

ROAD-MAP Pilot Community Resiliency Intervention

FINAL REPORT

Authors

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EXECUTIVE SUMMARY

The Los Angeles County Dept of Public Health, Emergency Preparedness and Response Program engaged UCLA to develop, implement, and evaluate a resiliency intervention (“ROAD-MAP”, **R**esilient **O**lder **A**dults in **D**isasters—**M**entored and **P**repared) in 2011. The goals of ROAD-MAP were to develop and pilot a project for building capacities of staff at the City of Los Angeles Department of Aging (LADOA) Multipurpose Centers (MPCs) to work with their senior consumers around safety and preparedness by:

- Producing a targeted resource package in English and Spanish for safety and preparedness (“ROAD-MAP Resource Package”)
- Training MPC staff how to integrate it [the ROAD-MAP Resource Package] on an ongoing basis through the daily activities and resources of the centers.

The Scope of Work listed four objectives:

- Develop and produce a targeted senior safety and preparedness Resource Package to build capacities for staff at LADOA contract MPCs to work with their senior consumers around safety and preparedness.
- Recruit and train MPC volunteer staff and/or paid staff at four MPCs on how to integrate the Resource Package through the daily activities and resources of the centers.
- Conduct a process evaluation to determine the reach, adoption, and implementation of the ROAD-MAP project and draft an evaluation report.
- Develop a senior-specific toolkit of safety and preparedness materials, curriculum and guidance material to be delivered with a ROAD-MAP final evaluation report documenting how ROAD-MAP can be incorporated into existing countywide disaster preparedness programmatic activities.

The UCLA Schools of Medicine and Public Health, Los Angeles County Department of Public Health and the City of Los Angeles Department of Aging collaborated on all aspects of ROAD-MAP. The resulting ROAD-MAP pilot project, including the Resource Package and all the methods, builds on previous resilience and disaster preparedness initiatives and integrates preparedness initiatives from multiple agencies. It is theoretically based in well-accepted health behavior and risk-reduction theories.

By way of background to this project, it is well known that older adults are at increased risk of mortality and morbidities in disasters, despite their often equivalent proportions of preparedness among the population compared to younger adults. Medication supply is particularly important for disaster preparedness for older adults as many of them manage their chronic conditions through medications and need to have a sufficient supply on hand if a disaster occurs. Therefore, preparedness strategies are needed to ensure chronic disease medication continuity in disaster. Previous work completed by our team describes methods for obtaining additional medicines for stockpiling.

A comprehensive environmental scan was performed to obtain all existing English and Spanish language materials that may be usefully deployed in a train-the-trainer approach to disaster preparedness for community dwelling, older adults. The content of the final set of materials represents a synthesis of this review and the format is tailored for persons with low visual acuity.

LADOA recommended MPC sites based on representation of the diverse communities served. In addition, sites were selected from four quadrants of the City of Los Angeles. Four out of six sites considered were chosen for the pilot. MPC Executive Directors (EDs) selected clients as peer trainers at each site. Trainings were held at each of the four sites with the Peer-Trainers. We developed an hour-long training curriculum for our Peer-Trainers. This training session involved going through the actual presentation of the “class. The “Presenter’s Guide” that we developed outlined the class from beginning to end. It gave instruction on how to fill out the Tri-fold pamphlet and when to handout certain materials to the participants. Along with the “Presenter’s Guide”, each Peer-Trainers was given a supplemental booklet on current information for disaster preparedness. This concise and informative booklet was titled “What You Need To Know in Case of a Disaster”. Peer-Trainers were encouraged to read through the booklet on their own. Classes were held over 5 weeks.

Evaluation discloses the following findings. The Peer-Trainers conducted 18 classes across all sites. Classes were held in English and Spanish. Of all classes taught, 63% of the presentations were conducted in English and 37% were conducted in Spanish. The mean number of participants per class session was 14. A total of 342 persons participated in classes across the 4 sites. The target of 2000 was not reached mainly due to a limited pool of unique clients to draw from and the short time frame to publicize the program clearly. The participants were mainly female (77%), between the ages of 65 and 85 (74%), and were Hispanic/Latino (64%). The racial/ethnic distribution of the participants was a good representation of the clients that attend the recruitment MPC sites. The age distribution in ROAD-MAP was a fair representation of older adults in Los Angeles County. The sites themselves did not represent the full diversity of demographics and communities in Los Angeles. Most notably missing are African-American participants.

The Peer-Trainers were overwhelmingly positive about adopting this program into the MPCs in the future. The EDs and Peer-Trainers cited specific materials and specific methods in the classes that they want to adopt in the future, especially the Be Ready Trifold pamphlet and the File of Life. The specific methods the EDs and Peer-Trainers want to adopt are: showing clients the specific items they needed to put in a disaster preparedness kit, the discussion on stockpiling medicines, completing the information in the Trifold in the class, and using senior peers as trainers. All four EDs want to adopt the ROAD-MAP program into the programs and activities currently being offered at the senior center, and felt this is information that seniors need.

In 17 out of 18 classes the trainers adhered to the ROAD-MAP teaching protocol, i.e., they performed all the actions and taught the majority of the sections that are in the ROAD-MAP curriculum. The quality of the teaching was more mixed. Participant response was very positive. For instance, almost all participants (95%) reported they would definitely recommend the program presentation to others, though there were some differences by site.

We provide recommendations for further piloting and improvement at the end of this report.

Recommendation #1: Program success will be improved if the leadership at the site is more motivated to promote the program.

Recommendation #2: Volunteers trained to teach classes require increased training time to master the subject matter and additional feedback and periodic quality control to maintain implementation fidelity.

Recommendation #3: To increase its reach, ROAD-MAP should be fielded in a broader range of community sites and with additional partners.

Recommendation #4: Future pilots should have greater use of audio-visual materials.

Recommendation #5: Future pilots should provide time and resources to evaluate outcomes.

INTRODUCTION

The Pandemic and All-Hazards Preparedness Act (PAHPA P.L.109-417) requires grantees to conduct activities to meet the public health and medical needs of at-risk individuals in the event of a public health emergency. Individuals specifically recognized as at-risk in the statute include senior citizens. The Centers for Disease Control and Prevention (CDC) requires that Public Health Emergency Preparedness (PHEP) grantees (of which LA County Dept of Public Health is one) “engage the State Office of Aging or equivalent in addressing emergency preparedness, response and recovery needs of the elderly.”

The Los Angeles County Dept of Public Health, Emergency Preparedness and Response Program engaged the David Geffen School of Medicine at UCLA, as represented by David Eisenman, (MD MSHS, Associate Professor of Medicine in the Division of General Internal Medicine and Health Services Research) and the UCLA School of Public Health, as represented by Deborah Glik (ScD, Professor in the School of Public Health, Community Health Sciences) to develop, implement, and evaluate a resiliency intervention (“ROAD-MAP”, **R**esilient **O**lder **A**dults in **D**isasters—**M**entored and **P**repared) in 2011.

The goals of ROAD-MAP were to develop and pilot a project for building capacities of staff at the City of Los Angeles Department of Aging (LADOA) Multipurpose Centers (MPCs) to work with their senior consumers on the topic of household emergency preparedness and safety by:

- Producing a targeted resource package in English and Spanish for safety and preparedness (“ROAD-MAP Resource Package”)
- Training MPC staff how to integrate it [the ROAD-MAP Resource Package] on an ongoing basis to senior consumers through the daily activities and resources of the centers.

The Scope of Work had four objectives:

- Develop and produce a targeted senior emergency preparedness Resource Package to build capacities for staff at LADOA contract MPCs to work with their senior consumers on this topic.
- Recruit and train MPC volunteer staff and/or paid staff at four sites to help them build their capacity to use the Resource Package to train seniors through the daily activities and resources of the centers.
- Conduct a process evaluation to determine the reach, adoption, and implementation of the ROAD-MAP project and draft an evaluation report.
- Develop a senior-specific toolkit of safety and preparedness materials, curriculum and guidance material to be delivered with a ROAD-MAP final evaluation report documenting how ROAD-MAP can be incorporated into existing countywide disaster preparedness programmatic activities.

(See Appendix: Scope of Work for original wording.)

The UCLA Schools of Medicine and Public Health, Los Angeles County Department of Public Health (LACDPH) and the City of Los Angeles Department of Aging (DOA) collaborated on all aspects of ROAD-MAP. The resulting ROAD-MAP pilot project, including the Resource Package and all the training and evaluation methods used, builds on previous resilience and disaster preparedness initiatives conducted in Los Angeles County and integrates multiple agency preparedness initiatives. ROAD-MAP integrates a healthy

aging perspective into its framework using the results of focus groups previously conducted by LACDPH and UCLA with seniors on disaster preparedness.

The project was funded by LACDPH's PHEP grant under the name "ROAD-MAP". Project staff soon renamed the resource material and the intervention as "Be Ready"/ "Este Listo" since it was felt that the ROAD-MAP project name would not be attractive to the community and that "Be Ready"/"Este Listo" would be attractive and understandable. This report uses the appellation ROAD-MAP throughout. However, the title on some of the materials in the ROAD-MAP Resource Package and on some of Appendices retain the "Be Ready"/"Este Listo" title.

BACKGROUND AND LITERATURE REVIEW

Building community disaster resilience is a national priority as articulated by several federal agencies including the Department of Homeland Security, Department of Health and Human Services, and the Centers for Disease Control and Prevention. For instance, the overarching goal of the *National Health Security Strategy of the United States of America (NHSS)* is to build community resilience, through its first objective of fostering “informed, empowered individuals and communities”. *Healthy People 2020* additionally states that for communities to become resilient they must address population vulnerabilities, social interconnectedness, individual planning and preparedness. One population vulnerable in disasters and often overlooked in preparedness planning are older adults, even though a recent World Health Organization report (2008) concluded that working with older adults would enhance community resilience in the face of emergencies.

WHY ARE OLDER ADULTS AT-RISK IN DISASTERS?

