

## Developing a Disaster Preparedness Campaign Targeting Low-Income Latino Immigrants: Focus Group Results for Project PREP

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*Abstract:* Low-income immigrant Latinos are particularly vulnerable to disasters because they are both ill-prepared and disproportionately affected. Disaster preparedness programs that are culturally appropriate must be developed and tested. To develop such a program, we conducted 12 focus groups with low-income immigrant Latinos to understand their perceptions and understanding of disaster preparedness, and facilitators and obstacles to it. Participants were concerned about remaining calm during an earthquake. Obstacles to storage of disaster supplies in a kit and developing a family communication plan were mentioned frequently. Misunderstandings were voiced about the proper quantity of water to store and about communication plans. Several focus groups spontaneously suggested small group discussions (*platicas*) as a way to learn about disaster preparedness. They wanted specific help with building their family communication plans. They rated *promotoras de salud* highly as potential teachers. Results will guide the development of a disaster preparedness program tailored to the needs of low-income Latino immigrants.

*Key words:* Latino health, immigrant health, disaster preparedness, formative research.

Hurricanes Katrina and Rita demonstrated to the nation what many researchers already believed: that U.S. racial/ethnic minority groups, including Latinos, are both disproportionately affected by disasters<sup>1-5</sup> and less disaster-prepared compared with Whites.<sup>1</sup> In Los Angeles, for instance, 42.7% of Latino residents have disaster supplies compared with 56.6% of non-Latino Whites, and these differences remain after controlling for socio-demographic factors, language, and health status.<sup>6</sup>

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A paucity of culturally and linguistically appropriate disaster-related services contributes to disparities in disaster preparedness.<sup>7-9</sup> Despite improvements in this arena since the attacks of September 11th, 2001, disaster warnings are often available only in English, are written at readability levels higher than recommended for populations with high prevalence of low literacy, or are difficult to obtain for people without Internet access.<sup>10-14</sup> Even in Southern California, Latinos, who constitute over 30% of all households in the region,<sup>15</sup> still report facing difficulty obtaining preparedness resources and an absence of locally available preparedness materials in Spanish.<sup>16,17</sup>

To address the challenges of developing disaster preparedness programs for underserved Latino communities, we formed Project PREP (*Programa Para Responder a Emergencias con Preparación*), a community-based, participatory research program that developed, delivered, evaluated, and tested a culturally targeted disaster preparedness program using lay health workers (*promotoras de salud*). The target population was Latino immigrants living in low-income neighborhoods in Los Angeles County. Using focus groups, we sought to understand participants' perceptions, understandings, facilitators, and obstacles in relation to disaster preparedness.

## Methods

**Study design.** We conducted 12 focus groups from August to December 2005. Participants were recruited from low-income neighborhoods in Los Angeles County with high concentrations of Latino immigrants from Mexico and Central America, as determined by the U.S. Census. The focus group questions appear in Box 1.

**Recruitment and participants.** Spanish and English language flyers describing the study were posted in the community. Individuals were eligible to participate if they self-identified as Latino, were 18 years old or older and were born in Central America

### Box 1.

#### FOCUS GROUP INTERVIEW QUESTIONS

##### *General*

1. I'd like to start by talking about the different types of disasters you may think about happening in Los Angeles. What disasters are you concerned about happening in Los Angeles?
2. Now lets discuss what you think about when we talk about "preparing your home and family for a disaster." [PROBES: What comes to mind when we say "preparing your home and family for a disaster"? What are some things you can do at home to prepare for a disaster?]
3. Do you think preparing is useful?
4. Thinking about the disasters you are concerned could happen in Los Angeles, which of these disasters is it useful for you to prepare for? Why?

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**Box 1. (continued)***Preferred Terms for Disaster Supplies*

5. [Some of you talked about having certain items in your house for use after a disaster such as (flashlight, canned food, other 'disaster supplies' mentioned by group)]. Thinking about them as things you get to help you in a disaster, what do you call them as a group of things? How would you describe these items in a conversation?
  - a. Have people heard of the term 'disaster supplies' or 'emergency supplies'?
  - b. Which term do people prefer we call them during the rest of our discussion? [PROBE: Which term makes sense to everyone? Which term would be best understood in your family or neighborhood?]

