



# Today's presentation

- Brief overview of RAND's resilience orientation
- RAND's community resilience portfolio
- Next steps

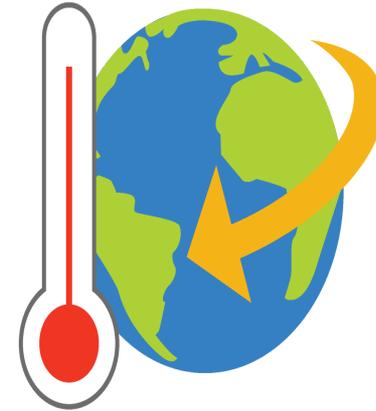
# Strengthening community resilience is critical in a changing world



**DISASTERS  
MORE  
COMMON**



**DISASTER  
COSTS  
INCREASING**



**NEW  
DISASTERS  
EMERGING**

# Resilience vs. Preparedness



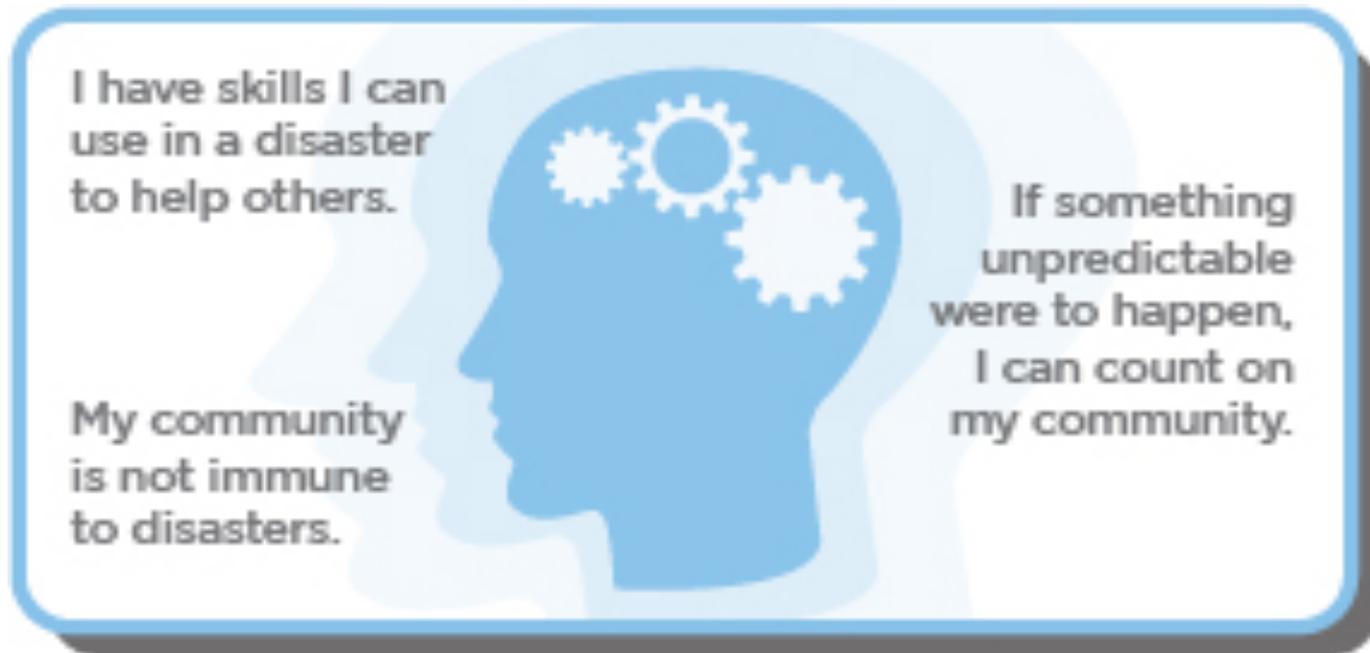
**Traditional  
disaster  
response models  
have not worked  
well enough**

# Community resilience requires building neighbor to neighbor reliance and organizational connection



# Resilient communities drive residents towards a resilience mindset

## Community Resilience Mindset



# RAND has developed a portfolio of work in community resilience



## Focus on Community Resilience

In an emergency, strong communities can be the key to survival.

Connect with your neighbors.  Be prepared to respond.

Learn more at [prepare2respond.org](http://prepare2respond.org)



TECHNICAL REPORT

### Building Community Resilience to Disasters

A Way Forward to Enhance National Health Security

Anita Chandra • Joie Acosta • Stefanie Stern • Lori Uscher-Pines  
Malcolm V. Williams • Douglas Yeung • Jeffrey Garnett • Lisa S. Meredith