Generally older adults are considered an at-risk in disasters due to higher levels of disability, chronic disease, and social isolation. For example in heat waves such as the one experienced in Chicago in 1995, more elderly adults were adversely affected. The heat-related mortality rate ratio for people 65 years of age and older relative to people less than 65 years old was 14.55 ($P < .001$, 95% CI = 11.92,17.77).[1] As well, following disasters older adults are at increased risk of experiencing the effects of chronic or underlying health related problems such as arrhythmias, heart attacks, and glycemic instability.[2, 3]

In a more recent disaster, Hurricane Katrina, older adults also experienced worse health outcomes. For example older adults who were displaced after Hurricane Katrina [4] had 1.53 (95% CI: 1.10-2.13) greater odds of sustaining a hip fracture in the year after the storm and 1.24 (95% CI: 1.07-1.44) greater odds of sustaining other fractures after adjusting for other risk factors. Factors that may have contributed to injuries include being displaced from one’s home without important personal health aids (e.g., glasses, hearing aides). Mortality in the year following Hurricane Katrina was not significantly elevated (4.3% before vs 4.9% after the hurricane). However, overall morbidity increased by 12.6% ($P < .001$) compared with a 3.4% increase among a national sample of Medicare managed care enrollees.[5]

It is important to recognize that some research suggests that older adults fare better psychologically after disasters compared with younger and middle-age adults. Possible reasons include better coping styles and “stress inoculation” from earlier challenging experiences. For example, after the Northridge earthquake, older adults expressed less psychological distress than middle aged and younger adults.

But, as pointed out by the National Academies of Science, this may have unfortunate consequences, too.

the more favorable psychological makeup of older adults may actually have the perverse effect of minimizing perceived danger and/or need for preparation. As example, the proportion of surveyed individuals reporting earthquake preparedness steps increased after the 1994 Northridge earthquake in California but with a significant age difference where older adults took fewer steps compared to younger adults.

FACILITATORS AND BARRIERS TO PREPAREDNESS

Social science research over the last three decades suggests several factors that motivate preparedness behavior. The first of these is that “observed information”, that is, seeing others prepare motivates preparedness[6]. Similarly, information that is received about preparedness must describe the actions to take, and explain how these actions are protective[7]. Also, increased discussions (“milling”) with others about preparedness promotes taking preparedness action [8].

Although persons over age 65 are frequently found to be more prepared than their younger age counterparts [9], there remain obstacles to preparedness for older adult populations, which may include expense, how complicated the preparedness step is, functional limitations, and lack of family support.[9] Additionally, poor health, disabilities, and chronic diseases have been associated with diminished preparedness. Specifically, persons with fair/poor perceived health, a disability (activity limitation); and three or more chronic diseases have been found to be less prepared than their healthier counterparts.[10, 11] In Los Angeles County, only 35% of adults age 65 and older report being mostly or completely prepared for a disaster, according to the 2007 PHRETS 2 survey.

Medication supply is particularly important for disaster preparedness for older adults as many of them manage their chronic conditions through medications and need to have a sufficient supply on hand if a disaster occurs. Over the last decade, 6 in 10 Americans experienced at least one chronic medical condition[12]. In 2000, the majority of Americans with chronic illness took one prescription medication (76.5-96.5%), while another (14%) used two or more medications[13]. While most seniors do have access to pharmacy benefits through Medicare Part D or other insurance plans, obtaining prescription medications depends on patient access to a complex series of interdependent links, where physicians must write prescriptions, pharmacists must fill prescriptions and stock medications, insurers must authorize benefits, wholesalers must deliver supplies, and patients must navigate the prescription drug acquisition process.[12] Thus, even in a non disaster situation maintaining medications can be a challenge.

In a catastrophic disaster the odds of obtaining a new medication supply diminishes rapidly, as the pharmacy benefits system may be disrupted and routine system barriers intensified, including patient surge, service delivery breakdowns, or technological failures leading to lack of access to chronic disease medications. Estimates vary regarding the proportion of households that maintain prescription medication stocks for disasters. According to the 2007 PHRETS 2 data, among the LA County respondents whose households regularly used prescription medications, the majority reported having a 30-day supply of their medication on hand for use in an emergency (69.1%, est. 2.65 million households). Still, fully 24% do not have that supply. Therefore, preparedness strategies are needed to ensure chronic disease medication continuity in disaster.

Additionally, individuals looking for information about how much medication to stockpile encounter inconsistent recommendations about how much they should have on hand in case of a disaster. Agencies’ suggestions range from a 3-day to 2-week to one-month supply[12]. Furthermore, pharmacy insurance benefits often restrict refills to seven or fewer days before the medication runs out, require larger co-pays for greater mail-order or retail dispensing units, or expecting patients to pay out-of-pocket for extra supplies. These policies may negatively impact the elderly, the poor, and those with a disability, who are disproportionately affected by chronic illness, and who are more vulnerable to the negative outcomes of disaster. An additional burden is lack of health insurance or reliance on the public health safety net services.

A 2007 study for the Los Angeles County Department of Public Health examined obstacles and facilitators to chronic disease medications for disaster preparedness[12]. Focus group interviews among 158 patient and

caregivers, which included elderly adults with chronic illness, 30 key informant interviews with a range of stakeholders invested in chronic disease medications benefits, distributions, regulation and use, including physicians, pharmacists, and health insurance executives, and a review of the 2007 Evidence of Coverage (EOC) drug insurance policies from nine insurers who provided over 88% of health plan coverage in Los Angeles County were conducted. Results of that work greatly informed the development of the curriculum. The following lessons came out of that research:

- Most community members had not considered the impact of disaster on their chronic disease medication needs.
- Most community members were motivated to have an extra month's supply to prevent personal emergencies of running out for a variety of reasons, including disasters.
- Community members described the following barriers to building medication reserves: restrictive insurance policies, poor patient-physician communication, distrust of mail-order services, and inconvenient refill schedules for multiple medications. Additional barriers included higher out-of-pocket costs for extra supplies, personal forgetfulness leading to just-in-time refills, and a poor understanding of health insurer's Evidence of Coverage rules or vacation exceptions.
- Pharmacists approved of consumers having additional medication supplies for disaster planning. Pharmacists and pharmacy benefits managers perceived the 30-day dispensing unit as a major impediment to consumers' establishment of medication reserves.
- Some pharmacists felt consumers would fail to rotate stocks to avoid expiration.
- Nine out of nine insurers agreed the consumer was responsible for acquiring and maintaining their own disaster medication supply. Insurers recommended that their members keep medication reserves, supporting for members to build their own reserves by refilling early.
- Although only two out of nine Evidence of Coverage policies formally noted 'replacement' or 'vacation' services, seven out of nine insurers verbally identified these policies as options for members to secure additional medication supplies for disaster planning. Five out of nine insurers also suggested using mail-order and refilling at the earliest allowed date to build extra reserves.

Figure 1.

Insurance Pharmacy Benefits From Evidence of Coverage Policies (N = 9)				
Type of Benefit	Covered Service	Frequency (%)	Cost, \$	
			Generic	Brand
Prescription unit and method of distribution	30-d supply at retail or hospital pharmacy	9 (100)	0-20	5-80
	90-d supply at retail or hospital pharmacy	3 (33)	10-33	40-120
	60-d supply, mail order	1 (11)	20-22	40-80
	90-d supply, mail order	6 (67)	10-33	40-120
	100-d supply, mail order	1 (11)	20	80
Ability for patients to build medication reserves	Yes, use vacation or exception request program	2 (22)	Copayment fee	
	No, but encourage use of mail-order program	5 (56)	Copayment fee	
	No program exists	2 (22)	Out of pocket	

Thus, short of paying out-of-pocket for an extra supply of medications, there are only a few options for stockpiling medications affordably. One can fill prescriptions a 3-7 days early each month until a week or more supply for emergencies is obtained. Early refills can also be done with mail-order medications and, since a three month supply is not uncommon, early refill can be result in 2-3 weeks of added medicines. Lastly, the vacation or lost medications override is a viable alternative under some plans.

CHANGING DISASTER PREPAREDNESS BEHAVIORS

To change disaster preparedness behaviors among older adults, The ROAD-MAP project built on a number of theoretical ideas that inform health promotion and risk communication interventions. The major ones used for this project are social cognitive theory, the precaution adoption process, and principles of adult learning. These theories informed not only the materials developed but also how they were implemented.

In Bandura's Social Cognitive Theory, persons learn directly from others and information is often communicated through actions or examples[14-17]. Thus, persons learn from imitating or “modeling” others, and the degree to which they can carry out actions has to do with their level of skills, as well as attitudes. For example, internalizing expectations that one has the capacity to perform the behavior (self-efficacy) and that the behavior will lead to some desirable outcome (outcome expectations) increases the probability that desired behavior change will occur.

Translated into use of the ROAD-MAP pilot project, Social Cognitive Theory means that people in classes must draw on their knowledge as well as follow the lead of the teachers to fill out the workbooks and develop skills and competencies to actually do the types of actions that will enhance their preparedness. One way to do this is to have the teachers actually show them how to fill out the forms and / or have active role models or opinion leaders who help to communicate these ideas and show how they have used the materials.

The Precaution Adoption Process has been applied to behaviors and decision making in regards to risks[18-20]. This stages of change theory suggests that people pass through seven distinct stages of decision making as regards health behavior including being unaware, aware but not engaged, becoming engaged, starting to make a decision, deciding to act or not to act, acting, and finally maintaining the behavior, each stage representing different patterns of behavior, beliefs, and experience. Of importance are understanding transitions between stages, and this theory suggests that behavior is complex and embedded within different types of social and communication environments. The basic sequence followed by a majority of people that include 1) those not yet decided to change their behavior, 2) those who have decided to change 3) and those already performing the new behavior. These ideas are applied to the evaluation instrument which assesses the stages of the respondents in this study.

Another set of ideas used in the ROAD-MAP pilot project has to do with adult learning. Based on research about adults, it has been found that adults are often self directed, prefer practical skills, may bring life experience into the equation, and are often motivated by a perceived need or requirement for the knowledge[21]. Based on these ideas the effective training of adults consists of creating interactive educational formats in both group and individual formats to problem solve, to use role-plays, and to have supervised practice sessions, so that skills and competencies needed to enact or maintain behavior are practiced. One way this is done is to have what is called work- learn – work sessions where the instruction is directly linked to application and then followed up with a discussion for reinforcement.

The behavior change theories used in this program, as well as other commonly used have been distilled into a user-friendly behavior change framework [22]. We used the following six “Conditions for Learning” in the ROAD-MAP project:

1. The person has formed a strong positive intention (or made a commitment) to perform the behavior.
2. There are no environmental constraints that make it impossible for the behavior to occur.
3. The person has the skills necessary to perform the behavior.
4. The person believes the advantages (benefits, anticipated positive outcomes) of performing the behavior outweigh the disadvantages (costs, anticipated negative outcomes).
5. The person perceives more social pressure to perform the behavior than to not perform the behavior.
6. The person perceives that the behavior is consistent with their self-image and does not violate their personal standards.

The first three conditions are considered “necessary and sufficient” for adopting a behavior and the remaining 3 affect the intensity and direction of the intention. See **Table 1** for how this was implemented in ROAD-MAP.

