Factors That Affect Response

Research has identified a number of community, experiential, and individual factors that influence the extent to which alerts and warnings are received, comprehended, and heeded.

### Community Factors

- **Type of community**: Residents of rural communities may have more difficulty receiving warnings than those living in urban areas.
- **Level of community interaction**: People who have more contacts in the community will receive more warnings and are more likely to act; also, they are more likely to trust officials.
- **Family composition**: Families, more than individuals, tend to heed evacuation warnings. Research indicates that people tend to confer with family, extended family, and friends prior to making a decision. They do this to ensure that their loved ones are safe and also to determine whether they may need to provide protection for their loved ones. Their decisions are based on the following factors related to family composition:
  - **Family network**: People are more likely to act if they have relatives nearby who may warn them and offer them short-term shelter.
  - **Presence of children**: Concern for children’s safety will elicit quicker response from parents.
  - **Presence of pets**: People often view their pets as they would their children and will take action to protect them. However, whereas families with children usually act more quickly to take precautions, in emergencies requiring evacuation, people with pets may endanger their own lives by refusing to evacuate, because many public shelters do not allow pets.

### Experiential Factors

- **Interpretation of message**: When different people listen to the same message, there may be a variation in what they hear, leading to different interpretation and response.
- **Previous experiences**: Often people will rely on their previous experiences with the hazard to determine what actions they initially take (or don’t take).
- **Observations**: Individual responses to warnings vary, but most people will seek some form of confirmation. For example, some people will look for more information through environmental cues, while others will seek to contact other trusted sources. Optimism bias (thinking that “disasters happen to other people”) is overcome with confirmation.
- **Perception of risk/proximity**: People tend to make a rapid assessment of the relative safety of their location, producing an emergent perception of risk. If their perception of personal risk is high, people will act quickly. When the perception is low, they will delay acting.
Individual Factors

- **Age:** Children and older adults may not be able to receive and/or respond appropriately to alerts and warnings. Many in this group may also need assistance.

- **Language:** Non-English-speaking persons may not understand warnings that are provided in English. Communities with high percentages of non-English-speaking people should issue warnings in the primary language(s) of the population as well as in English.

- **Length of residency:** Transients, tourists, and newcomers to the area lack knowledge of local hazards and the history of local disasters, so they may react differently.

- **Access and functional needs:** Individuals with access and functional needs may need alerts in accessible formats and additional time and assistance for evacuating. Accessibility of alert and warning messages refers to whether individuals hear and understand them. Alternative alert and warning methods are needed for individuals with access and functional needs such as those who are blind or deaf or have low vision or hearing. Both audio and equivalent text messages should be available.

- **Level of individual preparedness:** People who have taken the time to prepare for hazards (i.e., they have a plan and disaster supply kit, and have exercised the plan) are more likely to heed warnings and act appropriately. Getting the preparedness buy-in is often the challenge.