*Current Disaster Supplies*

6. What 'supplies' or [other term agreed to by group] do you have in your home?
7. Where are these items stored?
8. Are there other supplies that have been recommended to you that you don't have? Which ones?
9. Did you buy them only for disaster supplies and not for other uses? Do you not use them or do you use them and then replenish them?
10. How many people have heard of the term "disaster supply kit" or "emergency supply kit"? [GET SHOW OF HANDS AND STATE NUMBER FOR TAPE]
  - a. For those of you who have NOT heard of a disaster supply kit [PROVIDE OUR DEFINITION AND SEE IF THEY CALL IT SOMETHING ELSE ONCE THEY RECOGNIZE WHAT WE'RE TALKING ABOUT.]  
*Definition of Disaster Kit: Items stored altogether in one place for an individual's or household's health and safety in case a disaster occurs.*
11. Which term do people prefer we call it during the rest of our discussion?
12. How easy or hard is it to get supplies together and put it into a single disaster supply kit? [PROBES: What is easy about making a kit? What is hard? Is it hard to put these things in one place? Where do you store it?]

*Preferred Terms for Family Communication Plan*

13. [Earlier some of you talked about having a plan to meet up with your family] What do people in your family or neighborhood call this [plan] for use in a disaster? [PROBE: What do people prefer to call them?]  
OR  
Have people heard of the term 'family communications plan'?  
For those of you who have not heard of a family communications plan:  
[PROVIDE OUR DEFINITION AND SEE IF THEY CALL IT SOMETHING ELSE ONCE THEY RECOGNIZE WHAT WE'RE TALKING ABOUT.]  
*A family communication plan is how you will contact or meet each other if a disaster occurs.*  
[GET SHOW OF HANDS AND STATE NUMBER FOR TAPE]
  - a. Which term do people prefer we call it during the rest of our discussion?

*(Continued on p. 333)*



**Box 1. (continued)***Family Communication Plan*

14. What is in a [communication plan]? Who specifically does it include?
15. What is easy about making a plan? What is hard?
16. Are there specific reasons why people have not made a communication plan?  
[PROBE: Do not know who to include? Phones numbers change often? Don't understand the reason for it?]

*What Would Help Improve Preparedness*

17. How would you most like to learn more about preparing your home and family for a disaster? [PROBES: people to listen to that you would believe? sources of information?]

or Mexico. One adult per household was eligible. One hundred and two of the 133 persons who called participated (six were ineligible, seven could not be reached despite calls back, and 18 called after enrollment closed). Participation was anonymous and all participants provided written informed consent. The UCLA Institutional Review Board approved the protocol.

Most participants (72%) were female, and the average age was 40 years old. Sixty-one percent were married or lived with someone as though married, 62% had dependent children at home, and 74% had two or more other adults living in the household. This sample of Mexican and Central American immigrants had lived in the United States an average of 19 years, rented their apartments and homes (85%), and reported annual family incomes below \$30,000.

**Data collection.** The discussion guide was drafted in English, reviewed by Latino study members and revised, then professionally translated into Spanish. The Spanish-language version was reviewed by native Spanish speakers for clarity and comprehension and modified accordingly. The questions were in the following domains, which we pre-identified as important to developing *PREP*: 1) to learn what disasters participants are concerned about, how participants define preparedness, and social norms and attitudes about the usefulness of preparedness; 2) to understand motivators, obstacles, and facilitators to preparedness; 3) to learn the sources of current understanding of preparedness; and 4) to understand needs for education and to understand if *promotoras* may be acceptable for teaching preparedness (*promotoras* had not previously been used for teaching preparedness in the United States). These domains come from theories employed in disaster research, such as risk perception<sup>18-20</sup> and value-expectancy theories.<sup>21,22</sup>

Bilingual and bicultural Latina facilitators led groups held at community sites. Between six and 10 participants attended and groups lasted two hours. Participants received dinner, on-site childcare and \$40 cash. Separate groups were held in English and Spanish. The groups were audiotaped and transcribed. Spanish language tapes were professionally transcribed and translated into English.