Table 1. General Conditions and Strategies for Learning with the Specific ROAD-MAP's Strategy for Learning and an Example.

Conditions for Learning	General Strategy	ROAD-MAP Strategy	ROAD-MAP Examples
Condition 1: Form a positive intention to perform the behavior.	Raise awareness about need for change by making the risk seem serious and personally relevant.	Discuss specific consequences of loss of specific services in a disaster.	See "What You Need to Know About Disasters", p.1
	Emphasize positive results of adopting the recommended action.	Emphasize positive results of preparedness.	See "Presenter's Guide" sections, e.g. "My Health"
Condition 2: No barriers make it behavior impossible.	Address audience barriers.	Address tangible barriers of money, time, access to learning, unclear recommendations, need for practical help	Classes are free. ROAD-MAP materials are free. Classes in community setting. Classes scheduled by community. Classes held 5-6x/2months.
	Create supportive environment	Supportive environment includes location, teachers, participants	Teachers are peers. "Active listening" encouraged. Caregivers attend.
Condition 3: Skills to perform behavior.	Provide specific directions and training	Hands-on learning during classes.	See "Presenter's Guide" sections, e.g. "Demonstration". Fill out Trifold and File of Life in class.
	Provide role models who have adopted the recommended action and ensure they are visible.	Class leaders are peers drawn from the MPC/CBO.	Class leaders are peers drawn from the MPC/CBO.
	Teach how to solve barriers	Teach how to solve barriers to stockpiling medications.	Simple flow charts. DVD.
Condition 4: Believe advantages outweigh disadvantages.	Emphasize positive results and downplay negative.	Emphasize positive results of preparedness and downplay negative.	DVD discusses benefits of extra medications, addresses insurance obstacles.
	Set up reinforcement through incentives	ROAD-MAP materials available only to participants	Trifold, File of Life, pill box, re-sealable bags.
Condition 5: Perceive social pressure to perform the behavior.	Provide opportunity for "observed information" and milling/discussion.	Peers are teachers. Classmates are peers & friends.	Classes in sites provide "observed information", that is, seeing others prepare and venue for "milling".
Condition 6: Behavior is consistent with self-image.	Customize information and tailor the intervention to the audience.	Community participated in development. Tailored methods and materials.	Spanish/English languages. Tailored for vision/hearing. Materials show older adults.

EVIDENCE-BASIS FOR ROAD-MAP

ROAD-MAP builds on previous resilience and disaster preparedness initiatives conducted in Los Angeles County. UCLA project staff adapted two comprehensive, evidence-based preparedness curricula for use in an older adult, multicultural population. These curricula are PREP- (Programa Para Responder a Emergencias con Preparación) which successfully utilized *promotoras de salud* in a low income LAC immigrant Latino population and PM-PREP (Peer Mentored PREP), a new multi-stakeholder resiliency and preparedness program for developmentally disabled adults who live independently in the community and therefore live with some similar functional limitations as do older adult subpopulations.

PREP (Programa Para Responder a Emergencias con Preparación) was an experimental testing of a culturally-targeted, disaster preparedness program.[23, 24] PREP aimed to improve disaster preparedness among low-income Latino immigrants by training and employing culturally competent, lay health workers (*promotores de salud*) to deliver a culturally targeted intervention. PREP employed a randomized, longitudinal cohort design with two-arms. Low-income, immigrant, Latinos were enrolled (using Respondent Driven Sampling for recruitment of this difficult to reach population) and randomized to either the experimental “platica” group (a small group discussion led by *promotores*), or the comparison “media” group (Spanish and English language brochures on preparedness mailed to the home). The curriculum, materials and brochures were developed specifically for PREP from focus groups conducted earlier with low income Latinos.[25] Baseline and 3-month-post-intervention assessments were performed by bilingual, bicultural, telephone-interviewers blind to study assignment. Findings demonstrated that the platica participants had larger improvements in preparedness. For instance, a majority (93%) of platica participants who did not have water pre-intervention reported having stockpiled water post-intervention. In comparison, over two thirds (67%) of participants in the media arm who did not have water pre-intervention reported having stockpiled water post-intervention ($p=0.003$). Similarly, a majority (92%) of platica participants who did not have food pre-intervention reported having stockpiled food post-intervention. In comparison, slightly less than two thirds (61%) of participants in the media arm who did not have food pre-intervention reported having food post-intervention ($p=0.013$). Lastly, almost three fourths (70%) of platica participants who did not have a written family communications plan pre-intervention reported having a plan post-intervention. In comparison, less than half (42%) of participants in the media arm who did not have a plan pre-intervention reported having one post-intervention ($p=0.002$).

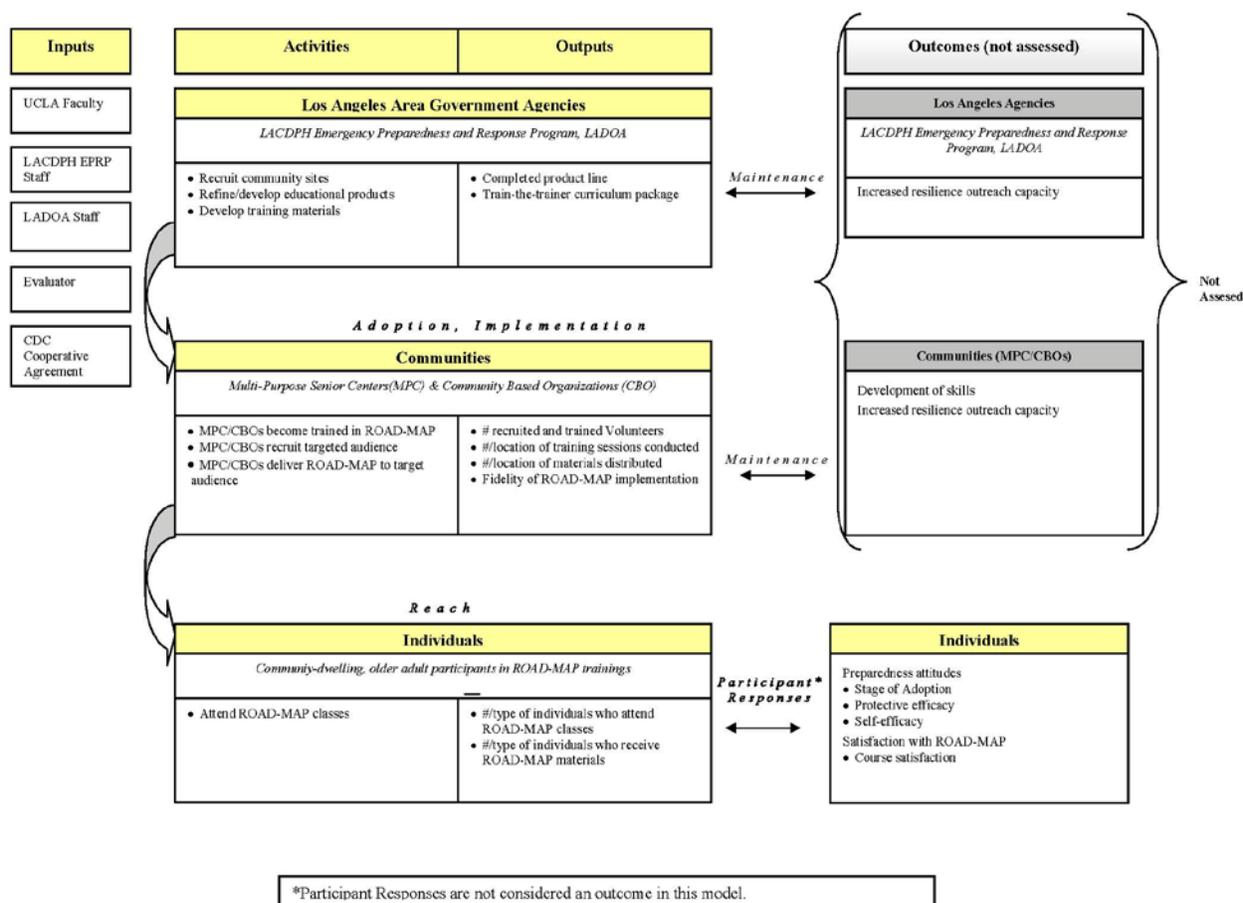
Similar to the above study, PM-PREP employed a community based participatory design to develop, field and rigorously evaluate a disaster preparedness intervention targeting adults with developmental disabilities living independently in the community. The curriculum, materials and teaching methods were developed specifically for this audience from focus groups, key informant interviews, and a community advisory group of stakeholders. Clients from a local Regional Center were recruited and randomized to the classes or a wait-list control group. Data analysis is ongoing and results show clinically meaningful and statistically significant improvements in preparedness knowledge and behavior among the intervention group compared to the control group.

METHODOLOGY

Overview

The following sections describe the ROAD-MAP pilot program. They describe how the educational materials were developed to become the ROAD-MAP Resource Package; how the sites for fielding the pilot project were chosen; how volunteers and staff from the sites were trained to teach the classes; and the methods and results of our evaluation of the pilot program. This ROAD-MAP pilot was a collaborative project between UCLA, the Los Angeles County Department of Public Health (LACDPH), and the City of Los Angeles Department of Aging (LADOA).¹ The logic model guiding the pilot resiliency intervention program is shown below. The RE-AIM framework (Reach, Efficacy/Effectiveness, Adoption, Implementation, and Maintenance) was adapted to evaluate this project, with priority given to the reach, adoption and implementation components, is included in the logic model.[26]

ROAD-MAP PROJECT LOGIC MODEL.



¹ City of Los Angeles Department of Aging (LADOA) is an Area Agency on Aging (AAA). California’s 33 Area Agencies on Aging were established by the 1973 Older Americans Act (OAA) to respond to the needs of Americans 60 and over in local communities. The California State Office of Aging, a nonprofit organization, represents California’s 33 AAAs. Due to its size, Los Angeles County has two AAAs, one housed in the City of Los Angeles Department of Aging (LADOA) and the other one housed in the Los Angeles County Department of Community and Senior Services, the latter which services LA County’s other 87 cities and unincorporated areas.

DEVELOPING A TARGETED SENIOR SAFETY AND PREPAREDNESS PACKAGE—THE ROAD-MAP RESOURCE PACKAGE.

We performed a comprehensive environmental scan to obtain all existing English and Spanish language materials that may be usefully deployed in a train-the-trainer approach to disaster preparedness for community dwelling, older adults. Sources included the peer-reviewed literature, a web-based search using Google search engine, personal contacts, and materials used by LACDPH, UCLA, and LADOA in prior work.

