

**Workshop #4: Public Messaging: Risk Communication
for Disaster Preparedness, Evacuation, and Sheltering**

After-Action Report (AAR)

May-June 2020

Prepared by:

**University of South Florida
Old Dominion University**

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WORKSHOP #4 OVERVIEW

Workshop Name	Public Messaging: Risk Communication for Disaster Preparedness, Evacuation, and Sheltering
Workshop Date	Friday, June 5, 2020
Scope	Workshop conducted virtually through Zoom breakout sessions and asynchronously through Zeetings: https://www.zeetings.com/wieyusuf/0009-6131-0001
Objectives	Discuss public messaging challenges, issues, and strategies for effective communication to the public about hurricane preparedness, evacuation, and sheltering during COVID-19
Threat or Hazard	Compound threat stemming from the occurrence of a tropical cyclone during a global health emergency such as the COVID-19 pandemic
Scenario	A major hurricane triggers a large-scale evacuation within, across, and beyond a region, requiring county and municipal governments to open emergency shelters and facilitate evacuation
Sponsor	National Science Foundation-funded Social Science Extreme Events Research (SSEER) Network and the CONVERGE facility at the Natural Hazards Center at the University of Colorado Boulder (NSF Award #1841338) CONVERGE COVID-19 Working Groups https://converge.colorado.edu/resources/covid-19/working-groups
Participating Organizations	National, state, and local emergency and disaster planners and responders, public health professionals and officials, policy makers, researchers, nonprofits, advocacy groups, social services, community members, and others.
Point of Contact	Wie Yusuf, PhD, Old Dominion, School of Public Service and University Institute for Coastal Adaptation and Resilience. jyusuf@odu.edu Project website: https://sites.wp.odu.edu/hurricane-pandemic/ Please share comments and feedback on this report here: https://forms.gle/xfFGktLJSNifpdbj8 .

EXECUTIVE SUMMARY

Participants in the breakout sessions for the CONVERGE COVID-19 Working Group's *Workshop 4 (Public Messaging)* identified key issues that included the need to provide timely and effective communication to the public, increasing awareness around using shelters as a refuge of last resort, addressing the risks associated with COVID-19 exposure at shelters, and using various inclusive forms of public messaging to reach a wide audience.

Workshop participants emphasized the importance of timely and effective communications to support informed decision making. There is ongoing concern over balancing the need to communicate the risks of COVID-19 exposure as it relates to evacuation shelters (to create public awareness and informed decision making) and the potential to create unnecessary fear. This balance will entail clear and consistent communications from regional, state, and local authorities. The messaging also will need to emphasize that shelters are a last resort option and to highlight the importance of personal preparedness. This includes “know your zone” and “know your home.” For some people, staying at their house and not evacuating could be less risky than going to an evacuation shelter; messaging to create this public awareness is essential. One proposal was to encourage people to reach out to family and friends preemptively, identifying evacuation plans that avoiding shelters in advance of the hurricane season. Public messaging also should include information on how personal preparedness kits should be adjusted or augmented to account for the additional hazards this hurricane season from COVID-19. Workshop participants simultaneously recognized that COVID-19 has already created additional burdens on the population that might impede evacuees from adequately preparations. Based on these conversations, early communication and preparedness are urgently needed.

In addition to identifying what should be communicated to the public, participants also discussed the types of questions the public might ask and what data will be used to respond. They suggested that effective communications should include awareness of underlying fears and other emotions that the public may experience. It is critical that shelter management guidelines—such as social distancing and mask requirements—are communicated to the public to increase transparency and to provide information on what will be expected. Suggested items to mention to the public before a hurricane makes landfall include, but are not limited to, what resources will be available at shelters (e.g., will masks be provided or will they need to bring their own), what the intake process will involve, and how people will be isolated if they appear symptomatic or have been identified as COVID-positive. Furthermore, information regarding evacuation shelters will require a greater degree of specificity for medically fragile individuals and other vulnerable populations.

