated into larger disaster planning efforts. This may be, in part, because of the difficulties involved in integration and coordination of stakeholders across the health care continuum. However, this interorganizational collaboration is imperative for effective and coordinated disaster response (IOM, 2002). A complex network of local, State, and Federal government agencies must work together efficiently with community-based providers of care. Federal agencies have endeavored to provide the health care community with relevant information on threats of bioterrorism and other public health emergencies and work with communities in relief efforts following natural and man-made disasters. Nevertheless, only a handful of limited efforts focus on the mechanics of producing viable regional plans and availing surge capacity in times of need.

Most health care preparedness planning efforts are focused on hospital and first responder preparedness. Nevertheless, the elderly are particularly vulnerable to bioterrorism and other public health emergencies because of their complex physical, social and psychological needs. The potential role and needs of preparedness on the part of nursing homes has emerged in local and national preparedness discussions, especially in the wake of Hurricane Katrina. A recent workgroup sponsored by the Health Resources and Services Administration (HRSA) recommended the development of an interdisciplinary evidence-based curriculum on emergency preparedness that would allow health professionals working with the elderly population to better address the medical needs of their population in an emergency. However, we have virtually no understanding of the extent to which nursing homes have planned and/or been incorporated into regional planning efforts (Saliba et al., 2004; Dosa et al., 2003; Helget et al., 2002). A pilot study in the Greater Pittsburgh, Pennsylvania area found that nursing home facilities and their medical staffs were largely unprepared to recognize and respond to a bioterrorist event. Lack of personal knowledge and financial resources were cited as two of the most common barriers to preparedness and planning (Dosa et al., 2003). The purpose of this report is to address this gap

in knowledge of the role nursing homes could play with respect to regional preparedness. We hypothesize that nursing homes may strategically contribute to preparedness in their communities, especially in those communities where no hospital facility is located. Ancillary to this report, a model needs assessment tool for determining the readiness of longterm care facilities for public health emergencies is included in Appendix B.

In 2004, The Agency for Healthcare Research and Quality (AHRQ) expanded its Bioterrorism Planning and Response research portfolio to include several projects that focus on surge capacity issues. In doing this, AHRQ recognized the need to better understand two priority areas: (1) identify ways to augment hospital bed capacity, and (2) use models to set surge requirements. In this report, we present the findings of a series of focus groups conducted with nursing home staff in five States -- North Carolina, Oregon, Pennsylvania, Washington, and Utah -- and Southern California. The purpose of the focus groups was to gauge the level of disaster preparedness and assess the special needs and potential role of nursing homes in the event of bioterrorism or other public health emergencies. The focus groups were used to address the following research questions:

1. Have nursing home administrators prepared and trained staff on disaster plans?
2. Do nursing homes have special needs associated with the elderly population that should be addressed?
3. Are nursing homes able to accommodate patient flows resulting from acute care hospital needs to free beds for surge capacity?
4. How do State regulations influence the ability of nursing homes to offer support and/or surge capacity?
5. In addition to beds, what other surge capacity capabilities might nursing homes offer?

Findings from this report can provide important insight into current nursing home preparedness activities as well as the potential role of nursing homes in larger local or regional preparedness efforts and the special needs experienced by the nursing home population.

1.2 Organization of this Report

This report is the second report prepared for this project. The first report, *The Emergency Preparedness Atlas: U.S. Nursing Home and Hospital Facilities* combines findings from interviews with State disaster coordinators with information obtained through a larger environmental assessment to consider issues of regional planning concordance relevant to preparedness and response of hospitals and nursing homes in disaster situations. In conducting this environmental assessment, we used geographic information systems (GIS) to synthesize and analyze the distribution of nursing home and hospital facilities across the United States and present the results as a series of State- and regional-level maps.

In the remainder of this report, detailed methods and findings of the nursing home focus groups are presented. Section 2 presents an overview of the methods used to compile data for this report. Section 3 presents a synthesis of the focus group results organized into several broad topic areas. Limitations of the study and conclusions about nursing home preparedness and their role in public health emergencies are presented in Section 4.

An ancillary model survey, also prepared for this project, is included at the end of this report in Appendix B. The *Longterm Care Preparedness Needs Assessment* tool can help regional and State planners and individual longterm care facilities determine their readiness for public health emergencies.

Section 2. Data and Methods

2.1 Sample selection

Five States -- Washington, Oregon, North Carolina, Utah, and Pennsylvania -- and Southern California were selected for focus groups using a convenience sampling strategy. A convenience sample is technically "…any strategy other than simple or stratified random sampling" (Maxwell, 1996: 70). While not preferred, the most feasible approach in some situations is to use a convenience sample. Our main goal for using this approach was to engage all of RTI's IDSRN partners who expressed an interested in studying the project research questions.

Using a convenience sampling strategy, RTI used its Integrated Delivery System Research Network (IDSRN) partners to assemble the focus groups. The IDSRN is a model of field-based research designed by AHRQ to link the Nation's top researchers with some of the largest health care systems to conduct research on cutting-edge issues in health care on an accelerated timetable.

Four IDS partners were involved in this effort: Intermountain Health Care (Utah), Providence Health System (California, Oregon and Washington), UNC Health Care (North Carolina) and UPMC Health System (Pennsylvania). Since IDS partners were asked to identify and recruit staff from affiliated nursing homes, working with motivated IDS partners (rather than attempting to recruit participants using cold calls) resulted in good participation rates for focus groups. RTI's IDSRN consists of a diverse group of hospitals and health systems that adequately capture the heterogeneity of nursing homes across the U.S. Our six-State sample reflects diversity in five dimensions:

- Geographic

- Level of progress and degree of coordination in both health care delivery and bioterrorism preparedness planning

- State laws and regulations related to nursing homes services and licensure

- Supply and demand conditions for nursing home and hospital beds

- Organizational policies and practices

In selecting participants, we asked IDS partners to identify facilities characterized by: (1) high patient flows to one of their hospital facilities, or (2) a rural location or strategic location in vulnerable communities where hospital capacity or event response planning is low. The purpose for this selection strategy was to identify nursing homes that would be most affected by necessary discharge from the hospital back to the nursing home as well as those nursing homes that are pivotally located and could offer staff/storage/dispensing capabilities to an IDS facility in the event of a public health emergency.

2.2 Participant Recruiting and Characteristics

For each State, we recruited staff from three to six nursing home facilities to participate in the focus group. Several facilities elected to send two representatives. Each focus group consisted of between 4 and 10 participants. Recruiting was done by IDS partner staff via email inquiries. Once facilities committed to attend the focus group, RTI staff sent a confirmation letter to each attendee explaining the purpose of the focus group and providing logistical information. Participants represented a wide range of roles and expertise ranging from executive directors, administrators, and directors of nursing to quality managers, disaster coordinators, and case managers. Table 1 lists characteristics of the focus group participants. Each participant was paid $250 as an incentive to travel and participate in the focus group. When possible, we asked facilities to bring a copy of their disaster plan.

Table 1: Characteristics of Focus Group Participants

State	No. Nursing Homes Represented	No. Participants	Participant Titles
California	6	10	1 Executive Director 1 President 4 Administrators 1 Director of Case Management 1 Director of Quality Resources 1 Director of Plant Operations 1 Director of Clinical Services
North Carolina	4	8	3 Administrators 2 Directors of Nursing/Clinical Services 2 Disaster Coordinators 1 Director of Community Contacts/Special Projects
Oregon	9	9	1 Executive Director 3 Administrators 1 Corporate Compliance Officer 2 Staff Development Coordinators 1 Vice President of Risk Management 1 Environmental Services Director
Pennsylvania	4	6	2 Medical Directors 2 Administrators 1 Executive Director 1 Director of Resident Services
Utah	3	4	3 Administrators 1 Director of Nursing
Washington	3	4	2 Administrators 1 Director of Nursing 1 Quality Manager
Total	29	41	

2.3 Protocol development

The primary purpose of the focus groups was to provide a multi-institutional view of the special needs and potential roles of nursing homes in surge capacity. This allows us to understand the nursing home perspective across diverse conditions and threat scenarios faced in the six States included in our sample. We developed a focus group protocol drawing directly from our stated research questions. The protocol focused the discussions on topics such as the level of preparedness activities; special needs of nursing home environments/populations; ability to accept transfers, provide basic medical care and other support; and the influence of State regulations on disaster planning.

The focus group protocol was pilot tested in North Carolina and minor revisions were made for subsequent focus groups. After the first focus group, several questions were dropped that did not affect comparability of results across the six focus groups. The focus group moderator's guide can be found in Appendix A of this report.