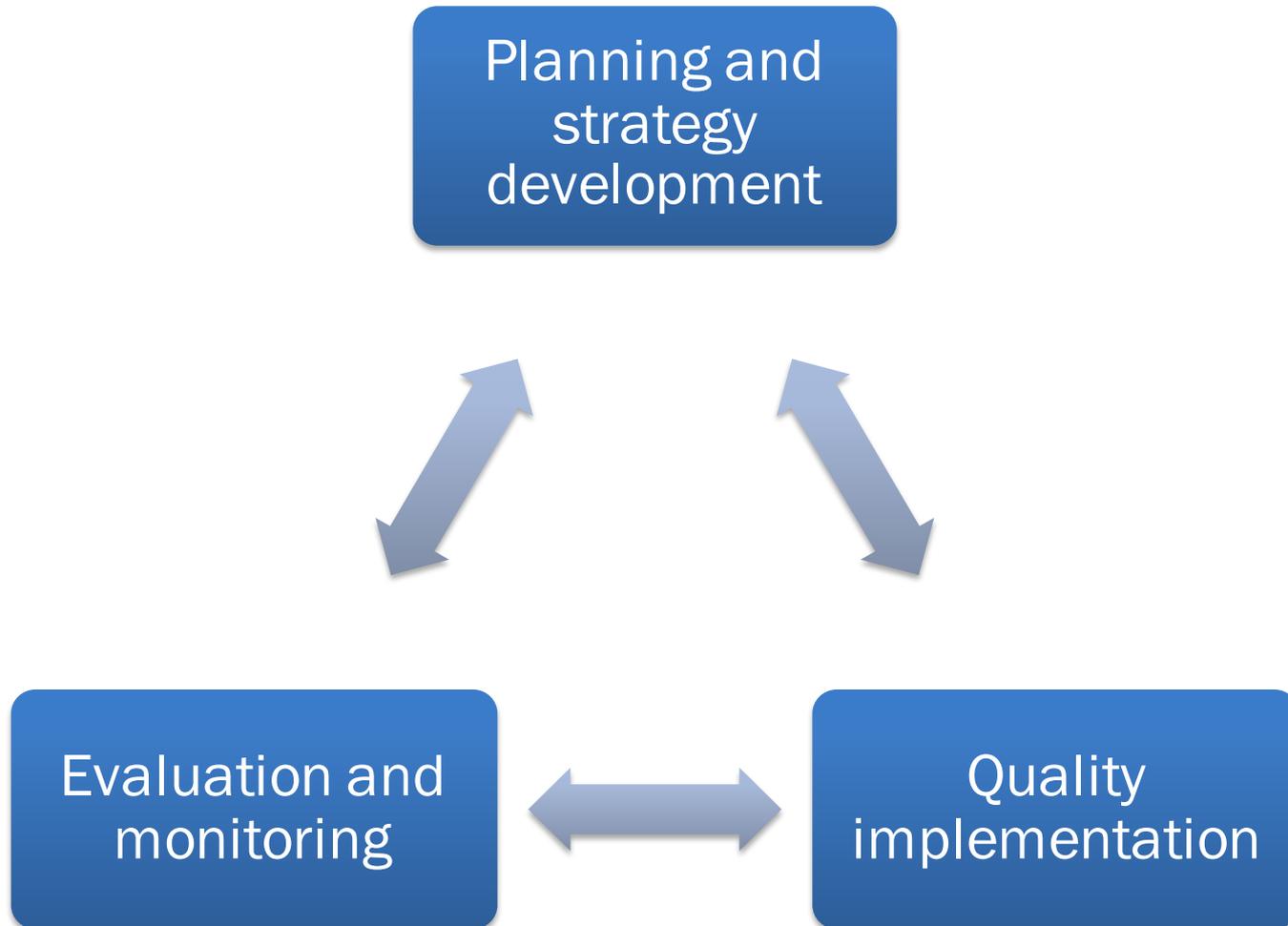
# RAND's portfolio has uniquely bridged disciplines and sectors



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# RAND's portfolio addresses key issues needed to bring ideas to action



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# Planning and strategy development spans from national to local, including global



