

Section 11.05 *Public Health Emergency Preparedness*

Overview

Public health emergency preparedness focuses on the ability of public health agencies to plan for, respond to, and recover from emergencies that pose a risk to the health of the public. This is accomplished through planning, training, and exercising with other response partners and when an incident occurs, implementing the plan.

The Centers for Disease Control and Prevention (CDC) has “implemented a systematic process to assist state and local health departments with strategic planning by defining a set of public health preparedness capabilities. The resulting body of work, *Public Health Preparedness Capabilities: National Standards for State and Local Planning*, hereafter referred to as public health preparedness capabilities, creates national standards for public health preparedness capability-based planning and will assist state and local planners in identifying gaps in preparedness, determining the specific jurisdictional priorities, and developing plans for building and sustaining capabilities. These standards are designed to accelerate state and local preparedness planning, provide guidance and recommendations for preparedness planning, and, ultimately, assure safer, more resilient, and better prepared communities.”¹ The fifteen Public Health Emergency Preparedness Capabilities are defined in *Public Health Preparedness Capabilities: National Standards for State and Local Planning*:¹

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| 1. Community Preparedness | 9. Medical Material Management and Distribution |
| 2. Community Recovery | 10. Medical Surge |
| 3. Emergency Operation Coordination | 11. Nonpharmaceutical Interventions |
| 4. Emergency Public Information and Warning | 12. Public Health Laboratory Testing |
| 5. Fatality Management | 13. Public Health Surveillance and Epidemiological Investigation |
| 6. Information Sharing | 14. Responder Safety and Health |
| 7. Mass Care | 15. Volunteer Management |
| 8. Medical Countermeasure Dispensing and Administration | |

COVID-19 Response

The Durham County multiagency response to COVID-19 has involved nearly all of the fifteen Public Health Emergency Preparedness Capabilities listed above. COVID-19 surveillance officially began at the Durham County Department of Public Health (DCoDPH) on January 27, 2020. On February 25, 2020, the DCoDPH incident management team was activated to respond to the COVID-19 threat. Durham County’s first case of COVID-19 occurred on March 12, 2020. On March 16, 2020, Durham County Emergency Management Division (DCEM) activated the Durham County Emergency Operations Center inside the Health and Human Services Building to coordinate the growing response to COVID-19. In addition to reducing COVID-19 transmission by surveillance, contact tracing, testing, and screening, DCoDPH and DCEM also planned, coordinated, and performed many activities related to the COVID-19 response. These activities included:

- Supporting community efforts to meet food security and housing needs of vulnerable populations related to COVID-19
- Infection control and outbreak response to COVID-19 outbreaks within long-term care facilities and other congregate settings
- Facilitating, supporting, and providing guidance to the City and County reopening task forces
- Anticipating and planning for short- and long-term operational needs for the COVID-19 response
- Understanding and distributing COVID-19 specific guidance to staff, stakeholders, and the public.

Durham County's public health response to COVID-19 has been multifaceted, emphasizing surveillance and testing. During the acute phase of the response, DCoDPH strived to reach every COVID-positive resident of Durham County, collecting data on their contacts, travel, and employment, and assisting with isolation or quarantine needs. In 2020, Duke Health augmented contact tracing efforts, and DCoDPH partnered with state health services to boost staffing for these critical tasks. Specialized teams were also formed to handle outbreaks in high-risk settings like long-term care facilities.

Testing efforts were critical, with DCoDPH setting up community-based sites, particularly in hard-hit areas, to streamline testing accessibility. They tackled the heightened vulnerability of the unhoused to COVID-19 by implementing non-congregate sheltering and targeted testing strategies.

To inform the public, DCoDPH collaborated with Duke Health and DataWorksNC to launch the Durham County Coronavirus Data Hub, providing detailed, transparent data on local COVID-19 impacts. Continuous communication was maintained across various platforms, including social media and emergency alert systems, ensuring messages reached a broad audience and addressed the needs of communities of color disproportionately affected by the pandemic.

Food security was a significant concern, addressed through direct assistance and partnerships with local organizations to deliver food and supplies to those in isolation. In late 2020, the FDA's emergency use authorization of Pfizer and Moderna vaccines marked a turning point. Despite hesitancy due to the rapid development, DCoDPH was poised to tackle the logistical and operational hurdles of vaccination. By early 2021, in collaboration with Duke Health and Durham Public Schools, DCoDPH established a vaccination site focused on reaching marginalized populations, demonstrating a commitment to equitable health outcomes.