2.4 Data collection and analysis

Each focus group took approximately one and one half hours. Standard focus group techniques (Morgan and Kreuger, 1998) were used to collect and analyze data. Each focus group was run by a two-person focus group team: one facilitator and one note-taker. Senior RTI staff trained in focus group moderation techniques ran each focus group and a junior staff member took notes using a laptop computer. All focus groups were audio-taped. Results from the focus groups were transcribed and analyzed. Results were compared across all focus groups to identify major themes present in all six States as well as situations unique to one or two States or facilities. Personal or facility names are not used in this report in order to preserve the confidentiality of participants.

2.5 Study Limitations

Focus groups have a number of methodological limitations. First, focus groups gather the perspective of a limited number of participants and are therefore not generalizable to the larger population. While focus groups have high face validity because they rely on comments obtained directly from participants, it is important to keep in mind that results are only representative of the population involved in the focus groups. Second, focus groups require special moderating skills. The use of open ended questions and probes and the understanding of when to focus on a question and when to move on to a new topic area require a certain degree of expertise. Senior staff members responsible for moderating the focus groups have significant experience and training in focus group methodology.

Section 3. Focus Group Results

In this chapter the results of the six focus groups are organized into five topic areas: disaster preparedness and planning activities, special needs identified by nursing home staff, potential roles facilities could play during a disaster or other public health emergency, the influence of State regulations on preparedness and planning, and the role of the Red Cross and effects of Hurricane Katrina.

3.1 Disaster Preparedness and Planning Activities

Nursing homes have plans in place for some public health emergencies but have not done planning specific to bioterrorism. For the most part, participants reported their facilities had done planning for disasters or emergencies such as fires, major snow storms, earthquakes and hurricanes. However, only a couple participants reported planning activities specific to bioterrorism. Many participants acknowledged the importance of planning for bioterrorism or infectious disease outbreaks such as flu (and tended to categorize these two events together), but most admitted that it was "not on the radar screen", far down on the "list of priorities" or had "fallen off the table" in the years following 9/11. Several facilities reported developing new policies and procedures specific to anthrax. For the most part, participants noted that their State regulatory and licensing agencies require they train staff for fires and other "disasters," but bioterrorism planning has never been required:

> *The State requires that we have disaster training and fire drills. We do drills for earthquake or power disruption…But terrorism, disasters, things like that have not been part of the required drills…have not been part of my planning.*

> *We are required to have 2 disaster drills a year. We do take into account fires, power outages, earthquakes, tornadoes…We've not really done much with bioterrorism.*

> *We don't really have anything set up that's formal for bioterrorism. We do have disaster preparedness but not specifically targeted to bioterrorism…fire, weather related, if we get to the point where we need to move residents out.*

One participant noted that a comprehensive disaster plan, including bioterrorism preparedness, is "required as part of JCAHO accreditation."

For the few facilities that reported some level of bioterrorism or infectious disease planning, the level of planning varied greatly. One facility reported developing a plan in the immediate wake of 9/11 but the participant noted "I can't tell you a single thing that's in it or where it's located". Another participant reported using in-service trainings to review "signs and symptoms or what to be aware of" as well as what measures to take to protect residents, staff, and the facility if an infectious agent is identified. These trainings tended to be short (5 to 10 minutes in duration) and focused on flu, norovirus, and other common illnesses. Another participant who had been affiliated with the military before taking her position with the nursing home reported:

We've looked at our infection control and how we would handle a biological agent, how we would detect that. We have periodic training with the staff and try to go through each of the different areas. We have a rather…thick disaster manual. So at staff meetings we try to go through each of the sections and keep it in the forefront of their minds.

This was undoubtedly the most developed bioterrorism response among all nursing homes with which we spoke. Another facility had recently been involved in a HAZMAT scare when a contaminated patient was admitted to the attached hospital. This participant also reported a higher level of bioterrorism planning:

We have been involved with the bioterrorism process on the hospital side with the grant writing in terms of getting decontamination showers and some of the equipment...We recently spent time brushing up on bioterrorism and chemical effects.

All nursing homes conduct drills and staff trainings, but topics addressed in training are highly dependent on facility location. All focus group participants reported conducting fire and disaster drills, as required by State licensing and regulatory agencies. Quarterly fire drills and semi-annual disaster drills appeared to be the norm among most facilities, although some facilities held more frequent disaster drills:

We do 12 hour shifts so we have 2 shifts; both do quarterly fire drills and semi-annual disaster drills…In addition, we do an in-service, once a year. We have a big fire and disaster in-service for all staff. Because when you look at just doing drills four times a year and disasters twice a year to two shifts, we may miss some of our employees.

[We] do fire drills, and once a quarter we have a disaster drill…whether it's an external disaster where we're taking in patients or an internal disaster where we have to ship patients out…it's done on all three shifts each quarter. It's a State requirement.

The types of disaster events that facilities focused on depended on the types of natural disasters prevalent in their location. Facilities in Southern California, Oregon, and Washington tended to focus on earthquake preparedness: "At least once a year we do a disaster drill…that is all internally focused. Usually we pretend it's something like an earthquake." One facility described an elaborate drill involving volunteers that act like patients and wear make up and tags that describe their medical condition:

At least once a year…we have the facility suffer an earthquake. We scatter people around with various identification items on them, and we have a command center that we've established though this training process…staff have to find people, triage them. We have a disaster at such time of the day that the shift changes.

Facilities in Southern California also reported preparing for wild fires while facilities in Washington and Oregon were more concerned with major snow storms and flooding. Participants in North Carolina were concerned with hurricanes and flooding while participants in Utah mentioned tornadoes and power outages. All facilities reported tailoring their disaster plans to these events.

Nearly all participants agreed that high staff turnover rates were a significant barrier to ensuring that staff are adequately trained for a disaster. In general, participants stressed that they go over disaster activities during orientation but expressed concern about whether this level of training is adequate. According to one participant, "we try to emphasize where to find information on what to do rather than what they should do". Other participants reported spending a significant amount of time addressing the details of the disaster plan with new staff:

> *I do an orientation myself with all the new employees that specifically deals with disaster and fire drill rules. We go over where the electrical shop is and if it's an earthquake we go over where the main gas line turn-off is (in case there's a rupture in the line) and the main line water cut-off. I cover that specifically with each new employee.*

> *I think you just have to ensure that in your general orientation there is a safety portion and that people go and see where the gas the water and electricity shut-off areas are so they get the basics…You have to make sure that people know what to do.*

Differing levels of local coordination around disaster planning are evident in different States. A consistent theme across focus groups was the lack of involvement in local or State emergency planning activities by nursing home facilities. While several participants reported being involved in emergency or disaster planning meetings that took place immediately after 9/11, these meetings ended up being more information for nursing home administrators. According to one participant:

> *After 9/11…[our county] had a focus group looking at these issues…they were very focused on trying to organize within the county and included LTC in the focus but…you feel like you're a fly on the wall…there are hundreds of people there from major agencies, fire and police…I went to a couple meetings but it was more informational for me than giving input or trying to say 'we offer these services.'*

One State had recently organized an emergency and disaster planning forum specifically for long-term care facilities that included a "task force of nursing homes." Focus group participants reported that representatives from that State asked for input on changes to rules and regulations that might be necessary in the event of an emergency. Participants in other States reported trying to coordinate with local or State emergency planning agencies with little success. One participant noted that she "attempted to get our county disaster preparedness representative involved with our facility" but was never able to. Another participant reported, "We haven't had much support from our local government. When you try to contact them to get somebody out to come to the building to help, there's really nothing or nobody available." Other focus group participants reported speaking with city or local community emergency planning agencies but did not find the interactions helpful:

> *We've been working with the city, local community services, and talked with them. They had some suggestions…we talked abut [our disaster plan] and reviewed it. They really wanted to focus on the fact that for the first 72 hours we're on our own. But we want to think longer term than that.*

One participant pointed out that the local health departments in more rural areas of the State are "less effective" than those located in urban areas, making coordination even more difficult in these areas. Several participants suggested that this lack of coordination at the local level jeopardizes the utility of the disaster plans that nursing homes have put in place because they will unknowingly be relying on the same resources as other organizations in their communities. According to one participant, "I bet our disaster plan and the one of the organization next door are both relying on the same five ambulances."

Participants in one State were particularly adamant that nursing homes should not be included as a resource in local or regional disaster plans. According to one participant, "a nursing home historically is not part of any disaster plan…when you think of a disaster plan, the community number one resource: hospital. Nursing home is really not part of that equation." Facilities expressed a number of reasons why nursing homes are not suited to be a good resource. One participant pointed out that only nurses are available for patient care because "the doctor doesn't stay on site at the nursing home." Another participant stated that while nursing homes often have the largest facility in many communities, "most nursing homes would not have that space available" because they are "not designed to accept additional patients." Other facilities, such as schools, have large auditoriums and lunch rooms that could be used to help community members. Two participants started negotiations with local community services but eventually backed out because "the administrative decision of the facility was that we have other things on the fire that are priorities."