National strategy



State-wide plans



City-wide plans

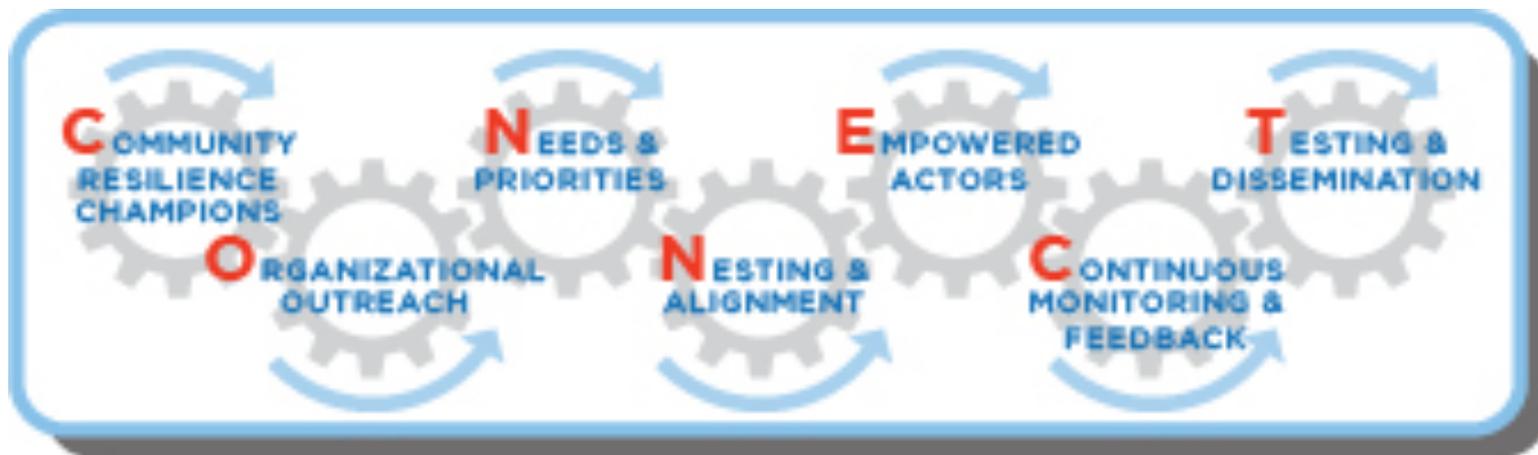


Louisiana's Master Coastal Plan



Resilience strategic plan for Washington DC

# RAND developed CONNECT – a resilience strategic planning model



# Strategic planning model builds on 8 levers of community resilience



From RAND, Chandra et al. 2011

# RAND has supported master planning processes

- Created participatory, stakeholder-informed decision framework and support tool
- Use framework to evaluate tradeoffs among a variety of proposed resilience strategies and projects



# Created step by step training tool to support community planning

## Table of Contents



More information? Check us out at:  
[www.rand.org/resilience-in-action.html](http://www.rand.org/resilience-in-action.html)

Or email us at:  
[communityresilience@rand.org](mailto:communityresilience@rand.org)



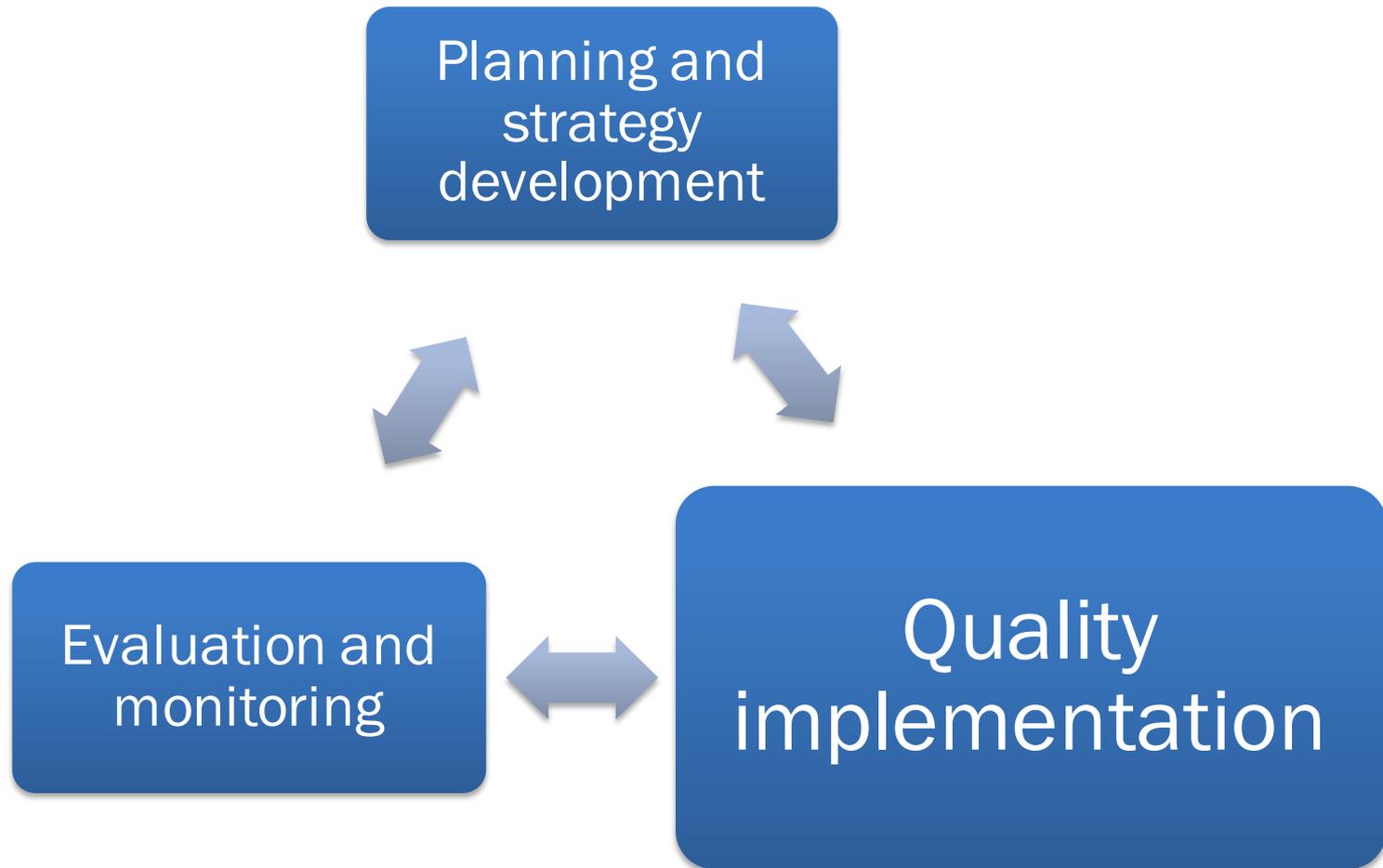
### Building Resilience (Organization):

- ❖ Assets
- ❖ Household Preparedness
- ❖ Long-Term Recovery
- ❖ Climate Change
- ❖ Daily Routine
- ❖ Behavioral Health
- ❖ Social & Economic Impacts
- ❖ Broader Community
- ❖ Data Systems

### Building Resilience (Community):

- ❖ Assets
- ❖ Long-Term Recovery
- ❖ Climate Change
- ❖ Behavioral Health
- ❖ Social & Economic Impacts
- ❖ Data Systems
- ❖ Sustainable Development

# RAND's portfolio addresses key issues needed to bring ideas to action



# Quality implementation supported by a variety of tools

RAND tools to launch a successful resilience effort cover four key domains:

- Communication
- Mapping assets, needs and vulnerabilities
- Leveraging government, military, and non-state actors
- Assessments and decision supports

# Created campaigns and branding



In an emergency, strong communities can be the key to survival.