We catalogued and reviewed the materials obtained in collaboration with the LADOA and LACDPH staff. Review criteria included the appropriateness of the material to the preparedness purposes and teaching methods of this pilot project, the appropriateness of the content for community-dwelling older adults, the format (graphics, font, spacing, etc.), and feasibility of using the materials. (See Appendix O for a list of the materials reviewed.)

We included two comprehensive preparedness curricula, described above, in this review and adaptation process: PREP- (Programa Para Responder a Emergencias con Preparacion) and PM-PREP (Peer Mentored PREP).

The content of the ROAD-MAP Resource Package materials represents a synthesis of this review. We chose the content according to the following parameters. First, is the information up to date and current with recommendations? Second, is the purpose of the included content focused on the limited objectives of ROAD-MAP---to improve disaster preparedness of community-dwelling older adults? Third, is the information relevant and meaningful to our intended audience? Lastly, is it clear, easy to understand with no chance for misunderstanding and culturally and age-appropriate? We limited the scope of the content to the “need to know” information as well as in the number of concepts and messages included. ROAD-MAP Resource Package materials are intended to provide how-to behaviors and provide action-oriented information. Concrete examples rather than abstract concepts are preferred (e.g. abstract: services are down in an earthquake; concrete: the loss of electrical power in an earthquake means water can’t be pumped to your house, your refrigerator can’t stay cold, and ATMs are down so you can’t get your money.)

We designed the format specifically for ROAD-MAP. Considerations included the readability of typefaces, print sizes, type color, contrast, and other considerations for improving legibility for readers with low vision, most notably in developing the Trifold[27]. LADOA staff representative of the target audience of seniors participated in all aspects of product development.

We included the “Senior Focus on *File of Life Program*” (“File of Life”) in the Resource Package because prior focus groups identified obtaining extra medications for use in a disaster as a priority and because LADOA senior center staff particularly encourage older adults to adopt the File of Life (free to all older adults). The File of Life is a LADOA program in collaboration with LAC 1st responders (fire, police, EMS) so emergency response personnel have easily accessible and accurate medical information from older adults during emergencies. File of Life used in other programs.[28] (**See ROAD-MAP Resource Package.**)

SITE SELECTION

The City of Los Angeles Department of Aging led recruitment of potential senior centers. (also referred to in this report as MPCs) LADOA has 16 MPCs throughout the City of Los Angeles that serve as community focal points for senior services, including the provision of congregate meals at over 100 dining centers

throughout the City, case management services, home delivered meals, transportation, In-Home Assistance Services, and health education. Individuals who are 60 or older are eligible for services.

LADOA recommended sites based on representation of the diverse communities served. In addition, sites were selected from four quadrants of the City of Los Angeles, San Fernando Valley, Central, South, East Los Angeles areas, to represent community differences. An additional criteria was based on the larger senior sites with greater numbers of participants and high levels of activity which would make them more conducive to engaging the peer volunteers for training and the older adults for participation in the workshops.

LADOA arranged pre-field meetings with the senior site Executive Directors to meet one-on-one with the UCLA Team to further explain the project, the expectations for the sites to have available space for the workshops, peer volunteers, schedule several classes onto their site activity calendars, and outreach to enroll sufficient clients to meet our goal per workshop.

Originally we selected four sites, but upon further exploration and explanation of the requirements for the senior sites with the Executive Directors, two of the sites needed to be replaced by two other sites that would meet the criteria. One of the sites did not have enough volunteers to be trained as peer-trainers. This was due to the current organizational changes with the elimination of a senior program taking place and the consequent shortage of staff. Another site had so many languages spoken at their site that they felt it would not be well received to have only English and Spanish offered, even though this project was merely in the pilot stage. They asked to be reconsidered for when the pilot is rolled out to include more linguistic abilities.

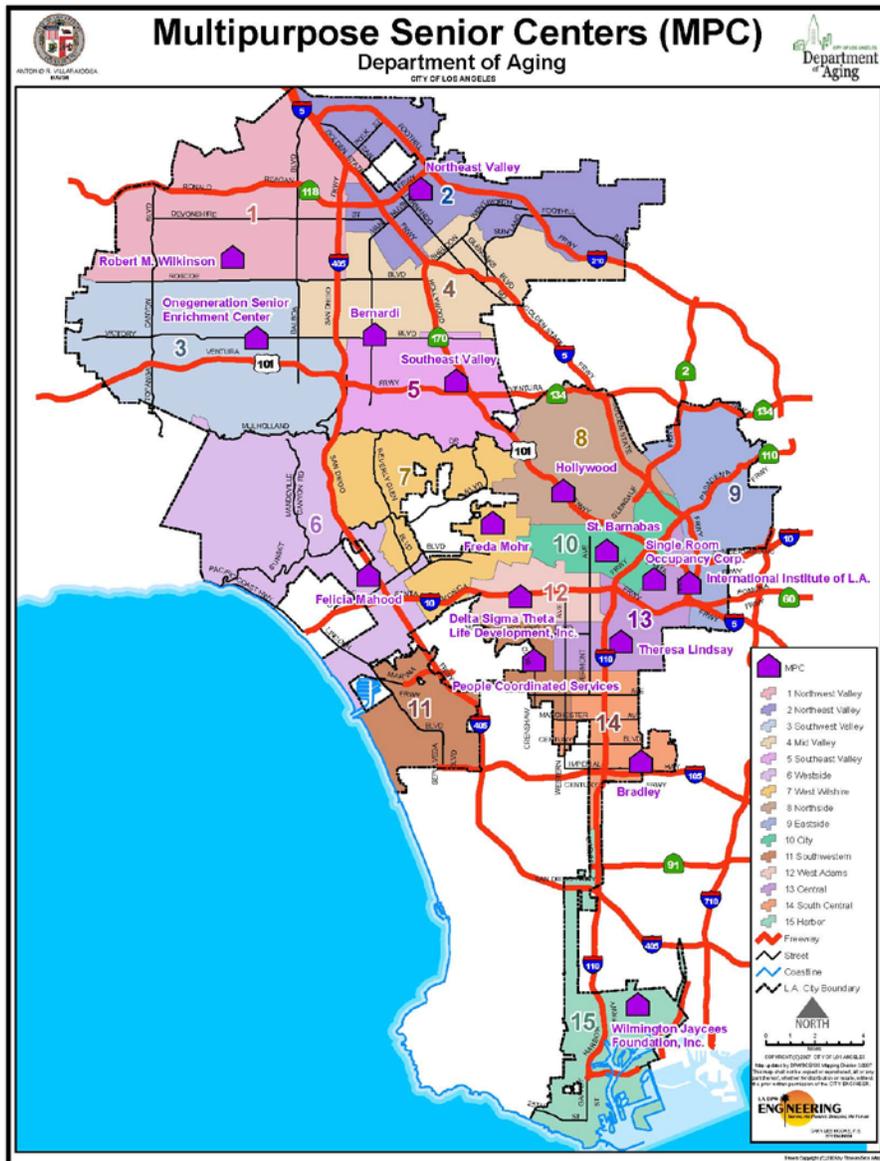
After concluding which sites would be used, the UCLA Team and LADOA went to each site to determine which rooms would be most conducive to the workshops, and gained final concurrence from the Executive Directors. Executive Directors selected clients as peer volunteers. Dates for each workshop at each site were determined and calendared. UCLA scheduled delivery of the items that would be sent to each site. Peer-Leader trainings were scheduled in both English and Spanish, and finalizing details occurred via conference calls. Materials were made available in both English and Spanish.

The final sites included three MPCs and one community-based organization contracting to provide similar senior services. The three MPCs, provide services for approximately 30,000 unduplicated clients monthly or approximately 30% of the unduplicated clients served by all the City of Los Angeles' MPCs monthly. The sites will be called Sites A-D in this report to maintain anonymity.

Table 2. Descriptions of ROAD-MAP Sites

Site	Location	Unique clients (est. monthly)	Total registered clients	Type of organization	Comments
Site A	Central LA	60-80	12,196	MPC	Additional meal sites used for recruitment.
Site B	SF Valley	360	12,748	MPC	
Site C	South LA	Not available	5,880	MPC	Community physician gives frequent workshops.
Site D	East LA	400	Not available	CBO	Staff volunteered as class teachers.

Figure 2. LADOA Multipurpose Senior Centers. (Three of the four sites are MPCs.)



PEER-TRAINERS RECRUITMENT

We recruited volunteers from each of the four sites to conduct ROAD-MAP classes and train participants on using materials from the ROAD-MAP Resource Package. We involved the Executive Directors of the sites to assist us in volunteer recruitment, by asking the EDs to identify competent and willing presenters and a list of at least six names with contact information, the latter which was easily provided. At Site D, staff volunteered as Peer-Trainers so they too are included in this category for the remainder of the report.

TRAINING THE PEER-TRAINERS

We held trainings at each of the four sites with the Peer-Trainers. We developed an hour long training curriculum for our Peer-Trainers. This training session involved going through the actual presentation of the “Be Ready” class. The “Presenter’s Guide” that we developed outlined the “Be Ready” class from beginning to end. It gave instruction on how to fill out the tri-fold manual and when to handout certain materials to the participants. The one-time training sessions were held at their respective site, usually in one of the conference rooms or cafeteria. Trainings were conducted by UCLA and LADOA project staff.

Along with the “Presenter’s Guide”, we gave each Peer-Trainer a supplemental booklet on current information for disaster preparedness. This concise and informative booklet was titled “What You Need To Know in Case of a Disaster”. We encouraged the Peer-Trainers to read through the booklet on their own.

Table 3. Peer-Training Dates, Participants and Language by Site.

MPC	Date of Training	Volunteers Recruited for Training	Volunteers Attending Training	Language
Site A	4/21/11	13	5	English/Spanish
Site B	4/20/11	8	6	English
Site C	4/19/11	4	3	English
Site D	4/22/11	5	5	Spanish

ROAD-MAP CLASSES

Two comprehensive preparedness curricula we previously developed and tested informed the structure of the ROAD-MAP classes. These curricula are PREP- (Programa Para Responder a Emergencias con Preparacion) which successfully utilized *promotoras de salud* in a low income LAC immigrant Latino population and PM-PREP (Peer Mentored PREP), a new multi-stakeholder resiliency and preparedness program for developmentally disabled adults who live independently in the community and therefore live with some similar functional limitations as do older adult subpopulations.

Peer-Trainers led ROAD-MAP program classes over 5 weeks. The classes covered material included in the resource packet, such as viable emergency communication plans, personal medical information, medications for an emergency, reduced hazards for injury in the home, skills to protect oneself during a disaster, and stocks of essential emergency items such as water and food. Classes were set to be one hour long.

