Introduction

Emergency preparedness has become a major focus of public health planning and programs throughout the United States. The events of 9/11 and Hurricanes Katrina and Rita revealed the vulnerability of Americans to the consequences of catastrophic disasters—whether natural or man-made—and vividly demonstrated the necessity of preparedness efforts at the federal, state, and local levels.

Southern California’s geography offers great natural beauty, but also exposes its residents to potential disasters. Fires, floods, and mudslides occur regularly in Los Angeles County, and earthquakes pose an ongoing threat. According to the California Geologic Survey, a major earthquake is likely to occur in the Los Angeles region during the next 2 decades.1

In addition to the area’s natural vulnerability, as a densely populated region housing the busiest port in the U.S. locations to become a terrorist target, based on the complexity of the region’s infrastructure. The events of 9/11 made—and vividly demonstrated the necessity of emergency preparedness efforts at all levels of government.

1. The 2005 LACHS asked non-institutionalized U.S. residents age 18+ for the household was “to deal with or manage after a catastrophic disaster such as an earthquake or terrorist attack.”

2. About 30% of survey respondents reported that they were very or not at all prepared after a large-scale disaster. Most survey respondents (63%) reported they were either mostly or somewhat prepared, or surveyed (63%) who reported they were completely prepared (Figure 1).

The 2005 LACHS asked non-institutionalized adults (18+ years old) how prepared their household was “to deal with or manage after a catastrophic disaster such as an earthquake or terrorist attack.” About 30% of survey respondents reported that they were very or not at all prepared after a large-scale disaster. Most survey respondents (63%) reported they were either mostly or somewhat prepared, or surveyed (63%) who reported they were completely prepared (Figure 1).
emergency supplies, followed by African Americans. In addition, Whites were more likely to have incomes reported having emergency supplies. A greater educational level, the percent of respondents who said they felt unprepared decreased. A similar trend was observed for household income. Emergency preparedness varies across Service Planning Areas (SPAs). A higher percent of adults in the Metro (45%) and South (47%) SPAs reported they were unprepared than those residing in other SPAs.

### Emergency Preparation

To be prepared for a catastrophic disaster, respondents were asked if they would follow instructions to go to the nearest public school in their community, if their home is destroyed during a disaster. Forty-three percent of respondents reported they had a family emergency plan. The percent of adults with an emergency plan increased with age, education, and household income. The percent of Asians/Pacific Islanders reported having an emergency plan (23%) compared to Latinos (42%), African Americans (42%), and Whites (45%).

### Willingness to Cooperate in an Emergency

The 2004 PHRETS asked non-institutionalized adults if they intended to cooperate with local government instructions during a disaster. Respondents were asked if they would follow instructions to go to the nearest public school because of a terrorist attack (Figure 3).

### Vulnerable Populations

Vulnerable populations consist of individuals who may not be able to access and use the standard resources offered in disaster preparedness, relief, and recovery. During a catastrophic disaster, those who have functional limitations or who lack adequate financial resources are at increased risk. Vulnerable populations include people with a disability, the elderly, families with children, and individuals who are poor or who rely on public assistance. People who do not speak English are vulnerable during catastrophic disasters because their language limitations can hinder their access to medical care and public health information.

Table 2 shows the prevalence of various vulnerable populations in LA County. The percent of vulnerable populations varied across SPAs, with South, East, and West SPAs having the highest percentages. Respondents with household incomes 300% or above FPL and those with at least some college education were more likely to donate additional information before following instructions, compared with those with lower incomes and less education. A majority of LA County residents feel somewhat or mostly prepared for an emergency, those with special needs. A group of strategies to address disaster preparedness among vulnerable populations varies markedly by SPA in LA County, highlighting the importance of developing localized population. The Department of Homeland Security helps the Los Angeles County Department of Public Health with federal preparedness programs to help diverse families and communities prepare for disaster.

Vulnerable populations consist of individuals who may not be able to access and use the standard resources offered in disaster preparedness, relief, and recovery. During a catastrophic disaster, those who have functional limitations or who lack adequate financial resources are at increased risk. Vulnerable populations include people with a disability, the elderly, families with children, and individuals who are poor or who rely on public assistance. People who do not speak English are vulnerable during catastrophic disasters because their language limitations can hinder their access to medical care and public health information.

Only 57% reported that they would immediately follow local government officials’ instructions to go to the nearest public school in the event of a terrorist attack. Forty-two percent of respondents reported they would follow instructions last, when it was convenient for them. Forty-three percent reported that they would not follow instructions until they received more information, whereas 46% reported that they would not follow instructions at all. Respondents with household incomes 300% or above FPL and those with at least some college education were more likely to donate additional information before following instructions, compared with those with lower incomes and less education.