Connect with your neighbors.  Be prepared to respond.

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Emergencies Do Happen



Learn more at [bereadyla.org](http://bereadyla.org)

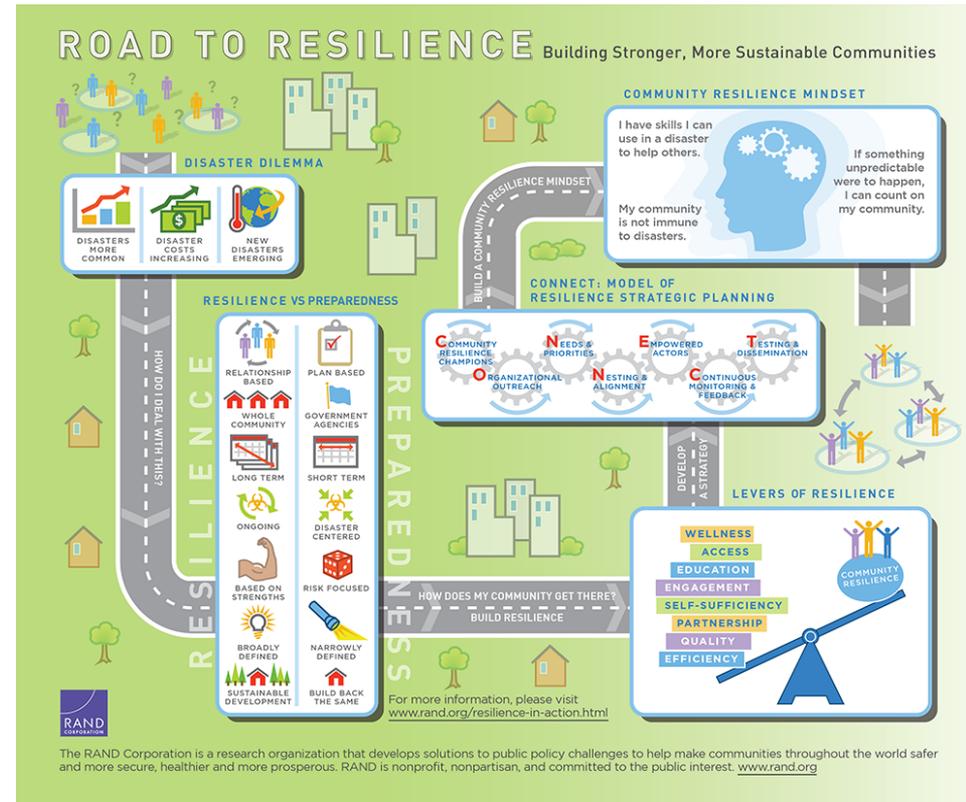


CONNECT TODAY / STRONGER TOMORROW

# Developed tools for community education and mobilization

Speaker's toolkit

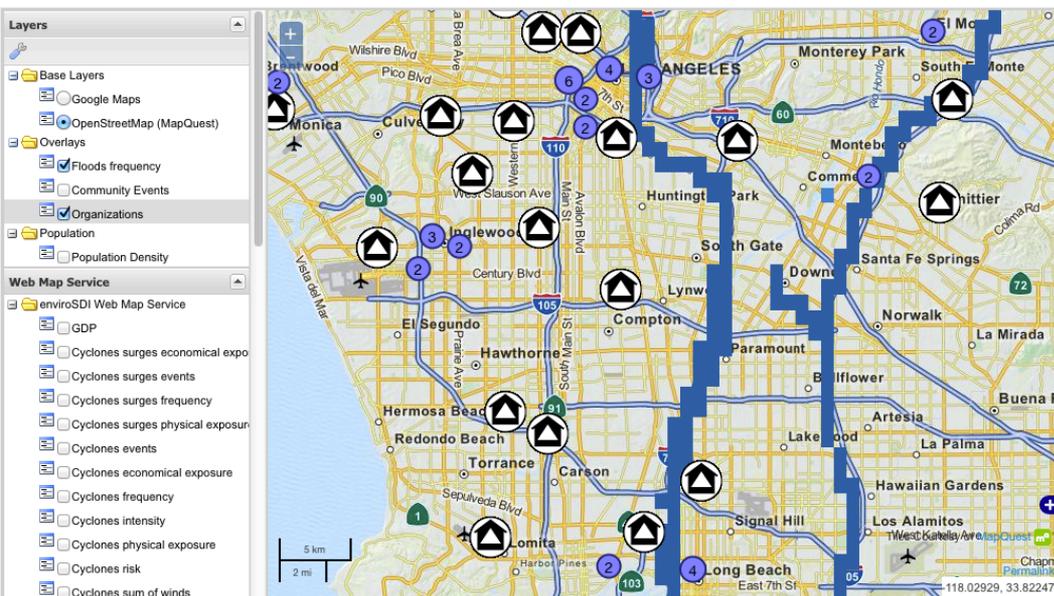