Participants examined how to communicate with vulnerable populations that might lack access to social media or other current communications methods (e.g., seniors and the homeless). Emergency planning should include consideration of varying levels of access to evacuation information during the dual threat of a hurricane and COVID-19. Some strategies mentioned included using a variety of sources, such as social media, text messaging, news media, radio, flyers, and lower-tech options. Workshop participants also offered several suggestions on how to bundle information with other events, sources, and organizations, how to target specific populations, how to make information more accessible, and how to incorporate existing trusted community members in the dissemination of information.

1.0 BACKGROUND AND OBJECTIVES

Workshop 4 (Public Messaging) had 145 registrants from 13 states and included faculty and researchers associated with seven universities from multiple academic disciplines, such as public health, biology, nursing, public administration, engineering, social sciences, transportation research, aging studies, environmental science, emergency management, anthropology, public policy, graduate studies, public safety, law, and public relations. Registrant roles included disability integration specialists, emergency managers, government employees, special needs shelter coordinators, education and outreach coordinators, environmental consultants, chiefs of fire operations, veterinarians, epidemiologists and analysts, disaster specialists, quality improvement and compliance managers, hurricane program managers, logistics experts, and healthcare practitioners. The 101 participants of the workshop reflected similar sectors, functions, organizational types, and roles.

Registrants expressed that their most important goals regarding vulnerable populations and planning for the upcoming hurricane season included providing timely and accurate information to the public that is complete and consistent, using effective communication and coordination before and after the disaster, increasing public awareness and public education for disaster risk reduction, identifying dissemination strategies to reach the public along with tailored messaging to reach segments of the population, promoting individual preparedness behaviors, and educating the public about sheltering and evacuation. Sample statements included:

“To demystify and simplify for all information consumers the "What", "Why" and "Why Nots" of all things that may remain the same and all things that will change this season due to COVID19.” – Public Health Preparedness Manager

“Timely, accurate, clear and comprehensive lifesaving and life-sustaining messaging that is accessible to all.” – Digital Communications Specialist

“To effectively communicate information regarding disaster events, evacuations and sheltering to residents having an access and/or functional need(s).” – Access & Functional Needs Coordinator

“Reaching all audiences and providing pertinent information succinctly and effectively.”
– Public Information Officer

“To send the most relevant message in a calm, and accurate manner.” – Public Health Program Manager

“To relay the seriousness of having a plan and using public shelters as a shelter of last resort.” – Emergency Management Coordinator

“To effectively communicate safe sheltering and evacuation plans to those in need all while persuading/explaining to the audience that sheltering should be a last resort as COVID-19 concerns arise.” – Program Coordinator/ESF6

“Inspire behavior change to increase individual preparedness.” – Director, External Affairs

“Contribute to actionable research regarding effective risk communication for varied stakeholder groups. Particularly, to identify risk communication that builds stakeholder capacity and resiliency.” – Professor, Public Relations

1.1 Discussion Topics and Questions

A key portion of Workshop 4 focused on five concurrent breakout group discussions. The 101 workshop participants were randomly assigned to the breakout rooms. These breakout groups discussed current questions and issues related to messaging and communicating with the public about disaster preparedness, evacuation, and sheltering during a pandemic. The breakout discussion ended with a 2-minute question burst, encouraging participants to share concise single issues, pressing concerns, and outstanding questions.

These five concurrent breakout discussions, simultaneously moderated, included four rounds of questions and discussions:

- **Round One:** *What does the public need to know about COVID-19 as it relates to evacuation and sheltering?*
- **Round Two:** *What type of questions do we anticipate the public asking? What data do we use to prepare informed responses?*
- **Round Three:** *Who are the messengers and what are the channels of communication for this messaging? How will risk communications be disseminated and tailored to the public and these populations of focus?*
- **Round Four:** 2-minute question burst

2.0 Preliminary Qualitative Data Analysis

The public messaging issues that participants are considering, as drawn from discussion across the four rounds, included:

- **Key Consideration 1:** Providing timely and effective communication to the public.
- **Key Consideration 2:** Emphasizing the primary message of shelters as the last resort.
- **Key Consideration 3:** Addressing the different risk elements associated with the hurricane and pandemic.
- **Key Consideration 4:** Reaching a wide audience using a variety of messengers, including community leaders and service providers.

