

MEDICAL SURGE

and the Role of

HOME HEALTH AND HOSPICE AGENCIES

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EXECUTIVE SUMMARY

Overview

Millions of patients across the country receive care through Medicare-certified home health agencies and hospices each year. Mostly comprised of older adults who frequently have multiple medical conditions and often have lower household incomes, home health and hospice patients are among the most vulnerable populations in the U.S. Unlike other recipients of healthcare services, the care is delivered to the home health or hospice patient; the patient does not travel to receive care. Emergency planning for home health and hospice agencies must account for a continually changing patient population and care setting; unique situations encountered in each care setting; the routes staff must travel to safely and efficiently reach their patients; and the business continuity of their administrative offices.

To ensure that healthcare providers are equipped and prepared to effectively respond to emergency situations, the Centers for Medicare and Medicaid Services (CMS) issued the [Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule](#) (the CMS Final Rule) in November 2016.¹ Home health agencies and hospices are among the 17 provider and supplier types subject to this Rule. ASPR TRACIE conducted this exploratory study to learn more about the implementation of emergency management activities in Medicare-certified home health care and hospice agencies. While other vital services are delivered in the home, including those supporting activities of daily living, this study focused on the delivery of healthcare services.

Methods

The U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) conducted 245 online surveys with home health and hospice agency leaders from 43 states to collect their perceptions about the role of Medicare-certified home health and hospice agencies in supporting the health and medical response to disasters or emergencies.¹ Among these agency leaders, 25 participated in one-on-one in-depth telephone interviews and provided additional detail on their survey responses. The survey and follow-up interviews sought to assess Medicare-certified home health and hospice agencies': (1) characteristics, (2) role in emergency response, (3) emergency response infrastructure, (4) emergency preparedness procedures and collaborations, and (5) emergency preparedness barriers. Findings from this study will be used to increase awareness of home health and hospice agencies' potential emergency healthcare response capabilities and to address some of their identified technical assistance needs.

Key Findings

Based on the survey and interview data, ASPR TRACIE identified the following key findings:

- » Home health and hospice agencies have an essential role in addressing healthcare needs during emergencies and disasters, however, their perceived role varies greatly and has not been clearly defined at the local, regional, state, or federal level.
- » The level of capability and infrastructure for emergency response significantly differs among home health and hospice agencies. Some agencies report having a limited response capacity, particularly those located in rural areas and those that have less established partnerships and collaborations with local emergency response partners and other healthcare providers.

¹ The survey and interviews were conducted in accordance with the Paperwork Reduction Act under Office of Management and Budget Control Number 0990-0379, approved February 1, 2019. ICF's IRB reviewed and determined the project was exempt from IRB review on January 18, 2019.

- » Most respondents indicated their agencies have an emergency response plan, train their staff and patients on emergency preparedness, and test their emergency response procedures. More than two-thirds of respondents reported participating in coordinated emergency preparedness activities with healthcare coalitions and a majority coordinated with emergency management agencies, hospitals, public health departments, and nursing home or long-term care facilities. However, many also noted these collaborations to be challenging.
- » Fewer than half of the survey respondents indicated their agency was part of an integrated healthcare system. Among those who are part of an integrated healthcare system, most participated in that system's development of its emergency preparedness program, suggesting a greater awareness of capabilities and engagement across the system.
- » Home health and hospice agencies often encounter important challenges to effective involvement in an emergency response, including: lack of time and resources; being unsure of the role or not engaged in community planning for emergency response; continually changing patient population/care setting; and difficulty collaborating and engaging with local, regional, and state preparedness partners.

With the significant differences in the resources, services, and preparedness levels among the Medicare-certified home health and hospice agencies associated with this study, the survey data and insights shared by the interview participants suggest that opportunities exist to improve home health and hospice agencies' emergency response. ASPR TRACIE recommends that this could be accomplished by:

- » Clearly defining the role of home health and hospice agencies in emergency response at different levels including local, state, and federal.
- » Promoting active involvement of home health and hospice agencies in local healthcare coalitions and engagement with other provider-type members (e.g., hospitals, adult homes, and nursing homes).
- » Developing tailored training strategies and technical assistance to increase emergency management knowledge and capacity among home health and hospice agencies.
- » Providing emergency management resources and support to home health and hospice agencies.
- » Coordinating emergency response communication with facilities in which hospice agencies provide care to ensure the care of their patients.
- » Facilitating and promoting mechanisms for communication, collaboration, and networking related to emergency management issues among home health and hospice agencies.

This study does not provide conclusive statements on emergency management that are generalizable to all Medicare-certified home health and hospice agencies. Rather, the project team used this exploratory study to learn more about the role of home health and hospice agencies in emergency response and to inform future efforts from ASPR TRACIE. These findings and recommendations are a first step toward greater emergency management awareness and engagement, particularly among home health and hospice agencies and their community partners, including hospitals, public health, emergency management, emergency medical services, and other healthcare providers and settings.

BACKGROUND

Home health care is defined by the Centers for Medicare and Medicaid Services (CMS) as “skilled nursing care, as well as other skilled care services, like physical and occupational therapy, speech-language therapy, and medical social services... given by a variety of skilled health care professionals at home.”² CMS defines hospice care as nursing care, physical or occupational therapy, speech-language pathology, medical social services, some home health aide services, medical supplies and use of medical appliances, physician services, short-term inpatient care, counseling, and other “items and services provided to a terminally ill individual by, or by others under arrangements made by, a hospice program under a written plan... established and periodically reviewed by the individual’s attending physician and by the medical director... of the program.”³ Hospice care may be delivered in the patient’s home (which may be a private residence or residential facility) or in an inpatient setting. Both home health and hospice entities may be public, nonprofit, or private agencies or organizations.

More than 12,000 home health care agencies operate across the U.S. and employ more than 143,000 full-time equivalents, the majority of whom are registered nurses or licensed practical or vocational nurses.⁴ Following are some characteristics of the Medicare-certified home health population:

- » In 2017, more than 3.4 million Medicare beneficiaries had a home health episode, with each episode having an average of 15 visits.⁵
- » Eighty-six percent of home health patients are 65 or older; nearly a quarter are age 85 or older.⁶
- » Nearly two-thirds of home health care patients are women.⁷
- » While 42% of all Medicare beneficiaries have an income less than \$25,000 per year, 54% of home health patients have incomes below that level.⁸
- » Fifty-two percent of home health patients have five or more chronic conditions, twice the level of all Medicare beneficiaries.⁹
- » More than 90% of home health care patients reside in urban areas.¹⁰
- » Nearly half of home health care patients reside in the south.¹¹
- » More than one-third of home health patients live alone.¹²

More than 4,000 hospices employ more than 73,000 full-time equivalents, nearly half of whom are registered nurses and nearly 10% are licensed practical or vocational nurses.¹³ An additional third are aides and about 12% are social workers.¹⁴ Among the hospice patient population:

- » Ninety-four percent are age 65 or older; nearly half are 85 and older.¹⁵
- » Fifty-nine percent of hospice patients are women.¹⁶
- » More than three-quarters of hospice patients reside in urban areas.¹⁷
- » More than 40% of hospice agencies are in the south.¹⁸

Medicare covers four levels of hospice care:

- » Routine Home Care (98%) takes place in the patient’s home, which may be a private residence or nursing facility.

- » General Inpatient Care (1.5%) occurs in a Medicare-certified hospital, hospice inpatient facility, or nursing facility and provides pain and other acute symptom management that cannot feasibly be provided in other settings.
- » Inpatient Respite Care (0.3%) takes place in a hospital, long-term care facility, or hospice facility and provides temporary relief to the patient's primary caregiver.
- » Continuous Home Care (0.2%) is provided for between 8 and 24 hours a day in the home to manage pain and other acute symptoms.¹⁹

In 2016, 56% of days of hospice care were delivered in the home, 42% in a nursing facility, 1.3% in a hospice inpatient facility, and 0.5% in an acute care hospital.²⁰

Both home health care and hospice patients are more likely to be women and live in southern states and more populous areas. Home health care patients tend to be older, sicker, and poorer than the overall Medicare population. The hospice population tends to be older than home health users. The hospice workforce has a similar proportion of registered nurses as home health, but a much greater proportion of social workers.

These characteristics of the Medicare-certified home health and hospice population suggest they are particularly vulnerable during emergencies and disasters. Emergency planning for Medicare-certified home health and hospice must address unique structural and operational issues. Staff and patients are extremely decentralized, with patients receiving care in their home and staff traveling to multiple locations during the day and throughout the week to provide care (except for inpatient hospice). Risk assessments and planning must account for the administrative offices of the home health or hospice agency, the various patient locations and variable patient population, and the routes staff must travel to safely and efficiently reach their patients. It is important to note that select characteristics of home health and hospice agencies may be beneficial during emergencies. These agencies employ large numbers of nurses who may be available to provide a basic level of care during a disaster as well as a smaller number of social workers whose skills may be valuable in helping communities navigate issues during the response and recovery phases. Additionally, staff of home health and hospice agencies are accustomed to delivering care in various and changing environments.

Historically, there were limited requirements for home health care and hospice agencies (and other healthcare settings) to prepare their facilities, staff, and patients to effectively respond to emergencies. In response to this challenge, CMS issued the [Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule](#) in November 2016, in which home health agencies²¹ and hospices²² were among the 17 named provider and supplier types. All hospices and all those home health agencies that are Medicare-certified are required to comply with the [CMS Final Rule](#).²³

ASPR TRACIE conducted this study to better understand the capacity and role of Medicare-certified home health care and hospice agencies in supporting the health and medical response to disasters or emergencies beyond the established CMS Final Rule requirements. Particularly, this project aimed to better understand the roles, barriers, and capacities of these unique healthcare settings in emergency response. Findings from this study will be used to increase awareness of the potential emergency management capabilities of home health and hospice. The study also identifies specific needs of Medicare-certified home health care and hospice agencies that ASPR TRACIE and other stakeholders may be able to address through future technical assistance efforts.

METHODOLOGY

ASPR TRACIE conducted an online survey and one-on-one in-depth telephone interviews with leaders of Medicare-certified home health and hospice agencies to better understand the agencies' capacity, preparedness for, and impediments to disaster response.

Key Questions

The following questions were addressed in this study:

1. What is the role of home health and hospice agencies in different emergency response scenarios?
2. What is the level of capability and infrastructure for emergency response among home health and hospice agencies?
3. What are the characteristics of the emergency preparedness activities and procedures that are being implemented at home health and hospice agencies?
4. What factors can facilitate home health and hospice agencies' involvement/ engagement in emergency response and preparedness activities?

Recruitment

For the online survey, a convenience sample of individuals serving in leadership positions at Medicare-certified home health and hospice agencies was identified through the National Association for Home Care & Hospice (NAHC). For this study, home health and hospice included agencies that offered the following services: home health care; hospice care in a private residence; hospice care in a residential facility (e.g., assisted living, nursing home); home or inpatient hospice care in a hospice agency-owned facility or hospice agency-owned space in another entity's facility; and/or inpatient hospice care in a hospital or nursing facility.* The recruitment message that included a link to the online survey was posted in NAHC's list serve, daily newsletter, and social media channels on February 7, 2019. Participants were deemed eligible if they served in leadership positions at different home health and hospice care agencies. Leadership positions included but were not limited to facilities managers, clinical managers, clinicians, and/or emergency preparedness leads; participants could select multiple roles and had the option to describe other roles not listed.

Interview participants were self-selected and included only online survey participants who indicated willingness to participate in a follow-up interview. The first 25 survey participants who indicated willingness to participate and responded to email messages to schedule a telephone interview were enrolled in the interview component.

Participants did not receive an incentive for completion of the survey or interview.

Data Collection

ASPR TRACIE administered an online survey estimated to take a maximum of 15 minutes for respondents to complete. Experts on healthcare emergency preparedness and response reviewed and provided extensive feedback for the refinement

The survey assessed variables under five primary categories:

1. Agency's Characteristics
2. Agency's Role in Emergency Response
3. Agency's Emergency Response Infrastructure
4. Emergency Preparedness Procedures and Collaborations
5. Emergency Preparedness Barriers and Facilitators

**This project does not address solely non-health-related, in-home support for activities of daily living that do not require the skills of a licensed nurse, such as bathing and dressing support provided by an aide.*

of the survey instrument. The online survey was available from February 7 to March 7, 2019. The survey instrument is included as [Appendix A](#).