## Community Resilience



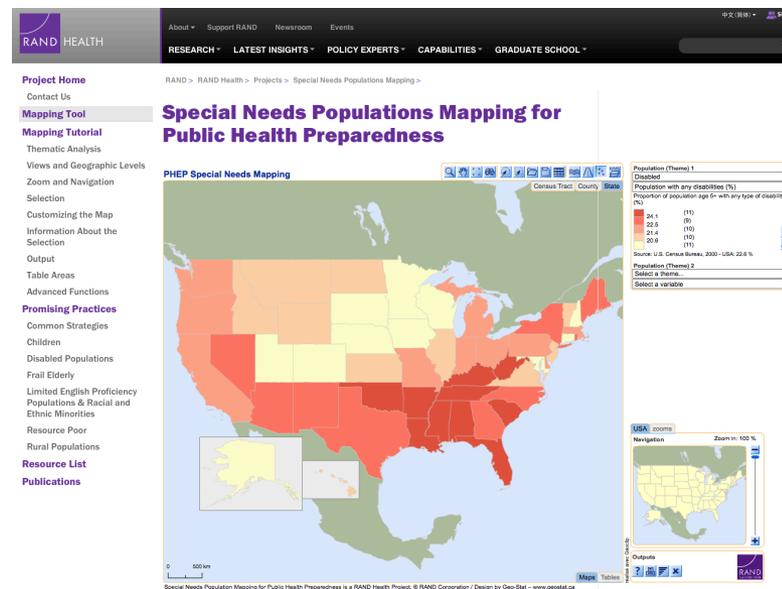
Infographics

# Developed mapping tools to assess population needs and assets

LA Community Resilience Mapping Tool (Sahana)

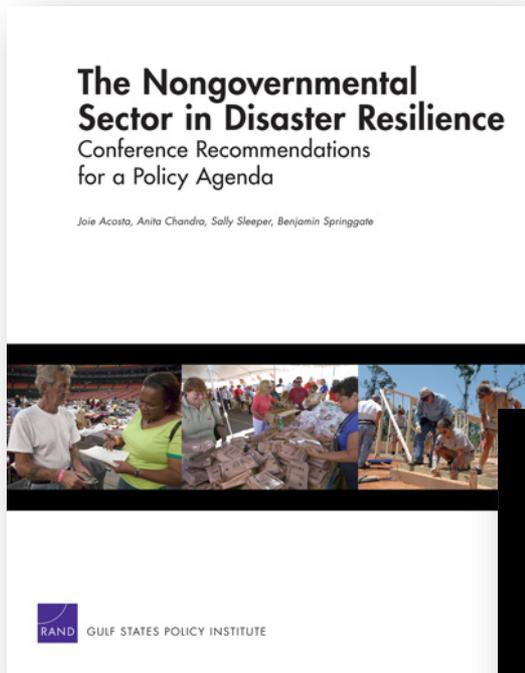


Special Needs Population Mapping Tool

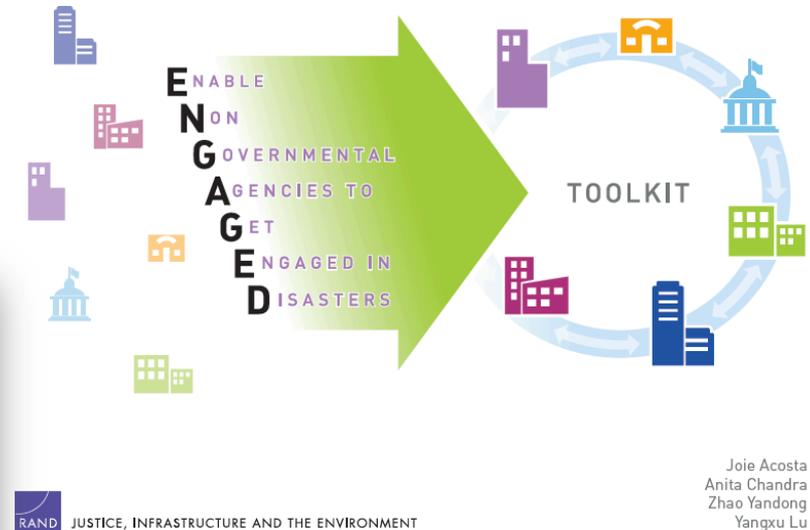
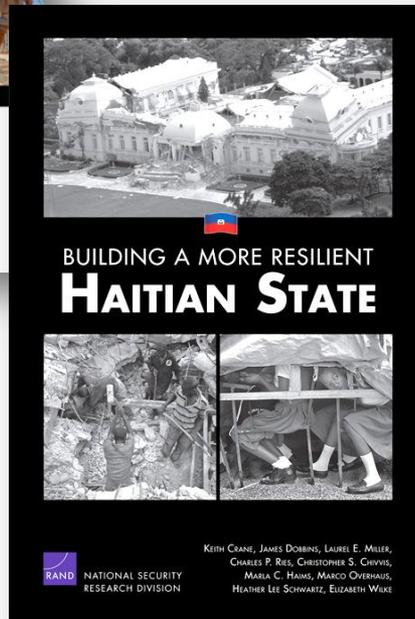