**Analysis.** We performed a content analysis to identify core consistencies and patterns in the interviews, which we called themes. We used a grounded theory approach,<sup>23</sup> which emphasizes discovering themes that emerge from the data, while recognizing that themes also come from our pre-identified domains. First, we read through all the transcripts and, in team discussions, identified themes and sub-themes in the texts.<sup>24,25</sup> Identification of themes was completed when no new sub-themes, properties, dimensions, or relationships within or among them came out during discussions.<sup>26</sup> Second, each transcript was reviewed by the investigators, who independently coded participants' statements within themes and sub-themes. Third, the coders met and differences in coding were resolved by consensus.<sup>27</sup> Initial agreement was 90%, requiring 10% of codes to be settled by consensus. Final coded transcripts were managed using *Atlas.ti* software version 5.0 (Atlas.ti Scientific Software Development GmbH, Berlin, Germany). We report the themes and sub-themes we identified as most relevant to

## Box 2.

### THEMES AND REPRESENTATIVE QUOTATIONS

#### *Disaster Experience*

"I have a lot of experience, because as I said, in El Salvador when I was studying, sometimes they'd close the stores and I learned a lot of things. And I tell my children what to do in case of an attack tell them how you can prepare yourself for those things."

"Because I had an experience in the past with an earthquake in my country and . . . I learned because in my family nobody was prepared, you know, for the earthquake, so my family went crazy. No food, no water, no nothing. We waited for somebody to come and help us."

"In my country, we always had earthquakes every four years so they taught us to get prepared in school. I mean, it's something that you do constantly. And they taught us how to dehydrate the meat so we can maintain it dried, and always store water. It's a habit that I also continue doing here."

#### *Disaster Consequences*

"But it's important to remain calm, more than anything."

"To keep calm and not run out."

". . . when we had that earthquake . . . and I was in a four-story building, and the earthquake came while I was taking a bath. I ran out, and it really hurt me, because I ran out like a crazy woman from the tub to the living room. And the father of my child was talking to me saying control yourself, control yourself, nothing is going to happen, but it was tremendous. You feel it really hard in a building. I was screaming, my kids, my kids. And he'd say control yourself, nothing is going to happen to them. He ran and threw a sheet over me because I was going to run out like that."

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**Box 2. (continued)**

"I just have my son, and I tell him that if there's an earthquake at night, that he shouldn't get scared, because he makes me more nervous."

"What I've told my children in case of a disaster, an earthquake, if they're in school that they should stay calm, if they want to run out, that they should stay together where everyone is, and that they shouldn't get nervous."

*Attitudes about Readiness*

"We have already seen, in the types of disasters that have happened, that the people are not prepared and a lot of people have died. A lot of children have died. So I think it's much better if we prepare ourselves."

"The wealthier areas are first to receive the aid and the assistance decreases as you get to those that are the poorest."

"Another thing, they're not going to give it to everyone. There are many people who have papers, and others who don't have papers, and that is very discriminatory, because in a disaster, everyone should be entitled to get help. There have been many cases like that, where there have been illegals, they had to flee from Katrina, because they were getting them in the street."

*Disaster Supplies: Recommended Items*

"And plus your medicines. Doctor's already saying that you should you have a supply of medicines so that in case something does happen and you can't get to the doc. So, but the thing is that first off when you go to the doctor and say, "Hey, I need enough medicine to carry me over," and he'll say, "What?" But then if you finally do get it, then you have to do the same thing as . . . make sure that you rotate it or something. It still has to be on your shoulder, your mind to do that."

"I have my medicine first of all, and I have chocolates, I have food, papers, two pants, two shirts, two sweaters, one pair of shoes, a radio, flashlight, and water."

"The food is not there, but I have chocolates there, just in case, because you can survive with chocolates and water."

". . . money in cash, passports, all those things and important documents—I keep them in a small briefcase—the most important papers like cards."