3.2 Special Needs of Nursing Homes

Nursing homes have concerns about caring for special patient populations during an emergency. Most focus group participants reported that one of their principal concerns in a disaster situation would be caring for the special populations in their facility with limited cognitive and/or physical abilities. Caring for residents with Alzheimer's disease or dementia during an emergency situation was of particular concern for many facilities. Participants stressed the importance of maintaining a calm, routine-based environment to avoid "losing this group to bad behaviors." One participant explained that these patients are especially vulnerable to the stress of a disaster. If pharmaceutical supplies ran out or were destroyed and these patients were without their medications, "it could be a very dangerous situation" because "without their meds [these patients] are extremely dangerous to themselves and others."

Residents with Alzheimer's and dementia are typically located in locked units where staff can monitor them very closely. Some facilities indicated that they have monitoring systems (e.g., WanderGuard®) in place to prevent residents with these conditions from wandering beyond supervised areas. In the case of a power outage, these systems would cease to function (as they require electricity), resulting in the need for additional staff to supervise and redirect these residents to keep them safe. Two participants remarked on redirection of wanderers:

> *[Our last stage Alzheimer's folks] would absolutely not know which way to go. You would have to have staff down there doing constant redirection…You would need to have concentrated staff down there.*

We would try to assign somebody to stay by the main entrance door. So, if they did make their way down the elevator if it's working…Of course, in a power outage, it wouldn't be… But, if they did manage to go down the stairs, there would be somebody there stationed. That is the primary space that they would be able to get out. Even if the system went down, they would be caught.

When asked, not all of the facilities with these monitoring systems knew if their systems were hooked up to the generator. Even in cases where these systems are hooked up to the generator, concerns about the longevity of fuel supplies would be salient.

Focus group participants also addressed the increased time and attention that would need to be devoted to patients lacking the cognitive skills to understand and/or communicate about an emergency situation. Some facilities reported having formal procedures in place for handling such patients in an emergency. One participant explained that "just going around and letting them see you and touching them and saying 'It's okay, we've got it under control' is a very positive thing." However, this would require additional staff that may or may not be available.

While a few focus group participants briefly touched on the special needs of high-fall patients, concerns about caring for patients with limited physical abilities typically arose in the context of logistical difficulties involved in evacuating them. One participant shared her fear that the equipment (e.g., wheelchairs) needed to transport bed-bound and vegetative patients would be destroyed in the disaster. Another participant explained that his staff has been trained in performing "blanket and emergency carries" to handle circumstances such as these.

Concerns about staffing in an emergency were universal. Adequacy of staffing impacts the ability of nursing homes both to successfully maintain normal operations for their current residents and to take on additional roles during an emergency. A number of focus group participants emphasized the importance of maintaining normal operations and standards of care to the best of their ability in an emergency. They acknowledged that this would be extremely difficult to achieve without additional assistance, much less with the reduced staff that they would likely have given the circumstances:

Our facility would be in dire need of assistance if not enough staff came in. In the event of a crisis, we would need more staff than normal.

Many facilities had clearly given substantial thought to how they would induce the staff needed to maintain normal operations to stay at or come to work. A few nursing homes said they had facilities available to care for staff member's families and children and would encourage staff to bring their families. Other facilities were prepared to provide nursing staff with rooms and food. One participants remarked "…if [staff] are unable to get home or there is a possibility that they won't be able to get back we do have them stay in the facility, give them a bed, they can stay right there." Some nursing homes mentioned having the capacity to care for children of staff that report to work. According to one participant:

One of the things I tell staff is, 'In the absence of communication, come on in. Bring your families…we will provide.'…Their homes may be destroyed. Maybe they didn't plan.

Maybe they don't have water on-site…They know that they have a link. In us taking care of them, hopefully we will be able to continue providing care.

A number of nursing homes also had put plans in place to provide transportation to the facility for staff and their families. Several nursing homes reported having facility vehicles available to pick up staff members and transport them to the facility for work while one (urban) facility reported supplying staff with taxi vouchers:

In an emergency we'd go pick up people…use our service vehicles to do that…And we have had staff come in with their children and have something set up for their kids

We have a system in place where one of our maintenance people…will go pick up people. Either that or if he's unable to do it…we have taxi vouchers available.

Other potential solutions for staffing problems included: arranging to trade staff with other facilities, arranging for additional staff through local home health agencies and providing financial incentives to critical staff for working during a disaster. One participant explained his facility's strategy:

There's probably five or six facilities within 10 miles of ours. One of the things we are working on… is trading of staff. If some of their staff live closer to our facility and can't make it to theirs, 'Come to ours, bring your family to ours, and we will put you to work!' If some of our staff live closer to theirs, 'Go there. Bring your family there.' We are trying to make it as comfortable and easy as possible for the staff to come in.

In responding to questions about roles that their nursing homes could potentially play in an emergency, focus group participants emphasized that their ability to provide resources and services to the community would be highly dependent on staffing. According to one participant, "Even in a good situation (in which) you have full staff, there's not excess capacity to, to triage, to do many other things. Unless people came, you know, unless there were additional staff that would be mobilized…"

In addition to the concerns about staff adequacy during a time of crisis, some nursing homes mentioned that State regulations on the number of hours that clinical staff can work consecutively would be problematic in an emergency. Participants expressed differing levels of confidence that such regulations would be relaxed in a disaster.

Nursing homes are worried about running out of pharmaceutical and other medical supplies in a disaster. Nursing homes typically receive medication deliveries on a cyclical basis. Monthly delivery cycles appeared to be the norm. Hence, the length of time that they could sustain on their existing medication supplies would be highly dependent on when the disaster occurred in relation to their last delivery. One participant explained, "If you're right at the end of the month and waiting for your medications to come in, oh boy, you're in trouble."

While most nursing homes mentioned keeping emergency medication supplies including antibiotics and narcotics on-hand, they explained that these supplies would not last long. Many

participants described stockpiling medications as a desirable solution, but a number of issues associated with doing so were raised including rules against stockpiling, the high cost of obtaining large quantities of medication at a time, reimbursement issues, and concerns about security if the community became aware that they had such supplies. According to one participant, "We can't stockpile medications. We have to get rid of them. As much as I would like to for a disaster, we can't do it."

Participants stressed that the adequacy of medications and medical supplies must be taken into account when considering the potential roles that nursing homes might play in disasters. If, for example, nursing homes are asked to provide first aid or to care for patients transferred from acute care facilities, this will have a major impact on how long their limited supplies last. Many participants expressed concerns about the ramifications of running out of medications and medical supplies to care for their residents due to using them to provide care for people from the community or other facilities.

The adequacy of fuel supplies to power the generators is a major concern because power serves a number of important functions in these facilities. All nursing homes reported having generators to provide back-up power in the event that their facilities lose electricity. When asked how long they would be able to power their generators without receiving additional fuel from outside sources, participants' responses ranged from less than a day to seven days. While nearly all nursing homes reported performing period checks of their generator's functioning, the generator often only powered a portion of the facility during the checks. This makes it difficult to predict the rate at which their fuel supplies would be exhausted if the whole facility were relying on the generator's power. Another source of anxiety is whether or not the generator is strong enough to handle the full load of the facility. One participant told the group that her staff had been warned at a seminar that:

> *When they run the generators on the full load for more than a day, most of them give out because they're not used to it.*

One participant told the group that she is worried that the fuel they use during periodic checks of the generator's functioning will mean that they would not have enough left if an actual emergency occurred because they perform checks monthly, but only refuel once every three months.

Participants reported a variety of problems associated with generator failure. Power is needed to maintain acceptable environmental conditions in the facilities. Nursing homes may be forced to transfer their residents elsewhere if they are without heat or air conditioning for an extended period of time during certain parts of the year. One participant articulated the difficulties in deciding what temperature warrants undertaking the challenges associated with evacuation:

> *When you've got 150 residents and you're thinking about moving them all when the temperature gets to...That's a killer. We make it 86 degrees and we decide to move, but that's as high as it ever goes and everybody is comfortable...I have residents who think 90 is a good temperature.*

Power is also necessary to keep some types of special equipment specific to this population going for a sustained period of time. For example, oxygen is used for some of the special beds in these facilities. In the absence of power, oxygen can be provided to patients that need it through portable oxygen tanks in lieu of the special beds. However, focus group participants stressed that portable oxygen only lasts a very limited time. One participant indicated that battery back-up is now available for "some, but not all" of the medical equipment.

Due to incontinence issues that are common with the geriatric population, laundry facilities are crucial. One participant pointed out that many facilities may not have even thought to ensure that their washing machines are hooked up to the generator. Without regular changes of soiled clothing and bed sheets, some patients would begin to experience skin breakdown and other such issues. Also, sanitation could become a problem.

Nursing homes are concerned about having sufficient food and water supplies. Most nursing homes indicated that they could be self-sustaining on their existing food and water supplies for a period of about three days. While some nursing homes indicated that they store enough food and water to be self-sustaining for longer periods, a number of facilities indicated that their storage space is extremely limited. Given their space restrictions, storing extra supplies (above and beyond what the State requires) simply wouldn't be possible for them. To alleviate this problem, a few facilities distribute water and food supplies to residents for storage in their rooms.