2.1 ROUND ONE: *What does the public need to know about COVID19 as it relates to evacuation and sheltering?*

2.1.1 Key Consideration 1: Timely and Effective Communication

- State and local authorities must inform people what they are expected to do during a hurricane-pandemic situation and the measures that will be taken to keep the public safe.
- Information should be made available prior to the hurricane and during the sheltering period.
- What messaging can we get out pre-event to help aid disaster response before the actual event occurs?
- Other authority figures, such as trusted partners and news sources, will be needed to distribute sheltering and evacuation information
- Information should be timely and consistent to keep people informed and help manage anxiety
- Messaging needs to be consistent across messengers and functions (public health, emergency management, transportation, etc.) to avoid public confusion. Messaging needs to incorporate or reconcile the different perceptions, concerns, etc. of different audiences.

“Public health officials may have one perception of risk, emergency management another, and the weather officials yet another opinion/perception that is feeding into the guidance being given to the public.”

2.1.2 Key Consideration 2: Emphasize the Primary Message: Evacuate, Go To Emergency Shelter As Last Resort

- People need to understand that shelter is refuge of last resort; this has always been the case, even more so with COVID-19
- Need to encourage people to evacuate
- Go to family and friends
- Tens of miles and not hundreds of miles
- Shelters have lower capacity with COVID-19 – social distancing, limited resources, fewer staff
- Because of COVID-19 economic effects, there may be more people who have fewer resources to evacuate.

“Sheltering should happen within internal families outside of the impacted areas instead of evacuation shelters. Shelters have long been last-resort shelters.”

“We haven't gotten our messaging down but having a feeling we will stress family and friends vs. shelters for our vulnerable populations. Asking them to go to a shelter is contradicting what we have been telling them during COVID-19.”

“One of the things we're focusing on is making sure people understand that shelters are a refuge of last resort... We're encouraging people to find alternate sheltering; people need to look to shelter with family members that might be more inland and stay in places that are safer. Shelters are really not the most ideal place in a normal year so it would be better if they could find alternate sheltering.”

2.1.3 Key Consideration 3: Congregate and Non-Congregate Shelters

- Emphasizing congregate sheltering as a last resort.
- Specific requirements for congregate and non-congregate shelters are still being determined; shelter implementations associated with distancing and limiting the spread of COVID-19 must be shared with the public to increase transparency and promote trust.

“We're certainly not going to discourage people from coming to the shelter. We just want to make sure that they know that there are other options if they have concerns about being exposed to COVID-19 because it is a definite concern for all of us who are doing these plans and we aren't sure that we can keep people safe from COVID-19 given the fact that this is congregate sheltering for the most part and there are so many unknowns and so many variables.”

- Procedures in place to limit the spread of COVID-19 during intake (e.g., touch-free registration).
- Registration processes that include screening through symptom checking and testing for COVID-19.
- *What supplies could potentially be provided?*
- Budgetary considerations and a widespread lack of supplies could impact a shelter’s ability to meet the needs of clients and staff.
- *What restrictions are in place for different shelters, such as pet restrictions?*
- *What rules will be in place to keep evacuees safe?*

“The public must be informed what to expect at congregate and non-congregate shelters.”

2.1.4 General Summary of the Round

Discussion in Round One revealed a consensus that there is a need for public information related to evacuation and sheltering during a compound hurricane-pandemic threat. The public is expecting official distribution of information from local, regional, and state authorities. Messaging should be timely, consistent, and accurate. Additionally, the public will need to know their evacuation and sheltering options, as well as any risks of exposure to COVID-19 associated with evacuation and sheltering. Emergency sheltering will be advertised as the last resort to account for new capacity limits based on increased spatial needs as a result of COVID-19 requirements, as well as staffing and supply shortages; however, there will likely be an increase in those lacking resources and funds for evacuation and self-sheltering.

2.2 ROUND TWO: What type of questions do we anticipate the public asking? What data do we use to prepare informed responses?