Youth Resilience Corps Mapping Tool

# Identified ways to leverage government and civil society



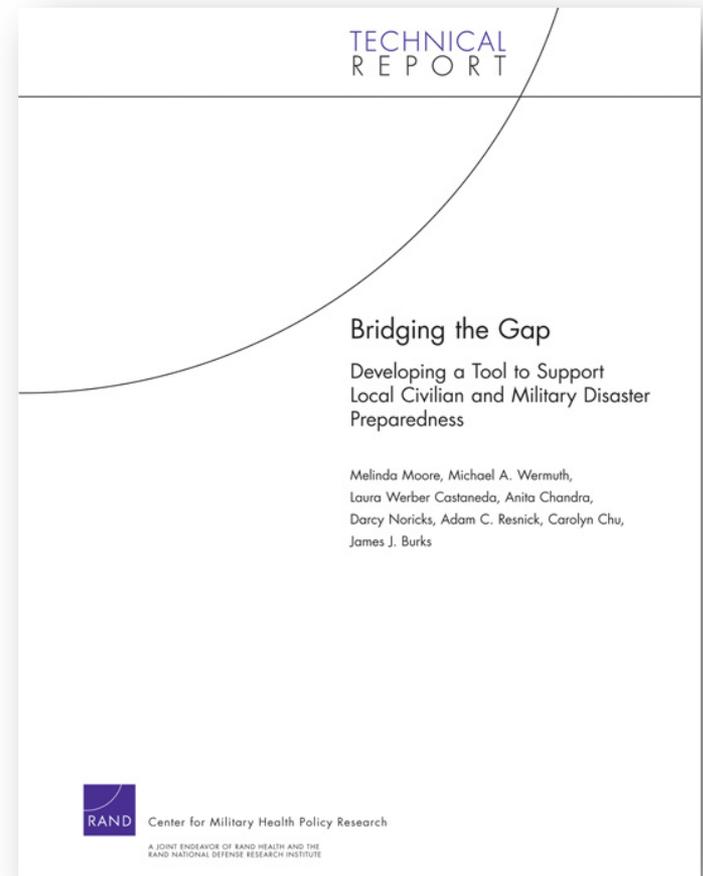
Policy and practice recommendations



NGO self-assessment toolkit

# Created assessment and decision support tools

- Developed community resilience tabletop exercise
- Creating a decision support framework for military-civilian response

