COVID-19 Best Practice Information: Natural Hazards Preparedness

Background

- This document describes recommendations and best practices for state, local, tribal, and territorial officials when managing the risks posed simultaneously by the coronavirus disease (COVID-19) pandemic and natural hazards

- Many parts of the country will have to respond to severe weather events, including tornadoes, flooding, wildfires, typhoons, and extreme heat, while also continuing to respond to COVID-19.

- The following is a list of key findings and considerations for jurisdictions and communities regarding ongoing COVID-19 operations across the country. These are best practices for consideration and do not constitute and should not be considered as guidance in any way.[1]

Key Considerations

- While it is important for people to follow social distancing and shelter-in-place guidance, emergency managers recommend that residents follow evacuation orders during natural hazards that could affect their life and safety. When seeking physical safety, individuals should continue to practice good hygiene by following Centers of Disease Control and Prevention (CDC) guidelines.

- FEMA released "COVID-19 Pandemic Operational Guidance for the 2020 Hurricane Season" to help emergency managers and public health officials respond to incidents during the 2020 hurricane season amid the COVID-19 pandemic. While the document focuses on hurricane season preparedness, most planning considerations can also be applied to any disaster operation in the COVID-19 environment, including no-notice incidents, spring flooding and wildfire season, and typhoon response.

- Even during the COVID-19 pandemic, individuals should continue to prepare for natural hazards and severe weather in ways they normally would, including by checking weather alerts, developing an emergency plan, and creating an emergency kit. For additional information on how to prepare for severe weather, including tornadoes, floods, thunderstorms and lightning, and hurricanes in the COVID-19 environment, visit the Department of Homeland Security's Ready site.

Lessons Learned Related to COVID-19 Operations during Natural Hazards

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[1] This document contains references and links to non-federal resources and organizations. This information is meant solely for informational purposes and is not intended to be an endorsement of any non-federal entity by FEMA, U.S. Department of Homeland Security, or the U.S. government.

FEMA

Public Messaging

- **Potential Best Practice**: Governments can begin developing targeted evacuation communication messages to help reduce the number of people who voluntarily evacuate from areas outside a declared evacuation area.[2]

- **Potential Best Practice**: In anticipation of recent severe storms, Alabama temporarily suspended stay-at-home orders to allow shelters and community saferooms to remain open.[3]

- **Potential Best Practice**: Health authorities and the National Weather Service (NWS) advised people who live in vulnerable structures like a mobile home to seek refuge in shelters during tornadoes. The American Meteorological Society emphasized taking steps to follow CDC guidelines for physical distancing and disease prevention even when taking refuge. The NWS statement also recommended exploring other options that might keep residents safer from severe weather and limit exposure to COVID-19.[4]

- **Potential Best Practice**: Local officials should encourage residents to check in on vulnerable family, friends, and neighbors during severe weather, like extreme heat, and other natural hazards. To keep people safe at home during extreme heat, New York City is looking at expanding its "Be a Buddy" program, which encourages people to call or text with friends and neighbors—without showing up in person—to see if they're suffering from the heat.[5]

Sheltering

- **Potential Best Practice**: To prepare for adequate hurricane season shelter space, Miami-Dade County coordinated with schools to deep-clean classrooms and remove furniture so that classrooms can be used to separate COVID-exposed and non-exposed evacuees and that will allow more space per person to accommodate social distancing guidelines. The county also is looking at renting hotel rooms in bulk to provide non-congregate shelter options. Additionally, to address the potential shortage of volunteers and to avoid bringing in people from outside the local area, emergency managers are considering adding furloughed employees to their shelter workforce in affected areas.[6] [7]

- **Potential Best Practice**: When operating disaster shelters, the American Red Cross plans to enforce CDC guidelines on social distancing and disease prevention, including instituting greater distances between cots, cleaning all hard surfaces regularly, and placing additional accessible hand-washing stations. Shelter operators can also mirror American Red Cross plans to implement an "intense screening process," including

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[2] 2020 FEMA, COVID-19 Pandemic Operational Guidance for the 2020 Hurricane Season. https://www.fema.gov/media-library-data/1589997234798-adb5ce5cb98a7a89e3e1800becf0eb65/2020_Hurricane_Pandemic_Plan.pdf

[3] 2020 State of Alabama Proclamation by the Governor, https://governor.alabama.gov/newsroom/2020/04/state-of-emergency-severe-weather/