In-depth interviews were conducted between February 13, 2019 and March 5, 2019 with a sub-sample of survey participants who indicated they were interested in participating and provided their contact information. The 30-minute interviews were conducted to expand upon home health and hospice care agency leadership perspectives on the role of their agency in supporting the health and medical response to disasters or emergencies. The interview included questions to prompt respondents to elaborate more on their responses to the online survey (e.g., respondents were asked to describe their procedures for communicating with staff and patients in the event of an emergency). The interview guide is included as [Appendix B](#).

Analysis

ASPR TRACIE used a mixed-methods analysis approach that included a quantitative analysis of survey data and a qualitative analysis of interviews. Descriptive analyses, using frequencies and percentages, were conducted to summarize survey responses. Where appropriate, chi-square tests were performed to compare survey responses between agencies that were part of and not part of an integrated health system and significant differences are reported. Interview recordings and notes were reviewed to identify key insights and themes (repeated response patterns) that depicted participant perceptions. As appropriate, illustrative quotes are included throughout the report.

FINDINGS

Of the 343 individuals who consented to taking the survey, nearly three-quarters (n=245, 71%) of the responses were valid. Responses were determined valid if participants completed the survey and answered most of the survey items. Percentages presented are based on the final total sample unless otherwise indicated. Most survey items allowed for multiple responses, thus the majority of percentages provided in the sections that follow do not equal 100%.

Of the 245 valid survey respondents, 29% (n=71) were willing to participate in a follow-up interview. Of those, ASPR TRACIE chose the first 25 respondents who expressed interest and provided contact information to participate in the interview.

Participant and Agency Characteristics

Survey Participants

Table 1 provides a summary of the role of the 245 survey participants at their home health care and/or hospice agency. Two-thirds of respondents indicated being an emergency preparedness lead (n=86, 35%) or a clinical manager (n=77, 31%) at their agency, whereas only 13 (5%) reported being a clinician. Most respondents indicated having other roles, which they described as: administrator/director (n=49, 20%), CEO/executive director/vice-president (n=20, 8%), director of quality/operations (n=16, 7%), compliance/quality assurance (n=24, 10%), chief nursing officer/nurse manager/community nurse liaison (n=5, 2%), owner (n=5, 2%), human resources/staff development (n=4, 1%), and consultant/state association resource director (n=2, <1%).

Table 1. Respondent's Role in the Agency (n=245)

Role	n	%
Emergency Preparedness Lead	86	35%
Clinical Manager	77	31%
Clinician	13	5%
Other	125	51%
<i>Administrator/Director</i>	<i>49</i>	<i>20%</i>
<i>Compliance/Quality Assurance</i>	<i>24</i>	<i>10%</i>
<i>CEO/Executive Director/Vice-President</i>	<i>20</i>	<i>8%</i>
<i>Director of Quality/Operations</i>	<i>16</i>	<i>7%</i>
<i>Chief Nursing Officer/Nurse Manager/Community Nurse Liaison</i>	<i>5</i>	<i>2%</i>
<i>Owner</i>	<i>5</i>	<i>2%</i>
<i>Human Resources/Staff Development</i>	<i>4</i>	<i>1%</i>
<i>Consultant/State Association Resource Director</i>	<i>2</i>	<i><1%</i>

Note: Respondents were asked to select all roles that apply; total responses exceed 100%.

Most survey respondents indicated their agency provided home health care services (n=218, 89%) (Table 2). Most respondents also indicated providing hospice care in a variety of settings including: private residence (n=104, 42%), residential facility (n=95, 39%), a hospital or nursing facility (n=73, 30%), and a hospice agency-owned facility or space (n=37, 15%). Eight-five survey respondents reported providing both home health care and hospice services of some kind.

Table 2. Services Provided by Agency (n=245)

Role	n	%
Home Health Care	218	89%
Home Hospice Care – in a private residence	104	42%
Home Hospice Care – in a residential facility	95	39%
Inpatient Hospice Care – in a hospital or nursing facility	73	30%
Home or Inpatient Hospice Care – in a hospice agency-owned facility or hospice agency-owned space in another entity’s facility	37	15%

Note: Respondents were asked to select all the services that apply; total responses exceed 100%.

Over half of survey respondents indicated their agency was not part of an integrated healthcare system (IHS) (n=136, 56%) (Table 3). Of those that reported their agency was part of an IHS (n=109), the majority (n=99, 91%) indicated their agency had participated in the development of the IHS’s emergency preparedness program (EPP).

Table 3. Agencies Belonging to an IHS and Participating in IHS’s EPP Development

Role	n	%
Agency is part of an IHS (n=245)		
Yes	109	44%
Agency participated in IHS’s EEP Development (n=109)	99	91%
No	136	56%

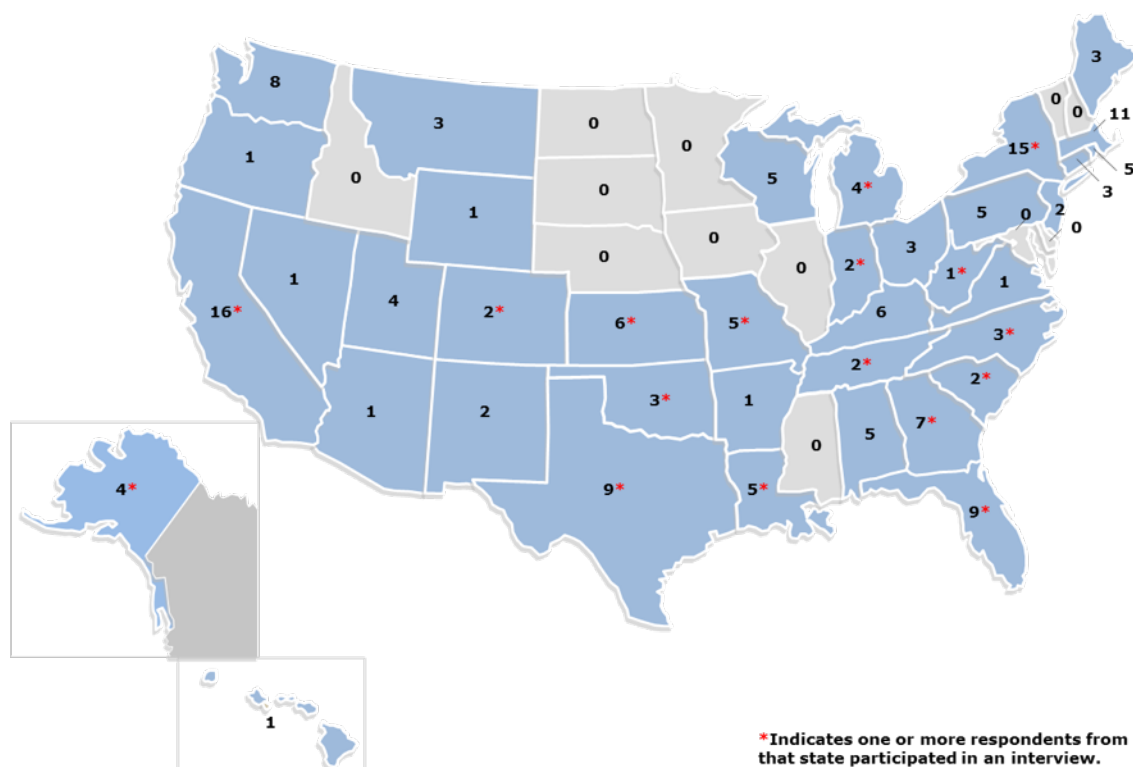
Characteristics of Services and Existing Infrastructure among Home Health and Hospice Agencies that Provide Care in Private Residences and/or Residential Facilities

The size and characteristics of services provided by home health and hospice agencies significantly varied across agencies (Table 4). Respondents reported wide ranges of average number of staff members making home/residential visits (mean=54, range 2-1,000), average number of staff visits per day (mean=38, range 1->1,000), and average percentage of visits that occur within different travel ranges (from less than 5 miles [mean=23%, range 0-98%], to more than 50 miles [mean=8%, range 0-100%]).

Table 4. Number of Home Health and Hospice Agencies Home/Residential Visits and Related Travel

	Mean (SD)	Range
Number of staff members that make home/residential visits on a typical day (n=214)	54 (89)	2-1,000
Average staff visits per day (n=212)	38 (121)	1->1,000
Average percentage of visits by travel ranges (n=205)		
Within 5 miles	23% (18.9)	0-98%
6-10 miles	25% (15.3)	0-100%
11-20 miles	33% (20)	1-100%
21-50 miles	21% (20)	0-100%
More than 50 miles	8% (11.8)	0-100%

Figure 1. Map of Responding Home Health and Hospice Agency's Location (n=244)



Survey respondents reported being from 43 different states, suggesting a broad representation of U.S. regions. All 10 HHS Regions were represented in the sample (Figure 1). Respondents from 17 different states also participated in a follow-up interview as indicated in Figure 1.

Interview Participants

A sub-sample of survey respondents (n=25) participated in a follow-up interview. Interviewees represented 17 states and 8 HHS regions as shown in Figure 1. The majority of interviewees' agencies provided home health care services (n=21, 84%), of which 40% (n=10) provided home health care services exclusively. Slightly fewer interviewees' agencies provided home hospice care in a private residence and in a residential facility (n=15, 60%), inpatient hospice care in a hospital or nursing facility (n=11, 44%), and/or home or inpatient hospice care in a hospice agency-owned facility or hospice agency-owned space (n=2, 8%). The majority of interviewees indicated being an emergency preparedness lead (n=14, 56%). Most interviewees reported having multiple roles including clinical manager (n=9, 36%), clinician (n=1, 4%), and/or other roles² (n=9, 36%). Around one-third of the interviewees (n=9, 36%) indicated on the survey their agency was part of an IHS. Note: Total responses exceed 100% due to some respondents' agencies providing multiple services. Respondents were also asked to report all the roles they had within their agency.

Analysis of Main Findings by Key Study Question

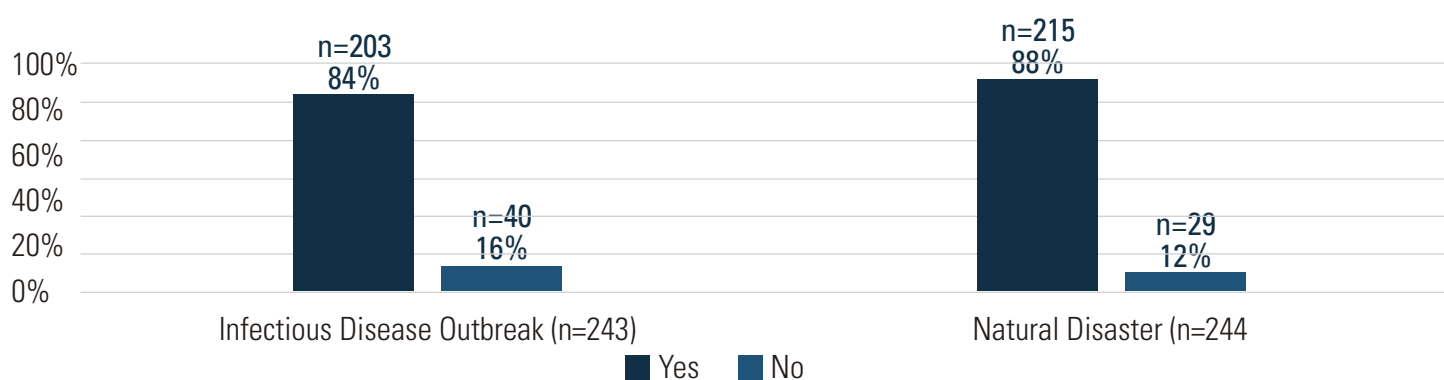
The following section is organized by key study question. Findings from the survey items corresponding to each question are presented first, followed by additional insights learned from the interviews (when applicable).

QUESTION 1: What is the role of Home Health and Hospice Agencies in different emergency response scenarios?

Perception of Home Health Care and Hospice Agencies' Role in Different Emergency Scenarios

The majority of survey respondents reported that based on their existing emergency plan and/or community partnerships, their home health and hospice agency did have a role in addressing healthcare needs caused by an infectious disease outbreak (n=203, 84%) and/or a natural disaster (n=215, 88%) (Figure 2). Respondents reported not having a role in addressing healthcare needs caused by an infectious disease outbreak (n=40, 16%) more frequently than not having a role in addressing a natural disaster (n=29, 12%).

Figure 2. Perception of Whether or Not Home Health and Hospice Agencies Have a Role in Emergency Response to an Infectious Disease Outbreak and/or a Natural Disaster



²Other roles reported included Compliance Officer, Director, Executive Director, and Quality Assurance Nurse.

