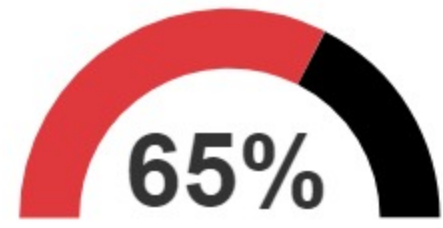


Sponsored by the National Oceanic and Atmospheric Administration, this two-year project provides insights into how people respond to tornado warnings, including false alarms, in the Southeast United States. Findings illustrate how weather enterprises can improve their risk communication practices while recognizing there is not a magic bullet that will motivate everyone to stay safe during tornadoes. The study was conducted by Brooke Fisher Liu, Michael J. Egnoto, Jung Kyu (Rhys) Lim, and Holly A. Roberts.

No False Alarm Effect

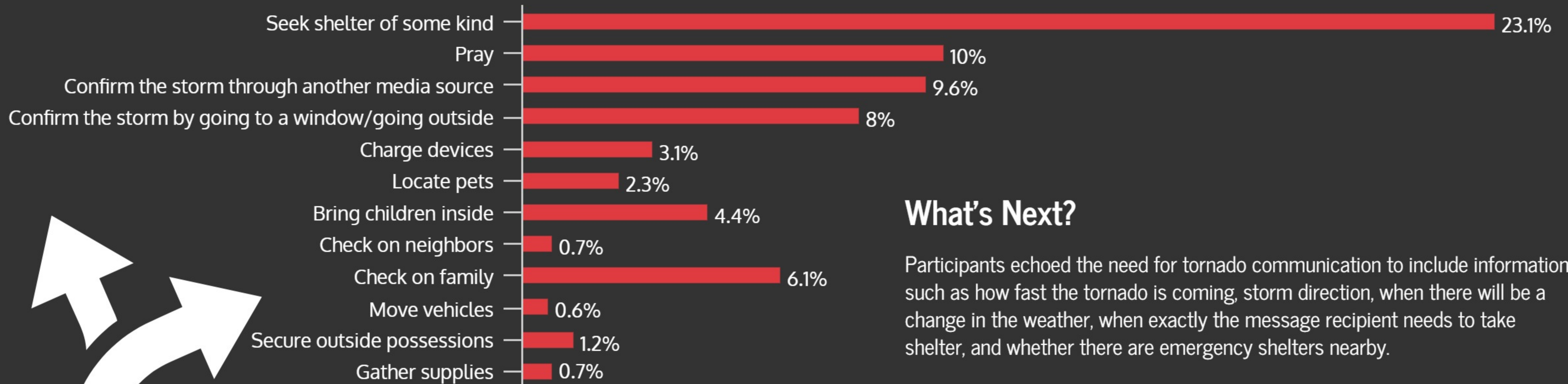


Sixty-five percent of survey respondents (N = 4,162) agreed that tornado alerts generally provided good information and that false alarms were relatively infrequent.

The majority of participants reported they would continue to listen to future warnings even after false alarms due to their tornado concern. Fewer than 15 percent said they would not listen to future warnings.



How People Respond to Warnings



What's Next?

Participants echoed the need for tornado communication to include information such as how fast the tornado is coming, storm direction, when there will be a change in the weather, when exactly the message recipient needs to take shelter, and whether there are emergency shelters nearby.



Communication Behaviors

Focus group participants (N = 77) indicated that they begin with passive information receiving, which may ultimately trigger more active information seeking and/or sharing.



Emotion-based Decisions

Some assume that people will make healthy decisions if you tell them what to do, how and when, and if they have the resources to respond. Yet, burgeoning research indicates that people rely on their emotions to "decide" how to respond to disasters, which was the case for our survey respondents.



Religiosity

When individuals expressed more religiosity, they were more likely to take protective action. Moreover, when comparing the effects of religiosity and emotions on accurate understanding of risk, religiosity had nearly double the impact on regression outcomes of any emotion tested.



Participants shared a deep affinity for **local broadcast meteorologists**, which positively affected their tornado preparedness and productive responses to tornado warnings.

Mobile Home Residents

More education is needed about what protective action mobile home residents should take in response to tornado



When asked specifically what protective action an individual should take in a mobile home when a tornado is approaching, universally, mobile home residents responded that they should seek shelter inside, in a low interior room (like a bathroom). This was consistent across all 1,000 mobile home participants surveyed. When asking individuals in fixed homes the same question (what to do in a mobile home) those survey participants also nearly universally, answered incorrectly across all participants sampled (i.e., less than 1% answered correctly).