

## FACT SHEET: Cal PREPARE Project 1

### PROJECT #1: ALL-HAZARDS COMMUNICATION TO IMPROVE THE RESILIENCE OF POPULATIONS WITH FUNCTIONAL & ACCESS NEEDS

Substantial evidence exists that all-hazards emergency preparedness and response efforts are not effectively reaching populations with functional and access needs, especially those who have barriers related to literacy, language, culture, or disabilities: 90 million Americans have low literacy, 22 million have limited English proficiency, 40 million are older adults and over 32 million are Deaf or Hard of Hearing (Deaf/HH). These groups face higher risks of injury, death, and property loss as documented in recent disasters including 9/11, Katrina/Rita hurricanes, and the 2007 California wildfires—and illustrate the devastating effect of inequalities in our society. Furthermore, people who are Deaf/HH are often at the forefront of new communication technologies that benefit society as a whole. It is important to leverage this creativity to improve preparedness communication for all populations.

#### WHO WE ARE

Health Research for Action (HRA) is a center within the School of Public Health at the University of California, Berkeley (UCB). HRA translates research to health interventions and has over 20 years of experience in user-designed communication relevant to people's literacy level, language, culture, and access and functional needs.

#### GOALS

The overall goal for this project within the PERRC is to assess and improve all-hazards preparedness communication for selected populations with functional and access needs (Deaf/HH and Older Adults). We recommend participatory and systems approaches that can strengthen state emergency plans and health department and community-based organization (CBO) communication capacities to benefit these groups. We are implementing four inter-related research activities to address the identified research gaps. We believe the studies will significantly deepen scientific understanding of preparedness communication for these groups with functional and access needs and provide recommendations for improvement at national, state, and county levels.

#### LEAD INVESTIGATORS:

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#### AIMS

- Aim 1:** Examine national recommendations on preparedness communication for people who are Deaf/HH, assess the adoption of these recommendations in state emergency preparedness plans, and propose strategies to improve their adoption in national, state, and county plans.
- Aim 2:** Examine the availability of, and the literacy, linguistic, cultural, and access and functional characteristics of, preparedness communication materials from public health agencies and CBOs in Alameda County, California, that serve Deaf/HH and older adults.
- Aim 3:** Conduct a systems analysis of the all-hazards communication capacity and networks of a sample of CBOs that serve Deaf/HH and older adult populations.
- Aim 4:** Critique and improve the content, format, and delivery of preparedness materials for two target populations using an action research approach, and assess the effectiveness of the revised communications.

## METHODS

- Aim 1:** Collection of 55/59 state (+DC) and territorial basic Emergency Operations Plans; completion of 45/59 key informant interviews with state level emergency planning workers.
- Aim 2:** Literature review, collection and readability testing of preparedness communication materials, in-depth key informant interviews, focus groups with target populations
- Aim 3:** In-depth key informant interviews, concentrated participant observation, organizational methods
- Aim 4:** Usability testing, focus groups

## RESEARCH TRANSLATION

We have developed a National Advisory Board of experts on functional and access needs for Deaf/HH communities to guide us in using our research toward practical and culturally relevant recommendations that can be implemented into the current structure of emergency preparedness at the national level. In addition, we also have developed a Community Advisory Board of experts on functional and access needs for older adult and Deaf/HH communities to provide us with the same type of guidance in the local San Francisco Bay Area.

## IMPACT

Although our research goals are focused on the Deaf/HH and older adults, our intent is to provide recommendations to ensure emergency preparedness communication for all. The Deaf/HH are often leading the way in communication technology advancement with the rest of the population adopting their methods shortly after (e.g., SMS, video communication interfaces). By improving emergency preparedness communication for the Deaf/HH, we feel that the changes will positively affect the rest of the population as well. Likewise for older adults, they often face multiple challenges pertaining to medical monitoring, mobility, and social isolation. Through improving emergency preparedness communication in everyday life for older adults, these changes will also impact populations across the lifecycle as well.

## PRELIMINARY RESEARCH FINDINGS

### Aim 1:

#### Emergency Operations Plan Content Analysis

We analyzed 55 Basic Plans from state and territory EOPs and found that 55% of EOPs mention special, at risk, or vulnerable populations. However, only 31% of EOPs mention Deaf/HH populations. We found significant positive associations between the mention of:

- Deaf/HH in state EOPs and the prevalence of hearing disability\* by state
- Deaf/HH in state EOPs and the prevalence of people with any disability
- special populations in state EOPs and the prevalence of hearing disability\* by state

Our National Advisory Board for Project 1 Aim 1 also mentioned their interest in knowing the influence of state commissions for the Deaf/HH on whether or not the Deaf/HH population is mentioned in the EOP. We found no significant association between the two.

#### Key Informant Interview Analysis

Nearly 50% of our key informants say they are familiar or very familiar with communication issues faced by the Deaf/HH, yet 53% say they are not at all or a little familiar with how to make and accept a relay phone call from a Deaf/HH person.

In comparison to other populations their state serves, 41% of key informants stated that their state is somewhat prepared to serve the Deaf/HH. Twenty-two percent said they are not at all or a little prepared and 37% said they are prepared or very prepared.

We also found that there is a significant association between a KI's familiarity with communication issues faced by the Deaf/HH and:

- a KI's familiarity with how to make and accept relay phone calls
- how prepared the KI feels their state is to serve the Deaf/HH population in reference to other populations their state serves

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\* As defined by the US Census Bureau's American Community Survey 2008. Question asks if respondent is Deaf or has serious difficulty hearing.

Aim 2, 3 & 4: currently in progress