When their existing supplies are depleted, these nursing homes will be in competition with the rest of the community to obtain more. Perceptions of whether a priority list for the replenishment of supplies exists and if so, where nursing homes would fall on such a priority list varied among focus group participants. According to one participant, "If a disaster is somewhat orderly, then it was stated that there might be some priority to supplies. But, probably not." Another participant indicated that, "We do have a three-day supply. Anything after that, we would be pretty much competing with everybody else who wanted to get water. But, I think we are kind of high on the list."

3.3 Potential Roles of Nursing Homes

Nursing homes represented are willing to accept residents from area hospitals but voiced concerns about patient acuity and facility capacity and staffing. Nearly all focus group participants reported that they would be able to accommodate their residents if area hospitals needed to discharge them after an emergency. One participant remarked, "I think [accepting former residents] would be the appropriate thing to do at that point in time…If I thought it was safe, I'd put them back in my rooms…we'd figure out a way to do it." Several facilities also acknowledged that area hospitals would ask them to take patients that had not been former residents. Most of these facilities agreed they would do what they could to accommodate those patients. One participant remarked, "…we would need to say 'yes' to the hospitals to help them discharge those we could care for…That's a role we would play." Other participants had similar sentiments:

The hospitals know where our facility is...they know the size of our facility. We know we'll be overrun with people coming and going from the hospitals because we're right there. We have no doubt about that.

When we had a tornado, the surrounding hospitals did call us up and we were set up to receive their less critical patients that were on their way to being discharged anyway. So we gave so many beds that we would take their patients. We're certainly willing to do that...take people that are on the verge of being discharged from the hospital.

All participants agreed that their ability to accept transfers depends on patients' level of acuity and the level of care required. Focus group participants said that most nursing homes do not have the staff or equipment to care for high acuity patients or patients with certain conditions, which is why these patients were hospitalized:

I would think we could handle the numbers, but it would depend on what acute care they were needing...These were people we couldn't handle in an SNF, some we could take back, and some we couldn't provide the care to keep them alive.

If their needs were something I could attend to...it would depend on what their needs were at that time.

Focus group participants explained that many nursing facilities specialize in caring for patients with certain conditions, such as Alzheimer's, ventilator dependency, or cognitive impairment. Several participants remarked that they could not accommodate patients with certain conditions while several facilities stated they would simply not be able to accept high acuity patients. According to a couple of participants, "Our facility couldn't take ventilator patients." However, other facilities were willing to accept higher acuity patients from hospitals because they have specialized staff and skills to care for individuals with more complex conditions. Focus group participants suggested that area hospitals wanting to transfer residents would need to know "not just where our facility is, but what we are skilled in."

One concern voiced by several facilities was figuring out "who do you let in" especially in the case of bioterrorist or infectious agents. Participants did not want to place their residents at risk by accepting potentially infected individuals from outside the facility. According to one participant, "We would be prepared to take back people we've sent …But if we have a bioagent or pandemic flu and it's not in the building yet…if we take somebody back, we risk exposing other people and we'd say we can't do that."

Adequacy of staffing was a major concern voiced by all the facilities during the focus groups. Facilities were concerned that they would not have enough staff to care for their residents, much less potential transfers from area hospitals, in the aftermath of a disaster. According to one participant:

Our nursing staff is very stretched; we expect a lot of them. We could certainly receive patients from hospitals but I don't think we would be able to offer care to them because it takes all our resources to take care of the residents we have.

21

Many participants were concerned that staff would not be able to reach the facility or would not want to leave their families to come to work. One participant remarked, "I would be concerned about staff…people are going to want to stay home and take care of their families." Focus group participants also shared a concern that staff members would leave work in order to attend to their families, even though most facilities have policies restricting staff from leaving:

> *Technically they [the staff] should not leave the facility. But in the middle of a disaster how many are going to be trying to get to their own families? How many really won't leave?*

Several participants suggested that hospitals would need to transfer residents with the supplies and staff they needed in order to ensure that properly trained individuals could provide care to higher acuity patients:

> *We would not want to take on a lot of acutely ill patients that would prevent us from providing care to our own residents…we are not staffed or equipped to care for acutely ill patients…You want to help as much as you can, but then do you dilute the care you are able to provide for your own people?*

Most facilities expressed concern about bed availability, though several suggested resourceful ways to create more beds should they become necessary. A few facilities represented would have significant problems accepting transfers because they run at or near full capacity most of the year: "My main limitation would be beds available. I am a 32 bed facility, and usually run 30-31 beds full. It just depends on time of year." Several other facilities suggested they could create makeshift beds by placing mattresses in hallways. One participant remarked, "We would need to scrunch people into the building… put mattresses down the hallway, put blankets in the lobby."

Participants from facilities located in earthquake-prone regions (California, Washington, and Oregon) voiced concerns about accepting patients if their facility had sustained structural damage. Several participants in these States remarked they would need the building inspected before accepting additional patients: "If the DHS came out and gave us the okay, if the building was okay, then we could accept more patients." A few participants felt their ability to accept patients would be a judgment call at the time of the disaster, even if their facility sustained damage. One participant said he would fit people into the buildings that had not sustained damage rather than trying to transfer all his residents out.

Participants in one State were particularly concerned about the paperwork surrounding transferred residents. They assumed that the electronic medical record system would not function in the aftermath of a disaster and did not know how patient information and billing/reimbursement would be handled. They were concerned whether patients would be transferred with their original records and if they could recoup the costs of patient care.

Nursing homes could provide basic medical care to outside patients. Most focus group participants suggested their facilities have the staff, supplies, and equipment available to provide

basic medical care to community members. One participant remarked that people see nursing homes as "a pseudo-hospital" and expected community members to "try to get in the door" of her facility if they could not get to area hospitals for medical care. Many participants across several of the focus groups agreed with this statement. A few participants reported that the American Red Cross expected their facilities to provide first aid: "The Red Cross told us that they'd expect us to do first aid…and then move them out." Several participants reported being approached by their local emergency service agency and told they would be asked to "take on people from the community" and provide first aid "at a minimum" during an emergency. Most participants agreed their staff could administer vaccinations or medications without detracting from the care of their residents: "We have staff that could administer vaccinations and medications and that would be a community service that could be provided without necessarily having people move in to your facility".

Many participants suggested their staff could help triage patients even if they could not admit them. Most facilities hold special staff trainings in proper triage techniques and include a section on triage in their emergency manuals. One participant noted:

> *I could see nursing homes being good triage areas…we are really well equipped to act in that manner. But I don't think any of our facilities would be able to accommodate large scale acute patient flows.*

The question of morgue facilities was brought up independently in three of the six focus groups. Concern was expressed about dealing with deceased residents since transporting them to the county morgue would be problematic during an emergency. One participant reported that the local emergency services agency requested the use of her facility's basement for that purpose: "We have a basement and that basement could be a morgue. Although I'm not sure how that would happen because it's not cold down there."

Nursing homes could provide short-term shelter for community residents. Most focus group participants reported that their facilities have space to provide shelter for community members but expressed some concerns about providing food and other medical supplies without taking resources from their residents. Participants cited a wide range of spaces available for shelter: therapy rooms, dining rooms, conference rooms and recreation areas. One facility had an auditorium they planned to use in the event of an emergency. Several facilities also suggested local disaster relief agencies could use their grounds: "Next to our facility we have two huge fields…that would be the perfect space for a Red Cross facility".

Participants in nearly all the focus groups discussed how to prioritize care for residents, staff, families of staff and members of the general population who come seeking shelter. Several participants remarked that facility staff and their families would receive first priority for shelter. According to one participant, "If we have any large areas it would go to our staff…and then the greater community".

Nursing homes have little excess space and should not be used to store equipment or stockpile drugs. Nearly all focus group participants agreed that nursing facilities do not have a great deal of excess space and could not provide long term storage facilities for supplies. One

participant noted, "I'm sure we could allocate an area if we're not using it for something else…but as far as open areas, we really don't have an excess of storage." Another participant reported that older facilities were particularly pressed for storage space:

> I've never had a building with excess space. There's so many things that we'd like to have room for that we don't have because of space issues…a true skilled facility, especially one that was built 40 years ago, you just don't have enough space.

Participants noted that all nursing facilities have large areas that are routinely used by nursing home residents for activities such as watching television, playing games, dining or arts and crafts. Allocating this space for storage would mean "taking space away from a designated use." Many participants suggested that their facility could provide some short term storage should local emergency response agencies require storage.

When participants were asked about using nursing homes to stockpile pharmaceuticals, participants in nearly all focus groups expressed concern about security. Most facilities agreed that they would have space for stockpiled drugs but that doing so would require a facility to "designate a guard for that room, too," because if the space stored pharmaceuticals, they would have to be able to lock and guard it. This theme came up repeatedly:

> There's a problem with stockpiling…If people know that you have a stockpile, are you going to be able to maintain that stockpile? Security is going to be an issue...nursing homes are vulnerable.