We worked directly with the EDs of each site to determine a recruitment plan and when and where classes would take place. Recruitment flyers were placed on bulletin boards announcing the program and encouraging signing up for a class. Sign up sheets were placed in the front desk area of the sites. EDs made announcements during lunch time to encourage participants to sign up for a “Be Ready” Class. Since lunch time was well attended this was an ideal place to promote the program.

Scheduling class time and location was based on available space and time. As all the sites have ongoing classes during the week we had to work around already scheduled classes. Mornings and right before lunch

time were ideal times to conduct a class even though we did have some classes during lunch that worked out fine. Class location varied from small conference rooms to large open cafeterias based on availability.

Table 4. Class Dates and Number of Participants by Community Site

Site A		Site B		Site C		Site D	
Date	Participants	Date	Participants	Date	Participants	Date	Participants
4/26/11	32	5/16/11	13	4/28/11	15	5/3/11	35
5/3/11	8	5/24/11	0	5/3/11	10	5/5/11	18
5/10/11	18	5/25/11	2	5/11/11	6	5/17/11	16
5/17/11	22	5/31/11	28	5/12/11	10	5/18/11	11
5/24/11	13	5/31/11	21	5/16/11	35	5/25/11	11
5/31/11	15	--	--	5/18/11	4	--	--
6	108	5	64	6	80	5	91

Figure 4. ROAD-MAP TIMELINE

Activities	March	April	May	June	July	Aug
ROAD-MAP Package development and production	X	X				
Site Recruitment	X					
Measurement development (Key Informant Interviews, Class Survey, Fidelity Assessment)	X	X				
UCLA and LACDPH IRB	X	X				
Trainer Trainings		X				
Community Classes		X	X			
Participant Surveys (reach assessment)		X	X			
Implementation Fidelity Assessments		X	X			
Key Informant Interviews with Executive Directors				X	X	
Key Informant Interviews with Trainers				X	X	
Analysis of Evaluation Data					X	
Final Report writing						X

EVALUATION of ROAD-MAP

OVERVIEW

We adapted the RE-AIM (Reach, Efficacy/Effectiveness, Adoption, Implementation, and Maintenance) framework to evaluate this project, with priority given to the reach, adoption and implementation components.[26] Evaluation of the ROAD-MAP program included mixed quantitative and qualitative assessments at the levels of the senior centers and their staff to determine the factors influencing *reach, adoption, and implementation*. This framework has been used in a number of health promotion and translational studies, including clinic-based physical activity,[29] diabetes self-management,[30, 31] primary care practice,[32, 33] nutrition education[34] and other health interventions.[26, 35, 36] This framework examines interventions at both the individual and organizational levels by utilizing multiple elements to identify the translatability and public health impact of health promotion interventions. A multiple case study strategy was used to assess how ROAD- MAP *reach, adoption, and implementation* in the community sites in Los Angeles was achieved A case study is an empirical inquiry that investigates an intervention (in this case, disaster preparedness outreach) within its real-life context (in this case community centers). Participant response—the response of the older adults who attended the classes—was also assessed.

Reach was assessed by measuring the number and demographic characteristics of individuals who received ROAD-MAP messages and materials. The following methods were used to assess the extent to which ROAD-MAP reached its target audience and the factors influencing reach:

1. Tracking the number and demographic characteristics of participants attending ROAD-MAP events through collection of post-class survey questionnaires.
2. Key Informant Interviews with Volunteers who conducted the trainings.
3. Key Informant Interviews with Executive Directors of the sites.

Adoption was assessed by measuring 1) the number and representativeness of sites willing to initiate the ROAD-MAP program, 2) the uptake of classes in the sites, and 3) what factors may influence adoption in the future. Measurement sources and methods included:

1. Site Utilization Data (where available)
2. Observer evaluations
3. Key Informant Interviews with Volunteers who conducted the trainings.
4. Key Informant Interviews with Executive Directors of the sites.

Implementation fidelity was measured by assessing a) adherence to planned intervention (ROAD-MAP), b) dosage of intervention received by participants, c) quality of delivery, and d) participant responsiveness. The fidelity by which senior center staff implemented classes was assessed using observations. Factors influencing implementation fidelity were assessed through the following methods:

1. Key Informant Interviews with Volunteers who conducted the trainings.
2. Key Informant Interviews with Executive Directors of the sites.
3. Implementation Fidelity Evaluation through observations by study team.
4. Participant Survey.

EVALUATION METHODS

Participant Survey. The clients participating in the classes were asked to complete a 1 page post-class survey. The survey included demographic questions, satisfaction with the class, and a stages of change item.

No personal identifying information was collected. Participants were provided a program information sheet. (See Appendices D-G)

Key Informant Interviews with Volunteers. Key informant interviews were conducted with Peer Volunteers after the completion of the ROAD-MAP program. Interviews were conducted in English or Spanish based on the Volunteer's preference. Interviews were recorded and transcribed. Interviews conducted in Spanish were transcribed and translated into English. (See Appendix J)

Key Informant Interviews with Executive Directors. Key informant interviews were conducted with Executive Directors after the completion of the ROAD-MAP program. Interviews were recorded and transcribed. (See Appendix I)

Implementation Fidelity Evaluation. An assessment tool was constructed that measured the fidelity of the Peer-Volunteer's teaching to the content and methods taught to them in the Peer-Volunteer Training Sessions and outlined in the curriculum they carried into class with them. Each aspect was rated as "excelled", "achieved", "partially achieved", and "not achieved." The evaluator sat in the back of the classroom and performed the rating. (See Appendix L)

"Excelled" indicated that all of the elements listed were implemented in at least a satisfactory manner, and one or more items was implemented in an exceptional manner. "Achieved" indicated that all of the elements listed were implemented in a correct and satisfactory. "Partially Achieved" indicated that at least one, but not all the elements listed were implemented correctly. "Not Achieved" indicated that every element listed for the item was skipped or implemented incorrectly.

All materials and methods were approved both by the UCLA IRB and the LACDPH IRB.

FINDINGS on REACH

Who did ROAD-MAP succeed in reaching? *Reach* was assessed by measuring 1) the number of individuals who were recruited and received ROAD-MAP messages and materials and 2) the demographic characteristics of individuals who were recruited and received ROAD-MAP messages and materials.

Finding 1: A total of 343 persons participated in classes across the 4 sites. ROAD-MAP aimed to reach 2000 total participants, 500 participants per site, but reached only 343.

There are several reasons for the lower than expected recruitment. Some sites had a limited pool of clients attending their on-site activities, leading to some classes that were too small (less than 10 people). Even when a site reports many unique clients, still many of these clients are frequent visitors to the sites so that the program quickly saturated this pool of clients. Competing one-time events and recurring activities compounded recruitment challenges further. None of the sites have enough unique visitors per month, despite their large number of enrolled clients, to provide 500 participants in only 5 weeks time.

ROAD-MAP's short time frame reduced the field time and recruitment time. There was little time to publicize the program due to the compressed timeline for recruiting sites, recruiting and training the trainers, and holding the classes (see Timeline). For example, only five weeks of trainings were held, from late April to end of May, due to the compressed timeline. Support for the program diminished at one site when the ED took a leave of absence.

Recruitment and promotion of the program was left to the sites to perform and this also influenced the reach of the program. Only one of the four EDs reported being actively involved in the recruiting and promotion of the program (the others left it to their staff and volunteers to lead recruitment). This ED stated that after a few classes with a good turnout, there were too few left to fill other classes. This ED also said one had to keep going up to the clients and explaining the importance of being prepared for an earthquake and push them a bit to sign up.

“So that’s when I had to keep going in and saying, you know, what would you do if there were an earthquake? How many were here during the earthquake the last time? Are you ready? Do you have things prepared just in case? And that kind of pushed them on a little bit to come in and sign up. So yeah, you know, you have to keep doing that with them. And, you know, I think we were offering it at different times. We offered it before lunch, so it was more of a captive audience.”
(Female, English language, Site A)

One of the EDs also thought that one month wasn't long enough to properly recruit or promote the program. Another ED felt the flyers were not enough to achieve the recruitment goal. This ED felt it would be better if a representative of the program went around to people to explain the program and recruit that way.

“You just need to get somebody in front of people, talking to them, because flyers just didn’t generate the response that I had hoped, or even anticipated.” (Male, English language, Site B)

During key-informant interviews, volunteers discussed being tasked with working with the ED to promote the program. Some thought recruitment was easy (*“Well, within our organization, we have different sites. And just because we attend these sites on a weekly basis, it wasn’t that difficult for us to get people to*

attend.” –*Male, Spanish, Site C*) but other volunteers thought it was more difficult. For example, one volunteer reported actively handing out flyers to recruit and promote the program. A few other volunteers indicated that flyers were just posted on bulletin boards in the senior centers. One volunteer reported not seeing any information about the program posted at the senior center. Some reported not enough time for recruitment.

“I think it’s important that the flyers get out for sure much sooner that they did because a lot of people weren’t even aware of them. Even though they were dropped off at the center, they weren’t actually put out in time.” (Female, English language, Site B)

Class participants also received two post-cards for them to give to a friend inviting them to take the class (snowball methods are frequently successful for recruitment.) Though how participants heard about the class was never assessed, one volunteer offered,

“A lot of people referred their friends, and the little card that we gave them, it said to contact our organization if anybody else they knew was interested. So, that helped as well.” (Female, Spanish language, Site C)

Finding #2: The majority of class participants were female (77%), between the ages of 65 and 85 (74%), and were Hispanic/Latino (64%). Just over half of the participants preferred English (54%) as judged by the language they completed the evaluation survey in (46% completed the evaluation survey in Spanish.) There were some demographic differences among the participants reached at the sites. Site B was 75% Non-Hispanic White whereas Site D was 100% Hispanic/Latino.

The age distribution in ROAD-MAP was very close to that expected from a random sample of older adults in Los Angeles County. According to the 2009 U.S. Census Bureau Estimates 1,466,821 persons in LAC are 60 and older. 29% of these are 60-64, 37% of these are 65-74 years old, 23.6% are 75-84 years old and 10.4% are 85 and older. In comparison, the age distribution in this ROAD-MAP pilot was as follows: 21% were 60-64 (8% less than expected); 43% were age 65-74 (6% more than expected); 31% of the participants were age 75-84 (7% more than expected); and only 5% of the participants were 85 (5.4% less than expected). Thus, the age distribution in the ROAD-MAP pilot project differed between 5.4% and 8% from the expected distribution had participants mirrored the age distribution in Los Angeles County.