- » We are a closed POD, so we can get all of our staff and patients vaccinated [in an infectious disease outbreak]. We are a big part of the community and we have positioned ourselves to be helpful if something like that was to occur. – Accounting Manager and Emergency Preparedness Lead, Home Health and Hospice Agency
- » Our plan, especially for a mass infectious outbreak, would be to not take on any new patients until it is contained and only see priority patients. We would check on the rest of the patients by phone so we wouldn't infect them. We are more susceptible to being victims of an outbreak, so I'm not sure if we would send staff into people's homes, and no home health agency would want to come help us because of the risk. – Executive Director, Home Health Agency

A few of the agency leaders—mainly those without strong community emergency response partnerships — indicated they were unsure of their role in emergency response scenarios. These quotes emphasize those findings:

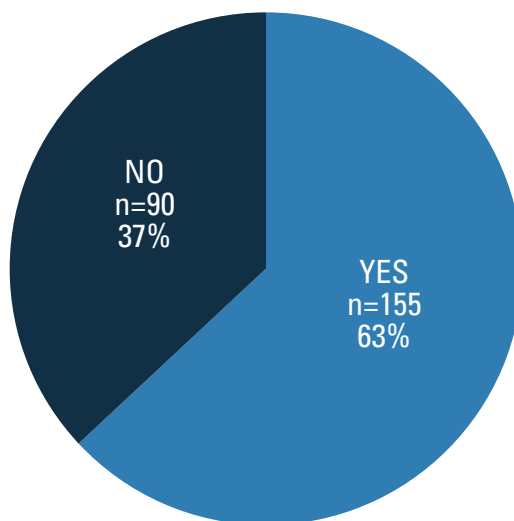
- » There really isn't a lot of variation in an emergency response for home care. It's prioritizing patients, contacting who you can get to, get to them if you can. It doesn't really matter what that event is. The response is pretty much the same. – Clinical Manager, Home Health and Hospice IHS Agency
- » That is a hard question to answer what our role would be [in emergency scenarios]. Because we are involved in a large health system we would be charged with helping with their response to those situations. But I'm not sure what that looks like. – Clinical and Quality Manager, Home Health and Hospice IHS Agency

During an emergency there will be a bigger demand on the hospital and they are going to shift people from the hospital to home health care. This is our role, take overflow from the hospital. I don't think we have a role in acute care during an emergency.
– Compliance Officer, Home Health Agency

Previous Experience in Emergency Response

Nearly two-thirds of the home health and hospice agencies surveyed have been involved in the response to an emergency or disaster as reported by survey respondents (n=155, 63%) (Figure 3). There was a significant difference ($P = .01$) in the involvement in emergency response reported by agencies surveyed that were and were not part of an IHS. Half (50%, n=78) of IHS agencies and 34% (n=31) of non-IHS agencies reported being involved in an emergency response.

Figure 3. Home Health and Hospice Agencies Involved in the Response to an Emergency or Disaster (n=245)



Interviewees who indicated their agency had been involved in the response to an emergency or disaster were asked to expand on the type of scenario they had faced and to share any lessons learned from that experience. Interviewees reported being involved in a variety of real-life emergencies including: hurricanes, fires, flooding, tornadoes, winter weather, shooting/bomb threats, power outages, water break at a local hospital, and cybersecurity incidents. As a result of those experiences interviewees reported updating communication systems and plans, revising procedures for power outages, adding additional emergency scenarios to their emergency plan, and working to improve tracking systems for patients when evacuated.

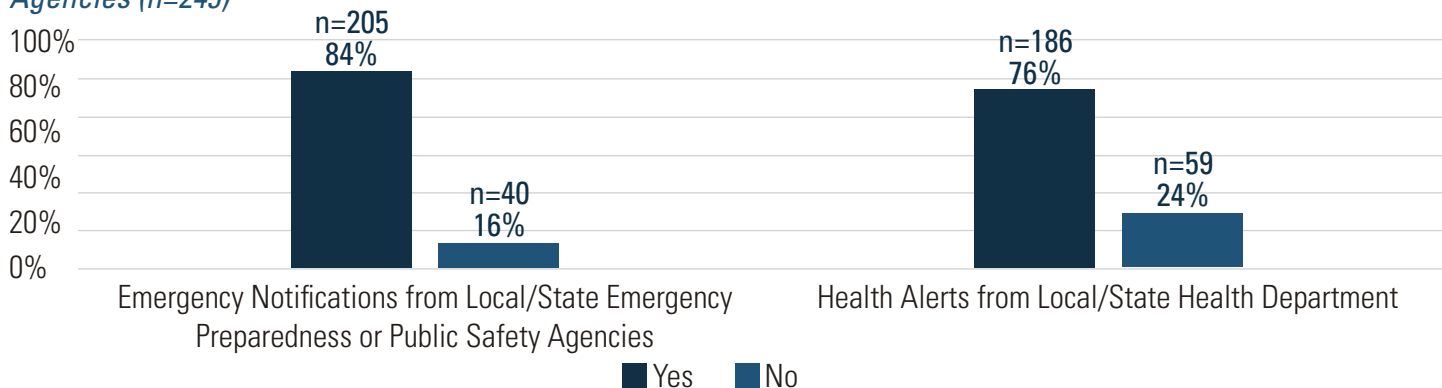
- » We realized the call tree was not efficient [after experiencing seven weather-related emergencies] and we set up a text messaging system to reach our staff. – Director, Home Health IHS Agency
- » We are in the process of getting two-way radios because the land lines and cell communications were down during one of the hurricanes. – Emergency Preparedness Lead, Home Health and Hospice IHS Agency
- » We had a bomb threat. We did not have a scenario integrated in the emergency plan so we wrote an addendum to include bomb threat that outlined evacuation of the office staff and how to inform patients. – Clinical Manager, Home Health Agency
- » We had a power outage and didn't realize the alarm system for the medication storage was affected. The stored medications that required refrigeration were at high risk to be damaged. We now have a better protocol in case of a power outage and updated the alarm system so it works in the absence of power. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » After a major fire emergency we learned that facilities need to better communicate when patients have to be evacuated. We spent an entire week trying to locate patients that had evacuated including one that had evacuated to an evacuation center. –Emergency Preparedness Lead, Home Health and Hospice Agency

QUESTION 1: What is the level of capability and infrastructure for emergency response among home health and hospice agencies?

Communication about Emergency Response

The majority of survey respondents reported receiving notifications about emergencies affecting their agency's area from a local or state emergency management or public safety agency (n=205, 84%) and health alerts from their local or state health department (n=186, 76%) (Figure 4).

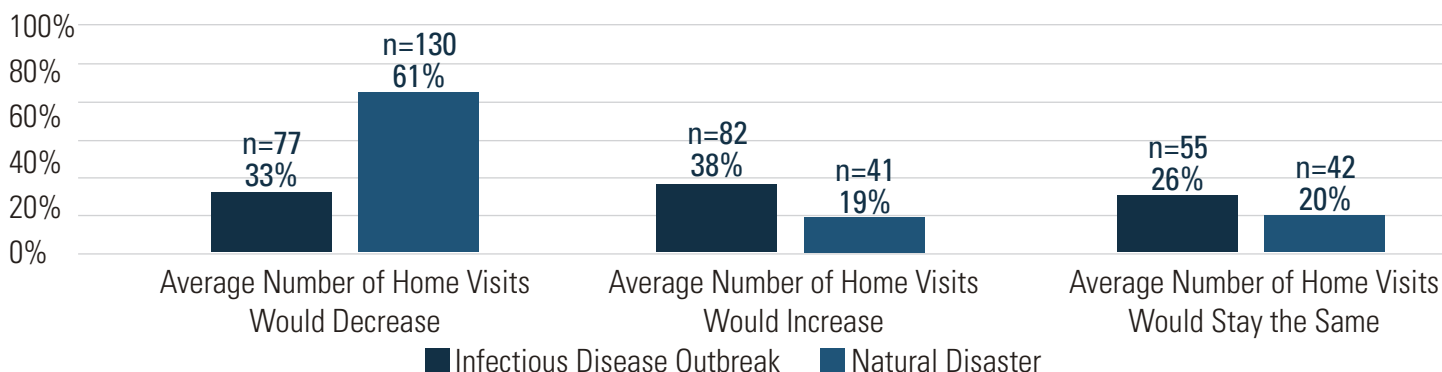
Figure 4. Home Health and Hospice Agency's Receipt of Emergency Notifications from Emergency Response Agencies (n=245)



Emergency Response Infrastructure – Home Health or Hospice Care in a Private Residence or Residential Facility

Survey respondents who indicated their agency provided home health, home hospice care in a private residence, and/or home hospice care in a residential facility, estimated the expected change in average number of patients seen during different emergency scenarios (Figure 5). Respondents more frequently predicted home visits would decrease during a natural disaster (n=130, 61%) and would increase during an infectious disease outbreak (n=82, 38%).

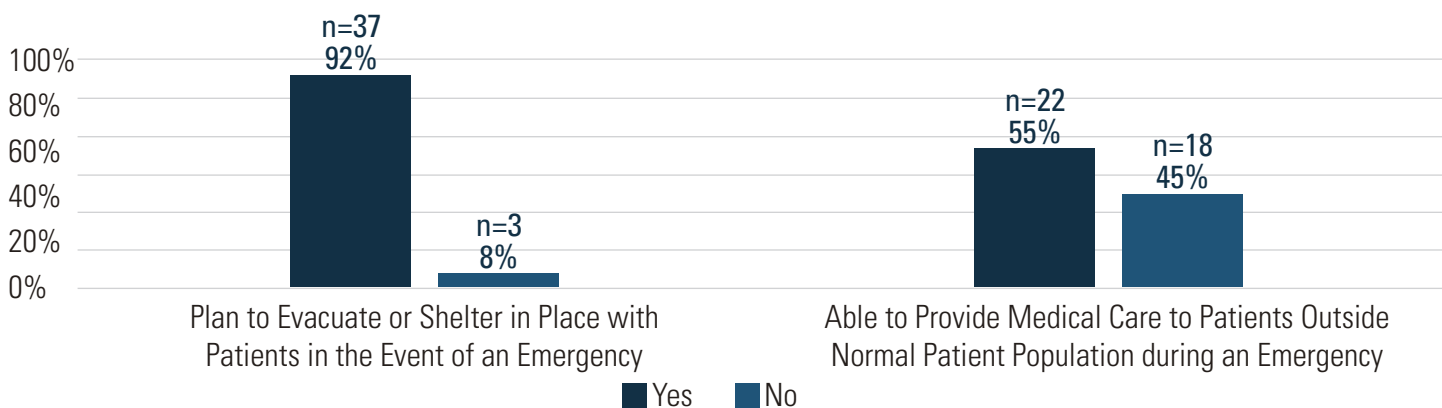
Figure 5. Estimated Change in Average Number of Patients among Home Health and Home Hospice Agencies During Emergency Scenarios (n=213)



Emergency Response Infrastructure – Hospice Care in a Hospice Agency-Owned Facility or Space

While 37 survey respondents initially indicated (as reported in Table 2) they provided hospice care in a hospice agency-owned facility or hospice agency-owned space in another entity's facility, 40 survey respondents answered the set of questions about capabilities in these fixed, hospice-controlled settings. Most respondents who indicated their agency provided hospice care in these facilities reported their agency had a plan to evacuate or shelter in place with patients in the event of an emergency (n=37, 92%) (Figure 6). Over half of respondents with a hospice-owned facility or space indicated their agency had the infrastructure to support provision of medical care during an emergency to other patients in the community outside of their normal patient population (n=22, 55%).

Figure 6. Evacuation/Shelter in Place Plan and Ability to Provide Care to Patients Outside Normal Patient Population among Agencies that Provide Hospice Care in a Hospice Agency-Owned Facility or Space in another Entity's Facility (n=40)



Among the 40 survey respondents who answered the questions about hospice care in hospice-owned facilities or spaces, n=24 (60%) indicated the types of medical care their agencies would be able to provide in either an infectious disease outbreak or natural disaster affecting their community (Table 5).