2.2.1 Key Consideration 1: Address the varied risks

“We need to think about whether we advise people to consider the more imminent threat - winds and storm surge - over the virus. It's a fraught decision.”

“We have to do our best to mitigate their concerns and keep them safe because what we don’t want is for people to decide that, ‘Well, I’ll just take my chances and ride it out at home because I don’t want to get a deadly disease.’”

- Hurricane + COVID-19 results in an expanded scope of vulnerability.
- Communicating what “high-risk” and “vulnerable” mean.
- Need to be careful using the term “vulnerable populations”: with COVID-19, more people will be vulnerable this year. The concept of

vulnerability is not well defined and understood by the public. Even those familiar with the term may need to recognize that COVID-19 has created a new definition of vulnerability.

“Know your health status and level of vulnerability and exposure associated with going to a shelter as opposed to sheltering with a relative or friend.”

- *How to reduce “shadow evacuation” (i.e., people who are not required to evacuate, but do so anyway, causing congestion and traffic delays that make it difficult for high-risk evacuees who must evacuate to reach safety)?*
- *Need to tell people where to avoid based on COVID-19 and also communicate flooding or other natural-disaster risks.*
- *How do we clarify for people the difference between sheltering in place for COVID-19 versus evacuating for a hurricane?*

“It is important to differentiate ‘safe at home’ vs ‘shelter in place.’ Latter is typically used for chemical and other hazards presenting a threat. Different concepts.”

- *Is the risk of forcing people to evacuate to a shelter greater than the risk of staying where they are?*
- *Typical phrasing is “run from the water” and “hide from the wind.” Encourage evacuees to go to a family member’s house.*

“Will people go to shelters or just evacuate and stay in their cars at the shelter because of COVID? We saw that happen in Mississippi after tornados.”

“People need to understand that public shelters cannot guarantee safety from COVID. We push have a plan, know your zone, know your home. With social distancing and the loss of shelter capacity, we need to reduce what we call shadow evacuees.”

“People are a little bit concerned about whether or not they’re going to be putting themselves at risk by going to a shelter as opposed to trying to stay at home and shelter at home. Sheltering at home of course presents its own challenges because many people live in low-lying areas or they live in mobile homes or places that are not safe during storms.”

- *The public will want to know how disaster teams plan to keep them safe in sheltering situations and evacuations, and have questions about:*
 - *Prevalence of COVID-19 in the populations they may shelter with, so that they can evaluate and balance the risk of evacuation and sheltering options with COVID-19 exposure; need to use available COVID-19 data to best communicate the prevalence in various communities.*

- Already scarce resources: *What would that mean for shelters during hurricanes?*
- *What precautionary measures will be taken as people enter the shelters?*
- *Will symptomatic or COVID-positive evacuees be isolated?*
- *Will there be alternate sites for COVID-positive evacuees?*
- *Will there be screening for COVID-19 during the intake process?*
- *Is there PPE available to share with evacuees? Will social distancing occur as much as practicable?*
- Need to be able to answer these questions for the general population shelters—not just special-needs shelters.
- For medical-needs or special-needs shelters, additional questions include: *Will there be sufficient staff to ensure continuity of care? What kinds of medical coverage that might be needed? What about ADA compliance?*
- Need more transparency: sharing decision points ahead of time, as well as why and when decisions are being made.
- Preparedness kits: *When should people start stocking their kits? What should people add to their hurricane kit specific to COVID-19? What supplies are they expected to bring to a shelter in consideration of COVID-19?*
- Military families are provided guidance on where their active-duty members and families are allowed or not allowed to evacuate; this information may be useful to the surrounding communities.
- Pets are a big issue with sheltering; may steer evacuees to choose certain shelters.
- *How do we handle people deciding to stay in their cars at shelters instead of entering the shelter? How do we allay fears of entering a shelter?*
- *What about concerns with flu season?*
- People are sometimes concerned about the security of their homes and want to know if police or others will keep their property safe; they may be fearful and worry about their property and this may influence their decision not to evacuate.
- Shelter may be the only option for many people who do not have the resources to evacuate elsewhere; the economic impacts of COVID-19 may increase the numbers in this category, which could translate to a surge in shelter demand.
- Access to hotel is often not as automatic as people may think. Hotel costs are generally born by government agencies such as FEMA, but survivors

have to produce means (i.e., a credit card) to pay for incidentals and other costs.