The ethnicity/race distribution for the overall group did not mirror the distributions of the total clients --the target audience--registered through the four sites. We used LADOA’s June 2009 “Unduplicated Client Count” data for comparisons.

Regarding persons of Hispanic origin:

Site A client base is 23.6% Hispanic; 47% of the Site A participants were Hispanic.

Site B client base is 9% Hispanic; 5% of the Site B participants were Hispanic.

Site C client base is 58% Hispanic; 96% of the Site C participants were Hispanic.

We do not have similar data for Site D but are told it has a client base that is almost 100% Hispanic. The participants reflected this.

In sum, Hispanics participated in generally equal or greater proportion than expected at three of the four sites.

Regarding persons of African American origin:

Site A client base is 6% African American; 5% of the Site A participants were African American.

Site B client base is 1.7% African American; 3% of the Site B participants were African American.
 Site C client base is 3.2% African American; 0% of the Site C participants were African American.
 We do not have data for Site D and no participants there were African American.

In sum, African Americans participated in generally equal or greater proportion than expected at two of the four sites and less than expected at one site.

Regarding persons of Asian/Pacific Islanders origin:

Site A client base is 8.8% API; 20% of the Site A participants were API.

Site B client base is 4.8% API; 17% of the Site B participants were API.

Site C client base is 9.1% API; 0% of the Site C participants were API.

We do not have data for Site D and no participants there were API.

In sum, Asian/Pacific Islanders participated in greater proportion than expected at two of the four sites and less than expected at one site.

Demographic characteristics of the class participants for all four sites combined and for each of the four individual sites are shown in summary fashion in Table 5.

Table 5. Demographic characteristics of the class participants					
Participant Characteristics	Site A Total N = 108 n (%)	Site B Total N = 65 n (%)	Site C Total N = 81 n (%)	Site D Total N = 88 n (%)	All sites N = 342 n (%)
Gender					
Female	78 (74)	46 (74)	60 (76)	68 (85)	252 (77)
Age					
60-64	20 (20)	7 (11)	27 (35)	15 (19)	69 (21)
65-74	42 (41)	31 (48)	34 (44)	34 (42)	141 (43)
75-84	28 (28)	22 (34)	17 (21)	32 (39)	99 (31)
85+	11 (11)	5 (7)	0	0	16 (5)
Race/ethnicity					
Hispanic/Latino	44 (47)	3 (5)	74 (96)	77 (100)	198 (64)
White	25 (27)	48 (75)	3 (4)	0	76 (24)
African American	5 (5)	2 (3)	0	0	7 (2)
Asian/Pacific Islander	19 (20)	11 (17)	0	0	30 (10)
Other	1 (1)	0	0	0	1 (<1)
Did Spouse/partner/caregiver attend class with you?					
Yes	17 (19)	12 (20)	16 (25)	13 (19)	58 (21)
Survey language					
English	105 (97)	65 (100)	16 (20)	0	186 (54)
Spanish	3 (3)	0	65 (80)	88 (100)	156 (46)

FINDINGS on ADOPTION

What was the *adoption* (uptake) of the ROAD-MAP program among the MPCs? Adoption here is 1) the number and representativeness of sites willing to initiate the ROAD-MAP program and 2) the uptake of classes in the sites. What factors may influence adoption in the future?

Finding #3: Three of the five MPCs originally considered were included in the final sample of sites. The two sites declined due to practical barriers to implementation at this point in time, though they were interested in the program in the future. Site D was successfully recruited, though it is not an MPC, since it contracts with LADOA to provide similar services to older adults, especially those of Hispanic heritage.

Finding #4: The sites did not represent the full diversity of demographics and communities in Los Angeles. Most notably missing are African-American participants. The sites in this pilot do not have large numbers of African-Americans among their clients. As detailed above Site A has a client base that is 5.9% African American; Site B has a client base that is 1.7% African American; Site C has a client base that is 3.2% African American; we do not have data for Site D and are told that very few of their client base is African American.

Finding #5: 18 classes were held in all four sites. Classes were held in English and Spanish as planned. Of all classes taught, 63% of the presentations were conducted in English and 37% were conducted in Spanish. The mean number of participants per class session was 14, and as seen in Table 6 there was a good deal of similarity between the sites on these basic characteristics.

Finding #6: Factors that increased the likelihood of future adoption include the ROAD-MAP materials, the uniformly positive response of the volunteers and EDs, resources, competency/skills, personnel, complexity, and time requirements.

The Volunteers were overwhelmingly positive about adopting this program into the community centers in the future.

“I thought that, for the seniors, that’s very effective. They actually learned new ways in order to be prepared.” (Female, Spanish, Site D)

“It was good, very informative.” (Male, English, Site C)

“Well, I think it’s a good idea because a lot of people are not ready for these disasters, and I think they can get a lot of good information. So, to me, it’s a good idea to teach these people.” (Female, English, Site A)

“I think this program where we’ve been talking about disaster services has been one of the best ways to communicate the benefits of being prepared for a disaster to others.” (Male, English language, Site B)

The EDs and volunteers who were interviewed cited specific materials and specific methods in the classes that they want to adopt in the future. All of the volunteers thought the Be Ready Trifold pamphlet and the File of Life were great and said that class participants appreciated the give-aways (pill box for 7 day supply of medications, pen, bag). The specific methods the EDs and volunteers want to adopt are: showing clients

the specific items they needed to put in a disaster preparedness kit, the discussion on stockpiling medicines, completing the information in the Trifold in the class, using senior peers as trainers.

“I like the idea of using some of the seniors as leaders because certainly they learned, and they were able to influence other people to go to the workshop, and they’ll continue to be a resource here in the future.” (ED) (Male, English language, Site B)

“The pamphlets had a lot of information...with large print, color, drawings and they can follow the pamphlet they were given perfectly.” (Volunteer) (Male, English language, Site A)

“Normally, we give the information to them but they don’t do it when they go home. So, by doing it in class, it gave them the opportunity to have everything ready for them.” (Volunteer) (Female, Spanish language, Site D)

“The handouts were very good, very good, especially the updates of your medicines and your doctors and who to contact, all that. And the File of Life, all that was excellent.” (Volunteer) (Male, Spanish language, Site C)

“They [class participants] really liked File of Life. They liked the pill cases and definitely the information they filled out in the [Be Ready] pamphlets in the packet.” (Volunteer) (Female, English language, Site B)

Three of the four EDs thought 1 hour was perfect (not too long and not too short). It gave time to help participants fill out the forms and answer questions. Finally, another ED suggested including video in future adoptions so seniors could actually see “how to be prepared.”

All four EDs want to adopt the ROAD-MAP program into the programs and activities currently being offered at the senior center, and felt this is information that seniors need. Echoing the noted challenges in reaching a larger audience, one of the EDs suggested adopting and expanding the program to their other sites, including the Braille Institute. This ED also thought that designing a program for homebound seniors is important. However, another ED thought fewer classes per site are needed:

“But once you go through it, you go through it. So once we hit a good number of folks that really want to be involved in it, then there’s no more of an audience that’s going to come in and do it, you know? If we did this, let’s say, once a year, maybe as a refresher course, or once every six months, just to keep people abreast..... But offering it like as a once a month thing, we’ll get maybe a push in the beginning. But then the attendance will fall off because most of them will have gone through it.” (Female, English language, Site A)

Finally, a few of the EDs mentioned problems with funding cutbacks as a potential barrier to adding a disaster preparedness program at the senior center.

“So the only thing that I would see in the future, if we don’t have the programs or if we don’t have the staff or volunteers that can help us out to help the seniors. That would be the only thing I can see.” (Female, English/Spanish, Site D)

Executive Directors singled out several areas for improvement. Handouts should be in multiple languages not just English and Spanish (i.e., add Korean, Armenian, Farsi). A common response was lack of organization on the part of the presenters. For example, one thought the volunteers were not adequately trained, and they didn't know the total extent of what was going to be asked of them. Five of the volunteers presenters concurred that they required additional training. For example, after the completion of the program, a few of the volunteers were under the impression that the main purpose of the presentation was to concentrate only on the medications section, rather than a more comprehensive preparedness strategy for seniors. Also many of the volunteers did not feel confident about their own disaster or emergency preparedness knowledge. Finally, volunteers' suggestions for improving the program included notifying participants prior to the class that they should bring the information regarding their medications and important contacts so they are prepared to complete the Be Ready pamphlet and File of Life card during the class session.

Table 6: Characteristics of ROAD-MAP Classes by Site (Total N = 18).

Which of the following best describes your thoughts about preparing for a disaster?	Site A (N = 5)	Site B (N = 4)	Site C (N = 6)	Site D (N = 3)	All sites (N = 18)
Language of presentation, N (%)					
English	5 (100)	4 (100)	1 (25)	-----	10 (63)
Spanish	-----	-----	2 (75)	3 (100)	6 (37)
Number of participants, mean (range)	13 (3-22)	16 (2-28)	13 (6-35)	15 (11-18)	14 (2-35)
Duration (minutes), mean (range)	49 (40-55)	44 (30-60)	52 (35-80)	62 (60-65)	51 (30-80)
Number of presenters, N (%)					
One presenter	2 (40)	1 (25)	-----	1 (33)	4 (22)
Two presenters	1 (20)	3 (75)	6 (100)	2 (67)	12 (67)
Three presenters	2 (40)	-----	-----	-----	2 (11)

FINDINGS on IMPLEMENTATION

What was the *implementation* fidelity of ROAD-MAP at the levels of the MPCs? *Implementation* refers to the intervention agents' fidelity to the various elements of an intervention's protocol, including consistency of delivery as intended.

Implementation fidelity was measured by assessing a) adherence to planned intervention (ROAD-MAP), b) dosage of intervention received by participants, c) quality of delivery, and d) participant responsiveness. A curriculum package and on-going technical assistance from UCLA provided the guidance for MPC volunteers and staff trained for program delivery. The fidelity by which senior center volunteers and staff implement trainings was assessed using observations and conducting key informant interviews. Participant responsiveness was assessed using the post-class survey.

Finding #7: In 17 out of 18 classes the trainers adhered to the ROAD-MAP teaching protocol, i.e., they performed all the actions and taught the majority of the sections that are in the ROAD-MAP curriculum (Table 2).

Specifically, all of them (partially or fully) introduced themselves and the five topics to be covered during the presentation and all of them handed out the Trifold Pamphlet. A single section of the curriculum was missed in only three classes (personal safety section in 1 class, health section in 1 class, and File of Life in 1 class.)