Table 5. Types of Care Hospice Agencies Would be Able to Offer During Emergency Scenarios in a Hospice Agency-Owned Facility or Space in another Entity's Facility (n=24)

	Infectious Disease Outbreak N (%)	Natural Disaster N (%)
Medical care for low acuity patients	19 (79%)	22 (92%)
Prophylaxis/vaccination	22 (92%)	17 (71%)
Patient triage	17 (71%)	21 (88%)
Behavioral health support/treatment for staff	10 (42%)	13 (54%)
Behavioral health support/treatment for patients	7 (29%)	9 (38%)

Note: respondents were asked to select all services that apply; total responses exceed 100%.

QUESTION 3: What are the characteristics of the emergency preparedness activities and procedures that are being implemented at home health and hospice agencies?

Emergency Preparedness Training

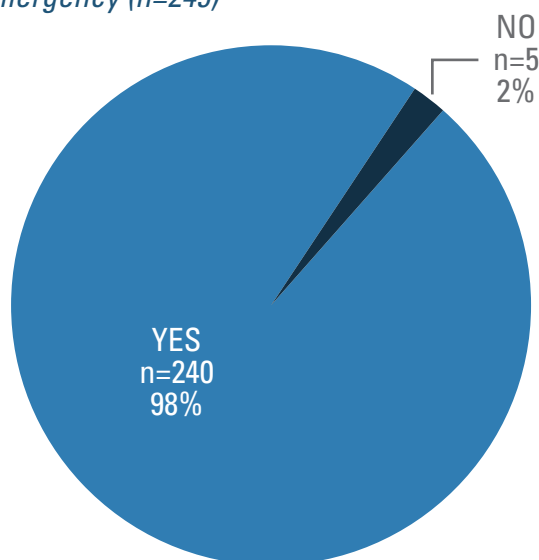
Agency leaders interviewed were asked to describe the emergency preparedness training their agency provided to its staff. The majority of interviewees reported educating and training their staff on emergency preparedness upon hire as well as through annual trainings. Three interviewees reported using online systems or platforms to provide emergency management learning modules to staff. Some leaders reported offering different trainings to different staff based on their role in the agency and/or role in the emergency preparedness plan. Several leaders reported discussing emergency preparedness with their staff on a frequent basis through emails, staff meetings, "lunch and learns," and monthly newsletters.

- » We created electronic modules through an online system that can be accessed year-round to provide emergency management modules to new staff and refreshers to old staff. – Emergency Preparedness Lead, Home Health and Hospice IHS Agency
- » I conduct three trainings based on staff role. The first is for field technicians and general office staff that includes a basic overview of our plan. For anyone who is in the plan I do a second training that is more in depth, and I do a third training with supervisors where I go even more in-depth regarding incident command. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » I send out an emergency preparedness newsletter each month to keep our staff educated even if we are not doing an exercise that month. Throughout the year I try to do little things for staff to be aware and for us to be aware. – Emergency Preparedness Lead, Home Health and Hospice Agency

Emergency Response Communication

Most survey participants (n=240, 98%) reported their agency had a plan to communicate critical information to staff, patients, and their families in the event of an emergency (Figure 7).

Figure 7. Home Health and Hospice Agency Has a Plan to Communicate with Staff, Patients, and Families in the Event of an Emergency (n=245)



Agency leaders interviewed were asked how they communicated with staff before, during and after an emergency. All the interviewees reported notifying staff of an emergency via telephone, text message, and/or email. Several of the leaders interviewed reported using secure text message systems, software, or mobile applications (e.g., My EPO App, Ever Bridge, Olig, CLICK) while others activated a manual call tree to communicate with staff during an emergency. A few leaders reported having back-up methods to communicate to staff if needed such as having a contract with local ham operators, using walkie-talkies, and coordinating with local radio stations.

We make sure they have enough oxygen and supplies in case we aren't able to make a visit. We prioritize patients based on need. For patients who are top priorities, they have a more critical need, we will do everything we can to get out and see them even in an emergency.

– Clinical Manager, Home Health and Hospice IHS Agency

- » We set up call trees to notify staff during emergencies. We also will send automatic text messages to reach all employees simultaneously—this was set-up through the regional health coalition. – Director, Home Health IHS Agency
- » The protocol depends on the scenario but generally managers will activate a call tree and contact staff by phone, email, or secure text message. Managers will document who they can and cannot reach, and pass that information on to HR. We do not have software but we are working on that; currently it is a manual system. – Quality Assurance Nurse and Emergency Preparedness Lead, Home Health and Hospice IHS Agency

When asked how they communicated with patients before, during, and after an emergency, the majority of agency leaders reported contacting patients via telephone based on a continually updated triage ranking. All leaders reported preparing patients for emergencies by working with them to develop individual emergency plans upon admission.

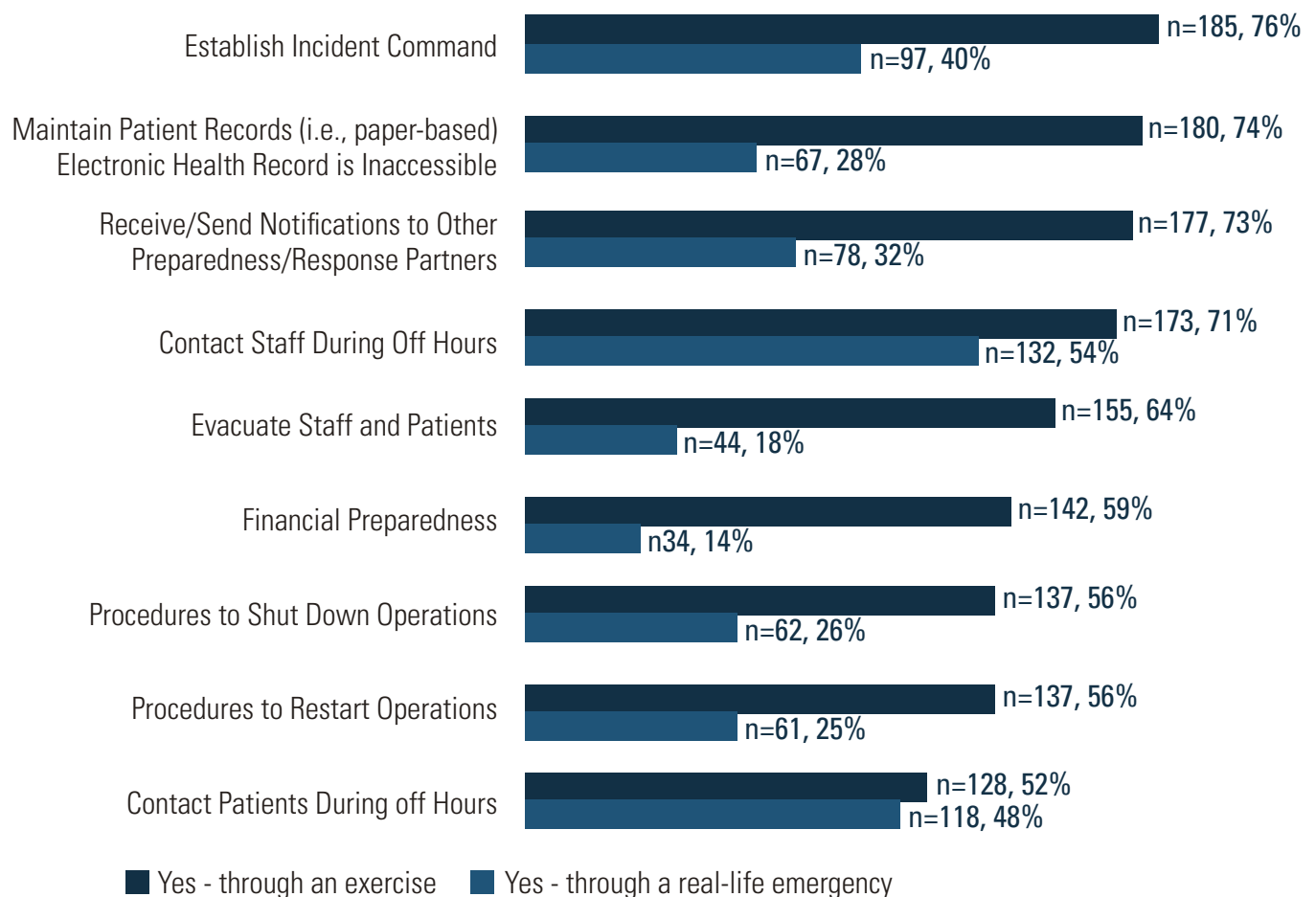
- » We have a triage code, 1-3, that is based on each patient's needs. Every morning the triage code is run to identify patients based on medical need. That information is used to prioritize care, tailor referrals, and determine procedures during emergencies. – Clinical Manager, Home Health Agency
- » If the incident command is activated, we would contact patients based on triage system. Each case manager will call on their patient load. – Emergency Preparedness Lead, Home Health and Hospice Agency

- » Upon admission, staff go over a packet of emergency information, procedures, and contact info with each patient or caregiver. – Clinical Manager, Home Health Agency
- » We also teach caregivers how to care for the patients if we can't get out there just in case there is an emergency. – Clinical Manager, Home Health IHS Agency

Agency Emergency Preparedness and Response

Survey participants reported testing their ability to implement communication and collaboration through emergency preparedness exercises and/or through a real-life emergency (Figure 8). Respondents more frequently reported their agency had tested the ability to establish an incident command (n=185, 76%); maintain patients records if electronic records were not accessible (n=180, 74%); receive/send notifications to other emergency response partners (n=177, 73%) and contact staff during off hours (n=173, 71%). Fewer respondents reported their agency had tested procedures to shut down or re-start operations (n=137, 56%) or the ability to contact patients during off hours (n=128, 52%) through an exercise. Overall, respondents reported having tested emergency response and communications procedures through exercises more frequently than through a real emergency. The procedures more commonly reported as having been tested through a real-life incident included: contacting staff during off hours (n=132, 54%), contacting patients during off hours (n=118, 48%), and establishing an incident command (n=97, 40%).

Figure 8. Home Health and Hospice Agency Tested Ability to Implement Communication and Emergency Response Procedures (n=243)



Note: Respondents were asked to select all types of tested scenarios that apply; total responses exceed 100%.

Interviewees were asked to describe some key elements of their business continuity plan. Several of the agency leaders reported having back-up IT servers that were off-site for their electronic health records and/or using paper records if the power or internet went out. Three interviewees stated they had the Government Emergency Telecommunications Service (GETS) card, which would allow them to communicate if landlines were down or congested. Others reported having agreements with partners to provide office space and/or patient care if needed.

- » Our EMR system can operate in a shadow environment and we have a mobile app staff can still use if everything goes offline. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » We have agreements with the hospitals. In case of a severe power outage, they would provide a small space in their facilities. We also have phone cards from the federal government. We can work from another location as long as we have internet access. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » Our emergency preparedness binder stays in a fire proof office. We have all contact numbers, patient list, etc. in paper documents, in case we ever lose power. – Emergency Preparedness Lead, Home Health and Hospice Agency

Interview participants who provided hospice care in a residential facility had varied responses when asked how they ensured the care of their patients during an emergency. Some interviewees were aware of those facilities' emergency plans and had communication procedures established between the residential facility and their agency if the residential facility elected to evacuate or shelter in place. Other interviewees, however, reported they did not have a plan to coordinate care of their patients in other facilities and were unsure if they would be notified if the facility evacuated or sheltered in place.

- » [Ensuring care] is part of the contract we set up with the facility. It is no different than if the patient was at home, we work with the caregiver to ensure the patient has all their needs met. We communicate with the facility, and the facility notifies our on-call operator if something is needed like an evacuation. – Clinical Manager and Emergency Preparedness Lead, Home Health and Hospice IHS Agency
- » We do not have a specific agreement with them [the facility where the agency provides hospice care] or a coordinated plan to communicate with them in an emergency. They have their own plan. We tell our patients to let us know if they are being taken somewhere. We rely on patients to communicate with us if they are evacuated. – Emergency Preparedness Lead, Home Health and Hospice Agency

I hope we would be notified if the facility evacuated or sheltered in place, but I'm not sure if it would happen during a real emergency. Only real scenarios will tell if that works.

– Emergency Preparedness Lead, Home Health and Hospice Agency

Maybe we are a little too trusting. We make sure there is ample oxygen supply for at least 24 hours. We feel like the facilities will do a good job taking care of our patients because we have a close relationship with them. I don't know if we have anything formal to make sure their emergency plans are okay except we are all surveyed on them.