> I think we have the capacity to do it. The thing that would scare me is the security to do that. We don't have the manpower in our buildings to produce a secure environment. In a disaster people are going to want to care for their families…and they don't care where they get it…What scares me about my building, even with the drugs I have on hand, is how do you secure that?

Overall, the majority of participants agreed that nursing homes were not the appropriate place to store supplies, due to a lack of long-term storage facilities, but could provide some short term storage capacity for local disaster relief agencies. In addition, most participants felt that nursing home facilities should not be used to stockpile pharmaceuticals, despite having space available, because they could not keep the drugs secure.

Participants from one focus group felt strongly that nursing homes should not play a large role in disaster response. The participants were fairly adamant that nursing homes are not equipped to participate in disaster response or recovery activities. According to one participant, "…a nursing home historically is not part of any disaster plan…when you think of disaster plans, the community's number one resource is the hospital. Nursing homes are really not part of that equation." Reasons participants gave for this perception included nursing home size, absence of doctors at the sites, and unreliable staff. Several participants suggested that nursing home staff were prone to the mass hysteria surrounding a disaster and would not be a reliable source of support or care for residents: "It's every man for himself."

Two participants added interesting caveats regarding the role of rural nursing homes facilities. One participant from a rural area felt that nursing homes could have an important role in disaster response activities in areas with very few hospitals and several large nursing homes. However, he emphasized that, to date, "These efforts are not coordinated". This point was reiterated by another participant in a different focus group. She suggested that nursing homes would not be seen as area resources in metropolitan regions, but would be more likely play a role in a disaster in more rural areas.

3.4 Influence of State Regulations on Nursing Homes

Participants were largely unaware of State regulations governing nursing homes during an emergency. Nearly all focus group participants did not know if regulations governing nursing homes during an emergency existed in their State. Many participants assumed that regulations would be "suspended or loosened" during an emergency, but were not sure if there were legislated rules or regulations to that effect. One participant recommended that "the State…let LTC facilities know what their stance would be in the case of a disaster." Another participant expressed a similar concern:

> *One of the fears we have is that the regulations say we can only put 2 patients in a 2 bed room. I'm only licensed for 162 patients, if I have 165 patients in my building…what really is the result from that? Are they going to look the other way?...Nobody had come back to us and said under these circumstances these are the rules*

Several participants suggested that bed licensure or staffing issues would not deter them from providing needed care during an emergency. According to one participant, "I would cast aside…the regulations for that period of time to accommodate those who are really in need."

Participants from the Oregon focus group said that nursing homes had only recently been involved in State disaster preparedness and planning activities. They all expressed concern about the lack of directives from the State but agreed that no one was going to "suspend the requirements of taking care of their own residents." According to one participant, changes to regulations governing nursing homes during a disaster had not yet been made but:

> *We just started talking about the suspension of rules and regulations in the event of a disaster where we don't have the capacity to take in any more residents…If it's not written right into the regulations that that stuff gets set aside, it's going to be a real concern.*

In North Carolina, several participants knew that bed licensure regulations are waived if the Governor declares a state of emergency, though one facility was unaware of this regulation. In addition, the North Carolina nursing home association "applies to the State Department of Facility Services on behalf of the facilities" in order to get pre-approval if there is a hurricane warning or some other event. Participants stressed that nursing staff "would still be an issue" because nurses cannot work more than a 16 hour shift and this law "is not exempted in a disaster."

Nursing homes need formal guidance as well as resources and money to develop disaster plans. Several participants expressed concerns that involving their nursing facilities in disaster preparedness and response activities would require them to develop comprehensive plans for their facilities. All participants agreed that nursing homes do not have the time, staff, training, knowledge, or resources to develop such a plan. One participant suggest that "If regulations are developed that require nursing homes to develop bioterrorism preparedness plans, then resources -- money, documents, consultations -- should be available to assist us in developing those plans." This theme was reiterated across several focus groups. Several participants said they simply do not have time to do comprehensive disaster planning or "train and drill staff" once a plan is developed. According to one participant:

> We've all had disaster plans for decades because it's been required. In light of Katrina and bioterrorism there's this big push, and to be honest I'm feeling overwhelmed because there's basically no resources. I have a business to run and now I have to put a lot of extra time into something I know nothing about…and everybody's starting to change their expectations -- from the State to the fire marshall who are also getting pressure from the Feds.

Several other participants stated they do not have people on staff knowledgeable in disaster planning and coordination nor do they have the money to hire outside consultants to assist them. In light of this lack of knowledgeable people, many participants indicated a need for "some level of government" to provide them with guidelines related to handling contamination during a bioterrorist event or infectious disease outbreak because it would be "too hard to develop plans around this with no experience and limited resources".

3.5 The Role of the Red Cross and the Effects of Hurricane Katrina

Nursing homes are uncertain about the role of the Red Cross in a disaster. The role of the Red Cross was discussed in the majority of the focus groups. Focus group participants universally described the Red Cross as a valuable organization. A few facilities mentioned having worked with them to train/certify their staff on CPR and first aid procedures or to provide community first aid in their facilities. One facility that had previously been unsuccessful in working with its local government in emergency planning ultimately sought coordination with other entities and received a very helpful response from the Red Cross.

It became clear that most nursing homes do not plan on getting needed support from the Red Cross during an emergency. According to one participant:

> The Red Cross and community support is probably not going to be focused on nursing homes because they are going to assume that [we] have more resources than the rest of the community to take care of ourselves. There is going to be such a rationing of support if there is a major disaster that I wouldn't expect that the Red Cross would be helping out nursing homes.

Not only did participants not expect help from the Red Cross, some nursing homes are concerned that they may be asked to provide support to the Red Cross. One participant that had

recently learned that the Red Cross had been dedicated a large space on their property to establish a shelter in an emergency had the following to say:

> *They're not there for our benefit. They are still asking that we be able to defend in place or work through the needs that we have. They may ask us to help augment them. Like, maybe if we have a couple of nurses that can help with triage or nursing wounds…not helping us. They would be asking us for someone to come over and assist in something.*

Several participants in this focus group agreed that the Red Cross would not provide support to nursing homes and may actually seek their help. Another facility in a different State also reported having space on their campus designated as a potential Red Cross shelter. Participants in that State's group voiced concerns that their local Red Cross is failing financially, resulting in staff and office reductions.

Hurricane Katrina provoked fears of liability and judgment, decreased confidence that the government will be a source of support in an emergency, and resulted in changes to the duration of time for which nursing homes think they need to be self-sustaining in an emergency. In the two focus groups that were held after Hurricane Katrina, fears of being judged for their actions during a disaster were pervasive:

> *I think the biggest fear is that we will try to do everything right, but if we fail…we'll be judged…we'll be on the front page of the news…In my heart, I believe that a lot of those folks down in Katrina did everything they could. It's so easy to judge after the fact how things were done wrong when there are no resources to provide assistance to do things right.*

> *Everybody has a fear of how, not so much the government responds to you, but how the political situation and press respond to you…We have created an environment…either you did wonderful and you are a hero or you did terrible and you are a goat. …A lot of people are very fearful of any kind of disaster for this very reason.*

In addition to judgment from the political and media realms, a number of participants were worried about being held liable for their actions in a disaster because the United States has become such a "litigation society:"

> *Sometimes, too, you get really caught up in the regulations and legality part to the point that you are paralyzed…You can go a little bit overboard.*

> *There's a little flexibility, but I think it could create a lot of hesitancy to do certain things if we're concerned that when this is all over, somebody will be unhappy about what we did, we'll get sued, or we'll lose our license…*

> *So much of what we are judged on is our documentation. In a disaster, does that go out the window?…I wonder about the folks that were in Katrina and how they handled that. The litigation that's going on now really isn't fair if they weren't able to document everything that they were doing like they would in a normal day.*

At one of these two post-Katrina focus group sites, there was a prevailing lack of confidence that the government would be there to help their facilities during an emergency. They voiced the expectation that they will have to "fend for themselves". One participant added:

I don't think it's realistic that they're going to be there at the door to help us. Even if they choose to be and want to be…It's not that they don't want to be. They just can't be everywhere.

Participants in one State explained that Hurricane Katrina had prompted them to take steps to increase the amount of time for which they could be self-sufficient in an emergency. According to one participant:

The residents aren't going anywhere. They need patient care. You try to provide that the best you can for a 72 hour minimum period…Nowadays, when we do disaster preparedness, we're training to be prepared for 7 days. For a skilled nursing facility, that's going to be hard to do. Your shelves are only so big for food. Keep an open mind that it may be more than 72 hours. That's the reality…That is directly a result from Katrina. Everything changed after Katrina. Everything went to 7 immediately.