"Just a few cans that they have given me at the church in a small cabinet. Like about five."

"Maybe like six cans of canned fruit. A bag of cookies, powdered milk, two gallons of water."

"The documents are to identify yourself, because in this country, if you don't identify yourself they're not going to help you."

(Continued on p. 336)

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## **Box 2. (continued)**

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### *Disaster Supplies: Quantities*

“No, if there are four or five people, with one gallon it’s enough for several days.”

“About a case of 35 little bottles, for example for about four people.”

“Let’s say for a family of six, enough for about three days . . . it would be about 30 little bottles.”

### *Disaster Supplies: Purchase, Use, and Storage*

“Every time I go to the market, if I’m going to buy one can, I try to buy two so I can store one away.”

“Because some people use them but don’t replace them. That’s happened to me. They’ve finished the water, they go to the beach. Right now, I don’t think I have any left.”

“Because you know, many buildings, there’s nowhere to put things.”

“Well, I think sometimes it’s lack of storage space.”

“My house is also small, but I try to put it where we can have space because we live in a small apartment and there are three of us.”

### *Communication Plans*

“Yes, the emergency kit is easy, you’ve just got to get the items though. A communications plan, you got to sit down with your family and tell them where to go. What phone to call in case of an emergency. What’s going to be the route? Who’s going to grab what, you know, you actually need to sit the whole family down and discuss the communication plan.”

“It’s a little hard because we come up with a lot of ideas. What if this happens, or what if this happens?”

“The hardest part is to sit the whole family down because everybody has got things to do.”

“Well, the same thing with youth. They want to live in the moment. We have to die from something. That’s their answer.”

“Teenagers, they don’t want to hear.”

### *Preferred Sources of Information*

“Well, more classes like this one that would teach us, that would give us more information. Because like on TV, you have to wait until the time they talk about this and, well, you can’t be glued to the TV waiting to see how you need to get prepared or how to do it. I think with more classes, more communication . . . that there should be more workshops like this one.”

“Someone who has the knowledge either through school, or because they’re training, or because they work with the community because something happened to them and they don’t want the same thing to happen to other people.”



developing our intervention. The quotations selected in the text and Box 2 exemplify the nature of common responses within themes and sub-themes.

## Results

Participants reported significant concerns about earthquakes and terrorism, especially subway bombings. Gang violence (*maras*), school shootings, home robberies, home fires, murder attempts, kidnapping, car accidents, and riots were often cited as examples of disasters in their communities. Other disasters they worried about were hurricanes, tsunamis, floods, wildfires, and tornados. Participant characteristics are summarized in Table 1.

**Table 1.**

**DESCRIPTION OF FOCUS GROUP PARTICIPANTS (N= 100)**

<i>Gender</i>	
Male	28
Female	72
<i>Age (years)</i>	
Average	40
<i>Marital status</i>	
Married or living with someone as married	61
Separated or divorced	11
Widowed	4
Never married	22
Missing	2
<i>Employment status</i>	
Working 35 or more hours per week	17
Working less than 35 hours per week	15
Unemployed and looking for work	14
Unemployed and not looking for work	4
Student or retired	7
Disabled	9
Keeping house	21
Missing	13
<i>Children 17 years of age or younger at home</i>	
Yes	62
No	38
<i>Number of other adults in household</i>	
1	18
2	44
3	17
>4	12
Missing	9

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**Table 1. (continued)**

<i>Home/apartment ownership or rental</i>	
Own your home	9
Rent	85
Other	4
Missing	2
<i>Years living in the United States</i>	
Average	19
<i>Country of origin</i>	
Mexico	50
El Salvador, Guatemala, Nicaragua, Honduras	46
Missing	4
<i>Highest level of education</i>	
0–5	13
6–8	20
9–12	43
>12	19
Missing	5
<i>Annual family income (\$)</i>	
Under 10,000	30
10,000–19,000	23
20,000–29,000	21
30,000–39,000	5
40,000–49,000	4
>50,000	3
Missing	14

Note: Data not available on two participants

Many participants had experienced disasters themselves, including earthquakes, floods, war, and the Watts and Rodney King riots, experiences that had led them to make some preparations for a disaster (Box 2).