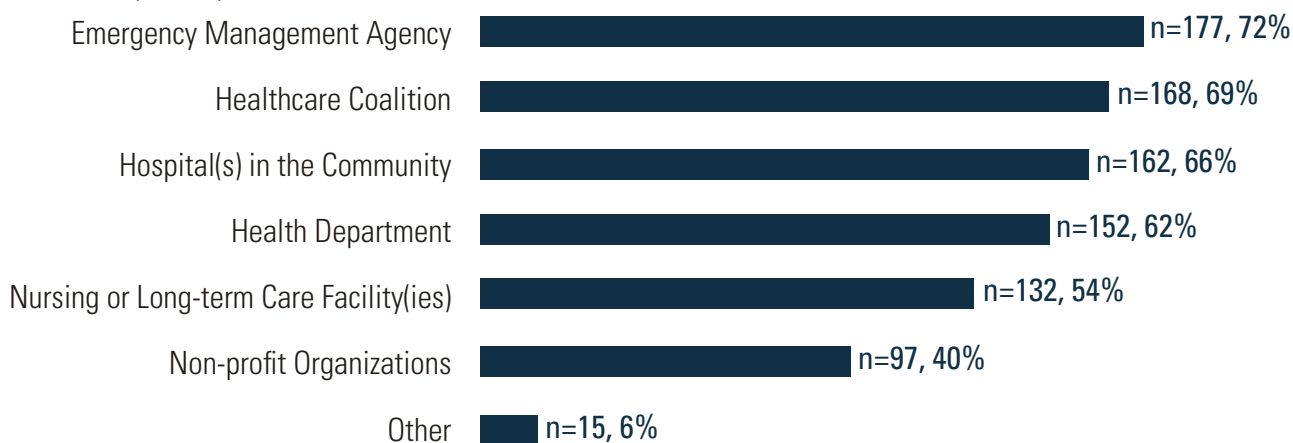
– Clinical Manager, Home Health and Hospice IHS Agency

- » We provide education to facilities' staff, revise their emergency plans, and provide support as we can. Nothing is formally written, but it is sort of implied that we are mutually aware of each other's emergency procedures and would communicate during emergencies. – Quality Assurance Nurse and Emergency Preparedness Lead, Home Health and Hospice IHS Agency
- » This is probably where we have seen the most challenges. The facility seems more like they will deal with it [an emergency] rather than wanting to work together. We are still working through it and trying to establish those relationships. Management changes so fast so we are constantly starting over. – Emergency Preparedness Lead, Home Health and Hospice Agency

Coordinated Emergency Response with Community Preparedness Partners

Survey participants reported their agencies' participation in coordinated emergency preparedness activities with various partners (Figure 9). Respondents most often reported partnering with an emergency management agency (n=177, 72%), a healthcare coalition (n=168, 69%), and hospital(s) in their community (n=162, 66%). Respondents less frequently reported having participated in coordinated response with non-profit organizations (n=97, 40%). Few respondents (n=15, 6%) indicated having participated in emergency preparedness activities with other agencies including other home health/hospice agencies and associations, other coalitions (e.g., regional home care emergency preparedness coalition, regional emergency response coalition), Indian Health Services, and sheriff office.

Figure 9. Home Health and Hospice Agency Participation in Coordinated Emergency Preparedness Activities with Various Partners (n=245)



Note: Respondents were asked to select all partners that apply; total responses exceed 100%.

Interviewees were asked to describe their agency's cooperation and collaboration with local, regional, and state preparedness partners. The reported emergency preparedness partners and level of involvement varied. Partners included emergency medical services (EMS), regional healthcare coalitions, other state home health or hospice organizations, local health departments, other local healthcare providers, schools, sheriff's office, and fire departments. Agency leaders interviewed reported involvement with emergency preparedness partners ranged from being actively involved to being unable to established preparedness partners.

- » In our emergency preparedness plan we have a contact list of local, federal, and state officials . For an emergency situation we would collaborate with local EMS. – Executive Director and Emergency Preparedness Lead, Hospice Agency
- » We [regional healthcare coalition] meet monthly and once a year we have a drill with the local health department, EMS, sheriff, school system, etc. It is a community-based drill that focuses on having a coordinated response. – Director, Home Health IHS Agency

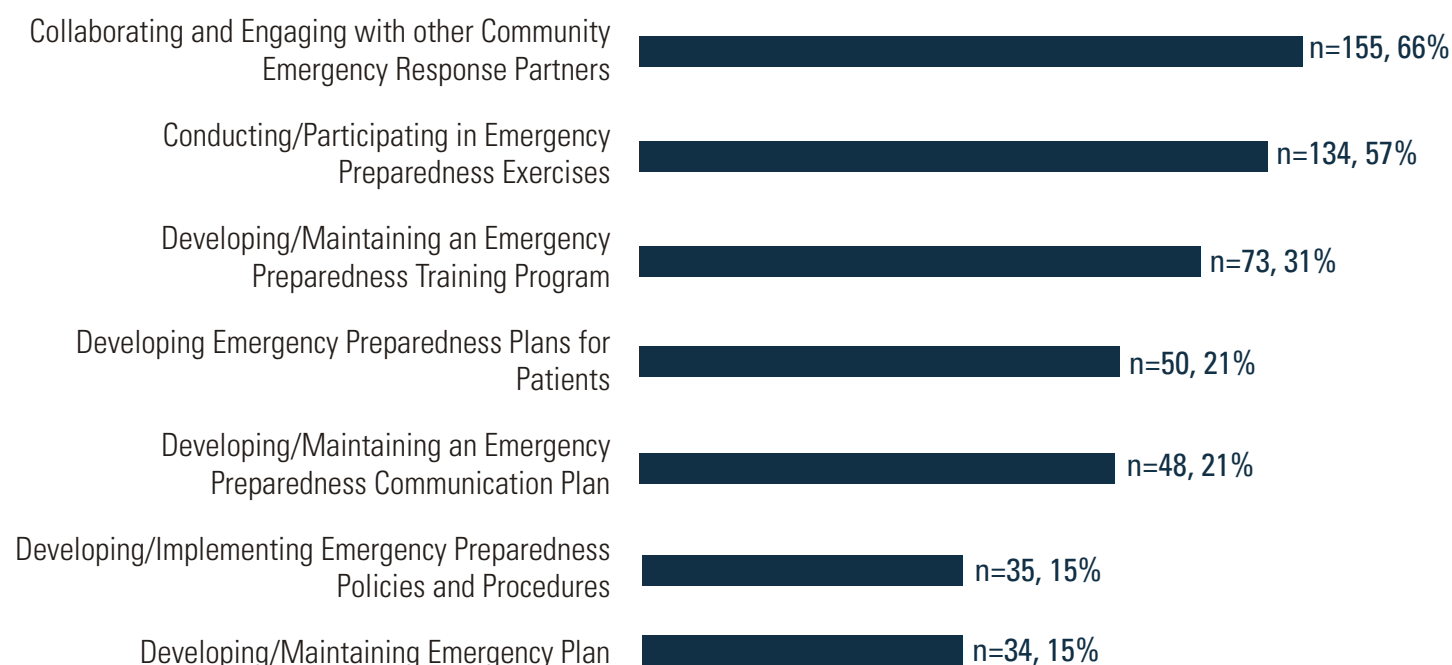
- » I've participated in a few local emergency preparedness meetings for the last two years. I had to search them out, and I went to the meetings, but I did not find them useful or relevant at all. – Clinical Manager, Home Health IHS Agency

QUESTION 4: What factors influence home health and hospice agencies' involvement/engagement in emergency response and preparedness activities?

Challenges Associated with Meeting CMS Emergency Preparedness Requirements

Survey participants were asked to report which of the CMS Final Rule requirements have been the most challenging for their agency (Figure 10). The most frequently reported challenging CMS requirements for home health and hospice agencies included: collaborating and engaging with other community emergency response partners (n=155, 66%) and conducting/participating in emergency preparedness exercises (n=134, 57%).

Figure 10. Home Health and Hospice Agency Challenges for Meeting CMS Emergency Preparedness Requirements (n=234)



Note: Respondents were asked to select all challenges that apply; total responses exceed 100%.

Interview participants were asked to discuss their agencies' experience in meeting the new CMS requirements for emergency preparedness. Similar to the survey responses, the most common challenge discussed was collaborating and engaging with other community emergency response partners.

- » The hardest part when we started going down the path was that when I started reaching out to other emergency organizations, once they found out we were home health care they wanted nothing to do with us. They said and I quote 'You are not even on our radar as a participant in an emergency plan.' – Executive Director, Home Health agency
- » We don't have good communication with bigger emergency preparedness groups. At the state level they don't understand what home health care can contribute. They don't involve everyone. – Compliance Officer, Home Health Agency

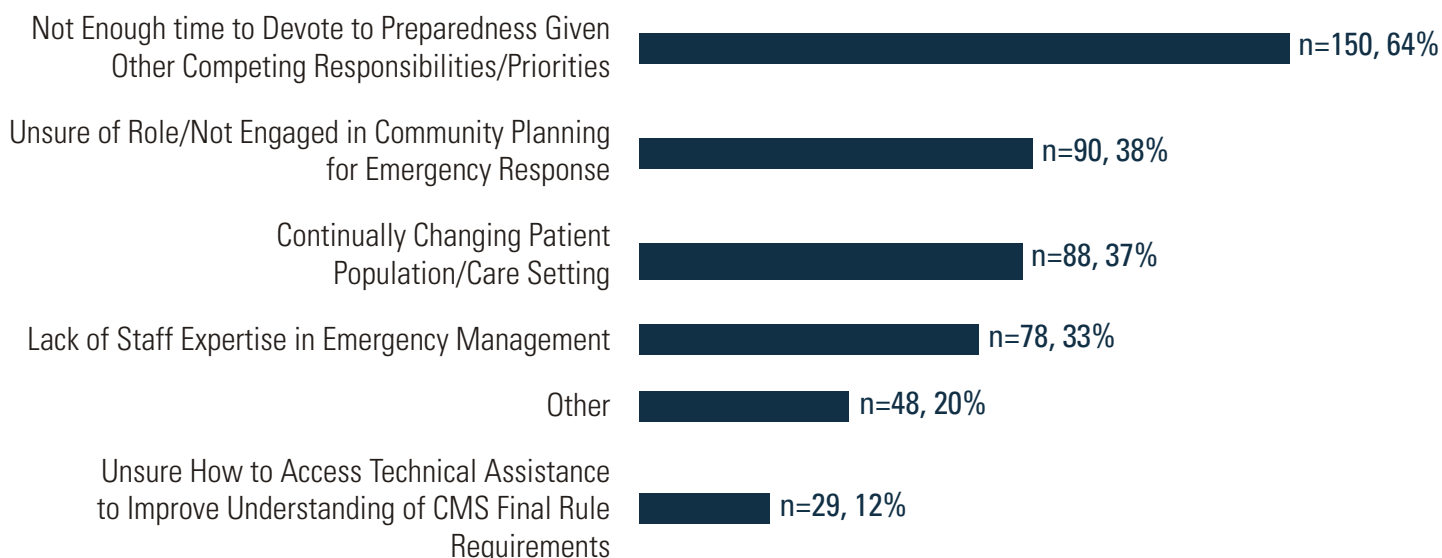
- » Although the coalition is a key partner in our emergency management, establishing a meaningful collaboration was not straight forward. It is not just showing up at required meetings. It takes personal interest to look for the information, do research, and learn more. – Clinical Manager and Emergency Preparedness Lead, Home Health IHS Agency
- » We serve patients in multiple counties, and they try to be involved with the local coalitions and healthcare preparedness programs for each county as much as possible. The challenge is the varied level of applicability, usefulness and how active the healthcare preparedness program is in each county: some are very acute care oriented and they do not really know what to do with us. We have a major county that does not let us participate in their healthcare preparedness program and that has been very challenging. – Quality Assurance Nurse and Emergency Preparedness Lead, Home Health and Hospice Agency

However, two interviewees reported very positive interactions with their community emergency response partners.

- » Everyone [regional coalition and health department] has been very open with involving us, they are happy to have providers involved. I'm not sure health care providers in the community were willing to collaborate before the rule. When I first read the rule I was very concerned about how this would work. But it has been a very positive experience. – Accounting Manager, Home Health and Hospice Agency
- » Our regional healthcare coalition has been a key resource for me in my emergency management role and in the development of our emergency plan. – Director, Home Health IHS Agency

Survey respondents were asked to report barriers that have contributed to the challenges in meeting the CMS requirements (Figure 11). Respondents more frequently reported not having enough time to devote to preparedness activities (n=150, 64%), being unsure of their role or not engaged in community planning for emergency response (n=90, 38%), and continually changing patient population/care setting (n=88, 37%). Respondents also reported other barriers including small agency, limited staff, lack of interest and awareness from local, regional, state partners, and challenges establishing partnerships (n=48, 20%).