“I understand that shelters should be a last response but I would just advocate that a lot of folks don’t even have the means to leave their homes, whether it be for social or economic reasons and so, whatever messaging gets put out that people should look for shelters as a last resort. Often people do not have other options as a last resort.”

2.2.2 Key Consideration 2: Evacuation zone and shelter information

- People need to know their evacuation zone.
 - Many people are not aware of special-needs shelters and are not familiar with where they are located.
 - *Will there be “medically friendly” shelters with additional capabilities for vulnerable individuals relative to what is available at the general shelters?*
- *What are shelter requirements?*
 - People will need to know this ahead of time.
 - These requirements may complicate messaging.
 - If something becomes mandatory—like wearing masks—this may create some issues.
- *Know your home: How structurally sound is your home? When was it built? How is it built?*

Strategies

- For *Know Your Zone*: Some counties are sending out resources for people to check their evacuation zone. For example, sending people to an online map that tells, based on where people live, what the flooding or storm dangers are for their location.
- For *Know Your Home*: Some counties provide information to help homeowners determine when their home was built and what the applicable building codes were during construction.

2.2.3 Key Consideration 3: Manage the tone

- Need to remember to be careful when sending out messages; avoiding messaging that may be perceived as political or couched in political language.
- Important to focus on positive messaging versus doomsday messaging.
- Reduce the amount of doomsday messaging by the media.

“I wonder about how to manage messaging so that publics do not feel instantly overwhelmed due to the COVID messaging and the impacts of those conditions.”

2.2.4 Key Consideration 4: Address fear and emotional responses

- Understanding how people make decisions:
 - How to balance people who overreact or under-react.
 - Making the messaging personal; all preparedness is personal.

“The challenge of communication with an already stressed population that is tired of COVID and letting them know that this is a real threat. I also suspect that there is a ‘resigned fatalism’ of not again.”

- Concerns that there will be a rise in people who do not evacuate because of COVID-19. *How to address their concerns and gut instinct to not evacuate?*
- Consider the residents who are apprehensive about receiving assistance:
 - There may be individuals who did not use assistance or resources prior to COVID-19 but who are now receiving or needing aid.
 - There may be an underlying stigma about receiving aid because they were not in need prior to the epidemic.
 - COVID-19 has created a new group of people who may not have funds to evacuate.

“A lot of people who have new money concerns they haven't had in years past. They may have a lot of questions and insecurities.”

- Homeless population, migrants, and other undocumented individuals:
 - *What concerns do they have?*
 - *Will individuals have to worry about legal status when looking for aid?*

2.2.5 General Summary of the Round

Discussion in Round Two emphasized the need for governments to be proactive in information dissemination to prevent the spread of misinformation or false information. The discussion highlighted the importance of communicating about evacuation zones, changes to shelter logistics and operations because of COVID-19, and people’s fears and emotional responses to the convergent threat. The public will newly need to know evacuation and sheltering options in the context of COVID-19 exposure risks. There also should be specific information for medically fragile community members and other vulnerable groups. Community members must be adequately informed about what to expect when evacuating to shelters, including

intake procedures, what to bring, restricted items, policies regarding pets, and what policies and procedures will be in place to help keep them safe. Furthermore, the community needs to know what severity of storms their homes can withstand and their flooding zones in preparation for the hurricane season.

“People will look for information if it is not provided -- and at that point, you don't know if they are looking in the right places.”

2.3 ROUND THREE: Who are the messengers and what are the channels of communication for this messaging? How will risk communications be disseminated and tailored to the public and these populations of focus?