**Consequences of disasters.** Participants cited loss of life, property, jobs, and difficulty with family reunification as the consequences of a disaster. However, disruption of essential services was rarely mentioned. Participants expressed considerable anxiety over losing control of their emotions and spoke frequently about remaining calm (*calma*), not panicking (“stay calm, don’t get desperate or hysterical”) and having “presence of mind” during an earthquake. The anxiety centered on events during an earthquake (“I feel like everything is going to fall and at the moment what am I going to do?”) and how they might respond (“You’re going to panic and go out running if a building falls”) and less about the post-earthquake period. Participants often stated that a person can prepare best for an earthquake “if you know what to do in that moment.”

Parents frequently expressed anxiety over their children losing control and spoke of teaching their children that “they shouldn’t panic.” Several recommended we “prepare them so that they’re at school and not running around the street.”

**Attitudes about readiness.** Participants noted that preparation is useful and necessary. They frequently cited Hurricane Katrina as evidence that governments often provide inadequate assistance (one participant remarking, “The government does not worry about areas where Latinos live”). They also noted that government aid arrives “late” and that the government may discriminate against undocumented immigrants or take the opportunity to deport them.

**Disaster supplies: recommended items.** Less than half of participants recognized the terms *disaster kit* or *emergency kit* though most had heard of *disaster supplies* or *emergency supplies* (“Sorry, a kit? A first aid kit?” “What’s the difference between a disaster kit and a first aid kit?”). Frequently-mentioned supplies were water, extra money, non-perishable foods, candles, flashlights, batteries, a battery-operated radio, a portable radio, can openers, canned food, warm clothing, and first aid materials (“A first aid kit, of course. We always have that”). Less frequently mentioned were blankets and medicines. Occasionally credit cards were recommended: “Credit cards too. In a disaster there’s no money.” Participants listed immigration-related papers commonly (“They’ll send you to Immigration!”) and “shot records.” Finally, several groups recommended high calorie sweets (“like jelly, chocolate has a lot of vitamins, calories”) and vitamin supplements (“extra vitamins”).

**Disaster supplies: quantities.** Most participants reported that “a few” or “several days” worth of water was needed (“at least for five days,” “to be able to survive for a few days I could imagine”). However, many reported insufficient quantities of water (“Yes, I have, for example, a gallon of water and I know that I have enough there for a month.”)

**Disaster supplies: purchasing, use, and storage.** Due to their limited incomes, many participants purchased supplies one at a time:

When I go to the market and if I need five bottles of water, I buy six and I say that that is extra. It’s something extra for us just in case, like they say.

Though items were intended to be for disasters, circumstances often led participants to use their supplies:

There are times when you’re unemployed and you get from [the emergency supplies] to be able to eat.

When probed about how well-organized the supplies were, very few participants stated that they were stored in one place. A typical response was:

I think we all have all those things, but many of us don’t have them . . . in one place, like you said, a kit. They’re scattered, like the Band-aids in a drawer, the water where we use it every day, right?



Participants reported lack of space in crowded houses and apartments as an important obstacle to storing disaster supplies in a single container:

Because we rent one room. I'm with my mother.

**Communication plan.** The idea of a communication plan was often misunderstood as having the supplies to receive communications such as walkie-talkies and cell phones (“Even if you have three or four telephones, you need a cell phone number, even if it’s just for a family”). When the concept was explained, more participants understood it though they noted that it was more difficult to accomplish than assembling supplies (“It’s not that simple like saying here’s \$200, let’s go buy it”). While purchasing and assembling disaster supplies can be done by a single member of the family, developing an emergency communication plan requires involvement, communication and agreement among multiple family members:

I think the hardest part would be brainstorming, getting everyone to agree with the same plan.

A communication plan requires discussion about possible disaster scenarios, which some participants found difficult, especially participants with adolescent children.

I’ve mentioned it, but they all say don’t get dramatic. Like they don’t take me seriously.