Figure 11. Barriers that Have Contributed to the Challenges with CMS Final Rule Requirements for Home Health and Hospice Agencies (n=236)



Note: Respondents were asked to select all barriers that apply; total responses exceed 100%.

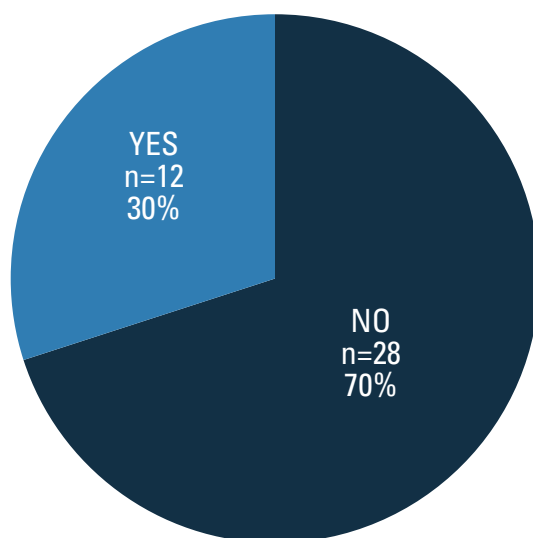
Interview participants were also asked to discuss their agencies' experience in meeting the new CMS requirements for emergency preparedness. The majority of interviewees reported the following barriers in meeting the CMS requirements: lack of time and resources; having a geographically dispersed staff; finding partners to collaborate with; community emergency response partners unsure of the role of home health and hospice agencies in emergency response; inconsistencies among different communities' preparedness partners; and emergency preparedness not being a priority for patients.

- » I think the annual requirements is too often, there are not that many changes within a year. It is very difficult for agencies who have an ongoing need to care for patients. We do not have a lot of down time to provide education, so it is a big burden to provide all the education as required. – Compliance Officer, Home Health Agency
- » It is really difficult to schedule [emergency preparedness trainings], I have to have multiple options throughout the year, and it is really hard to get everyone together. Employees don't live in the city where our office is located and they are often traveling to see patients within a 100-mile radius. – Clinical Manager, Home Health IHS Agency
- » I had to write the EOP five times, with no support or guidance whatsoever from the local or state level. It is just me in the agency working on emergency management, so it is hard to find the time, the knowledge to do it well, and resources. – Clinical Manager, Home Health IHS Agency
- » Having a full-scale drill is very hard for a small home health care or hospice agency. We do not have the resources to stop caring for patients in order to perform a drill and close down operations for 2-3 hours, and have all staff participating in a mass casualty drill. – Executive Director, Home Health Agency
- » Emergency preparedness activities and response with proper staff engagements requires almost a shutdown of the agency for 30 minutes or hours, and that causes a financial loss. –Director, Home Health IHS Agency
- » We have a little trouble getting our patients to buy in on emergency preparedness. They think since we don't live in Florida, we don't have hurricanes, we don't have tornadoes, so we are not at risk. Buy in is difficult for our patients. They don't perceive the need, they don't think it is any of our business, they don't want to talk about it. – Clinical Manager, Home Health and Hospice IHS Agency

It was a huge rule up front to get a handle on, but I see the value in it, especially after talking to community partners. Upfront it was overwhelming, but now it is more about managing the plan than generating it. I think it was a good thing for the community. We are better equipped to handle something than before the rule.
– Accounting Manager, Home Health and Hospice

Agencies that indicated they provided home or inpatient hospice care in a hospice agency-owned facility or space in another entity's facility (n=40, 17%) were asked if they encounter obstacles in developing their facility operation plan (Figure 12). Of those, 28 (70%) indicated they had not encountered any obstacles in developing their facility operations plan and 12 (30%) indicated they had encountered obstacles (Figure 12).

Figure 12. Obstacles Developing the Facility's Operations Plan Among Agencies that Provide Hospice Care in a Hospice Agency-Owned Facility or Space in another Entity's Facility (n=40)



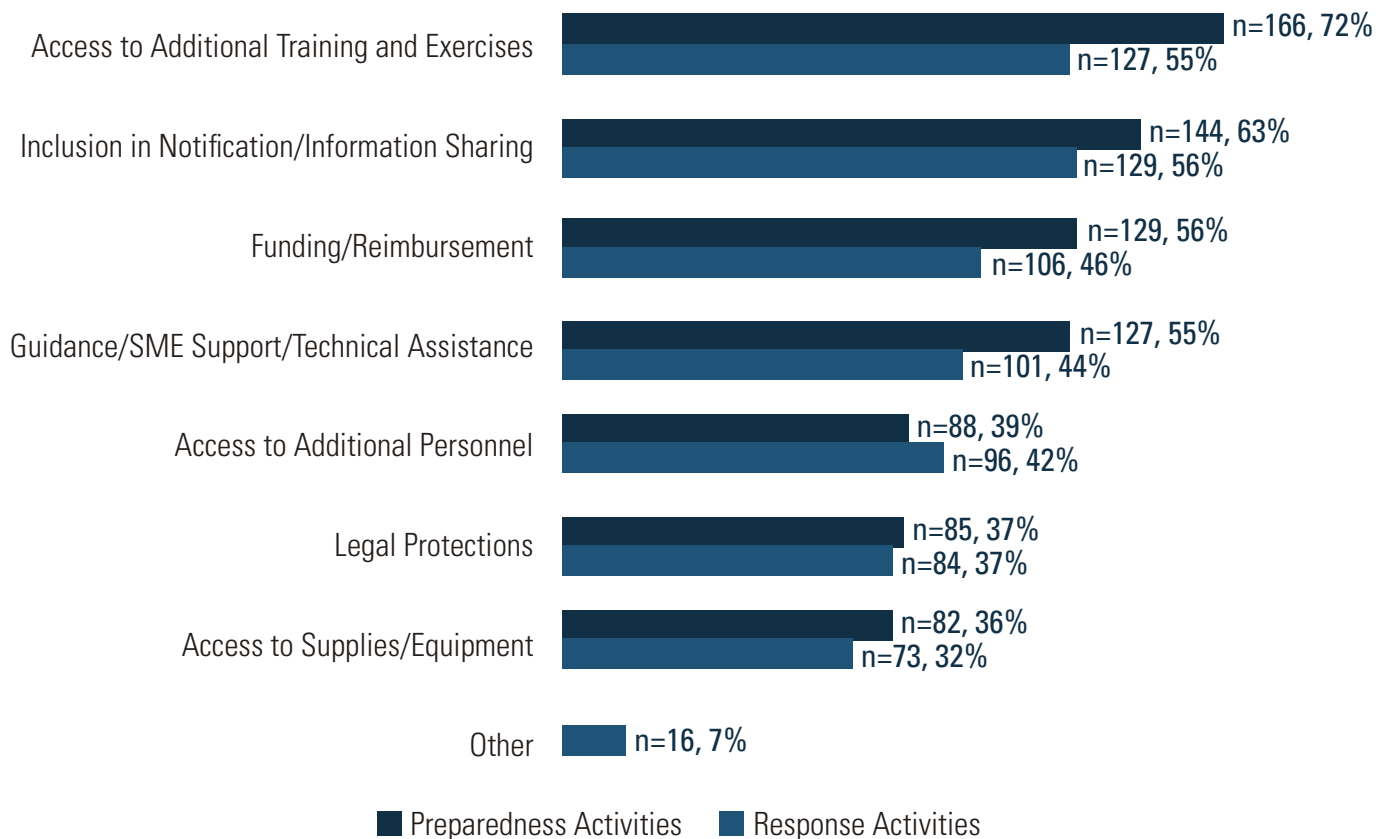
Factors Facilitating Participation in Emergency Response and Preparedness Activities

Survey participants also provided input about the factors that would facilitate their agency's participation in emergency preparedness and response (Figure 13). Respondents most frequently reported three facilitating factors for their agency's participation in emergency preparedness and response activities: access to additional training and exercises (n=166, 72% and n=127, 55%); inclusion in notification and information sharing (n=144, 63% and n=129, 56%); and funding and reimbursement (n=129, 56%, and n=106, 46%).

With home health and hospice we have a high turnover in patients and constant classification change. We might even only have a patient for 12 hours, but still have to go through emergency planning. It is often not a priority, and the last thing the patients want to hear about.

– Executive Director and Emergency Preparedness Lead, Home Health and Hospice Agency

Figure 13. Factors that Would Facilitate the Participation from Home Health and Hospice Agencies in Preparedness and Response Activities (n=229)



Agency leaders were asked to expand on the factors that would facilitate their participation in preparedness and response activities. Facilitating factors most discussed included: access to communication equipment or technology, funding for time spent on emergency preparedness, a structured system to incorporate home health and hospice in community response, better collaboration with community partners, adapting the requirements for rural and small agencies, and SME guidance. Several interviewees reported finding a sufficient amount of resources to develop emergency preparedness policies and procedures. However, others thought resources tailored for small home health and hospice agencies including specific topics of their interest (e.g., incorporating volunteers, incident command) would be helpful.

- » It would be useful to have more collaboration with other home health and hospice agencies, to learn about what they do, and lessons learned in emergency management. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » It would be great if we could get radios, walkie-talkies, or equipment for communicating that didn't require IT or cellphone towers. The margin for home health is really small, and we do not have money for that kind of equipment. – Clinical Manager, Home Health Agency

Guidance of the surveyor was very instrumental in getting our plan to meet the requirements and making us feel comfortable. The state surveyor gave a presentation to our coalition that had a lot of helpful information and helped us get ready for our survey.
– Emergency Preparedness Lead, Hospice Agency

- » If there was a reliable contact person provided by state officials, or if they could provide resources that said “here is the plan, here is what we want you to do,” that would help. We were told by our surveyor that “You need an emergency preparedness plan and you need to determine how you are going to work with the community, and we don’t care how you do it, you just got to do it.” – Clinical Manager, Home Health Agency
- » It is wonderful to be prepared. But keeping up to the same level as large agencies is cumbersome. One rule doesn’t fit all. Having another set of resources on how to be compliant and having a repository of various resources for small agencies would be helpful. – Executive Director, Hospice Agency
- » If the coalition could directly reach out and promote networking and support to agencies and promote exercises that would increase awareness and collaboration. – Emergency Preparedness Lead, Home Health and Hospice Agency
- » Would love to see more information from FEMA or ASPR TRACIE about the incident command system and how to implement that in a home health care or hospice agency. – Quality Assurance Nurse and Emergency Preparedness Lead, Home Health and Hospice IHS Agency
- » The scope of emergency preparedness is a little too large. The role of home care/hospice in emergency management is not as great as the creators of the rule think that it is and it should focus on a more centralized plan than a global perspective. – Executive Director, Home Health Agency

The ASPR TRACIE website has been a gold mine for us in terms of preparation and education.

– Executive Director and Emergency Preparedness Lead, Home Health and Hospice Agency

RECOMMENDATIONS

Survey and interview participants provided valuable insights about the role, barriers, and capacity of home health and hospice agencies in emergency preparedness and response. Based on the results of this study, ASPR TRACIE recommends the following steps that can improve the readiness of Medicare-certified home health and hospice agencies:

- » **Define the Role Home Health and Hospice Agencies Can Play in Community Emergency Response.** The perception of the role of home health and hospice agencies in emergency response varied among survey and interview participants. In general, the findings of this study indicate a need for home health and hospice agencies to define their potential roles in community emergency response based on the scope of their practice and their capabilities. The awareness and significance of their role appeared to be influenced by their perceived capacity to respond to emergency scenarios, their level of involvement in the local healthcare coalition, and the level of involvement with other community stakeholders such as local emergency management agencies, public health, and other healthcare providers. Emergency management and healthcare partners can work with agencies to identify materials and resources that can be tailored to clearly describe the healthcare services that are needed during emergencies, establishing a range of options based on existing capacity.
- » **Promote Active Involvement of Home Health and Hospice with Community Emergency Preparedness Partners and Healthcare Coalitions.** Most survey and interview participants reported their agency participated in coordinated emergency preparedness activities with healthcare coalitions, but the majority also indicated collaborating and engaging with other community emergency response partners was a challenge. Healthcare coalitions should develop emergency plans that are inclusive of home health and hospice agencies (ensuring the inclusion of solo agencies as well as of those that are part of an IHS). Coalitions can also aid in realistically defining the role that home

health and hospice agencies and other community partners can play in coordinated emergency response and can help members be aware of and understand each other's capabilities and limitations.