DCoDPH's diligence continued into the administration of updated boosters for the Delta and Omicron variants of COVID-19, following CDC approval in September 2022 and 2023, respectively.^{2; 3} As of May 6, 2023, the final COVID case count from NC DHHS reported an estimated 104,443 laboratory-confirmed cases and 421 fatalities in Durham County.⁴

Primary Data

Evacuation and sheltering

“If you couldn’t remain in your home, where would you go in a community-wide emergency?”

In the Durham County County-wide Community Health Assessment Survey, participants most frequently responded that they would stay with a relative or friend if they had to evacuate (62.3%), followed by respondents who did not know (15.6%).⁵ Emergency shelters were the choice of 12% of respondents. In the Comunidad Latina survey, 32.4% of respondents stated they would stay with a relative or friend, with 23.9% reporting that they would go to a disaster shelter.⁶ About 23% of Comunidad Latina respondents were unsure of where they would go if they could not remain in their home.

Where would you go in a community-wide disaster, Durham County, 2022

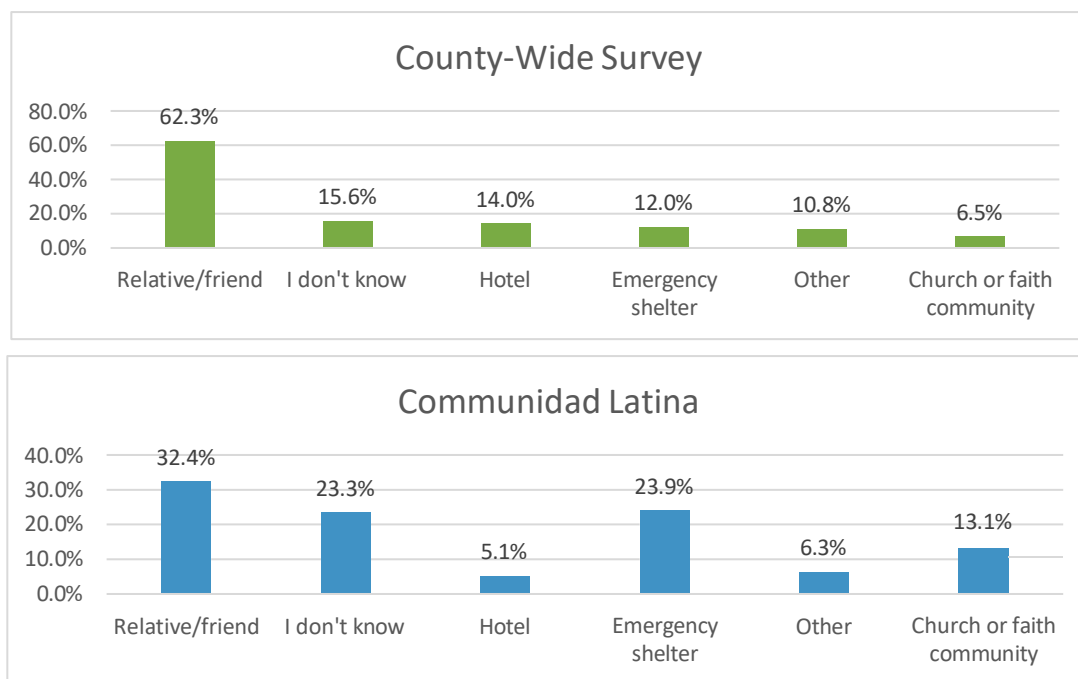


Figure 13.01(a): Where Would You Go in a Community-wide Emergency? County-wide and Comunidad Latina Sample Results, Durham County, 2022^{5, 6}

“What would be the main reasons you might not evacuate or leave your home if asked to do so?”

Participants most often responded that they would leave if asked to do so (37.5%).⁵ Other participants state that they would not evacuate because of concern about leaving pets (19.9%), followed by concern about leaving property behind (10.7%) and concerns about personal or family safety (10.2%). In the Comunidad Latina survey, most people said they would leave if asked to evacuate (61.4%), with concern for property (11.4%) being the second most frequent response.⁶

Three-Day Emergency Kit and Plan

“Does your family have a basic three-day emergency supply kit and plan?”

Most participants responded that they have a three-day emergency response kit (55.5%).⁵ Among whites, those that have or do not have a three-day emergency supply kit and plan are evenly split (50.0% each). People identifying as Black or African Americans respondents or “other” were more likely to report that they have an emergency supply kit (58.5% vs. 41.7%; 62.5% vs. 37.5%).

Sources of Emergency Information

“What would be your top two sources of information in a community disaster?”

The most reported first source of information in a community-wide disaster was friends, family, or word of mouth (27.6%) followed by TV (24.9%).⁵ The most common second source of information during a community-wide disaster was internet or online news (44.5%) followed by TV (14%). Those that said ‘other’ mentioned the county website and those who answered social media mentioned Facebook, Twitter, Instagram, Reddit, and TikTok.