### Discussion

Will not go until instructions last, 15%.

Rely on public assistance. People who do not speak English have functional limitations or who lack adequate financial resources to cope are at increased risk.

The Department of Homeland Security helps the Los Angeles County Department of Public Health with federal preparedness programs to help diverse families and communities prepare for disaster.

http://www.redcross.org/services/disaster/

http://www.oes.ca.gov

Los Angeles County Department of Public Health

http://www.fema.gov

A special group of strategies to address disaster preparedness among vulnerable populations varies markedly by SPA in LA County, highlighting the importance of developing localized efforts to address disaster preparedness among those with special needs.
Emergency preparedness varies across Service Planning Areas (SPAs). A higher percent of adults in the Metro (45%) and South (47%) SPAs reported they were unprepared than those residing in other SPAs.

Emergency Preparation and Response

To be prepared for a catastrophic disaster, LACHS 2005 respondents indicated they acquired food and water and some extra batteries. A battery-powered radio, a flashlight, a first aid kit, and other supplies include a three to seven-day supply of food and water. This requires that regardless of where and when a disaster strikes, each family must have emergency supplies and a family emergency plan. Emergency supplies include a three to seven-day supply of drinking water and non-perishable food (that does not require refrigeration) for each family member, a battery-powered radio, a flashlight, a first aid kit, and some extra batteries.

When asked about emergency supplies in the 2005 LACHS:

- 74% reported having a three-day supply of food and water
- 74% reported having a battery-powered radio
- 68% reported having a first aid kit
- 83% reported having some extra batteries
- 80% reported having extra or spare batteries

Having emergency supplies varies by age, educational level, and household income. A greater percent of older respondents, those with advanced education, and those with higher household incomes reported having emergency supplies. In addition, Whites were more likely to have emergency supplies, followed by African Americans, Asians/Pacific Islanders, and Latinos.

Emergency Planning

Families must designate a meeting place outside their neighborhood for an emergency event that prevents them from returning home, and a local meeting place in the event their home is destroyed during a disaster. Forty-one percent of respondents reported they had a family emergency plan. Because the number of adults with an emergency plan increased with age, education, and household income, a larger percent of Asian/Pacific Islander respondents had an emergency plan (32%) compared to Latinos (24%), African Americans (43%), and Whites (55%).

Willingness to Cooperate in an Emergency

The 2004 PREHITS asked non-institutionalized adults if they would cooperate with local government officials during a disaster. Respondents were asked if they would follow local government instructions to go to the nearest public school in the event of a terrorist attack.

- 93% reported they would follow instructions fast, when it was convenient for them
- 7% reported that they would not follow instructions at all

Respondents with household incomes 300% or above FPL and those with at least some college education were more likely to denote additional information before following instructions, compared with those with lower incomes and less education.

Discussion

The rate of preparedness by all LA County residents fell somewhat or mostly prepared for an emergency, different population groups in the county vary greatly in their level of preparedness. Data from LACHS and PHRETS demonstrate that age, race/ethnicity, and socioeconomic status are important factors in determining how much income and education levels—greatly affect disaster preparations. Understanding these disparities, and why they exist, is an essential part of a successful public health emergency response strategy.

Vulnerable Populations

Vulnerable populations consist of individuals who may not be able to access and use the standard resources offered by federal preparedness, relief, and recovery. During a catastrophic disaster, those who have financial limitations or who lack adequate financial resources to cope are at increased risk. Vulnerable populations include people with a disability, the elderly, families with children, and individuals who are poor or who rely on public assistance. People who do not speak English are vulnerable during catastrophic disasters because their language limitations can hinder their access to medical care and public health information.

Table 1 shows the prevalence of various populations in LA County. The percent of vulnerable populations varied across SPAs, with South, East, and Southeast SPAs having the highest percentages.

Table 2 shows the prevalence of racial and ethnic minorities during a catastrophic disaster. Racial and ethnic minorities were more likely to suffer in the event of a terrorist attack, with 5% reporting they would not follow instructions later, when it was convenient for them.

Respondents with household incomes 300% or above FPL and those with at least some college education were more likely to denote additional information before following instructions, compared with those with lower incomes and less education.
Emergency preparedness varies across Service Planning Areas (SPAs). A higher percent of adults in the Metro (45%) and South (47%) SPAs reported they were unprepared than those residing in other SPAs.

Emergency Supplies & Family Emergency Plan

Emergency plans are recommended for a catastrophic disaster, individuals and families must be capable of surviving for three to seven days. This requires that regardless of where and when a disaster strikes, each family must have emergency supplies and a family emergency plan. Emergency supplies include a three to seven-day supply of food and water (that does not require refrigeration) for each family member, a battery-powered radio, a flashlight, a first aid kit, and some extra batteries.