2.3.1 Key Consideration 1: Reach a wider audience by using a variety of messengers and channels to reach all segments of the population

- Need to get message to everyone.
- *How are disaster preparation measures ensuring that every population is receiving this information?* For example, past communications have used social media, public television, Everbridge notifications, and flyers. There are concerns about those who will not receive communications through those channels.
- *How are messages getting to the vulnerable populations (e.g., seniors or those who lack personal transportation)?*
- Culture and age are important factors; for example, some may prefer communication by texting or social media, while others may rely on news media or radio sources.
- Social media is extremely important in reaching the younger populations; consider using platforms such as Facebook, Instagram, Twitter, and Snapchat.
- There is a reliance on high-tech media; need more low-tech options (e.g., during Hurricane Katrina, where there were communications disruptions, emergency managers relied on the radio stations to disseminate information).
- Make sure individuals feel comfortable in knowing who to contact during the hurricane.
- Recognize that messenger fatigue is real. Existing communications staff and public information disseminators have been communicating extensively about COVID-19 and are already exhausted from these efforts.

“The people charged with giving the message are also fatigued from communicating [about] COVID-19. We need more volunteers and new people.”

Communicate at the Individual Level

- Consider ways that residents share information at the individual level:
 - Some residents have implemented a phone tree and buddy systems, where individuals communicate with at least one other person to make them aware of any alerts. There may be existing phone trees or social media trees (e.g., Facebook trees).

“My church in Norfolk, VA currently has a team that calls an assigned group of members every two weeks to check on members during COVID. This established system could be utilized to share risk communication.”

- Consider communication options for homebound individuals:
 - Use of signs to indicate well-being (e.g., displaying a green sign in the window to signify “I’m okay” or displaying a red sign in the window to signal “I need help.”)
- *Do you know the names of your neighbors and how to contact them?*
- People start preparing when they see their neighbors preparing (i.e., the bandwagon effect).

Involve Community Leaders in Spreading Information

- It is important that the message comes from a trusted and authoritative source.

“Research indicates people trust local figures: county emergency managers, mayors, etc., over state and national institutions, in emergencies.”

- Use community leaders, faith leaders, other channels/methods for messaging:
 - Channeling established local groups (e.g., church networks to share risk information).
 - Incorporating input from social and cultural leaders when crafting the message.
 - Building relationships with local groups in advance of disasters.
 - Establishing a two-way communication system prior to disaster events. Faith-based organizations can help disseminate essential information; need to be advised about what information to relay and also should be

able to communicate the needs of their communities back to emergency managers.

- Using local news sources as an option for messaging. For example, the weatherman on ABC Action News in Tampa (Denis Phillips) is trusted by the public when it comes to hurricane evacuation information.

Strategies

- Bundle and package information with events, existing sources, and other media:
 - Many people are online, watching TV, and using other media to stay informed about COVID-19; may be able to bundle hurricane preparedness messages with other information that people are paying attention to right now.
 - Present information at health fairs, back-to-school fairs, and hurricane preparedness fairs in local malls. In world of COVID-19, perhaps can have a “virtual fair” or Zoom presentation.
 - Work with University card centers.
 - For those who are either technology-challenged or asset-limited, community resource centers may be a gathering place to conduct outreach to them.
- Tie messages into local public health messaging:
 - Communicate through existing organizations (e.g., home health agencies, councils on aging, and mental health agencies).
 - Expand communication efforts through existing organizations (e.g., Sea Grant program in Texas produces a Homeowner’s Handbook and now are implementing corresponding videos).
 - Disseminate flyers at food distribution centers as an option for reaching residents who may not have access to technology.
- Consider using Geofencing, a “location-based digital marketing tool that lets marketers send messages to smartphone users in a defined geographic area.”
- Use sources that target specific populations:
 - Place brochures at food distribution centers.
 - K-12 schools can be a possible resource for information dissemination tailored to specific geographic locations.
 - Distribute information through home health agencies and councils on aging.
 - Find local groups that are gatekeepers and learn what information they need (e.g., early to plan and prepare versus as the hurricane

- approaches, during, and after the event); get them the information to disseminate to their groups
- Direct service providers could use question checklists and decision trees to help families create personalized evacuation plans.
- Consider service providers, grassroots organizations, churches, sororities and fraternities, and other similar groups.

