

## **Typical Community Resilience Lessons Learned for At-Risk Individuals**

### ***Cross-Sector Coordination and Decision-making Challenges***

With the limited exceptions where there are established healthcare or social service collaboratives, essential service organizations—utilities, public and private transportation, medical facilities, and key businesses do not coordinate on preparedness or resilience needs or convene to examine gaps and improvement actions.

- Local jurisdictions in the last few years have taken steps to become more closely coordinated, and to outreach and engage with state and federal agency partners and the private sector, but few have yet to engage community groups and non-profits that serve community and particularly at-risk constituencies.
- Ways to incorporate organizations servicing these needs into post- disaster planning and decision-making.

### ***Response and Initial Recovery***

- While some preparedness gaps have been or are being addressed by local government, and some of the larger jurisdictions have lists (some GIS-based) of eldercare and other facilities serving at-risk individuals in their geographic area, many of the more crucial shortfalls identified over the last several years in all-hazards exercises and local incidents remain.
- Increasingly these gaps are being exacerbated by climate change extreme events, eg. an increase in tornadoes, superstorms such as Hurricane Sandy, and the severe drought in California and some other regions of the country. These include gaps include:
  - Limited knowledge of infrastructure interdependencies and consequent misperceptions of how long service disruptions may extend based on certain scenarios, including electric power, natural gas, public and private transportation, communications (voice and Internet), banking services, etc.
  - Absence of or limited two-way alert and warning systems that can reach at-risk individuals (particularly disabled and older adults that may be homebound and/or suffering from various physical or mental health-related disabilities).
  - Capabilities for situational awareness/monitoring those that remain at home (and particularly in high-rise buildings) post-disaster.
  - Realistic procedures for evacuations for non-notice events that take into account constraints on evacuee mobility, ability, or willingness to leave their homes. Such constraints may be fear of leaving familiar surroundings to leaving the family pet.)

- Shelter-in-place procedures for individuals, healthcare facilities, eldercare and other facilities serving at-risk individuals in the event of toxic hazmat emissions.
- Patient tracking systems, triage procedures, including decontamination procedures for hazmat events tailored to the disabled and older adults with differing needs.
- Capabilities to enable the disabled and older adults access to points-of-distribution or emergency mobile services for essential disaster supplies and services—potable water and portable toilets, food, fuel, medications, communications, cash, access to dialysis or other life-saving services and equipment.
- Temporary and longer term housing that can address the special needs of displaced at-risk individuals and especially the disabled and older adults.
- Supporting mechanisms to enable necessary stakeholder involvement, collaboration, and information-sharing.

### ***Hospitals/Healthcare and Supply Chain Challenges***

- Upgrading hospital surge capacity to accommodate a region-wide approach with focus on surge capacity to meet at-risk individuals’ needs, particularly those with significant physical and cognitive disabilities; This should include a strategy for identifying and utilizing certain local primary care centers that can address these health needs;
- Recruitment and training of volunteers and neighborhood CERT Team personnel to address needs of the disabled and older adults.
- Ways to incorporate non-profits that distribute food and provide other services particularly for disabled and older adults incorporated into regional distribution planning for emergencies to ensure an orderly process.
- A certification process for eldercare facility and homecare personal for access to patients post-event.
- A process needs for relocation and reentry of displaced disabled and older adults, as well as to identify and track certain at-risk individuals (physical or mentally disabled and those needing special medical equipment or care).
- Procedures for infection control and hazmat debris/refuse removal for healthcare facilities, shelters, and eldercare facilities to contain potential health issues arising from increasing.
- Memorandums of understanding with vendors by eldercare facilities and community groups to assist in access to needed emergency resources.
- Identification of legal and regulatory issues can impose impediments to assisting the disabled and older adults after a major emergency—HIPAA requirements, standards of care, etc.

### ***Awareness, Education, Training and Exercises***

- Outreach and education for non- profit social service and human care organizations on geriatric preparedness and resilience, including on behavioral issues that could affect older adults post-emergency event.
- Awareness and education campaigns to inform the disabled and older adults, their families, and other caregivers on what conditions they could expect after largescale emergencies in respect to availability of essential goods and services, and what they can do/where they can access assistance.
- Educational awareness campaign to train local government and other stakeholders, the disabled and older adults, and their caregivers on recovery material/equipment protection and scam prevention for which older adults often are the target.
- Clear guidance and procedures for managing volunteers that will be serving at-risk individuals at the neighborhood level post-event.
- Outreach to and education of elected officials through community meetings and scenario-based workshops on the preparedness and resilience needs of particularly the disabled and older adults recovery issues and needs.
- Regional and targeted “whole community” stakeholder workshops and exercises to explore gaps and point to improvement activities, and to test existing plans and procedures.