Top two choices for information about a community-wide disaster, Durham County, 2022

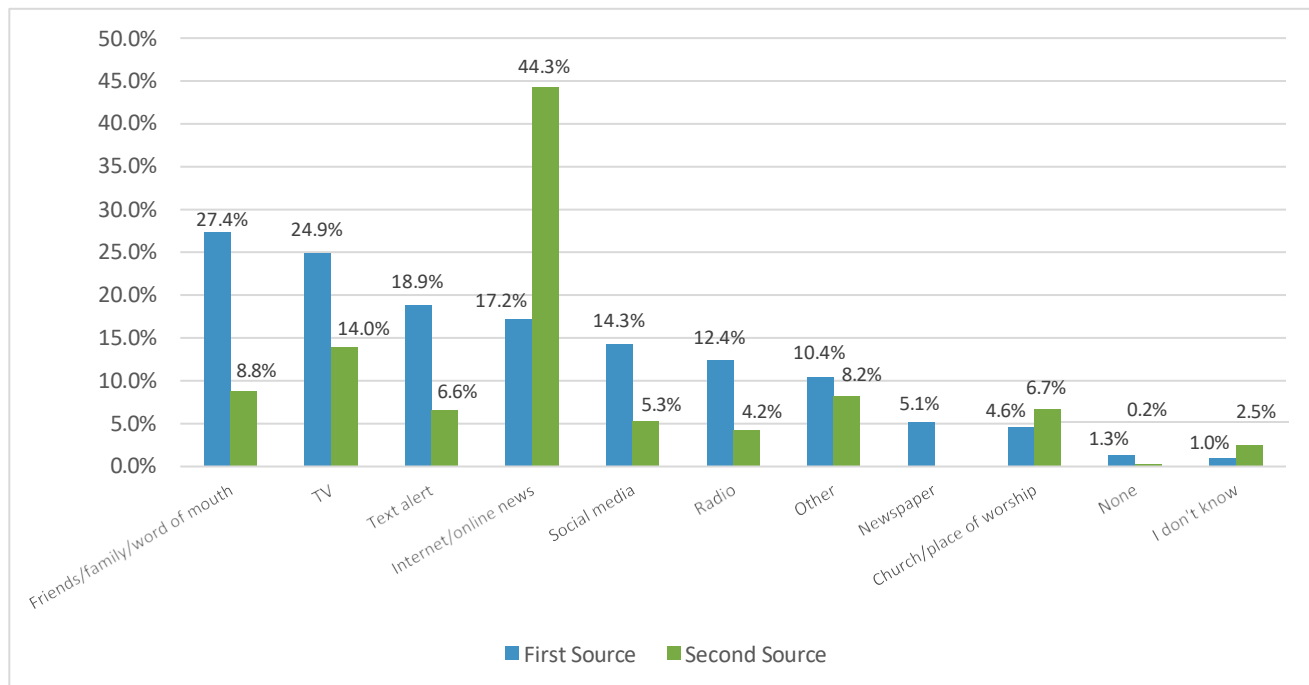


Figure 13.01(b): What would be your top two sources of information in a community-wide disaster? County-Wide Result, Durham County, 2022⁵

“Are you signed up for Alert Durham?”

Most participants were not signed up for Alert Durham (56.2%).⁵ About one-third (32.9%) of respondents reported that they were signed up for Alert Durham (32.9%). Alert Durham usage did not vary significantly between races.

Interpretations: Disparities, Gaps, Emerging Issues

Examination of the 2022 Community Health Assessment Survey responses identified gaps related to community preparedness. As a frequent destination for respondents in both the county-wide and

Comunidad Latina survey, activating and operating emergency shelters are critical functions in Durham County's response to county-wide emergencies. Shelter planning, coordination and support fall under the CDC's Public Health Emergency Preparedness and Response mass care capability. The potential gaps identified fall into two broad categories: shelter capacity and shelter avoidance.

Shelter Capacity

A sizeable portion of respondents in both the county-wide and Comunidad Latina surveys stated that they would utilize an emergency shelter if a community-wide emergency forced them to leave their home (12% and 23.9%, respectively).^{5; 6}

Shelter Avoidance

Reasons frequently given by respondents for not using an emergency shelter included concern about pets, perception about the seriousness of the situation, uncertainty about where to go, and concerns about personal or family safety. One critical emerging issue related to sheltering must be recognized, which is the ongoing COVID-19 pandemic. The COVID-19 pandemic is an issue that has required federal, state, local, and non-governmental organizations involved in emergency sheltering to implement control measures that can protect shelter residents from COVID-19. Sheltering during a surge in COVID-19 cases will pose additional challenges to shelter operations.