When asked about emergency supplies in the 2005 LACHS survey:

- 74% reported having a three-day supply of food and water.
- 74% reported having a battery-powered radio.
- 68% reported having a first aid kit.
- 80% reported having extra or spare batteries.

Having emergency supplies varies by age, educational level, and household income. A greater percent of older respondents, those with advanced education, and those with higher household incomes reported having emergency supplies. In addition, Whites were more likely to have emergency supplies, followed by African Americans, Asians/Pacific Islanders, and Latinos.

A family emergency plan that requires each member of the family to know a designated place to meet and has a contact telephone number for communicating with each other in the event of a disaster.

Emergency supplies and a family emergency plan are essential parts of a family emergency plan. The percent of respondents who reported having an emergency plan varied by age, education, and household income. Among Asian/Pacific Islander respondents having an emergency plan (32%) compared to Latinos (42%), African Americans (43%), and Whites (45%).

Willingness to Cooperate in an Emergency

The 2004 PEHERS asked non-institutionalized adults about their intention to cooperate with local government instructions during a disaster. Respondents were asked if they would follow instructions to go to the nearest public school because of a terrorist attack (Figure 3).

Respondents with household incomes 300% above FPL and those with at least some college education were more likely to know additional information before following instructions, compared with those with lower incomes and less education.

Discussion

The results of the majority of LA County residents feel somewhat or mostly prepared for an emergency, different population groups in the county vary greatly in their level of preparedness. Data from LACHS and PEHERS demonstrate that age, race/ethnicity, and socioeconomic status affect people's disaster preparedness. Education levels and income levels—greatly affect disaster preparedness. Understanding these disparities, and how to manage them, can be an all-part of a successful public health emergency response strategy.

Vulnerable Populations

Vulnerable populations consist of individuals who may not be able to access and use the standard resources offered during preparedness, relief, and recovery. During a catastrophic disaster, those who have financial limitations or who lack adequate financial resources to cope are at increased risk. Vulnerable populations include people with a disability, SHARE adults, families with children, and individuals who are poor or who rely on public assistance. People who do not speak English are vulnerable during catastrophic disasters because their language limitations can hinder their access to medical care and public health information.

Table 2 shows the prevalence of vulnerable populations in LA County. The percent of vulnerable populations varied across SPAs, with South, Metro, and East SPAs having the highest percentages.

Only 57% reported that they would immediately follow local government officials’ instructions to go to the nearest public school in the event of a terrorist attack.

- 5% reported that they would follow instructions last, when it was convenient for them.
- 4% reported that they would not follow instructions at all.

Respondents with household incomes 300% above FPL and those with at least some college education were more likely to know additional information before following instructions, compared with those with lower incomes and less education.
What can individuals & families do?

1. Create an emergency plan. For information on how to create an emergency plan, you can download a brochure in 12 languages at http://www.labt.org/media/buildakit.htm. In the event of a disaster, it is important to have an out-of-town contact person and telephone number to manage communication between family members, as local phone service may be compromised.

2. Prepare emergency supplies for each member of the family, including food, water, a first aid kit, medications, and copies of important documents. For information on how to prepare emergency supplies, consult http://www.labt.org/media/buildakit.htm. Information is available in 12 languages.

3. Document your personal health information and medication needs by filling out the Personal Health and Emergency Information Form, which you can find in the brochure, Your Guide to Public Health Emergency Planning, at http://www.labt.org/documents. For information on how to prepare emergency supplies for each member of the family, including food, water, a first aid kit, medications, and copies of important documents.

What can communities do?

1. Target emergency preparedness education efforts at vulnerable populations such as those with lower incomes or education levels.

2. Provide necessary data and logistics in all government communications.

3. Include strategies tailored for vulnerable populations such as people with disabilities, children, the elderly, and families. For example, it is important to engage the community as an active unit that will facilitate and lessen the burden of the whole community in a catastrophic event.

4. Plan ahead of time to care for your pets in the event of a disaster. For pet preparedness tips, see http://www.fema.gov/plan/prepare/animals.htm. Make sure your animals can be easily identified in the event of separation by providing them with current tags and licenses, and consider microchipping your pets.

If you are disabled

1. Arrange to have someone check on you during an emergency event. Notify your local fire department of your location and special needs such as a ventilator, oxygen, etc.

2. Teach those who may assist you in an emergency how to operate equipment that you are using, such as a ventilator.

3. Prepare a wheelchair, prepare to have more than one wheelchair-accessible exit from your home.

4. Prepare to have back up power for life-support devices if electrical power is interrupted. Contact suppliers about back up batteries or generators.