Section 4. Conclusions

This study can help fill gaps in our knowledge about the role nursing homes could play in larger local or regional preparedness efforts. In addition, the study reveals many concerns specific to nursing homes and the populations they serve that should be addressed if these facilities are expected to provide resources to the community during and after a public health emergency.

Based on our findings from the six focus groups, nursing homes have prepared for natural disasters but have given very little thought to bioterrorism. Facilities reported having disaster plans in place, some more comprehensive than others, and reviewing these plans with nursing staff at orientation and during regular in-service trainings. Disaster plans appeared to focus on the natural disasters most prevalent in a region (e.g. wild fires, earthquakes, floods, hurricanes). Only a few facilities reported including policies and procedures specific to bioterrorism in their disaster plans. All the facilities we spoke with reported quarterly fire drills and annual or semi-annual disaster drills. These drills were held in accordance with State requirements, suggesting that States may need to require more comprehensive drills that address bioterrorism if this is deemed important. However, focus group participants stressed that, if States do develop new requirements related to bioterrorism, it will be important to provide resources, including guidance documents, training, staff, and money, to their facilities so they could develop viable plans.

Results from the focus groups also highlight the differing levels of local coordination of disaster planning across States. Two States initiated focus groups or forums to discuss local coordination to which nursing homes and other long-term care facilities were invited. Participants reported varying levels of success with these activities, but they indicate that some States are actively trying to involve nursing homes in coordination efforts. Other participants reported no success in trying to engage local emergency planning agencies in disaster planning. Most participants lacked a basic understanding of State regulations that govern nursing homes during an emergency. While a few participants (mostly those directly engaged in the local government) were aware of bed licensure or staffing regulations in a state of emergency, most were not. This lack of knowledge suggests that State nursing home associations or other regulatory bodies may need to be more proactive in informing nursing home facilities of changes in regulations during an emergency.

Focus group participants expressed a wide range of needs, some of which were unique to nursing home facilities and some which would be problematic to a variety of health facilities. Participants voiced concerns about caring for special patient populations that require specialized equipment or nursing care during an emergency. In particular, participants were concerned about patients with Alzheimer's and other cognitive impairments. Many facilities caring for these patients have locked facilities with high-tech monitoring systems that could easily fail during power loss. Participants also were concerned about the logistical difficulties involved in moving or evacuating patients with limited physical abilities. Focus group participants stressed the importance of maintaining a calm, routine environment to avoid undue stress on their elderly patients. Linked to these concerns about patient care were concerns about staffing. Participants

were concerned about maintaining staffing levels since nursing staff would undoubtedly want to care for their own families or may have difficulty getting to work.

Several concerns raised by focus group participants may be of concern to the larger health care community. These include:

- Maintaining adequate pharmaceutical and medical supplies

- The ability of generators to support an entire facility and the adequacy of fuel supplies

- Feeding the resident population and keeping them adequately hydrated.

Most participants reported that pharmaceuticals and medical supplies are delivered on monthly cycles. Thus, the amount of time they could sustain their resident population on existing medical supplies is highly dependent on when the disaster occurred in relation to their last delivery. While all nursing home facilities represented have generators to provide back-up power, many participants were concerned that the generator would not be able to power the entire facility. Nursing home populations are particularly sensitive to heat and cold, so the environmental conditions regulated by generators are particularly important.

Finally, the focus group results suggest a number of potential roles nursing homes could play in the event of a public health emergency. Nearly all participants reported they could accept transferred residents back from area hospitals to free up bed space in those facilities. Most facilities acknowledged the possibility of receiving additional patients from the community and were willing to accommodate those patients if they could. In doing so, however, they had two major concerns: patient acuity and staffing. Focus group participants agreed that their ability to accept transfers or patients from the community depended on the patient's level of acuity. They explained that many facilities specialize in caring for patients with certain conditions. Thus, one facility might be able to take a transferred ventilator patient while another could not. This suggests that area hospitals wanting to transfer patients would need to know what the nursing homes in their area were skilled in. Participants also stressed that they would need staff with the knowledge and expertise in providing care to higher acuity patients if they were to accept them.

Nursing homes could provide a variety of additional resources during an emergency, including basic medical care and short term shelter. Participants agreed that nursing staff had the skills to provide a certain level of medical care to outside community members. They suggested staff could provide vaccinations, basic first aid, or triage services. Many larger facilities felt they could use their facilities' community spaces, such as dining rooms and auditoriums, to provide short-term shelter. However, long-term storage of equipment and stockpiled drugs was considered an inappropriate use of facilities. Providing long-term storage would require nursing homes to take space designated for specific activities away from the resident population.

Focus groups are valuable in that they provide very detailed information about a small sample of nursing homes and have high face validity. However, because of the relatively small number of nursing homes we talked with, our data do not allow us to generalize these conclusions to all nursing homes in the United States. We can, however, conclude that nursing homes have special patient populations that require disaster plans that address the needs of their residents. Nursing homes can also provide valuable resources to their communities if they are included in local and regional disaster planning activities.

References

CDC, 2004. National Nursing Home Survey: 2004 Facility Tables. Available online: http://www.cdc.gov/nchs/data/nnhsd/nursinghomefacilities2006.pdf#01.

Dosa DM, Samsonov ME, Nace DA. A pilot study investigating bioterrorism preparedness in area nursing homes. *JAGS.* 2003;51(S4): S117.

Helget V, Smith PW. Bioterrorism preparedness: a survey of Nebraska health care institutions. *Ame J Infect Control.* 2002;30:46-48.

Institute of Medicine (IOM). *Preparing for Terrorism: Tools for Evaluating the Metropolitan Medical Response System.* FJ Manning and L Goldfrank (eds), Washington, DC: National Academy Press. 2002.

Maxwell JA. *Qualitative Research Design, An Interactive Approach*. Thousand Oaks, CA: Sage Publications. 1996.

Morgan DL and Krueger RA. *The Focus Group Kit*. Thousand Oaks, CA: Sage Publications. 1998.

Saliba D, Buchanan J, Kington RS. Function and response of nursing facilities during community disaster. *Am J Public Health.* 2004;94(8): 1436-1441.

Spillman BC, Lubitz J. New estimates of lifetime nursing home use: have patterns of use changed? *Medical Care.* 2002;40(10): 965-975.

Appendix A. Focus Group Moderator's Guide

Introductory Remarks

- Brief Project Overview: RTI is a leading non-profit research organization located in Research Triangle Park, North Carolina. We have a contract with the AHRQ to explore the role and special needs of nursing homes in planning and response in the event of a disaster.
- Staff introductions**…**
- Review general rules of focus group operation and data capture:
    - One person talks at a time, speaking clearly to facilitate note taking
    - Using first names only
    - Facilitator will attempt to be sure everyone has a chance to respond to all questions
- Privacy and confidentiality assurance. Exempted from informed consent by RTI IRB; data only reported in the aggregate without revealing the names of any focus group participants or their affiliated nursing home
- Questions from participants?

Discussion Questions

1. **Has your nursing home thought about the impact of bioterrorism or other public health emergencies on your facility?**
   Probe: Has anyone from your facility been involved in any State/local bioterrorism planning activities?

2. **Has your facility done any planning or training specifically for bioterrorism or other public health emergencies? Please describe…**
   Probes: What about planning and training for natural/man-made disasters (e.g., fires, floods)? Do you have a disaster plan? Do you do regular drills?

3. **In the event of a terrorist attack or other public health emergency, what are your principle concerns regarding your facility and continued service for your residents? In other words, do you have special needs that we should know about?**
   Probes: Water loss, sewer or power outage, natural gas leaks, food supplies, issues around quarantine or needs of special patient populations (e.g., Alzheimer's). Also, with respect to staffing, getting staff there and keeping them there in light of their own personal family responsibilities.

4. **What role, if any, do you envision your facility playing in disaster response or recovery?**
   Probe: Augmented capacity for local hospitals (i.e., beds; converting to a quarantine facility); trained staff to assist with local response such as giving vaccinations; gear and pharmaceutical supply storage.

5. **Would you be prepared to receive a rapid influx of transferred residents back from acute care facilities in your area?**
   --note patient transfers usually take many hours with lots of required paperwork; patients may be transferred back at a higher level of acuity than would be the case normally; and there are likely transport issues.

6. **How long could your facility be self-sustaining without external supply of water and food, medical supplies, pharmaceutical therapeutics, electric power?**
   Probes: Do they have food/water stores? Are these mandated by the State? Do they have a generator? Do they have back-up plans? Do they have experience with natural disasters (earthquakes, fires, floods)?

7. **How do State regulations influence the ability of nursing homes to offer support and/or surge capacity in the event of bioterrorism or other public health emergency?**
   Probes: If the governor of your State declared a state of emergency, would you have concerns about bed licensure limits and/or nurse shift limits?

