Connecting Preparedness Science with the National Health Security Preparedness Index: Research Translation Opportunities

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Creating health security and community resiliency is a collective action problem that must be solved by aligning and coordinating the actions of government, private institutions, and individuals in ways that prevent, protect against, prepare for, respond to, and recover from all types of possible adverse health threats.
An Index theory of action

Should we do something?
Measurements
Comparisons
Public reporting

What should be done?

Is it working?

What’s my role?
Need for continuous improvement

To be a credible and useful tool for decision-making, the Index must:

- Discriminate between different dimensions of preparedness, response and recovery
- Discriminate between high and low capability levels
- Show sensitivity and specificity to changes in capabilities levels over time
Directions for Expansion and Refinement

- **Consolidation**: reduce correlated, redundant & noisy measures
- **Composition**: expand social, environmental economic indicators of preparedness & resiliency
- **Alignment**: with established national frameworks
- **Grouping & weighting**: use stronger methods for internal consistency, discriminant power
- **Scaling**: reflect accurate distributional properties
- **Comparisons**: address accuracy and uncertainty
- **Trending**: track changes via backward compatibility
Keeping the Index current with advances in preparedness science

- **What to measure**: research-tested structures, processes & outcomes
- **How to measure**: best available methods & data
- **How to interpret & translate**: link & refer to research-based tools and decision supports
Keeping pace with science: (1) What to Measure

- Evolving constructs in resiliency
- Social, economic, and environmental dimensions and interactions
- Collective action constructs
  - Intergovernmental
  - Interorganizational & intersectoral
  - Interprofessional
  - Interpersonal
Keeping pace with science: (2) How to Measure

- Core and developmental measures
- Traditional and novel data sources
- Clear links to studies that establish validity, reliability, relevance, effectiveness, impact
- Annual Delphi processes for measure selection/inclusion
- Use of Delphi input for aggregation & weighting
Keeping pace with science: (3) How to Interpret & Translate

- Identify research products that offer guidance and support for strengthening preparedness
  - Checklists
  - Guidelines / protocols
  - Calculators
  - Self-assessments
  - Examples and models

- Link products with Index domains & measures and settings/risks

- Algorithms to estimate relevance (e.g. Amazon)
What the Index offers researchers

- Disseminate & translate your results
- Capture utilization measures
- Prioritize gaps in evidence base
- Mobilize efforts to address unmet data needs
- Strengthen understanding & support among policy, practice and lay stakeholders
What are your thoughts?
For More Information

National Program Office
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