Analytic Methodology Work Group Meeting, National Health Security Preparedness Index

June 10, 2015

NHSPPI Program Management Office
University of Kentucky
Agenda

- NHSPI Project Update
  - National Advisory Committee June 9 in-person meeting
  - Model Design Workgroup
- Weighting Approach
  - Old = equal weighting of items within subdomains gives rise to large differences in implicit weighting in the overall Index
  - New = explicit weights based on expert panel Delphi ratings
Weighting

• Expert panel, online Delphi approach
  – Three iterations
    • measures, subdomains, and then domains
  – Weighted with respect to “all hazards”
Weighting: Item Measures

Using a Visual Analog Scale (VAS) to gather expert opinion on how well a measure corresponds to its SUBDOMAIN

| No Correspondence at all: this measure is completely unrelated to the subdomain | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------------------------------------------------------------|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|
| Perfect Correspondence: this measure fully and completely represents the subdomain | 0 | 0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 | 6.5 | 7 | 7.5 | 8 | 8.5 | 9 | 9.5 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
Weighting: Item Measures

• Other questions
  – Which measures are “cross-cutting,” “core” or “transcendent”?  
  – Are there measures not listed that should be?
• Six Delphi groups (overlapping membership is okay)
  – Domain-level experts
  – Evaluation of all measures in that domain
    • Measures evaluated with respect to correspondence to the subdomain
Assess Measures Within a Domain

- **Health Security Surveillance**
  - Health Surveillance & Epidemiological Investigation
  - Biological Monitoring & Laboratory Testing

- **Community Planning & Engagement**
  - Cross-Sector / Community Collaboration

- **Incident & Information Management**
  - Incident Management & Multi-Agency Coordination
  - Emergency Public Information & Warning

- **Healthcare Delivery**
  - Prehospital Care
  - Inpatient Care

- **Countermeasure Management**
  - Medical Materiel Management, Distribution, & Dispensing
  - Countermeasure Utilization & Effectiveness

- **Environmental & Occupational Health**
  - Food & Water Security
  - Environmental Monitoring

34 measures in this domain

- Management of Volunteers during Emergencies
- Legal & Administrative
- Long-Term Care
- Mental & Behavioral Healthcare
- Home Care

PREPARED
NATIONAL HEALTH SECURITY PREPAREDNESS INDEX
Weighting: Subdomains

- When thinking about a domain, what proportion of overall preparedness is attributable to its subdomains?
- Use the same Delphi groups used for item measure assessments

When thinking about the domain of **HEALTH SECURITY SURVEILLANCE**, what proportion of a state’s overall preparedness level is attributable to (total should add to 100%):

- Health Surveillance & Epidemiological Investigation    _____
- Biological Monitoring & Laboratory Testing           _____
# Weighting: Domains

- When thinking about a national health security preparedness, what portion is attributed to each domain?
- Who are the Delphi participants for this assessment?

<table>
<thead>
<tr>
<th>Domain</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Health Security Surveillance</td>
<td></td>
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<tr>
<td>Community Planning &amp; Engagement</td>
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<tr>
<td>Incident &amp; Information Management</td>
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<td>Healthcare Delivery</td>
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<tr>
<td>Countermeasure Management</td>
<td></td>
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<tr>
<td>Environmental &amp; Occupational Health</td>
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</tbody>
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Upcoming Meetings

- June 16, Model Design (virtual) 1-2 ET
For More Information

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