8. **Take a look at this survey and try to complete it as best you can, marking those questions you know you would have an answer for with a "Y" and those you would not be able to answer even with more time with a "DK." Any questions that you feel are not applicable, please mark "NA." Additional comments or observations can be made directly on this copy.**

9. **What do we need to let State and Federal governments know about nursing homes and their ability to function in a time of disaster?**

10. **Is there anything we haven't asked you about that would be good for us to know as we attempt to explore the role and special needs of nursing homes in preparedness planning?**
    Probe: Administrators from other States have mentioned the role of the Red Cross. Would the Red Cross be a key resource for your facility in a disaster?

Appendix B. Model Long-Term Care Preparedness Needs Assessment

This needs assessment is an example of the kind of survey that can be used either by planners surveying long-term care facilities within their jurisdictions or by facilities as an aid to assessing their own emergency preparedness. We recommend assembling a team of facility staff to complete and review all the survey elements.

For planners administering this assessment, it is recommended that a confidentiality statement/disclaimer be included, such as: We will maintain the confidentiality of each respondent's data. The information will be summarized for statewide and regional planning purposes and there are no foreseeable risks to individual facilities. Individual facility data will not be published and the identification requested on this cover page will be used only for ensuring response. Thank you for your participation in this survey.

NOTE: AHRQ is offering this questionnaire as a model only. AHRQ is not administering this questionnaire and will not be collecting data compiled from it. Please do not send completed questionnaires or compiled data to AHRQ.

Model Long-term Care Preparedness Needs Assessment

Name of Nursing Facility: _____   **Provider Number:** _____

City: _____   **County:** _____

Who is Facility's Key Contact for Emergency Preparedness? _____

TEL #: _____   **FAX #:** _____   **Email:** _____

FAX or email completed survey to:	Questions about the survey should be directed to:
FAX number here.	Address here.
NO LATER THAN: *******	

	A. General Information	
A1	Please provide the name of your facility:	
A2	Please list your nearest hospital:	
A3	Please identify the county or locality that your facility resides in:	
A4	How far is your facility from the nearest hospital with emergency services?	< 1 mile 5-10 miles 1-5 miles >10 miles
A5	How many hospitals (on average) do you refer patients to? Number_____	
A6	Please describe the primary affiliation of your facility (Check all that applies)? Faith Based . Secular . For Profit . Non-Profit . Chain .	
A7	Does your facility have a contingency plan (or procedure) for giving or receiving mutual aid/support to/from: *(check all that apply)* A local or state emergency planning agency A neighboring hospital or hospital system Another nursing home or nursing home consortium Other community health providers (home health, physicians' offices) Do not have such an agreement	
A8	Do you perceive your facility as having a formal role in a community/state/federal response to an emergency situation such as a hurricane or pandemic flu situation	. Yes . No . Not Sure
A9	Do you perceive bioterrorism as a potential concern in your region?	. Yes . No . Not Sure
	If yes, on a scale of 1 (not likely) to 10 (exceedingly likely), how likely do you think a bioterrorist threat is to your region?	_____ (Scale 1 to 10)

A. General Information		
A10	Does your facility budget financial resources to preparedness for a disaster or mass casualty incident?	. Yes . No
	IF YOU ANSWERED NO TO A10; SKIP TO QUESTION A13. OTHERWISE CONTINUE TO A11: Provide an estimate of your facility's expenditures in preparation for a disaster or mass casualty incident.	
A11	Estimated emergency preparedness expenditures for the <u>last 12 months</u>	$_____
A12	For which of the following activities has the facility incurred expenditures <u>over the last 12 month period</u>? *(check all that apply)* . training and disaster exercises . increased pharmaceuticals . enhanced security . housekeeping . staffing reorganization . equipment purchases . protocols and plans . upgraded communication . physical plant changes . Other: . upgraded computerized IT systems . inter-institutional arrangements	
A13	Estimated emergency preparedness expenditures for the <u>next 12 months</u>	$_____
A14	For which of the following activities does the facility expect to incur expenses <u>over the next 12 month period</u>? *(check all that apply)* . training and disaster exercises . increased pharmaceuticals . enhanced security . housekeeping and other stocks . staffing reorganization . equipment purchases . protocols and plans . upgraded communication . physical plant changes . Other: . upgraded informational systems . inter-institutional arrangements	
A15	Does your facility maintain a vendor contract with a transportation company to provide for emergency evacuation?	
	. Yes . No .	
	CONTINUE TO SECTION B.	

B: Facility Specifics

B1	Bed Category	Current Census (# patients)	Licensed Beds (# patients)
	Skilled Nursing Care		
	Assisted Living Beds		
	Other		

For each of the above bed categories, indicate:
  The facility's current census
  The number of licensed beds

B2	Does your facility have isolation or reverse ventilation rooms?	Yes No	Don't Know
B3	If yes, how many isolation rooms are there?	Number _____	

CONTINUE TO SECTION C.

C. Vaccination Status

C1	Does your facility keep records on **resident** vaccination status?	☐ Yes ☐ No
C2	Does your facility maintain records on **employee** vaccination status?	☐ Yes ☐ No
C3	How many staff members regularly give vaccinations? (e.g. Giving intramuscular or subcutaneous injections)	Number: _____
C4	Does your facility provide vaccination to all eligible **patients** against pneumonia (pneumovax)?	☐ Yes ☐ No
C5	If yes, what percentage of **patients** is vaccinated against pneumonia (pneumovax)?	Number_____% (Percentage)
C6	Does your facility provide vaccination to all eligible **clients/patients** against influenza (flu)?	☐ Yes ☐ No
C7	If yes, what percentage of **patients** is vaccinated against influenza (flu)?	Number_____% (Percentage)
C8	Does your facility provide vaccination against influenza (flu) to all eligible **employees?**	☐ Yes ☐ No
C9	If yes, what percentage of employees is vaccinated against influenza?	Number_____% (Percentage)
C10	What barriers do you perceive contribute to or prevent complete vaccination of staff against influenza? (Check all that apply)	☐ Lack of interest by facility ☐ Lack of knowledge by facility as to benefits ☐ Lack of interest by employees ☐ Lack of knowledge by employees as to benefits ☐ Cost of vaccination ☐ Other_____
C11	In case of emergency, would your facility be willing to provide vaccination services to the community?	☐ Yes ☐ No
CONTINUE TO SECTION D.		

D. Physical Plant and Operations Support

D1	Does your facility have a generator for providing emergency power?	☐ Yes ☐ No (Go to question D5)
D2	How long could your facility supply emergency power?	Hours = _____
D3	Does your generator control all electrical circuits (including AC, oxygen generators)	☐ Yes ☐ No
D4	If no, does your generator fail to control	☐ Lights ☐ Air Conditioners ☐ Computer ☐ Oxygen ☐ Kitchen ☐ Refrigeration
D5	Does your facility have one or multiple ventilation systems for the building?	☐ One ☐ Multiple
D6	Does your facility have internal capabilities for Food Preparation or do you rely on an external food distributor?	☐ Internal ☐ External
D7	Does your facility maintain emergency rations in case food delivery cannot be made?	☐ Yes ☐ No
D8	If no, how many days rations does your facility maintain for each patient	Number of days_____
D9	Does your facility have the ability to filter your own water?	☐ Yes ☐ No ☐ Don't Know
D10	Does your facility maintain bottled water in case of emergency?	☐ Yes ☐ No ☐ Don't Know
D11	If yes, how many days of bottled water does your facility have on hand?	Number of days_____
	CONTINUE TO SECTION E.	

41

E. Emergency Plan

E1	Does your facility have an emergency plan for use in case of natural disaster, act of terrorism, or infectious disease emergency? **IF NO PLEASE SKIP TO SECTION F**	☐ Yes ☐ No ☐ Don't Know
E2	Has your facility's emergency plan been reviewed by state or local officials?	☐ Yes ☐ No ☐ Don't Know
E3	Does the emergency plan call for an on-site designated command center?	☐ Yes ☐ No ☐ Don't Know
E4	If yes, does the command center have access to . . . *(check all that apply)* ☐ Radio ☐ Internet ☐ 2-Way Radio ☐ TV, Local ☐ NOAA Radio ☐ TV, Cable ☐ Telephone ☐ Satellite ☐ Multiple Phone lines ☐ Video Conferencing	
E5	In case of an emergency (after calling 911) who is your facility's first contact? ☐ Medical Director ☐ Administrative Director ☐ Nursing Director ☐ 911 or external source ☐ Other List:_____	

Does the facility's emergency plan address the following …….?