**Preferred sources of disaster information.** Many participants stated they enjoyed the focus group format and discussing their experiences and knowledge with each other. Several groups spontaneously suggested small group discussions and informal meetings (*platicas*) to learn about disaster preparedness. One participant said,

But I think even now, just as a group, like I learned a lot from each and every person here, so even that, you know, that’s even helpful.

Participants wanted specific help with building their family communication plans and asked each other and the facilitator for recommendations for their specific circumstances. They rated *promotoras de salud* highly as potential teachers.

## Discussion

Focus groups provided insights into disaster preparedness among low-income Latino immigrants in Los Angeles. Participants highlighted remaining calm during an earthquake, but rarely mentioned disruption of services (e.g., gas, electric, water, telephone). Individuals are advised to prepare to live without any services for three to seven days following a major disaster. Disaster materials and programs for this community must emphasize this and its concrete implications. The research team’s recommendations based on this research are summarized in Box 3.

Disaster supply kits appear not to be feasible in this community. Many participants

**Box 3.****RECOMMENDATIONS FOR DISASTER  
PREPAREDNESS PROGRAMS THAT TARGET  
LOW-INCOME, IMMIGRANT LATINOS***Targeted Content*

1. Emphasize the disruption of essential services and the concrete consequences of this loss. Most focus groups did not mention loss of gas, electricity, water, or phone among the consequences of a disaster. Some participants reported stocking dried rice with the assumption that they could cook it. Others suggested credit cards would be useful, though telecommunications, banking and electricity may be down. Additional information is needed to link service loss directly to the inability to cook, clean, flush toilets or other activities.
2. Use familiar terminology. Latinos may use different terms for disaster supplies based on their countries of origin and educational levels. They may not be familiar with “disaster kit” and “communication plans.” It is important to consistently use accepted terms.
3. Provide clear, concise, prioritized information about safety during an earthquake. Participants were most concerned about panicking if they were in a building during an earthquake. They believed that learning how to protect themselves would allow them to remain calm so they could help others and reduce their risks of injury. Emphasizing “drop, cover, and hold” may reduce this anxiety and reduce injury (*agachese, cubrase, y detengase*).
4. Disaster “kits” are unlikely to be adopted by urban-dwelling, low-income Latinos. It is imperative that disaster preparedness programs address stockpiling supplies within the context of the target audience’s resources, environment and lifestyle. Specifically, space considerations and the need to use disaster supplies on a routine basis (e.g., important documents, extra food when guests come over or money is short) preclude the building and storing of a single container with all supplies. It is more important to prioritize the stockpiling of extra supplies as the primary issue. A disaster kit available for evacuating one’s home in a hurry does not reflect the situation of this population who are unlikely to have a private vehicle for rapid evacuation anyway. Storage under a bed or in a closet is an alternative for some households.
5. Be specific about appropriate types and quantities of supplies. Recommend specific foods that are both nutritionally appropriate and culturally acceptable to Latino immigrants. Recommend specific quantities of water per person using liters not gallons (1 gallon=3.78 liters) as the unit of measure, emphasizing its use for hydration and hygiene. Seven days worth may be too much to achieve in a low-income household so recommend a three to seven day supply.

*(Continued on p. 342)*

**Box 3. (continued)**

6. Provide details on family communication plans. The barriers to obtaining supplies are different from the barriers to developing a communication plan. The concept of “communication plans” was often misunderstood by participants in this study. Use terminology that requires low literacy skills, such as “Your family should have a plan for finding each other and knowing everyone is safe after a disaster.” Recommendations for constructing a family communication plan must be responsive to the lives of low-income Latinos, including parents who hold multiple, part-time jobs and whose out-of-town contacts may live in Mexico or Central America.