- » **Develop Tailored Training Strategies and Technical Assistance to Increase Emergency Management Knowledge and Capacity among Home Health and Hospice Agencies.** The majority of survey participants and agency leaders interviewed indicated they did not have the knowledge and/or time needed to fully dedicate to emergency management. Agencies may benefit from having access to a tailored step-by-step guide to meeting the CMS requirements, while accounting for the significant variation in agencies' size, services, and resources. These tailored trainings and technical assistance should include: (1) case studies and examples from small and large agencies located in both rural and urban areas; (2) best practice models of home health and hospice agencies' involvement in emergency management and collaboration with partners; (3) train-the-trainer online modules where agencies can share positive models or approaches to coordinated response and involvement with peer agencies; (4) available technical assistance to offer specific guidance on how to correct deficiencies in meeting CMS requirements; and (5) increased awareness of existing technical assistance.
- » **Provide Emergency Management Resources and Support Appropriate to Home Health and Hospice Agencies.** The majority of interviewed participants indicated access to funding or reimbursement would help facilitate preparedness and response activities. They reported needing funding to carry out effective drills, conduct trainings, update their communication technology, and purchase equipment. Community emergency management partners should consider the potential contributions of home health and hospice agencies during an emergency when weighing decisions about the level of support, resources, and funding available to better enable their involvement in emergency management activities. Efforts should also focus on ensuring these agencies know how to access and be included in initiatives to support emergency management.
- » **Coordinate Emergency Response Communication with Other Facilities to Ensure the Care of Their Patients.** Hospice agencies are unique in that they often provide care to patients residing in a separate facility such as a nursing home or hospital. Several interviewed agency leaders who provided hospice care in another entity's facility (e.g., residential facility, skilled nursing home) indicated they were unsure of the communication procedures with these facilities during an emergency. Hospice agencies who provide care to patients in other facilities would benefit from coordinated communication and collaboration with these facilities to ensure the continuity of care for their patients.
- » **Facilitate and Promote Communication, Collaboration and Networking about Emergency Management Issues among Home Health and Hospice Agencies.** Interviewed agency leaders indicated they would benefit from increased communication and collaboration among home health and hospice agencies at the local, state, and national level. To fill this need, communication and networking platforms (e.g., social media communities, blogs) should be utilized where home health and hospice agency emergency preparedness leaders can discuss emergency management topics with peers. Home health and hospice agencies should also seek out opportunities to promote lessons learned exchange among peer agencies through webinars, Facebook Live, or newsletters including case studies or best practice sections that highlight home health and hospice agencies' emergency management experiences.

To maximize effectiveness, healthcare coalitions should promote active participation and empowerment of each of their members, including inviting them to participate in educational opportunities like training, drills, and exercises.

LIMITATIONS

The findings of this study are subject to several limitations. First, the sample was self-selected and no incentive was provided for survey completion or interview participation, which resulted in response bias although the survey had a high response rate of 71% (245 out of 345 respondents who clicked on the link completed the survey). Second, some of the respondents represented home health and hospice agencies with multiple sites, and they may not necessarily be fully aware of the emergency management activities and issues from each location. Third, due to limitations with the online survey programming in order to triage follow-up questions specifically to respondents to which it would apply (e.g., those providing hospice services in an agency-owned space) respondents were asked about the home health and hospice services they provided multiple times. The number of respondents reporting services in each type of setting was not consistent between similar questions. Analyses were conducted using the corresponding sample size in each instance. For all these outlined limitations, this study is not generalizable to all home health and hospice agencies and it is not possible to make conclusive statements about the role of these agencies in emergency management. Nonetheless, these findings provide useful information to better understand the role of these home health and hospice agencies in emergency management and the challenges they face as important players in coordinated emergency response.

CONCLUSION

This study illustrates how home health care and hospice agencies provide a range of services, and care for a variety of patients in a multitude of settings. Because of their unique health care services, strong community ties, and potential to reduce the burden on the US health care system, home health and hospice agencies can play a key stakeholder role in disaster healthcare. With the right resources and recommendations listed in this report, partnerships between home health and hospice agencies and other health and emergency management providers could bolster community resilience before, during, and after an emergency.

APPENDIX A: ASPR TRACIE HOME HEALTH AND HOSPICE SURVEY

ASPR TRACIE Home Health and Hospice Survey

Consent

The US Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) is exploring the role of home health care and hospice agencies in supporting the health and medical response to disasters or emergencies.

ASPR TRACIE recognizes your agency complies with the Centers for Medicare & Medicaid Services (CMS) Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers Final Rule. The purpose of this survey is to better understand your agency's capacity, preparedness, and impediments in disaster response beyond those requirements.

Your participation in this survey is completely voluntary. You may choose not to participate or to end the survey at any time. We will keep your responses confidential, and unless you wish to participate in a follow-up phone interview, we will not ask for any personal information such as your name or email address.

If you have any questions about the survey, please contact: askasprtracie@hhs.gov.

Please indicate whether or not you consent to participate in this survey:

- ☐ Consent [proceed to question 1]
- ☐ Do not consent [ineligible]

1. Are you affiliated with a Medicare-certified home health care or hospice provider?

- ☐ Yes
- ☐ No [ineligible]

Agency Characteristics

2. Which of the following services do you provide? (select all that apply)

- ☐ Home Health Care
- ☐ Home Hospice Care – in a private residence
- ☐ Home Hospice Care – in a residential facility (e.g., assisted living, nursing home)
- ☐ Home or Inpatient Hospice Care – in a hospice agency-owned facility or hospice agency-owned space in another entity's facility
- ☐ Inpatient Hospice Care– in a hospital or nursing facility

3. Which of the following best represents your role? (select all that apply)

- ☐ Clinical Manager
- ☐ Clinician
- ☐ Emergency Preparedness Lead
- ☐ Other (please provide)

4. In what state is your agency located?

5. What percentage of your staff have another job outside of your agency?

_____ (insert %)

6. Is your agency part of an integrated healthcare system (i.e., multiple separately certified healthcare facilities under one parent organization)?

- ☐ Yes
- ☐ No

a. If yes, did someone from your agency participate in the development of the integrated healthcare system's emergency preparedness program?

- ☐ Yes
- ☐ No

Agency's Role in Emergency Response

Scenarios

For the remaining questions, please consider the two different scenarios presented below:

An infectious disease outbreak is affecting your entire geographic region. Over an extended period of time, the number of infections will gradually increase, reach a peak, and begin to decrease. There will be high demands on the overall healthcare system, which will deal with patients infected with the disease and the worried well on top of the normal range of healthcare services. There may be high demand and low availability of healthcare personnel, supplies, and other resources at varying points in time during the outbreak.

A natural disaster such as a hurricane or wildfire occurs in your community and results in large numbers of injuries with limited or no warning. The healthcare system will absorb an immediate influx of patients with injuries of varying severity on top of its existing load of patients with chronic and acute illnesses and injuries. There may be infrastructure damage, security requirements, or communications breakdowns that challenge your response to the incident for an unpredictable amount of time due to electrical outages, telecommunications and IT system failure, supply chain disruptions, unnavigable transportation systems, and reduced staffing availability.

Please select one answer for each scenario.

	Infectious Disease Outbreak		Natural Disaster	
	Yes	No	Yes	No
7. Based on your existing emergency plan and/or community partnerships, would your agency have a role in addressing healthcare needs in your community caused by either of these scenarios?				

Agency's Emergency Response Infrastructure

8. Does your agency receive notifications about emergencies in your area from your local or state emergency management or public safety agency?

☐ Yes

☐ No

9. Does your agency receive health alerts from your local or state health department?

☐ Yes

☐ No

Emergency Preparedness: Procedures and Collaborations

10. Does your agency have a communication plan with your staff, patients, and their loved ones to communicate critical information in the event of an emergency?

☐ Yes

☐ No

11. Has your agency been involved in the response to an emergency or disaster?

☐ Yes

☐ No

12. Has your agency tested the ability to implement the following either through an exercise or real-life incident? (select all that apply)

	Yes - through an exercise	Yes - through a real-life emergency
Contact staff during off hours		
Contact patients during off hours		
Receive/send notifications to other preparedness/response partners		
Maintain patient records (i.e., paper-based) if electronic health record is inaccessible		
Procedures to shut down operations		
Procedures to restart operations		
Financial preparedness (e.g., maintaining cash reserves, planning for business operations and losses, insurance policies)		
Establish incident command		
Evacuate staff and patients		

13. Does your agency participate in coordinated emergency preparedness activities with any of the following? (select one response for each row)

	Yes	No
Healthcare coalition		
Health department		
Emergency management agency		
Hospital(s) in your community		
Nursing or long-term care facility(ies) in your community		
Non-profit organizations serving your community		
Other (describe)		

Emergency Preparedness Barriers

14. Which of the following CMS Final Rule requirements have been the most challenging for your agency? (select all that apply)

- ☐ Developing/maintaining emergency plan
- ☐ Developing/implementing emergency preparedness policies and procedures
- ☐ Developing emergency preparedness plans for your patients

- ☐ Developing/maintaining an emergency preparedness communication plan
- ☐ Developing/maintaining an emergency preparedness training program
- ☐ Collaborating and engaging with other community emergency response partners
- ☐ Conducting/participating in emergency preparedness exercises

15. What barriers have contributed to these challenges? (select all that apply)

- ☐ Unsure how to access technical assistance to improve understanding of CMS Final Rule requirements
- ☐ Lack of staff expertise in emergency management
- ☐ Not enough time to devote to preparedness given other competing responsibilities/priorities
- ☐ Unsure of role/not engaged in community planning for emergency response
- ☐ Continually changing patient population/care setting
- ☐ Other (please describe)

16. What would make it easier for your agency to participate in preparedness and response activities?

	Preparedness Activities	Response Activities
Funding/reimbursement	<input type="checkbox"/>	<input type="checkbox"/>
Guidance/SME support/technical assistance	<input type="checkbox"/>	<input type="checkbox"/>
Access to supplies/equipment	<input type="checkbox"/>	<input type="checkbox"/>
Access to additional personnel	<input type="checkbox"/>	<input type="checkbox"/>
Access to additional training and exercises	<input type="checkbox"/>	<input type="checkbox"/>
Legal protections	<input type="checkbox"/>	<input type="checkbox"/>
Inclusion in notification/information sharing	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>

17. Does your agency provide (1) home health care, (2) home hospice care in a private residence, and/or (3) home hospice care in a residential facility (e.g., assisted living, nursing home)?

- ☐ Yes
- ☐ No [skip to number 22]

Questions 18-21 for those who selected yes in question 17:

18. How many staff members make home/residential visits on a typical day? _____

19. How many visits per day do staff members make on average? _____

20. Approximately what percentage of visits (on average) occur within the following travel ranges for your staff members? (insert value for each to equal 100)

Within 5 miles _____

6-10 miles _____

11-20 miles _____

21-50 miles _____

More than 50 miles _____

21. Please indicate how your average number of daily patient visits may change during an infectious disease outbreak or natural disaster in your community. (select one in each column)

	Infectious Disease Outbreak	Natural Disaster
Average number of home visits would decrease	<input type="checkbox"/>	<input type="checkbox"/>
Average number of home visits would stay the same	<input type="checkbox"/>	<input type="checkbox"/>
Average number of home visits would increase	<input type="checkbox"/>	<input type="checkbox"/>

22. Does your agency provide home or inpatient hospice care in a hospice agency-owned facility or hospice agency-owned space in another entity's facility?

☐ Yes

☐ No [skip to number 27]

Questions 23-26a for those who selected yes to question 22:

23. What is your average patient census? _____ insert number

24. Do you have a plan to evacuate or shelter in place with your patients in the event of an emergency?

☐ Yes

☐ No

25. Have you encountered any obstacles in developing your facility operations plan?

☐ Yes

☐ No

26. In the event of an emergency in your community, would you be able to provide medical care to patients outside of your normal patient population?

☐ Yes

☐ No

a. If yes, what types of medical care would you be able to provide to non-hospice patients in either an infectious disease outbreak or natural disaster in your community? (select all that apply in each column)

	Infectious Disease Outbreak	Natural Disaster
Medical care for low acuity patients	<input type="checkbox"/>	<input type="checkbox"/>
Patient triage	<input type="checkbox"/>	<input type="checkbox"/>
Prophylaxis/vaccination	<input type="checkbox"/>	<input type="checkbox"/>
Behavioral health support/treatment for patients	<input type="checkbox"/>	<input type="checkbox"/>
Behavioral health support/treatment for staff	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>

27. Would you be willing to participate in a 30 minute follow-up discussion, scheduled at your convenience, to elaborate on some of your survey responses?