[4] 2020 Weather Channel, In the era of coronavirus and social distancing, should you go to a tornado shelter?, https://weather.com/health/coronavirus/news/2020-04-07-hurricane-severe-weather-evacuations-shelters-coronavirus

[5] 2020 New York Times, Coronavirus Makes Cooling Centers Risky, Just as Scorching Weather Hits, https://www.nytimes.com/2020/05/06/climate/coronavirus-climate-change-heat-waves.html

[6] 2020 Miami Herald, Coronavirus could create 'compound disaster' in Florida as hurricane season looms, https://www.miamiherald.com/news/weather/hurricane/article241883676.html

[7] 2020 CNN, How Cities Along the U.S. Coast are Preparing for a Hurricane Season Like No Other, https://www.cnn.com/2020/05/31/weather/hurricane-season-june-1/index.html

symptom and temperature checks. Those who do not pass the initial screening test will be moved to an isolation area.[8]

- **Potential Best Practice:** Mississippi Emergency Management Agency and Mississippi State Department of Health recommended residents in areas at high risk of severe storms and natural disasters to consider checking with local shelter managers to see if they are still open and if there are requirements in place for COVID-19, such as to wear masks or check for symptoms.[9]

  - **Mitigation Action:** Instead of turning away people who arrive at the shelter without face masks, local disaster shelters have provided donated facial coverings to individuals.[10]

- **Potential Best Practice:** Following the Easter weekend severe weather outbreak, the American Red Cross placed hundreds of people across several states displaced by tornados into hotels, instead of shelters,.[11] This allowed people to continue to practice social distancing, while also staying safe from severe weather.

- **Potential Best Practice:** The Florida Division of Emergency Management has planned for non-congregate sheltering needs in the event of a hurricane by allowing people to pre-register for hotel room assignments and collecting information about the wind rating of different hotels outside storm evacuation zones to determine whether they can safely shelter residents. The division is also considering using rideshare applications such as Uber to supplement buses used for evacuation.[12]

- **Potential Best Practice:** As temperatures rise going into the summer, cities are planning for how to best protect the public against heatwaves while adhering to social distancing protocol.

  - Los Angeles officials have opened cooling centers but are committing to conduct temperature screenings for those entering the facility, provide masks to all occupants, and require people to stay six feet apart.

  - Phoenix plans to start renting hotel rooms to help individuals without homes stay out of the heat.

  - New York City is looking to help residents pay their electricity bills in order to make air-conditioning more affordable.

  - Austin, Texas is considering dispatching a fleet of air-conditioned city buses to serve as cooling centers in neighborhoods where the need for relief is greatest.

  - Other cities are looking to partner with large sports venues, convention centers, schools or local shopping malls to expand their capacity to shelter people safely.[13]

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[8] 2020 ABC News, Disaster relief groups forced to adapt during coronavirus pandemic, https://abcnews.go.com/US/disaster-relief-groups-forced-adapt-coronavirus-pandemic/story?id=70139462
[9] 2020 Fox13, Here's how to seek shelter from severe weather during the coronavirus pandemic, https://www.fox13memphis.com/rss-snd/heres-how-seek-shelter-severe-weather-during-coronavirus-pandemic/TJ5BRKEQUJEDJAONJW6BWDLJNI/
[10] 2020 WHNT 19 News, Crossville family without face covering denied entry to storm shelter, https://whnt.com/news/northeast-alabama/crossville-family-without-face-covering-denied-entry-to-storm-shelter/?utm_source=fark&utm_medium=website&utm_content=link&ICID=ref_fark
[11] 2020 ABC News, Disaster relief groups forced to adapt during coronavirus pandemic, https://abcnews.go.com/US/disaster-relief-groups-forced-adapt-coronavirus-pandemic/story?id=70139462
[12] 2020 Everbridge, Coronavirus: The Road to Recovery Virtual Symposium, COVID-19: A Road to Recovery in Government and Higher Education,
[13] 2020 New York Times, Coronavirus Makes Cooling Centers Risky, Just as Scorching Weather Hits, https://www.nytimes.com/2020/05/06/climate/coronavirus-climate-change-heat-waves.html

Staffing and Operations

- **Potential Best Practice:** Where feasible, the American Red Cross is deploying fewer staffers and volunteers to disaster areas and managing logistics and communications virtually. Additionally, the organization is responding virtually by phone or video chat to incidents for which it is offering recovery assistance and mental health support.[14]