*Targeted Methods*

7. Use small-group discussions to deliver education. Participants enjoyed the focus group format and often suggested small group discussions and informal meetings (*platicas* or *charlas*) as a method of learning.
8. Use *promotoras* to deliver educations. Participants viewed *promotoras* as respected and credible sources of disaster information. Additionally, *promotoras* are experienced with teaching in a small-group discussion format.
9. Provide a hands-on learning experience. Participants had questions about filling out their communication plans. This could be addressed by having the participants start filling their cards out in the group so that questions could be identified, misinformation corrected, and locally-relevant solutions suggested.
10. Use targeted materials with prioritized information. Provide low-literacy written materials that focus on a limited set of prioritized messages.

lived in crowded apartments so that space limitations were an obstacle to storing a kit; adding a receptacle holding such supplies was viewed as burdensome. Instead, prioritizing the stocking of supplies generally instead of the creation of single “kit” should be considered.<sup>28,29</sup>

Although participants understood the types of basic supplies needed, there was confusion and misinformation about the exact quantities of water and about the correct food. Most groups included participants who greatly under-estimated the amount of water needed to be disaster-prepared. Similarly, most groups had participants who included chocolate, candy, and cookies among the foods one should stock. It is not clear whether this lack of knowledge is a result of low literacy (e.g., FEMA’s website recommendation to “stock canned foods, dry mixes, and other staples that do not require refrigeration, cooking, water, or special preparation” is written at a higher level of readability than many participants in our focus groups had attained),<sup>29</sup> or exposure to incorrect health and disaster information in their communities. Future preparedness programs targeted to low-income Latino communities must provide clear instructions about quantities of water and types of food.

Disaster preparedness programs targeting low-income Latino immigrants may uti-



lize social networks and informal gatherings to disseminate information. Participants were enthusiastic about small group gatherings to learn, often citing the focus groups themselves as a model. Engaging participants to share lessons with each other is consistent with methods of adult learning theory, which recognizes that adult learners have experience (many participants had experienced disasters) and that their instruction must be learner-centered.<sup>30,31</sup> Disaster programs can leverage these experiences by facilitating individuals' contributions to the goals of teaching. Similar recommendations resulted from focus groups held for the National Heart Lung and Blood Institute Latino Community Cardiovascular Disease Prevention and Outreach Initiative, *Salud para su Corazon*.<sup>32</sup>

Small group gatherings may be particularly suitable since they provide an opportunity for addressing participants' anxiety over losing control and for clarifying uncertainties and misunderstandings regarding communication plans. *Promotoras* appear to be credible and may be effective because they use their cultural knowledge and leadership role in the community to model behavior, overcome barriers, and promote change.

Our results are consistent with the few studies of preparedness among Latinos. Carter-Pokras and colleagues also found that Latino focus groups considered home fires and gangs (*maras*) to constitute emergency situations.<sup>33</sup> Furthermore, concerns about remaining calm (*calma*) were prevalent in their groups. In another study, low-income Mexican Americans were more likely than Whites to report neighborhood meetings as a preferred channel for preparedness information.<sup>34,35</sup> Similarly, friends and families may be more important sources of disaster preparedness information among Latinos than among non-Latino Whites.<sup>36</sup> These results are consistent with our finding that *platicas* (or *charlas* in Carter-Pokras' study) could provide efficacious means of disseminating preparedness programs.

We performed focus groups to understand disaster preparedness among Latino immigrants living in low-income communities in Los Angeles County. Our results are not meant to identify categorical distinctions attributable to ethnicity or socioeconomic status or to suggest stereotyped programs on the basis of these characteristics. The interaction of participants and the group dynamics within focus groups impose limitations to the generalizability of the data. Additionally, participants were mostly married women with children and not working full-time outside of the home. As Project *PREP* was intended to target Latino immigrants living in low-income communities, our sample included more married Latinas with children, who were immigrants and living below the federal poverty line, than the general population of Latinos in Los Angeles.<sup>37</sup> So, the results of our study are not representative of Latinos in general.

## Conclusion

These data allow us to understand low-income Latino immigrants' beliefs regarding preparedness, barriers, preferences, and facilitators to adopting and sustaining preparedness behaviors. Based on these results, future studies might examine the value of utilizing social networks and informal gatherings, such as *platicas*, to improve disaster preparedness in this community.

## Notes

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