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### ***Lessons Learned Resources***

***The preceding Lessons Learned are based on exercise after action reports, summaries of proceeding from these and other workshops, conferences, and meetings noted below, or observations and studies regarding events, incidents and disasters over the last several years to the present.***

*Community Health Resilience Exercise Series, Exercise 1* held Feb. 2015 by the California Department of Public Health with BACRDR and regional stakeholders to examine healthcare coalition preparedness to respond in a toxic emission scenario.

*Bay Area Geriatric Resilience Roundtable* held March 2015 by SGEC, BACRDR, the American Red Cross, San Francisco Departments of Emergency Management and Public Health to begin to share information on priority gaps and capabilities specific to resilience for older adults in the 12 county (8 million in population) region.

*Workshop on Interdependent Lifelines Risk and Regional Resilience: South Napa Earthquake Lessons Learned for the “Big One”.* Regional training event sponsored by BACRDR with regional lifelines, Napa City officials, and other local, state and federal government agencies to examine outcomes from the South Napa Earthquake response and recovery, current activities, and actions to further lifelines and regional risk and resiliency for a regional catastrophic earthquake.

*Alameda County Energy and Other Lifelines Interdependencies Tabletop Exercise and Action Plan: Focus on Climate Change Extreme Events*, held Feb. 2014 to enable the Bay Area's second largest county and 14 cities to identify resilience gaps related to major winter flooding scenario.

*Bay Area Meta-Leadership and Cross Sector Workshop*, held Dec. 9, 2011, by the Bay Area Cross-Sector Partners in Preparedness (BACSPP), California Resiliency Alliance, and the Centers for Disease Control & Prevention.

*Bay Area Resiliency Leaders Summit*, California Resiliency Alliance, September 7, 2011.

*Bay Area Resiliency Network (BARN) Bay Area Transportation Resiliency Summit*, held June, 28, 2011, by BARN and the Association of Contingency Planners.

*Creating a Common Operating Picture (COP) For Bay Area Response and Recovery Workshop*, held May 3, by ABAG, Bay Area Center for Regional Disaster Resilience (Bay Area CRDR), California Resiliency Alliance, Carnegie Mellon University Disaster Management Initiative, National Disaster Resiliency Center, San Jose Water Company, Applied Materials, Inc. and Vanir Technology, Inc.

*Delta Levees Roundtable: Protecting Lives, Property, and Critical Infrastructure*, held March 1, 2012, Delta Vision Foundation.

*Golden Guardian 2011* functional exercise—focus on Catastrophic Flooding, held May, 2011

*Intra-State Energy Assurance Tabletop Exercise*, held November 10, 2011, hosted by the California Energy Commission.

*Loma Prieta Earthquake Commemoration Event—Preparing to Recover: A Whole Community Approach in the Bay Area Region* held October 17, 2011, San Francisco Department of Emergency Management.

*Primary Care Emergency Preparedness Project Training Session*, held March 2, 2012 in Oakland, California Primary Care Association and Primary Care Development Corporation.

*Regional Resiliency Assessment Program: Focus on California Dairy*, held July, 2011, U.S. DHS/Infrastructure Protection.

*Regional Disaster Resilience Initiative Workshop—Focus on Recovery and Restoration*, held Nov. 1, 2011, ABAG and Bay Area CRDR.

*Regional Disaster Resilience Initiative Workshop—Focus on Recovery and Restoration, Infrastructure Interdependencies Workshop I: Utilities, Communications and Transportation Systems*, held January 31, 2012, ABAG and Bay Area CRDR.

*Regional Disaster Resilience Initiative Workshop—Focus on Recovery and Restoration, Infrastructure Interdependencies Workshop II: Essential Goods and Service Providers*, held May 2, 2012, ABAG, Bay Area CRDR, California Resiliency Alliance, Carnegie Mellon University Disaster Management Initiative, National Disaster Resiliency Center, San Jose Water Company, Applied Materials, Inc. and Vanir Technology, Inc.

*Silicon Valley Guardian Disaster Response Table Top Exercise: Public/Private Integration* held September 13, 2011, National Disaster Resiliency Center.

*Silver Sentinel Regional Functional Exercise*, held October 23, 2008, by the San Francisco Department of Emergency Management.

*Statewide Hospital/Water Exercise*, held Nov. 17, 2011, by Public Health Department, Santa Clara County and San Jose Water.

*Whole Community Resiliency Workshop*, hosted by CADRE (Santa Clara County Collaborating Agencies' Disaster Relief Effort), April 17, 2012.

***Incidents and Disasters (Local, National and International)***

South Napa CA Earthquake Aug. 2014

Hurricane Sandy, fall, 2012

Joplin, Mo. and Tuscaloosa, Alabama tornado events, 2011

New Zealand earthquake in 2011

Japanese earthquake and tsunami in 2011

San Bruno Gas Pipeline explosion, Sept. 2010

Mehserle Verdict, July 2010

Chilean earthquake, 2010

Cosco Busan Oil Spill, Nov 7, 2007

Hurricane Katrina Aug. 200 (and other (and other significant Gulf storms)).