☐ Yes

☐ No

a. If yes to, please provide your first name and email address in the fields below: _____

Your email address will be stored in a password protected file on a private network that is only available to the ICF project team. Your email address will only be used to contact you for a follow-up interview. Your email address will not be shared with anyone, including ASPR.

End of Survey

Thank you for taking the time to complete this survey. Visit ASPR TRACIE at <https://asprtracie.hhs.gov/> for resources to improve your healthcare emergency readiness.

APPENDIX B: ASPR TRACIE HOME HEALTH AND HOSPICE INTERVIEW DISCUSSION GUIDE

ASPR TRACIE Home Health and Hospice Interview Discussion Guide

Discussion of Purpose and Review of Informed Consent

Thank you for agreeing to speak with me today. My name is [insert name]. I'm conducting this interview on behalf of the Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE), which I may refer to as ASPR TRACIE. I work for ICF, a contractor supporting ASPR's TRACIE project.

Purpose and Procedures

ASPR TRACIE is conducting this project to improve understanding of the role of home health care and hospice agencies in supporting the health and medical response to disasters or emergencies. You are among several home health and hospice agency leaders we will be interviewing. During our discussion, we will review your responses to the online survey. I'll ask you some questions to expand upon what you shared. Our discussion should take 30 minutes.

Voluntary Participation

Your participation in this discussion is completely voluntary. You do not have to answer any question that you do not want to answer. You may choose not to participate or to leave the discussion at any time. We will record the discussion and my colleague [first name] is on the line to take notes. Please speak clearly to ensure proper recording.

Privacy

The digital recording and notes of the interview will be stored in a password-protected folder. The recording will be destroyed when the project is over. Only members of the project team will have access to the notes and recordings, and they will not be allowed to share them with anyone else. Your name and agency name will not be used in any documents written on the basis of this project. Data will be presented in aggregate, so responses will not be attributed to individual participants or the agencies with which they are affiliated. A final report will be posted on the ASPR TRACIE website. The results may also be submitted for publication in a peer-reviewed journal. If you have any questions about this project, you can reach out to askasprtracie@hhs.gov.

Do you agree to participate in the interview? [Terminate interview if they do not verbally agree]

Preliminary Discussion

Do you have any questions for me before we begin?

I'd like to start by better understanding the [home health agency OR hospice] you are affiliated with and your role.

1. How would you describe the agency where you work?
 - a. *As a [insert role they indicated in survey], how involved are you in emergency preparedness for your agency?*
2. Is your leadership engaged in your agency's emergency preparedness activities?

Emergency Preparedness: Procedures

3. What kind of emergency preparedness training does your agency provide to your staff?
 - a. *What types of preparedness exercises has your agency conducted?*
4. Describe your procedures for communicating with your staff in advance of, during, and following an emergency.

Questions 5-7 specific to home health care and hospice care in a private residence providers:

5. Describe your procedures for communicating with patients in advance of, during, and following an emergency.
6. How does your agency prepare your patients for emergencies? (What procedures do you have in place and/or what resources do you provide to patients?)
7. What back-up plans does your agency have in place if assigned staff are not able to make it to your patients' homes according to schedule?

Questions 8 and 9 specific to inpatient hospice agency facility:

8. Please explain any obstacles your agency has encountered in developing your facility emergency operations plan.
9. Please tell me about your evacuation/shelter in place plan.
10. Please describe some of the key elements of your business continuity plan.
11. You indicated in your survey that your agency was involved in a real-life emergency. What type of emergency response did your agency participate in? Do you have any lessons learned from that experience that you can share with me?

Emergency Preparedness: Collaborations

12. You indicated your agency [does/does not] have a role in addressing healthcare needs caused by an infectious disease outbreak and/or a natural disaster. What do you think the role of your agency would be in those scenarios?
13. Describe your agency's process for ensuring cooperation and collaboration with local, regional, and state preparedness partners.
14. Do you have formal agreements with local hospitals, nursing homes, or other healthcare organizations to support continuity of care for your patients?
15. You indicated [percentage] of your staff have employment outside your agency. Do you know how many of them may have competing commitments to support the healthcare response to an emergency?
16. Do you know if/how many of your staff volunteer to support emergency response efforts through your local Medical Reserve Corps or with a federal program such as DMAT?

Questions 17 and 18 specific to those who provide hospice care in a residential facility:

17. How have you coordinated with the facility where the hospice care is being provided to ensure the care of your patients in the event of an emergency?
18. How will you and your staff know the status of your patients if the facility elects to evacuate/shelter in place?

Emergency Preparedness: Requirements

19. You indicated in your survey that [X] was a particular challenge as you work to implement the requirements of the CMS Final Rule. Can you tell me more about why it's difficult?
 - a. *How have you overcome that challenge?*
20. What would make it easier for you to improve the emergency preparedness of your agency, providers, and/or patients?
21. Has your agency developed any emergency preparedness policies, procedures, or other resources that you would be willing to share through ASPR TRACIE with other agencies?

Thank you. Those are all the questions I have for you today. Is there anything else you'd like to share that you believe will be helpful to our project?

Your feedback today was extremely valuable, and we appreciate your willingness to share your insights. As I mentioned at the beginning, this is one of several interviews that we will be conducting. Your name and agency name will not be connected to your responses. We will analyze the collected data across all interviews for major themes and trends. We will then document our findings in a report. Thanks again for taking time out of your busy day to share your feedback.

APPENDIX C: HELPFUL PREPAREDNESS AND RESPONSE RESOURCES FOR HOME HEALTH CARE AND HOSPICE AGENCIES

While some of the resources in this appendix were developed for specific audiences – such as physician offices, hospitals, or health clinics – they contain information that could easily be modified for use or applied to home health and hospice settings. Local, state, regional, and national home health and hospice organizations and other stakeholder groups may be able to assist in identifying additional resources specifically developed for home health and hospice settings or for the overall healthcare community in their geographic areas.

ASPR TRACIE Resources

TOPIC COLLECTIONS

- » Continuity of Operations (COOP)/Failure Plan
- » Electronic Health Records
- » Emergency Operations Plans/Emergency Management Program
- » Emergency Public Information and Warning/Risk Communications
- » Epidemic/Pandemic Influenza
- » Exercise Program
- » Hazard Vulnerability/Risk Assessment
- » Homecare and Hospice
- » Natural Disasters
- » Responder Safety and Health
- » Training and Workforce Development
- » Utility Failures

OTHER ASPR TRACIE-DEVELOPED RESOURCES

- » After the Flood: Mold-Specific Resources
- » CMS and Disasters: Resources at Your Fingertips
- » CMS Resource Page
 - » Home Health Agency Requirements CMS Emergency Preparedness Final Rule
 - » Hospice Requirements CMS Emergency Preparedness Final Rule
- » Considerations for Oxygen Therapy in Disasters
- » Disaster Behavioral Health: Resources at Your Fingertips

- » [Durable Medical Equipment in Disasters](#)
- » [Health Care Coalition Influenza Pandemic Checklist](#)
- » [HIPAA and Disasters: What Emergency Professionals Need to Know](#)
- » [Hospice & Emergency Preparedness: Experiences from the Field](#)
- » [Medical Surge and the Role of Health Clinics](#)
- » [Medical Surge and the Role of Practice-Based Primary Care Providers](#)
- » [Medical Surge and the Role of Urgent Care Centers](#)
- » [Select Health Care Coalition Resources](#)
- » [Tips for Retaining and Caring for Staff after a Disaster](#)

Other Resources

ASPR

- » [Hospital Preparedness Program \(HPP\)](#)
- » [HPP Infographic](#)
- » [2017-2022 Health Care Preparedness and Response Capabilities](#)
- » [Planning for Power Outages: A Guide for Hospitals and Healthcare Facilities](#)
- » [Planning for Water Supply Interruptions: A Guide for Hospitals and Healthcare Facilities](#)
- » [Public Health Emergency Declaration Q&As](#)
- » [Working Without Technology: Hospitals and Healthcare Organizations Can Manage Communication Failure](#)
- » [Healthcare COOP and Recovery Planning](#)

ASSOCIATION FOR HOME AND HOSPICE CARE OF NORTH CAROLINA

- » [Emergency Preparedness Handbook](#)

CENTERS FOR DISEASE CONTROL AND PREVENTION

- » [Long-Term, Home Health, and Hospice Care Planning Guide for Public Health Emergencies](#)
- » [Selected Federal Legal Authorities Pertinent to Public Health Emergencies](#)

CENTERS FOR MEDICARE AND MEDICAID SERVICES

- » [Emergency Preparedness Rule](#)
- » [Quality, Safety & Oversight Group - Emergency Preparedness](#)

DEPARTMENT OF HOMELAND SECURITY

- » [Disaster Planning Guide for Home Health Care Providers](#)
- » [Government Emergency Telecommunications Service \(GETS\)](#)

FEDERAL EMERGENCY MANAGEMENT AGENCY

- » [IS-200.HCA: Applying ICS to Healthcare Organizations](#)

FLORIDA AGENCY FOR HEALTH CARE ADMINISTRATION

- » [Emergency Management Planning Criteria](#) (separate plan templates for home health agencies and hospices)

HOME CARE ASSOCIATION OF NEW YORK STATE

- » [Home Care Emergency Preparedness: A Handbook to Assist Home Care Providers in Emergency Preparedness Planning](#)
- » [Planning Tools](#)
- » [Primer on Home Care Emergency Preparedness in New York State](#)

HOME CARE ASSOCIATION OF NEW YORK STATE, NEW YORK STATE ASSOCIATION OF HEALTH CARE PROVIDERS, AND NEW YORK STATE DEPARTMENT OF HEALTH

- » [Patient and Family Emergency Preparedness: A Resource Toolkit for Home Care and Hospice](#)

MARYLAND EMERGENCY PREPAREDNESS NETWORK

- » [Provider Resources](#)

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES

- » [Home Health Emergency Preparedness: A Handbook to Assist Home Health Care Providers in Emergency Preparedness Planning](#)

MISSISSIPPI STATE DEPARTMENT OF HEALTH

- » [Facilities Preparedness Emergency Operations Plan Template](#) (separate templates for outpatient hospice, home health, and inpatient hospice)

MONTGOMERY COUNTY ADVANCED PRACTICE CENTER FOR PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

- » [Emergency Preparedness Checklist for Case Management and Home Care Services](#)

NATIONAL ASSOCIATION FOR HOME CARE & HOSPICE

- » [Emergency Preparedness Packet for Home Health Agencies](#)

NATIONAL HOSPICE AND PALLIATIVE CARE ORGANIZATION

» [Emergency Preparedness for Hospice Providers](#)

SANTA CLARA COUNTY PUBLIC HEALTH DEPARTMENT

» [Home Care Guide: Providing Care at Home during Pandemic Flu](#)

WISCONSIN DEPARTMENT OF HEALTH SERVICES

» [CMS Emergency Preparedness Rule Toolkits](#) (separate toolkits for home health agencies and hospices)

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ACKNOWLEDGMENTS

ASPR TRACIE thanks **Lynne Bergero**, MHSA, Practice Administrator, Road Home Program, Center for Veterans and their Families at Rush; **Patricia Boyce**, Assistant Vice President, IPRO; **Mary Carr**, Vice President, Regulatory Affairs, National Association for Home Care & Hospice; **Barbara Citarella**, RN, BSN, MS, CHCE, NHDP-BC, President, RBC Limited Healthcare & Management Consultants; **Brent Feorene**, Executive Director, American Academy of Home Care Medicine; **Theresa Forster**, Vice President, Hospice Policy, National Association of Home Care & Hospice; **Andrew Koski**, Vice President for Program Policy and Services, Home Care Association of New York State; **Katie Wehri**, Director of Home Care and Hospice Regulatory Affairs, National Association for Home Care & Hospice; and **Tamar Wyte-Lake**, DPT, MPH, Health Research Scientist, US Department of Veterans Affairs, Veterans Emergency Management Evaluation Center for their contributions to the development and review of the survey instrument and interview guide, their assistance with outreach and recruitment of participants, the identification of reference documents, and review of this document.

Finally, ASPR TRACIE thanks the home health care and hospice leaders who completed the survey and participated in interviews. This report would not be possible without the contribution of their time, expertise, and lessons learned.

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