Emergency Alert System (EAS) vs. Wireless Emergency Alerts (WEA)

Survey Results from National EAS & WEA Accessibility Studies

PROJECT OBJECTIVE: Collect quantitative and qualitative data on how people with sensory disabilities experience the Emergency Alerts System (EAS) and Wireless Emergency Alert System (WEA).

METHODOLOGY: National Surveys

- The surveys were designed to gain a greater understanding of the extent to which EAS and WEA attention signals effectively alert people with disabilities of incoming EAS and WEA messages, the accessibility of the messages, and to identify how people with sensory disabilities and those with access and functional needs respond to the EAS and WEA messages. The survey research occurred between 2011 and 2014, analyses and recommendations were completed in 2015.

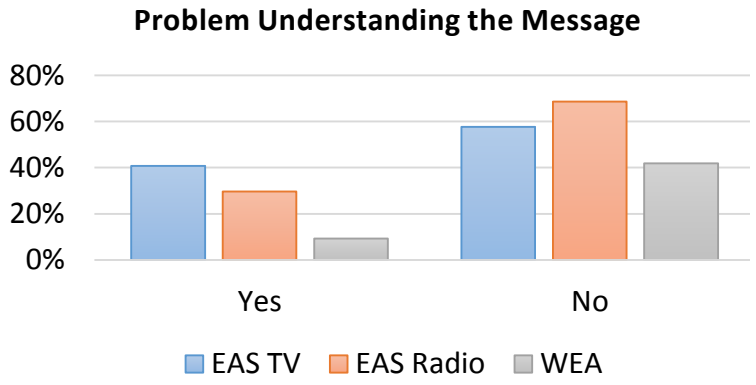
EAS vs. WEA ACCESSIBILITY CHARACTERISTICS

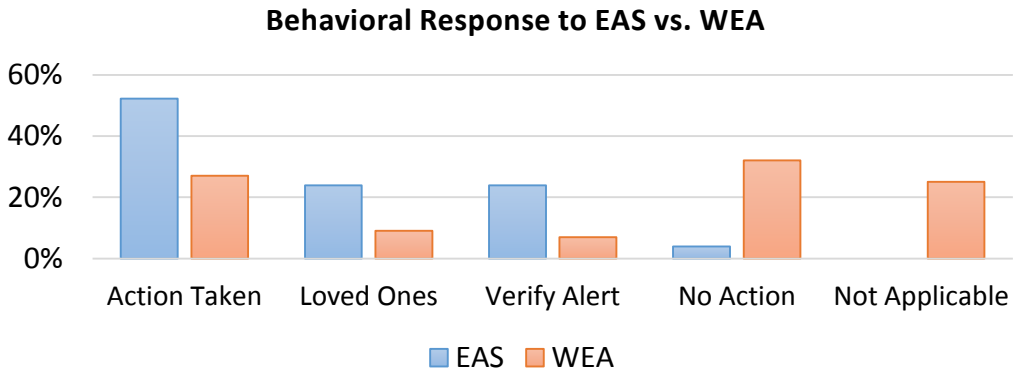
- EAS – Alerts sent to TV, radio, cable, and satellite services. Longer message content.
- WEA – Message sent to a mobile device. Message limited to 90 characters.
- 80% of survey respondents had previous knowledge of EAS and 59% had knowledge of WEA.

- The 2011 nationwide test of **EAS** revealed the EAS alerts via television broadcasts were inconsistent in their use of audio and not reliably accessible to people with vision loss. The national EAS test message was not fully accessible, reporting problems with the attention signal and audio quality.
- The majority of the EAS TV/radio survey respondents claimed the sound *did not* get their attention, the majority of participants that answered the question about the WEA survey indicated that they *did* hear the attention signal.
- The length of the **WEA** message, use of jargon and acronyms; and inadequate knowledge of WEA are limiting factors to the accessibility of WEA messages and their ability to elicit protective action behaviors.

EAS (2011) vs. WEA (2014) SURVEY COMPARISONS / RESULTS

- Fewer WEA survey respondents had problems understanding WEA messages; EAS survey respondents had more problems understanding the EAS messages.
- Some EAS access barriers included: TV and radio broadcasts were inconsistent in their audio levels and message quality; the text crawl was too small and too fast.
- 9% of respondents reported they would have a problem understanding the WEA message, and indicated they would need ASL translation.





- 52% of respondents took proactive action based on information in the EAS alert.
- 27% of respondents took action after the WEA alert.

NATIONAL EAS (2011) & WEA (2014) ACCESSIBILITY STUDIES

BACKGROUND: The Center for Advanced Communications Policy is the home of the Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC). Both centers provide substantive input to federal agencies and policymaking to reduce barriers and accelerate technology initiatives affecting accessibility and usability of wireless technologies. This handout presents the background and results of research activities from surveys which were conducted to examine the effectiveness of EAS and WEA to provide alerts to people with disabilities.

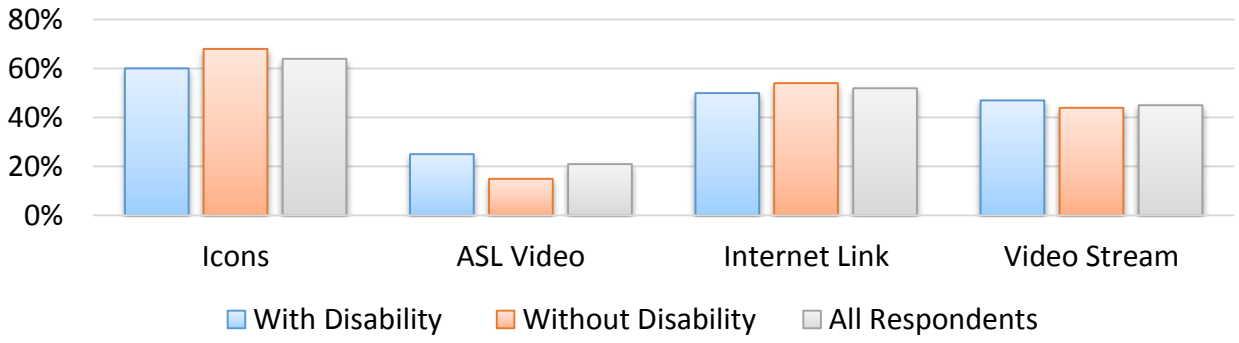
RECOMMENDATIONS: Based on the analysis the following recommendations are meant to inform industry, policymakers, emergency management practitioners and citizens to make informed choices that result in maximizing message diffusion and ensuring the same timely and effective access to alerts and warnings for people with disabilities.

- Provide audio and visual formats of content for all types of alerts.
    - Reduce the speed of text crawl
    - Increase the size of the text font
    - Improve voice quality

- Alert originators should continue to make the alert content clear and actionable to encourage more individuals to take immediate protective actions.
    - By excluding the use of acronyms, jargon, and abbreviations in alert messages.

- Mobile phone manufacturers should design devices with the capability to adjust the strength of the vibration, sound frequency, and include a WEA light cadence.
- Improve awareness and exposure to EAS & WEA alerts.
- Increase trust and appropriateness of individual responses to alerts through education and training.

NEXT GENERATION WEA:



POLICY AND THE FCC: Since the creation of EAS in 1994, people with sensory disabilities, organizations that advocate on their behalf, and academics have conducted research on alerting technologies. To enhance the accessibility of EAS and WEA emergency alerts. Research findings and recommendations have been submitted to the FCC. The FCC is in the process of updating regulations of both systems which should improve accessibility of the alerts.

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