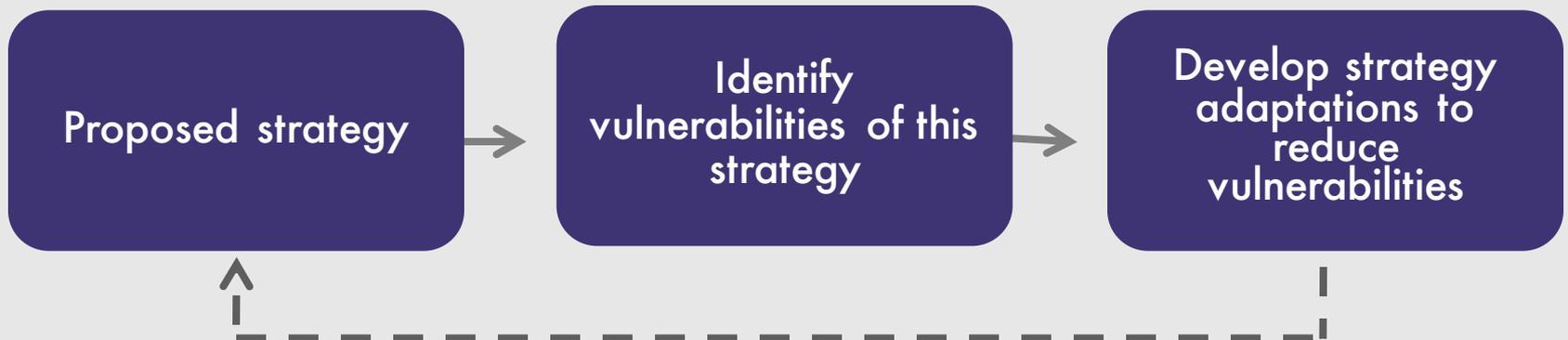


# Applied methods like Robust Decision Making to climate mitigation and adaptation choices

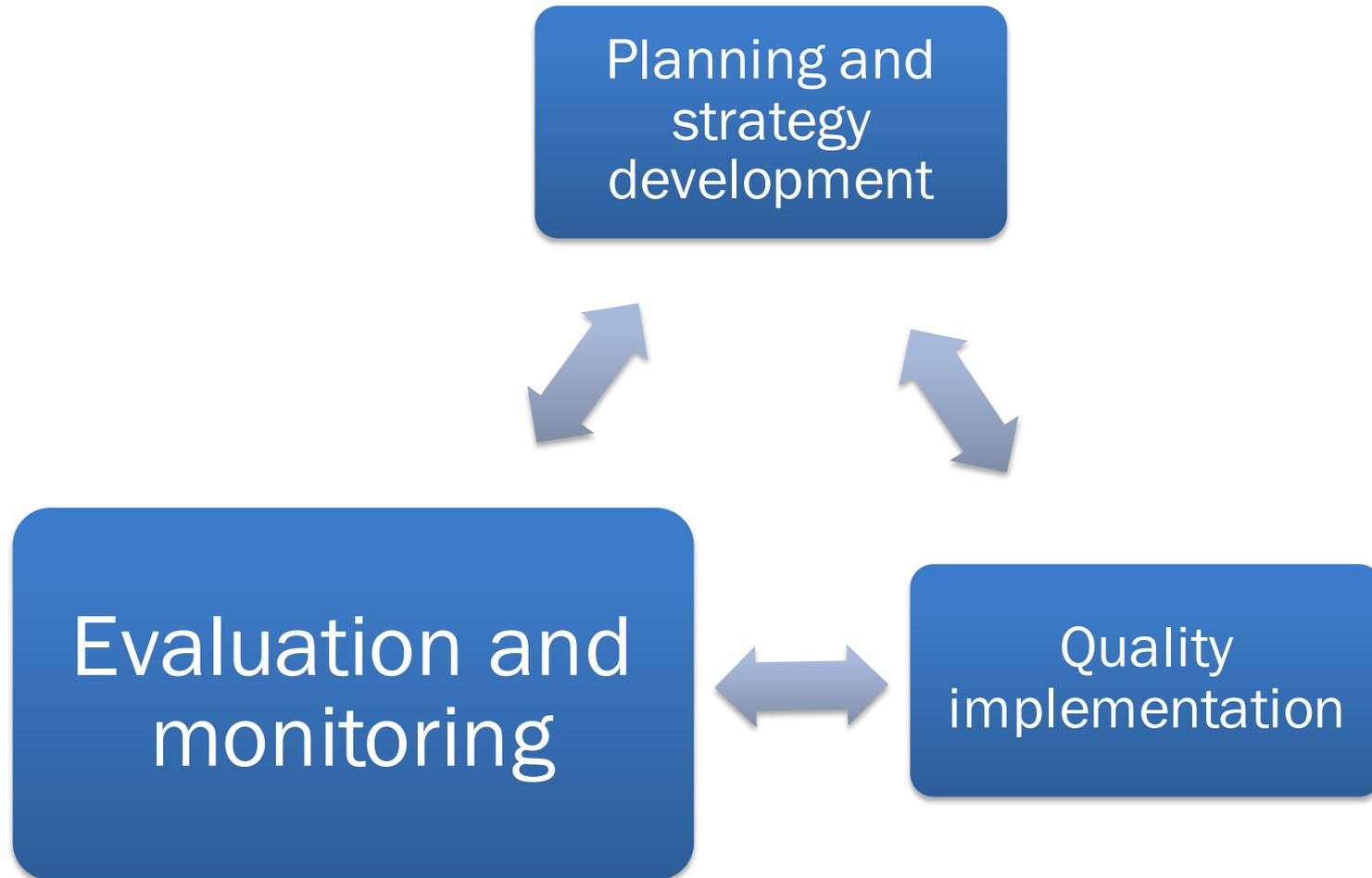
## "Predict Then Act"



## RDM Process



# RAND's portfolio addresses key issues needed to bring ideas to action



# Developed new surveys

- Coalition and community surveys to chart progress along resilience levers
- Household survey to map changes in resilience understanding and activity



# Applied social and organizational network analysis



## PARTNER

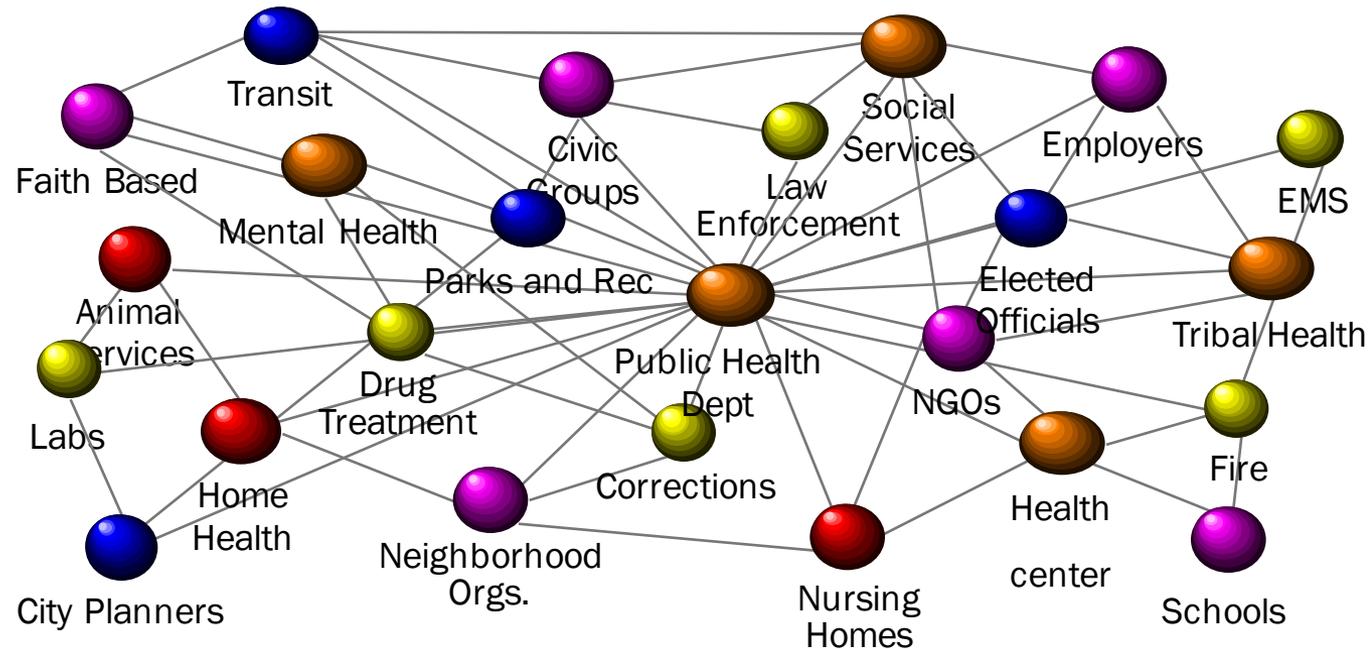
Program to Analyze, Record, and Track Networks to Enhance Relationships