- **Potential Best Practice:** COVID-19 testing sites across the country have closed due to severe weather to ensure the safety of staff. Despite the importance of optimizing testing and healthcare availability, SLTT governments and/or private operators should consider suspending testing center and field hospital operations if inclement weather is forecasted.[15]

- **Potential Best Practice:** In order to adequately allow for social distancing, operations in the Emergency Operations Center (EOC) at the Florida Division of Emergency Management has been split into thirds, with one-third of staff remaining at the center, another third in a mobile unit in the parking lot, and the final third in a building across the street.[16]

- **Potential Best Practice:** As states prepare for wildfire season, officials are considering treating firefighting crews like family units—social distancing will occur between units, not within— and conducting frequent temperature checks and tests. Additionally, officials are looking to decrease staff in fire camps by offering off-site catering and having tactical teams work remotely whenever possible.[17]

- **Potential Best Practice:** To limit gatherings, the Florida Forest Service (FFS) is requiring fire crews to be on call from their homes instead of from the FFS station.[18]

- **Potential Best Practice:** The FFS is also reducing the number of people together in tractor vehicles and has also stopped conducting prescribed burns, which are fires intentionally set to reduce excessive tree and grass growth to prevent smoke that could worsen conditions for at-risk communities.[19]

- **Potential Best Practice:** The National Incident Management Organization, in partnership with various emergency management organizations, developed and delivered a virtual simulation to Incident Management Teams and other emergency managers to discuss best practices and use various decision tools when fighting fires under the constraints of a COVID-19 environment.[20]

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[14] 2020 ABC News, Disaster relief groups forced to adapt during coronavirus pandemic, https://abcnews.go.com/US/disaster-relief-groups-forced-adapt-coronavirus-pandemic/story?id=70139462

[15] 2020 CBS Boston, 2 coronavirus testing sites close due to severe weather, https://boston.cbslocal.com/2020/04/13/coronavirus-testing-sites-close-due-severe-weather-gillette-stadium-big-e-foxboro-springfield/

[16] 2020 Everbridge, Coronavirus: The Road to Recovery Virtual Symposium, COVID-19: A Road to Recovery in Government and Higher Education

[17] 2020 NPR, Wildland Fire Camps Need Dramatic Change Amid COVID-19 Pandemic, https://www.npr.org/2020/05/06/850400344/wildland-fire-camps-need-dramatic-change-amid-covid-19-pandemic

[18] 2020 CBS12, Florida Forest Service discusses new policies to fight wildfires in time of coronavirus, https://cbs12.com/news/local/florida-forest-service-discusses-new-policies-to-fight-wildfires-in-time-of-coronavirus

[19] 2020 CBS12, Florida Forest Service discusses new policies to fight wildfires in time of coronavirus, https://cbs12.com/news/local/florida-forest-service-discusses-new-policies-to-fight-wildfires-in-time-of-coronavirus

[20] 2020, Wildfire Today, Simulation developed for managing wildfires during COVID-19, https://wildfiretoday.com/2020/05/02/simulation-developed-for-managing-wildfires-during-covid-19/

Damage Assessment

- **Potential Best Practice:** Following recent tornadoes, FEMA Region VI used geospatial technology to supplement preliminary damage assessments (PDAs) to limit in-person exposure in the COVID-19 environment.[21]

- **Potential Best Practice:** The Air Force Auxiliary Civil Air Patrol (CAP), which is composed of civilian volunteer responders, captured high resolution imagery of tornado damage in Arkansas. The imagery was processed using artificial intelligence and machine learning to develop damage assessments for individual homes.[22]

- **Potential Best Practice:** The Louisiana Governor's Office of Homeland Security and Emergency Preparedness launched a Survey123 for ArcGIS after an April tornado so that residents could self-report damage. Local emergency managers shared the survey through social media and local outreach.[23]

Topics for the "Best Practices" series are generated from crowd sourced suggestions. Have an idea? Let us research it! Organizations and individuals can e-mail best practices or lessons learned to fema-cipsupport@fema.dhs.gov.

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[21] 2020 FEMA Response Geospatial Office Tornado Preliminary Damage Assessments During a Pandemic
[22] 2020 FEMA Response Geospatial Office Tornado Preliminary Damage Assessments During a Pandemic
[23] 2020 FEMA Response Geospatial Office Tornado Preliminary Damage Assessments During a Pandemic