E6	Evacuation planning?	☐ Yes ☐ No
E7	Isolation of infected patients?	☐ Yes ☐ No

E8	Triage of casualties?	☐ Yes ☐ No
E9	Quarantine?	☐ Yes ☐ No
E10	Decontamination?	☐ Yes ☐ No
E11	Contingency for power failure?	☐ Yes ☐ No
E12	Reconfiguration of facility space for quarantine of communicable diseases and treatment of infectious disease epidemics?	☐ Yes ☐ No
E13	Transfer of multiple or mass casualties?	☐ Yes ☐ No
E14	Credentialing, orientation and supervision of clinicians not normally working in facility responding to a bioterrorism event or infectious disease outbreak?	☐ Yes ☐ No
E15	Mechanisms to manage unsolicited clinical help and donated items?	☐ Yes ☐ No
E16	An abbreviated patient registration process for disaster victims?	☐ Yes ☐ No
E17	A process for identifying and incorporating spokespersons and/or subject matter experts to provide information to the media?	☐ Yes ☐ No
E18	A process for sharing patient information and/or victim's lists with other hospitals/providers/public agencies?	☐ Yes ☐ No
E19	If yes, is the process . . . *(select one)* ☐ Computer-based, using internet/email connection to distribute ☐ Paper-based, using fax/courier/runners to distribute ☐ Other ☐ Not Applicable	
E20	Coordination with Local or Regional Hospitals	☐ Yes ☐ No
E21	Coordination with Local or State Emergency Planning Agencies	☐ Yes ☐ No
E22	Coordination with Red Cross/ Local Relief Agencies	☐ Yes ☐ No
	CONTINUE TO SECTION F.	

F. Bioterrorism Readiness & Training

F1	Does the facility have a system in place for <u>early recognition</u> of patients exposed to . . . *(check all that apply)* ☐ Biological agents ☐ Radiological agents ☐ None of these ☐ Chemical agents ☐ Nuclear agents
F2	Does the facility have a system in place for <u>training staff</u> in the care of contaminated patients . . . *(check all that apply)* ☐ Biological ☐ Radiological ☐ None of these ☐ Chemical ☐ Nuclear
F3	Does the facility have <u>annual safety education</u> that includes training to facility employees on . . . *(check all that apply)* ☐ Bioterrorism ☐ Radiological Disaster ☐ Weapons of Mass Destruction ☐ Nuclear Disaster ☐ Chemical Contamination ☐ None of these ☐ Infectious Disease Outbreak
F4	Does the facility have <u>general orientation</u> that includes training to <u>new facility employees</u> on . . . *(check all that apply)* ☐ Bioterrorism ☐ Radiological Disaster ☐ Weapons of Mass Destruction ☐ Nuclear Disaster ☐ Chemical Contamination ☐ None of these ☐ Infectious Disease Outbreak
	CONTINUE TO SECTION G.

G. Exercises & Drills

Which of the following exercises or drills (actual or staged), whether held at the facility or elsewhere, have staff participated in some or all over the past 12 months? *(check all that apply)*

Definitions:
Table Top= Simulations or Classroom exercises
Facility Drills= Actual exercises at your facility
Community Drills= Exercises run by area hospitals or community organizations
Real Event= An actual real life occurrence

		A Table Top (or Class Room) Exercises	B Facility Drills	C Community Wide Drill	D Real Event
G1	Mass Casualty	☐	☐	☐	☐
G2	Chemical	☐	☐	☐	☐
G3	Biological	☐	☐	☐	☐
G4	Radiological	☐	☐	☐	☐
G5	Nuclear	☐	☐	☐	☐
G6	Bomb Threat or Terrorist Threat	☐	☐	☐	☐
G7	Evacuation Drills	☐	☐	☐	☐
G8	Utility Failures: telephone, water, electric, computer, sewer, HVAC, etc.	☐	☐	☐	☐
G9	Hostage/Barricade	☐	☐	☐	☐
G10	Extreme Weather (Hurricane ,etc.)	☐	☐	☐	☐
G12	Has the facility conducted drills <u>during</u> the following times or under the following circumstances? *(check all that apply)* ☐ Day shift (7AM-3PM) ☐ Night Shift (11PM-7AM) ☐ Evening Shift (3PM-11PM) ☐ Weekend (Saturday, Sunday)				
G13	Within the last 3 years, has the facility performed a staff recall to determine the number of staff who could report to work in the event of an emergency? ☐ Yes ☐ No				

CONTINUE TO SECTION H.

	H. Pharmaceutical Stockpile			
H1	Does your facility keep stocks of antibiotics on site for emergency use?	☐ Yes	☐ No	☐ Don't Know
H2	Does your facility keep Intravenous (IV) fluids on site for emergency use?	☐ Yes	☐ No	☐ Don't Know
H3	Does your facility maintain oxygen on site for emergency use?	☐ Yes	☐ No	☐ Don't Know
H4	Does your facility maintain respiratory bronchodilators (albuterol nebulizers) on site for emergency use?	☐ Yes	☐ No	☐ Don't Know

	I. Logistics, Facilities, and Security
I1	Does your facility require all staff to wear ID badges ☐ Yes ☐ No
I2	Are the facility's security staff . . . *(check all that apply)* ☐ Facility-Employed ☐ Contracted ☐ Facility does not have security staff **(If so, skip to Section K)**
I3	Is the facility's Security Department staffed 24/7? ☐ Yes ☐ No
I4	Does the facility have a procedure in place to lock down all exterior doors within 30 minutes, without requiring "outside" personnel? **(If no, skip to Section K)** ☐ Yes ☐ No
I5	The lock down procedure includes notification of . . . *(check all that apply)* ☐ Personnel in the building ☐ Area hospitals ☐ Fire, Police, and EMS ☐ Medical Director/Administration
	CONTINUE TO SECTION J.

	J. Distributed Learning Capability		
J1	Does your facility have a computer with Internet access?	☐ Yes ☐ No	
J2	If yes, please estimate the number of computers with Internet access	Number_____	
J3	How are the facility's PCs connected to the Internet? *(check all that apply)* ☐ Dial Up ☐ Dedicated T1/ISDN ☐ High Speed (DSL/Cable) ☐ Combination of above		
J4	Which of the following people have access to computers with internet access *(check all that apply)* ☐ Administrator ☐ Nursing Director ☐ Physicians ☐ Medical Director ☐ Staff RN's ☐ Patients ☐ Billing Staff ☐ Staff LPN's ☐ Other (Please list) _____		
J5	Does your facility provide employees with e-mail access?	☐ Yes ☐ No	
J6	Does the facility have video-conferencing capability?	☐ Yes ☐ No	
J7	Does the facility have a fax machine?	☐ Yes ☐ No	
J8	Does the facility have a "Power safe" emergency phone? (i.e. a phone that does not require electrical power)	☐ Yes ☐ No	
J9	Facility computers can be used for which of the following? (check all that apply) ☐ E-mail ☐ Looking up labs reports ☐ MDS Entry ☐ Web Access ☐ Looking up radiology reports ☐ Electronic Order Entry ☐ Care Plan Access ☐ Documentation (H&Ps) ☐ MAR (medication) use CONTINUE TO SECTION K.		

Indicate the facility's priorities in getting *financial* or other *training/education or technical* assistance for emergency preparedness using a 5-point scale where 1 indicates highest priority and 5 indicates lowest priority. **It is important to distinguish higher priority from lower priority and not mark all items "Highest Priority."**

K. Priority Checklist		FINANCIAL					TECHNICAL or TRAINING/EDUCATION				
Preparedness Category		**Highest Priority** 1	2	3	4	**Lowest Priority** 5	**Highest Priority** 1	2	3	4	**Lowest Priority** 5
K1	Implementing an Emergency Incident Command System	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K2	Conducting or Participating in Emergency Exercises	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K3	Training Staff in Emergency Procedures	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K4	Diagnosis & Treatment of Victims of <u>Chemical</u> Agents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K5	Diagnosis & Treatment of Victims of <u>Biological</u> Agents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K6	Diagnosis & Treatment of Victims of <u>Radiological</u> Agents	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K7	Evacuation Planning (during storms,etc.)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K8	Staff/Family Protection (vaccination, logistical arrangements, etc.)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K9	Regional Planning with Other Institutions, such as Red Cross, EMAs, or Other Government Agencies	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K10	Formalizing Mutual Aid Agreements	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

K. Priority Checklist	FINANCIAL					TECHNICAL or TRAINING/EDUCATION				
Preparedness Category	**Highest Priority 1**	**2**	**3**	**4**	**Lowest Priority 5**	**Highest Priority 1**	**2**	**3**	**4**	**Lowest Priority 5**
K11 Enhancing Patient Care Surge Capacity	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K12 Selecting and Purchasing Personal Protective Equipment (PPE)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K13 Upgrading Respiratory Isolation Capacity	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K14 Upgrading Emergency Power Capability	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K15 Other Physical Plant Improvements (list below and rate):										
A	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
B	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
C	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K16 Increasing Emergency Stockpiles of Medications and Other Supplies	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K17 Upgrading Communications Equipment	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
K18 Upgrading Security Arrangements	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
PROCEED TO NEXT PAGE.										

COMMENTS:

Thank you for participating in the

Long Term Care Emergency Preparedness Needs Assessment.