5. Consult your doctor about an emergency supply of life sustaining medications. Make sure copies of your medical prescriptions, insurance/ benefit cards (health insurance, Medicaid, Supplemental Security Income) and keep them in your emergency kit.

In this issue:

How prepared are Los Angeles County Residents for an Emergency?

Introduction

Emergency preparedness has become a major focus of public health planning and programs throughout the United States. The events of 9/11 and Hurricanes Katrina and Rita revealed the vulnerability of America to the consequences of catastrophic disaster—whether natural or man-made—and vividly demonstrated the necessity of preparing efforts at the federal, state, and local levels.

Southern California geography offers great natural beauty, but also exposes residents to potential disasters. Floods, wildfires, and mudslides occur regularly in Los Angeles County, and earthquakes pose an ongoing threat. According to the California Geologic Survey, a major earthquake is likely to occur in the Los Angeles region during the next 2 decades.1 In addition to the area’s natural vulnerability, as a densely populated region housing the busiest port in the nation, LA County could become the target of a terrorist attack. The RAND Corporation tracks the city of Los Angeles as one of the most likely U.S. locations to become a target of attacks, based on a model which considers a potential target’s vulnerability to attack and the consequences should the target be successfully attacked.

1. Since its mission is to protect and improve the health of LA County residents, the Los Angeles County Department of Public Health (DPH) considers emergency preparedness a top priority. To help guide and enhance preparedness planning efforts, DPH has conducted studies among Los Angeles residents to evaluate perceptions and concerns about public health emergencies and to measure preparedness behaviors. In this LA County Health Survey, we present key findings from the 2005 Los Angeles County Health Survey (LACHS) and the 2004 Public Health Response to Emergencies Survey (PRETS) with regard to four areas: perceived household preparedness to deal with a catastrophic disaster; government and health emergency supplies and family emergency plans; vulnerable populations, and stated intent of cooperative in an emergency.

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Perceived Household Preparedness

The 2005 LACHS asked non-institutionalized adult residents how prepared they felt their household was "to deal with or manage after a catastrophic disaster such as an earthquake or terrorist attack." About 36% of survey respondents reported that they were not very or not at all prepared to deal with a catastrophic disaster such as an earthquake or terrorist attack.

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Reported Preparedness to Deal with Catastrophic Disast, LACHS 2005

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For additional information about the L.A. County Health Survey, visit: http://www.laphil.org/ha/helthdata/earthquakes/index.htm
What can individuals & families do?

· Plan ahead of time to care for your pets in the event of a disaster. For pet preparedness tips, see http://www.fema.gov/plan/prepare/animals.htm. Make sure your animals can be easily identified in the event of separation by providing them with current tags and licenses, and consider microchipping your pets.

· If you are disabled
  · Arrange to have someone check you on during an emergency event. Notify your local fire department of your location and specific needs such as a ventilator, elevator, etc.
  · Teach those who may assist you in how to operate equipment that you are dependent on. Keep a serial number and model list of your equipment.
  · If you use a wheelchair, prepare to have more than one wheelchair-accessible exit from your home.
  · Prepare to have back up power for life-support devices if your region power suppliers back up batteries or generators.
  · Consult your doctor about an emergency supply of life sustaining medications. Make copies of your medications, insurance/benefit cards (health insurance, Medicaid).
  · Supplement Sexuality Services and keep them in your emergency kit.

What can communities do?

· Target emergency preparedness education efforts toward vulnerable populations such as those with lower incomes or education levels.
· Provide necessary data and logistics in all emergency communications.
· Include strategies tailored for vulnerable populations with special needs in every emergency response plan.
· Involve religious and other voluntary organizations to participate in emergency preparedness planning and training. It is important to engage the community as an active unit that will facilitate and lessen the burden of the whole community in a catastrophic event.

· The information provided in this LA Health can guide community leaders in their local emergency planning, and can be utilized to foster greater public trust and cooperation in the ethnically, socially, and economically diverse environment of LA County. The following are steps individuals, families, and communities can take to start preparing today.

How Prepared are Los Angeles County Residents for an Emergency?

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Perceived Household Preparedness

The 2005 LACHS asked noninstitutionalized adults, aged 18 years or older how prepared they felt their household was “to deal with or manage after a catastrophic disaster such as an earthquake or terrorist attack.”

• About 30% of survey respondents reported that they were not very or at all prepared, with a large-scale disaster. Most survey respondents (80%) reported they were either mostly or somewhat prepared. Very few respondents (6%) reported they were completely prepared (Figure 1).