University of Colorado Denver

Developed to monitor:

- Hospital preparedness program
- Hurricane Sandy disaster recovery in NYC



# Used new forms of case study analyses



## Resilient Asia Learning Collaborative



## Lessons from Department of Defense Disaster Relief Efforts in the Asia-Pacific Region

Jennifer D. P. Moroney, Stephanie Pezard, Laurel E. Miller, Jeffrey Engstrom, Abby Doll



Review of CR lessons from global examples (Moore, Chandra, 2012)

## ORIGINAL RESEARCH

Building Community Resilience: What Can the United States Learn From Experiences in Other Countries?

Melinda Moore, MD, MPH; Anita Chandra, DrPH, MPH; Kevin C. Feeney

### ABSTRACT

**Objectives:** Community resilience (CR) is emerging as a major public policy priority within disaster management and is one of two key pillars of the December 2009 US National Health Security Strategy. However, there is no clear agreement on what key elements constitute CR. We examined exemplary practices from international disaster management to validate the elements of CR, as suggested by Homeland Security Presidential Directive 21 (HSPD-21), to potentially identify new elements and to identify practices that could be emulated or adapted to help build CR.

**Methods:** We extracted detailed information relevant to CR from unpublished case studies we had developed previously, describing exemplary practices from international natural disasters occurring between 1985 and 2005. We then mapped specific practices against the five elements of CR suggested by HSPD-21.

**Results:** We identified 49 relevant exemplary practices from 11 natural disasters in 10 countries (earthquakes in Mexico, India, and Iran; volcanic eruption in Philippines; hurricanes in Honduras and Cuba; floods in Bangladesh, Vietnam, and Mozambique; tsunami in Indian Ocean countries; and typhoon in Vietnam). Of these, 35 mapped well against the five elements of CR: community education, community empowerment, practice, social networks, and familiarity with local resources. 46 additional practices were related to physical security and economic security. The five USCR



# Conducted financial analysis



BRIEF



The Rising Cost  
of Flood Insurance

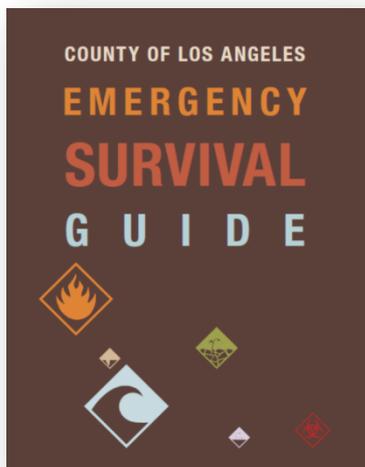
## Effects on New York City After Hurricane Sandy

On the anniversary of Hurricane Sandy, many in New York City are still struggling to rebuild their homes, businesses, and lives. A year after the storm, they have learned that their recovery faces a new hurdle: changes in the flood insurance market that are likely to bring about much higher premiums for many residents living near the coast. How bad is the news? What can be done in response?

RAND's Center for Catastrophic Risk  
Management and Compensation

# Led key demonstration studies: Los Angeles County

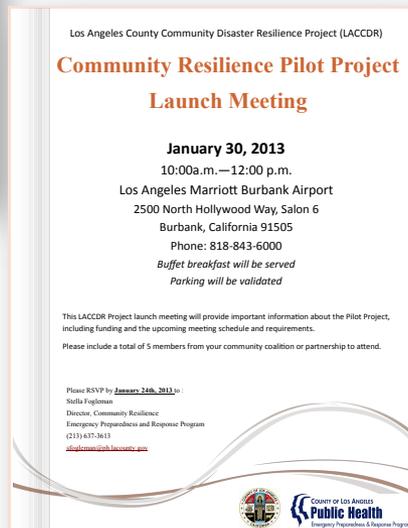
- 16 Los Angeles County Neighborhoods
- (8 Preparedness, 8 Resilience)



## Usual Preparedness

Usual coalition with traditional emergency planners

Use of preparedness tools (e.g., “brown book”)



## Community Resilience

Resilience Team with diverse array of community organizations

Use of community resilience toolkit

Concerted focus on vulnerable populations

Use of enhanced asset mapping tools

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# Next steps for resilience research and practice

- Explore how communities can balance resilience capacity and capability investments
- Fully integrate discussions among those focused on human resilience and infrastructure resilience
  - Workforce development
  - Systems analysis

# Relevant websites

- [www.rand.org/topics/community-resilience.html](http://www.rand.org/topics/community-resilience.html)
- [www.rand.org/resilience-in-action.html](http://www.rand.org/resilience-in-action.html)
- [www.laresilience.org](http://www.laresilience.org)