“I have been experimenting with Snapchat ads and had great success with a demographic that I have a hard time communicating with.”

2.3.2 Key Consideration 2: Know your audience and make the message accessible and relevant

- The more specific the warning messages, the better.
- *What are communication options for individuals who cannot read?*
- *How to make the message stand out among so much other information people are getting?*

“More than the channels, how do we make the message really stand out this year? Now more than ever, we need people to really “see” this information. I feel that existing channels really don’t get this in front of people’s eyes.”

- Create new messages; people may have become numb to previously recorded messages.
- Need to make messages resonate with people on a personal level.

“We need to make the message more personal; all preparedness is personal! When it’s personal it becomes more important.”

- Trust in the government is low among some groups. May need more in-person distribution of materials because it is more personalized.
- Determine what information distinct groups need to know and tailor the message to this need:
 - Determine how rapidly the information can be disseminated.
 - Identify potential counter messaging based on the current information being disseminated about COVID-19 (e.g., social distancing).
 - Consider the issue of counter-messaging: *How significantly have people been affected by prior storm events?* Storm fatigue is a real issue.

- Consider creative ways to make messages reach people of different demographics:
 - Storytelling is a really powerful tool for messaging.

Strategies

- Issues under consideration include: Making information more accessible to individuals; improving communication at the individual level; involving community leaders in spreading information.
- Make information available in other languages - Spanish, Haitian-Creole, etc. - and include ASL (American Sign Language) interpreters in all videos.
- Create bite-sized informational videos, checklists. Example: Most Sea Grant programs have a Homeowners Handbook to Prepare for Natural Hazards. Texas Sea Grant has converted this information into bite sized videos.
- Create videos to help frame previous storm events and how to equate them to what is current.
- Guide people to credible sources of information. Make sure that officials presenting the information can answer the question of who to follow for information -- that they know who the trusted meteorologists/news people are.
- Determine how people would prefer to be contacted by coordinating with public groups.
- Have visual graphics of how the disease spreads and how people can protect themselves (graphics rather than words) to help people understand what is considered good practice. Particularly useful for non-English speakers whose language is not included in translated materials.
- Use the Microsoft WORD feature to determine the reading level of any document you create. Make sure your document is at a readable level.

2.3.3 General Summary of the Round

Discussion in Round Three identified issues of distrust within certain communication channels, implying a need for information to be distributed by trusted partners and reputable news sources. The situation demands new solutions for making messages accessible to people, where the more specific, personal, and relevant the message is, the better it is. There is a need for more proactive interventions and identifying and using as many dissemination pathways as possible.

2.4 ROUND FOUR: 2-Minute Question Burst

The following list includes additional questions shared by participants during the final 2-minute question burst:

- *Does the diversity issue impact messaging?*
- Shelter operations:
 - *Would partitions between cots be a short-term alternative to not being able to social distance? Is anyone aware of these types of solutions being considered by any emergency management teams?*
 - *What about food options for vegans?*
 - *Should we be talking to medical people about PPE? And generally what kind of medical coverage that might be needed?*
 - *How many medical staff will be available in shelters?*
 - Shelter personnel should be trained in disability awareness.
 - Create spaces for first responders to destress and reset to better manage their work.
 - *Do you see ADA issues with non-congregate shelters?*
 - *If one person in a family demonstrates COVID-19 symptoms, do you isolate only them or the whole family? Liability is an issue.*
- *Will people go to shelters or just evacuate and stay in their cars at the shelter because of COVID-19? We saw that happen in Mississippi after tornados.*
- *Who can best coordinate messaging across localities?*
- *How are the roads like and how safe are they?*
- *How do we maintain communication if power lines are down?*
- *How do we undertake contact tracing?*
- *How were people evacuated after the dam flooded in Michigan, and what can we learn from that?*

3.0 References and Resources

The following resources and documents were identified by participants in Workshop 4. Some are more localized than others. Additional resources can be found at the CONVERGE COVID-19 Working Group website (<https://sites.wp.odu.edu/hurricane-pandemic/resources/>).