Recommended Strategies

- **Shelter Capacity** With a sizeable portion of respondents in both the county-wide and Comunidad Latina surveys stating that they would utilize an emergency shelter (12% and 23.3%, respectively), agencies involved with Durham County Mass Care planning, coordination and operations (e.g. Durham County Emergency Management, Durham County Department of Social Services (DSS), Durham County Department of Public Health, etc.) must incorporate high rates of shelter utilization into mass care planning and execution.^{5; 6} Shelter planning and operation must also incorporate non-English language messaging to ensure the County meet the needs of the 8.7% of Durham residents who speak English less than "very well".⁷ Current shelter plans incorporate translation services to serve the needs of non-English speakers, but it is critical that language does not become a barrier to shelter utilization.
- **Shelter Avoidance** Residents reported concern about their pets, perception about the seriousness of the situation, uncertainty about where to go and concerns about personal or family safety. These concerns highlight the importance of routine and crisis communications regarding emergency sheltering. Current sheltering plans make provisions for shelter users who arrive with pets, and law enforcement is provided at all shelters to ensure the safety of shelter residents. Communicating this information to residents would serve them well in a time of emergency. Timely and accurate communications will also be necessary to inform residents of the risks and challenges of any emergency situation and of steps that can reduce those risks, including using an emergency shelter.
- **Equity** Shelter planning, and emergency planning in general, must be developed to address inequities in vulnerable or historically marginalized populations. Future planning efforts should focus on how DCoDPH can best serve all Durham residents, using strategies such as trusted community communicators, inclusive planning groups, etc. Adding additional

preparedness questions to future community health assessments will aid DCoDPH in identifying and addressing inequalities preparedness and gaps in planning.

Current Initiatives & Activities

Durham County Department of Public Health The Durham County Department of Public Health has a full-time Public Health Preparedness Coordinator who develops Durham County Department of Public Health's plans for responding to public health needs after natural and man-made disasters, communicable disease outbreaks and any other event that requires public health preparedness capabilities. The Preparedness Coordinator also works to provide training and exercises, as well as outreach activities, for Durham County Department of Public Health, local community partners and community groups, and participates in the Durham County Local Emergency Planning Committee and the Duke Healthcare Preparedness Coalition. More information is available at <https://www.dcopublichealth.org/services/environmental-health/public-health-preparedness>

References

- ¹ Centers for Disease Control and Prevention Center for Preparedness and Response. (2019). *Public Health Emergency Preparedness and Response Capabilities*.
https://www.cdc.gov/orr/readiness/00_docs/CDC_PreparednesResponseCapabilities_October2018_Final
- ² Centers for Disease Control and Prevention. (2022). *CDC Recommends the First Updated COVID-19 Booster* <https://www.cdc.gov/media/releases/2022/s0901-covid-19-booster.html>
- ³ Centers for Disease Control and Prevention. (2023). *CDC Recommends Updated COVID-19 Vaccine for Fall/Winter Virus Season* <https://www.cdc.gov/media/releases/2023/p0912-COVID-19-Vaccine.html>
- ⁴ NC Department of Health and Human Services. (2023). *Data Behind the Dashboards: County Cases and Deaths*. <https://covid19.ncdhhs.gov/dashboard/data-behind-dashboards>
- ⁵ Durham County Department of Public Health. (2022). *Durham County Community Health Assessment County-Wide Data Dashboard: Data Trends from 2010-2022*
<https://app.powerbigov.us/view?r=eyJrJoiMjEwMjZDgtNzg5Zi00YjRmLTlhMGltZTMzOThjMGJlOTIiIiwidCI6ImMxNmEwMGEzLTU2MDktNDdjMCIiMmMyLTcyZDg2MzVIMzQyMyJ9>
- ⁶ Durham County Department of Public Health, Duke Health, & Partnership for a Health Durham. *Durham County Community Health Assessment Comunidad Latina Dashboard: Data Trends from 2016 – 2023*.
<https://app.powerbigov.us/view?r=eyJrJoiYzI5YTlwMWUtZjA2ZS00MmI1LWlON2EtYW40OTQwMjNiMmJlIiwidCI6ImMxNmEwMGEzLTU2MDktNDdjMCIiMmMyLTcyZDg2MzVIMzQyMyJ9>
- ⁷ U.S. Census Bureau. (2021). *2014-2018 American Community Survey, 5-Year Estimates*.
<https://www.census.gov/library/visualizations/interactive/people-that-speak-english-less-than-very-well.html>