Finding #8: As recommended to ensure enough time for teaching and an adequate teacher-student ratio, the mean duration of each class presentation was 50 minutes and for most of the class sessions (67%), two volunteers presented the information together. These can be thought of as “dosage” measures.

Finding #9: Despite the findings above that trainers taught the majority of the protocol, with adequate time and teachers, the quality of the teaching was more mixed² (Table 7). Based on the evaluator's observations:

- 66% of the presenters achieved or excelled at discussing the personal safety section per protocol; 28% partially achieved discussing it.
- 44% of the Volunteers achieved or excelled at discussing the health section of the pamphlet; 50% partially achieved discussing it.
- 88% of the Volunteers achieved or excelled at discussing the important contacts section of the pamphlet.
- 53% of the presenter's achieved or excelled at discussing the safe at home section of the pamphlet; 47% partially achieved discussing it.
- 61% of the presenters achieved or excelled at explaining the File of Life; 33% partially achieved discussing it.
- 72% of the presenters achieved or excelled at demonstrating understanding of the program material during the class presentation; 28% partially achieve this.

² “Excelled” = all curricular elements were implemented correctly and one or more items were implemented in exceptionally well. “Achieved” = all curricular elements were implemented correctly. “Partially Achieved” = at least one curricular element was implemented correctly. “Not Achieved” = all curricular elements were either implemented incorrectly or not at all.

- 50% of the presenters identified and clarified misconceptions; 39% partially achieved this and 11% (2 classes) did not achieve it at all.

Table 7: Implementation Fidelity of Classes (Total N = 18).

Implementation Fidelity	Site A (N = 5) n(%)	Site B (N = 4) n(%)	Site C (N = 6) n(%)	Site D (N = 3) n(%)	All sites (N = 18) n(%)
Did Presenter:					
Introduce topics?					
Exceeded	1 (20)	2 (50)	1 (17)	3(100)	7 (39)
Achieved	3 (60)	1 (25)	4 (66)	-----	8 (44)
Partially achieved	1 (20)	1 (25)	1 (17)	-----	3 (17)
Not achieved	-----	-----	-----	-----	-----
Hand out Trifold?					
Exceeded	4 (80)	2 (50)	6 (100)	3(100)	15 (83)
Achieved	1 (20)	2 (50)	-----	-----	3 (17)
Partially achieved	-----	-----	-----	-----	-----
Not achieved	-----	-----	-----	-----	-----
Discuss personal safety section?					
Exceeded	3 (60)	-----	-----	3(100)	6 (33)
Achieved	1 (20)	1 (25)	4 (67)	-----	6 (33)
Partially achieved	1 (20)	2 (50)	2 (33)	-----	5 (28)
Not achieved	-----	1 (25)	-----	-----	1 (6)
Discuss health section?					
Exceeded	-----	-----	-----	2 (67)	2 (11)
Achieved	2 (40)	2 (50)	1 (17)	1 (33)	6 (33)
Partially achieved	3 (60)	2 (50)	4 (66)	-----	9 (50)
Not achieved	-----	-----	1 (17)	-----	1 (6)
Discuss contacts section?					
Exceeded	-----	-----	-----	3(100)	3 (17)
Achieved	4 (80)	4 (100)	5 (83)	-----	13 (72)
Partially achieved	1 (20)	-----	1 (17)	-----	2 (11)
Not achieved	-----	-----	-----	-----	-----
Discuss safe at home section?					
Exceeded	1 (20)	-----	-----	3(100)	4 (24)
Achieved	1 (20)	2 (50)	2 (40)	-----	5 (29)
Partially achieved	3 (60)	2 (50)	3 (60)	-----	8 (47)
Not achieved	-----	-----	-----	-----	-----
Discuss File of Life?					
Exceeded	-----	1 (25)	-----	2 (67)	3 (17)
Achieved	3 (60)	3 (75)	2 (33)	-----	8 (44)
Partially achieved	2 (40)	-----	3 (50)	1 (33)	6 (33)
Not achieved	-----	-----	1 (17)	-----	1 (6)
Demonstrate understanding of material?					
Exceeded	-----	-----	-----	3(100)	3 (16)
Achieved	3 (60)	4 (100)	3 (50)	-----	10 (56)
Partially achieved	2 (40)	-----	3 (50)	-----	5 (28)
Not achieved	-----	-----	-----	-----	-----
Identify and clarify misconceptions?					
Exceeded	-----	-----	-----	2 (67)	2 (11)

Achieved	3 (60)	3 (75)	-----	1 (33)	7 (39)
Partially achieved	1 (20)	1 (25)	5 (83)	-----	7 (39)
Not achieved	1 (20)	-----	1 (17)	-----	2 (11)

Finding #10: The factors influencing implementation fidelity were available resources, staff availability and expertise, and organization characteristics.

The majority of the volunteers felt the program was easy to implement, the training manual was easy to follow, and the content of the manual was clear and understandable.

“Yes, it gave step by step. So, within my first class session, I actually had the book open just to follow. And it was good. It was easy for me to do that. And then, the next time, I didn’t have the book with me. I just took very brief notes, but it was easy to follow.” (Female, Spanish, Site D)

“Your information was very basic and simple and clear. It was up to us to follow up on it and just enhance it and put it out there.” (Male, English, Site A)

“I think once you do the first presentation, you become a little bit more skilled in doing the rest.” (Female, English, Site C)

“By having the people actually come and give us a presentation the way that we were supposed to do it, that helped a lot.” (Female, Spanish, Site D)

However, seven of the eighteen volunteers (both English and Spanish) suggested improvements in their training and did not feel adequately prepared to deliver the program.

“I don’t think it was simple. I would say that rather, for us-the elderly-the adult individuals, a lot of things are harder for us to assimilate because our brains don’t understand things as easily any longer.” (Male, Spanish language, Site C)

“I think maybe a better training, as in bigger description, a better description on exactly what we are focusing on. And I don’t know how other presenters found that, but that was our problem, is that we didn’t grasp the concept early enough.” (Female, English language, Site A)

“I only feel partially prepared. I don’t think I’m fully prepared because just one single class isn’t enough.” (Female, Spanish language, Site C)

All of the volunteers thought the handouts were great. They particularly liked the File of Life.

“The handouts were very good, very good, especially the updates of your medicines and your doctors and who to contact, all that. And the File of Life, all that was excellent.”(Female, English language, Site B)

“The one I really liked is that medical alert, File of Life card.” (Female, Spanish language, Site C)

“They really liked File of Life. They liked the pill cases and definitely the information they filled out in the pamphlets in the packet.” (Female, Spanish language, Site D)

Four of the volunteers indicated that having two volunteers was ideal.

“Just having two people in the presentation helped in the aspect of, when people needed assistance writing information down in their packets, while one person was doing the presentation, the other person was helping fill out packets.” (Female, Spanish language, Site D)

Finding #11: Participant response was positive (Table 8). Almost all participants (91%) thought the presentation was informative and interesting, worth their time (92%), and felt the person presenting the information was easy to understand (93%). Almost all participants (96%) thought that the provided materials were helpful to them, 94% felt the information learned during the presentation would help them make the right decisions about how to prepare for a disaster, and 96% thought that preparing for a disaster would help them. Participant’s responses for all four sites combined and for each of the four individual sites is shown in summary fashion in Table 9.

By the completion of the class, 55% of the participants said they want to prepare for a disaster but either haven’t started doing it yet or haven’t finished doing it yet, and 22% said they have finished preparing for a disaster.

Almost all participants (95%) reported they would definitely recommend the program presentation to others. There were some differences in satisfaction among the participants by the sites. Across all responses Site B participants were less satisfied with the classes and perceived them to be less effective and recommended than did participants at other sites, though even still the majority of Site B participants responded “very much” when asked if the presentations were informative, worth their time, and easy to understand.

How would you rate presentation?	Site A (N = 108) n (%)	Site B (N = 65) n (%)	Site C (N = 81) n (%)	Site D (N = 88) n (%)	All sites (N = 342) n (%)
Informative and interesting?					
very much	99 (92)	52 (81)	77 (97)	79 (93)	307 (91)
Somewhat	8 (7)	12 (19)	2 (3)	6 (7)	28 (8)
not at all	1 (1)	-----	-----	-----	1 (<1)
Worth your time?					
very much	93 (88)	54 (84)	78 (100)	80 (98)	305 (92)
Somewhat	8 (8)	7 (11)	-----	2 (2)	17 (5)
not at all	5 (4)	3 (5)	-----	-----	8 (3)
Information easy to understand?					
very much	99 (93)	51 (80)	78 (100)	81 (98)	309 (93)
Somewhat	6 (6)	13 (20)	-----	2 (2)	21 (6)
not at all	1 (1)	-----	-----	-----	1 (<1)
Pamphlet will be helpful to you?					
very much	98 (94)	60 (94)	74 (99)	82 (98)	314 (96)
Somewhat	6 (6)	4 (6)	1 (1)	2 (2)	13 (4)
not at all	-----	-----	-----	-----	-----
Information will help you make the right decisions about how to prepare for a disaster?					
very much	97 (93)	56 (87)	72 (96)	81 (98)	306 (94)
Somewhat	6 (6)	7 (11)	3 (4)	2 (2)	18 (5)
not at all	1 (1)	1 (2)	-----	-----	2 (<1)
Do you think preparing for a disaster will help you?					
very much	100 (96)	56 (87)	76 (99)	82 (99)	314 (96)
Somewhat	4 (4)	7 (11)	1 (1)	1 (1)	13 (4)
not at all	-----	1 (2)	-----	-----	1 (<1)
Would you recommend the presentation to a friend or loved one?					
definitely yes	87 (97)	47 (84)	63 (95)	69 (99)	266 (95)
Maybe	2 (2)	9 (16)	3 (5)	1 (1)	15 (5)
probably not	1 (1)	-----	-----	-----	1 (<1)
Due to missing data, variables do not sum to the total N for each of the four sites.					

Table 9: Participants' Responses to Stages of Disaster Preparedness (Total N = 342).

Which of the following best describes your thoughts about preparing for a disaster?	Site A (N = 108) n (%)	Site B (N = 65) n (%)	Site C (N = 81) n (%)	Site D (N = 88) n (%)	All sites (N = 342) n (%)
1. I have heard about preparing for a disaster, but never thought about doing it myself.	5 (7)	4 (8)	9 (16)	16 (30)	34 (16)
2. I am trying to decide if I should prepare for a disaster.	7 (10)	7 (15)	1 (2)	-----	15 (7)
3. I have decided I <u>do not</u> want to prepare for a disaster.	-----	-----	1 (2)	-----	1 (<1)
4. I have decided I <u>do</u> want to prepare for a disaster, but haven not <i>started</i> to do this yet.	18 (27)	18 (37)	16 (30)	17 (31)	69 (32)
5. I have decided I <u>do</u> want to prepare for a disaster, but have not <i>finished</i> doing so.	16 (38)	10 (20)	12 (22)	12 (22)	50 (23)
6. I have decided I <u>do</u> want to prepare for a disaster, and I have finished doing so.	12 (18)	10 (20)	15 (28)	9 (17)	46 (22)
Due to missing data, variables do not sum to the total N for each of the four sites.					