Federal Emergency Management Agency (FEMA)

COVID-19 Pandemic Operational Guidance for the 2020 Hurricane Season

<https://www.fema.gov/news-release/2020/05/20/fema-announces-operational-guidance-2020-hurricane-season>

(Notes: Appendix B, page 2 of FEMA's COVID-19 Pandemic Operational Guidance for the 2020 Hurricane Season has a checklist for communicators that can help guide message crafting for the public. Appendix E has language on advising the public about shelter being a "last resort", as well as individual personal COVID-19 supplies.)

Flood Map

<https://msc.fema.gov/portal/search#searchresultsanchor>

Centers for Disease Control (CDC)

Do-It-Yourself Cloth Face Coverings

Video on how to make a cloth face covering (featuring Surgeon General, Dr. Jerome Adams) (<https://www.youtube.com/watch?v=K9okPZjJqNw>).

Sea Grant Programs

There are 31 state Sea Grant programs (<https://seagrants.noaa.gov/>).

Some of the programs have disaster preparation handbooks for homeowners that are based on state-specific hazards (<https://hazardshandbook.com/portfolio/>).

Hesperian Health Guides Coronavirus Fact Sheets (in 30 languages)

https://en.hesperian.org/hhg/Coronavirus?utm_source=newsletter&utm_medium=email&utm_campaign=newcovid&utm_term=newcovid&utm_content=new%20covid

Heat Wave Case Study

<https://press.uchicago.edu/ucp/books/book/chicago/H/bo20809880.html>

Know Your Zone Florida

<https://floridadisaster.maps.arcgis.com/apps/webappviewer/index.html?id=c788060028cb43809a25744ead39c0d6>

Altamonte Springs, FL Dashboard

<https://resiliencesystem.org/dashboards/altamonte-springs-florida/>

Hillsborough County, FL

Evacuation Zones and Emergency Shelter Map

<https://hillsborough.maps.arcgis.com/apps/webappviewer/index.html?id=04f1084467564dff88729f668caed40a>

Information about Emergency Shelters

<https://www.hillsboroughcounty.org/en/residents/public-safety/emergency-management/emergency-shelters>

Tampa Bay Planning Regional Commission

Hurricane Planning Guide

<http://www.tbrpc.org/tampa-bay-hurricane-and-disaster-planning-guide/>

Evacuate or Stay Infographic

<http://www.tbrpc.org/wp-content/uploads/2020/04/Evacuate-or-Stay-English.pdf>

Center for Autism and Related Disabilities (CARD)

Offers technical assistance and individual support to families and agencies (<http://card-usf.fmhi.usf.edu/>).

Autism-friendly hurricane preparedness materials (<http://card-usf.fmhi.usf.edu/resources/materials/safety.html>).

4.0 PROJECT TEAM

4.1 Principal Investigators

Dr. Joshua Behr, Old Dominion University, Institute for Coastal Adaptation and Resilience

Dr. Wie Yusuf, Old Dominion University, Institute for Coastal Adaptation and Resilience

Dr. Jennifer Marshall, University of South Florida, College of Public Health, Sunshine Education Research Center (ERC), Chiles Center for Healthy Mothers and Babies

Elizabeth Dunn, MPH, CPH, University of South Florida, College of Public Health, Global Disaster Management, Humanitarian Relief, and Homeland Security

4.2 Old Dominion University

Dr. Rafael Diaz

Ren-Neasha Blake

Dr. Jennifer Whytlaw

Taiwo Oguntuyo

Dr. Nicole Hutton Shannon

Oge Agim

Carol Considine

Tihara Richardson

Saige Hill

Eduardo Landaeta

Sara Brennan LaBelle

Pamela Antwi-Nimarko

4.3 University of South Florida

Dr. Kelsey Merlo

Mitchell Jaskela

Blake Scott

Melanie Cruz

Beatrice Smith

Megan Montoya

Michael Shekari

Carson Bell

Kayla Jones

Amanda Rivera

Madeleine LaGoy

Sinjana Kolipaka

Ahlan Farzan