Hurricane Sandy Research and its Implications for Public Health Policy and Operations (Session 2)

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What did we study?

Disaster recovery-phase challenges encountered by public health departments in the aftermath of Hurricane Sandy:

• How well PH workers distinguished between disaster response and recovery phases in their work;
• The relevance of efficacy to the public health workforce’s disaster recovery activities;
• Whether Public Health System Training in Disaster Recovery (PH STriDR) could improve willingness and efficacy of PH workers and their organizations in recovery

Sources:
Why did we study that?

- Local public health agency (LHPA) workers play critical roles in recovery

- Role of training in influencing LHPA workers’ willingness to perform response-related job functions is proven, but it is poorly understood for recovery-related activities

- Hurricane Sandy’s recovery activities provide opportunity to use training to influence LHPA workers’ willingness and efficacy to perform recovery-related job functions
Conceptual Framework

• *Self-efficacy*: feeling confident and comfortable to perform one’s emergency-specific role

• *Response efficacy*: belief that performance of one’s emergency specific role is important

• *Collective efficacy*: shared belief in LPHA workers’ collective ability to fulfill agency’s role

Sources: Bandura, 2000; Erret et al., 2015; Tower et al. 2016.
How did we study that?

**Barriers**
Focus groups (2) on perceived facilitators and barriers to recovery-related activities after Sandy
Baseline survey (DRIST)

**PH STriDR Training**
Train-the-trainer approach
Trainers selected by local public health agencies
Four 90-minute face-to-face learning sessions over 4-month window

**Training Assessment**
Focus groups (2) to assess changes in perceptions of efficacy toward Sandy recovery and willingness to perform in future recoveries
Re-survey (DRIST)
How did we study that?

- RCT of novel curricular intervention (Public Health System Training in Disaster Recovery [PH STriDR]) per baseline mixed-methods findings
  - Session 1
    - Introduce long term recovery, LPHA role, and likely local hazards
  - Session 2
    - Identify worker roles and responsibilities in LPHA recovery
  - Session 3
    - Identify potential issues in personal/family and workplace recovery and resources and actions to prepare for them
  - Session 4
    - Develop a vision of LPHA disaster recovery effort

Sources:
https://ncdmph.usuhs.edu/KnowledgeLearning/2016-PHSTriDRx.htm

Acknowledgment: National Center for Disaster Medicine and Public Health
What did we find? (Baseline)

- **Barriers**
  - LPHA worker performance of recovery activities

- **Perceptions of inadequate:**
  - Training
  - Safety
  - Family preparedness
  - Policies and planning
  - Efficacy

- **Perceptions of sufficient:**
  - Training
  - Safety
  - Family preparedness
  - Policies and planning
  - Efficacy

Source: Errett et al., 2015.
What did we find? (Baseline)

What did we find? (Post-Intervention)

Positive Impact

Understanding of role division in LPHA
Understanding of agency contingency plans in recovery situations
Agency-wide interactions

Collective Efficacy

Negative Impact

Lack of contact with other LPHA workers
outside of own unit
Staff turnover
Poor perception of LPHA workers outside of
own unit

Source: Tower et al., 2016.
Practical operational & policy applications

• PH STriDR can potentially improve the perceived recovery efficacy of LPHA workers
  – Explained and clarified roles and expectations both for individual staff and collectively for LPHAs

• Training was a forum to build collective understanding of LPHA roles
  – Result: increased perception of the collective efficacy of their agency in disaster recovery

Source: Tower et al., 2016.
Practical operational & policy applications (cont’d)

Self-efficacy:
• LPHA must clearly define and communicate emergency specific roles and responsibilities in advance of a disaster

Response efficacy:
Ensure supportive leadership throughout recovery activities
• LPHA must communicate public benefit of recovery participation to employees
Practical operational & policy applications (cont’d)

• Value of collective efficacy
  – More than the sum of individual and response efficacy
  – Belief in group draws on sense of solidarity with other LPHA workers
  – High collective efficacy may improve willingness to operate in recovery situations

PH STriDR training built awareness of collective capabilities within LPHA
Practical operational & policy applications (cont’d)

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Practical operational & policy applications (cont’d)

• Implications for analyzing recovery efficacy-focused training in other sectors within the Public Health Preparedness System (IOM, 2008)
Responsibility for Decision-Making on Hospital Evacuation and Shelter-in-Place

Study of stakeholder perceptions about authority for hospital evacuations in DE, MD, NY, NJ

- All hospital administrators felt authorized to make evacuation decisions
- Gov’t officials felt authorized to decide in NY & MD, but not in NJ & DE
- Ambiguity over authority could lead to inaction

• Could a single decision-making entity improve decision-making?

References


References


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  – https://ncdmph.usuhs.edu/Learn/PHSTriDR/TrainerResources.htm

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Thank You

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