DISCUSSION

The findings from the evaluation suggest that overall program objectives were met. Both materials created and the program implemented to train older community dwelling adults about emergency and disaster preparedness were well accepted both by agencies and organizations serving this population and those who utilized these resources – the class participants. We were able to recruit 4 sites and recruit and train 18 volunteers to run the classes –all within 2 months—and to enroll 342 older adults who took the classes in another 5 weeks time. This, at a minimum, suggests that the approach taken is feasible and possibly sustainable, especially if it is implemented over a longer time frame and within more sites.

This pilot successfully employed some of the levers advocated in building community disaster resilience. Linkages were successfully built among different government agencies, various community based organizations, and an academic institution for the purpose of preparedness. Staff capacities for addressing disaster preparedness among seniors were moderately improved. There was some variation by the presenters themselves in regards to how thoroughly the materials were presented as well as consistency of the training across sites. With the exception of one center with health educators who staffed the classes (Site D), there were deficits in regards to how the presenters did in regards to covering all 5 sections of the course. Specifically the personal safety and health sections were less adequately addressed according to the ratings of the evaluators (personal safety: 66% achieved/excelled; health: 44% achieved/excelled). The important contacts section was dealt with well by 89%, the safe at home section was achieved by only 51% and the File of Life section by 61% of presenters.

However, it is important to recognize how well the course and materials were received by the participating older adults. Their response was overwhelmingly positive. So, while the volunteers did not always implement the training with complete fidelity, or cover everything with perfect fidelity, they did implement it in a manner and at a level that was well received by the community participants. The real test is whether or not participants became more disaster prepared, a question that this project was not funded to answer.

So there is an interesting paradox in these results. While the audiences of older adults taking the classes were satisfied and liked the materials, the volunteers themselves who led the classes were critical of their own competence in presenting the materials, and the outside observers were critical of the organization of the classes and implementation fidelity among the volunteer trainers. That is, while the audiences seemed to like the materials, the trainers seemed to be less confident in regards to their own capacity to present this content, and the observers noticed those parts of the content that were not covered adequately. We, the volunteers and the evaluators, may be stricter judges of our capacities than is the target audience.

Part of the issue may be inadequate or inconsistent training. It is conceivable that many of the volunteers did not know much about emergency and disaster preparedness and the single two-hour training was too brief. Likewise, while we did pull together a lot of information in the training manual, it may be that we need to increase the amount and scope of materials distributed and discussed. Coverage of some of the more difficult topics that were done less well may relate back to the training for volunteers as well as helping them achieve a deeper understanding of why there was an emphasis on personal safety and health. Volunteers, who are not experts in disasters may have only a partial or unclear understanding, for example, of why health and safety concerns are so important for seniors during or after a disaster. The initial train-the-trainer sessions could have been supplemented with on-going opportunities for feedback and quality improvement. We believe that this is the kind of program that public health nurses could implement by recruiting community-based sites and volunteers, training them, and providing opportunities for feedback and quality improvement

Another interpretation of this finding about lack of trainer confidence is fact that some of what ROAD-MAP is presenting is information that has not been widely communicated. This is a comment that was heard both in the training sessions and also in the classes by participants. Even for those who had taken the Red Cross training, many claimed that no one had talked about medications, records or health information. A basic challenge for both volunteer trainers and participants is that most people have a limited understanding of emergency preparedness topics. We found that by creating materials that were specifically geared to the life course issues of aged seniors that we were able to engage them in a proactive planning exercise that was relevant for emergencies and also had implications more generally for getting medical prescription filled, organizing important documents, having a handy list of doctors and contacts. We found for example that there was a good deal of interest in the File of Life. Moreover the high levels of satisfaction expressed the content of the workshops and the materials handed out indicate that the information shared with respondents was of interest and not duplicative of other types of classes they have received. One critique we received was the absence of audio-visual materials. The original presentation did not include a generic video about preparedness for older adults. The problem is that many of the multi--purpose centers lacked an easily accessible DVD player so the DVD had to be dropped from the classes. Instead, as part of the materials development, we produced an English and Spanish video that expressly addresses some of the programmatic content. The DVD is the first to explain how anyone, including older adults, can obtain extra medications for their supply kit.

Participants in Site B for example were much more critical of the classes and volunteer trainers than the other sites. It should be noted that Site B clients tended to be English speakers from higher income communities than those from the other sites so part of the negative response could be attributed to higher expectations. A more important issue, however, for this group may not have been the quality of classes or the subject matter but the manner in which classes were organized. Specifically at Site B, ROAD-MAP was sometimes inserted into ongoing scheduled activities and classes that were focused, for example, on cultural enrichment such as writing, reading and art. This was due to the ED's perception that he had a very impacted schedule and few additional resources. This type of approach is probably inappropriate. People should volunteer to come to the classes and not have it inserted into their routine schedules.

There were issues in regards to recruitment in many of the centers, with some classes that were small (less than 10 people). In some cases that was due to competing events and activities as well as only a certain number of people at any given time who were interested. A short time frame to publicize the program clearly was an issue as well, as well as absent leadership to support the program in one of the agencies. The target of 500 per site was too ambitious. None of the sites have enough unique visitors per month, despite their large number of enrolled clients, to provide 500 participants in only 5 weeks time.

The age distribution in ROAD-MAP was very close to that expected from a random sample of older adults in Los Angeles County: the age distribution in the ROAD-MAP pilot project differed between 5.4% and 8% from the expected distribution had participants mirrored the age distribution in Los Angeles County. African Americans were not well reached, with only 2% of participants identifying themselves as African-American. Only 5% of participants were over 85 years old. Though not the target of this pilot, one population certainly not reached was older adults who are more isolated.

Also, as in many health related types of education, more women than men opted to attend; about three quarters of participants were women. This is a typical pattern in regards to group health and self help education and training with more respondents always female. However, it is important to consider how to market this to men, as well as also attract caregivers especially for some of the more frail adults. (It may be noteworthy that 21% of participants were accompanied by a spouse, partner or caregiver). Along those lines

the participants appeared to have been the healthier and more independent within the older adult population (based on observation, not data). Those who are frail or have functional limitations may have been less likely to attend these classes. Thus, as noted above, one group that could benefit are those least likely to participate in these types of activities.

One strength of this ROAD-MAP pilot is that much was learned about reaching the target audience, getting community sites to adopt it and volunteers to implement it correctly. ROAD-MAP is a targeted program for older adults, which allows for tailoring to different individuals, settings and communities. The materials were developed by and for older adults who may have low visual acuity, especially the Trifold, and are currently available in two languages. The train-the-trainer manuals can be adopted and modified as needed by other communities. Thus, the ROAD-MAP program can be implemented again and in a larger and broader set of community sites. The model of linking across government agencies and working in community settings may have value to jurisdictions elsewhere.

Further piloting of the program will yield additional and much needed information. Can such a program reach a broader range of older adults including those who less affiliated with community programs or evenly relatively isolated from social networks? How does adoption of the program differ in different organizational delivery contexts? Can it be sustained in organizations such that is taught frequently over the years? Is it effective in improving disaster preparedness and how can it be further leveraged to link health departments with community-based organizations to improve community resilience?

We have several recommendations for future ROAD-MAP implementation:

Recommendation #1: Program success will be improved if the leadership at the site is more motivated to promote the program.

The success of this pilot was influenced greatly by the leadership of the hosting community-based sites. Sites where the leadership were more invested in the success of the program promoted it more and facilitated the holding of more classes which, thus producing greater numbers of participants and reach into the community. The site where leadership was less motivated devolved all responsibility for program promotion to the volunteers. Volunteers do not appear to be effective promoters of such programs.

Recommendation #2: Volunteers trained to teach classes require increased training time to master the subject matter and additional feedback and periodic quality control to maintain implementation fidelity.

The ROAD-MAP Project Director attended many classes and provided feedback to the class leaders about implementing the program per the curriculum. This was certainly helpful. Additionally, we recommend additional group training sessions early on with teachers more expert in disaster preparedness to help clarify ambiguities and provide expert guidance.

Recommendation #3: To increase its reach, ROAD-MAP should be fielded in a broader range of community sites and with additional partners.

Additional venues could include the senior housing affiliated with City and County Housing Authorities and other community-based organizations, other accessible community programs affiliated with the MPC sites were in this pilot, and additional community-based organizations and faith-based organizations. Additional partners such as the Public Health Nurses in LACDPH's Community Health Services Division, the Senior

Emergency Preparedness Action Committee (SEPAC) agency member organizations , and the Los Angeles Community Academic Partnership for Research in Aging (L.A. CAPRA) can provide access to these sites, greater reach into the community, and increase the potential for effectiveness and sustainability. More community-based partners should be involved, for instance one site has a community-based physician who gives biweekly health workshops. Physicians, pharmacies, and other local businesses can be engaged as resources. For instance, local pharmacists and physicians should be briefed on the program aims and invited to help clients gain a stockpile of extra medicines.

Also, to increase its reach, ROAD-MAP can be presented at the various “clubs” held at the MPCs. 50-100 people attend these club meetings, (e.g. sewing club, bridge club). We had chosen not to do this during this pilot because we did not think that 2 volunteers per class could handle a class that size. In retrospect, we could have organized it so that all the volunteers attended that class and broken the participants into smaller groups.

Recommendation #4: Future pilots should have greater use of audio-visual materials.

As part of the materials development, we produced an English and Spanish video that expressly addresses some of the programmatic content. The DVD is the first to explain how anyone, including older adults, can obtain extra medications for their supply kit. It is produced targeting older adults (though it will be useful to anyone.) In the future the ROAD-MAP program should be more proactive about finding or bringing equipment for playing DVD (and extension cords) as these centers did not seem to have any of the above.

Recommendation #5: Future pilots should provide time and resources to evaluate outcomes.

Clearly a large limitation of this pilot was the lack of time to conduct a true outcome evaluation. While we can show this was a feasible intervention and that participants, staff and volunteers had positive opinions of it, however, until we can show that it stimulated some change we do not understand the intervention’s efficacy, an important outcome in the development of evidence based practices.

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