

National Health Security Preparedness Index

Analytic Methodology & Model Design Work Group Meeting



October 17, 2017

Index Program Management Office
University of Kentucky

Agenda

- Suggested changes to the Index
 - Measures
 - Add 12 measures
 - Drop 3
 - Subdomains
 - Add 2 subdomains
 - Drop 1
- Delphi
 - Seeking suggestions on participants

Suggested New Measures

- **P1—Health & Safety of First Responders.** Specification: number of nonfatal occupational injuries and illnesses among police and fire department workers. This measure includes both state and local workers in NAICS codes 92212 and 92216, using the BLS Survey of Occupational Injuries and Illnesses (SOII). Rationale: Protecting first responders from hazards while on the job strengthens a community's ability to prepare for and respond to large-scale emergency events. This measure, while not comprehensive, covers two major categories of first responders who face significant occupational risks.
- **P2—Transportation Structural Integrity.** Specification: percentage of bridges that are not functionally obsolete or structurally deficient. Rationale: Core elements of transportation infrastructure shape many aspects of health security, including mitigation of health and safety risks due to bridge failures, timely mass evacuations, timely emergency responses, and timely restoration of economic and social activity.

Suggested New Measures

- **P3—Surface Water Control Structural Integrity.** Specification: percentage of regulated high-hazard potential dams that are not in poor or unsatisfactory condition. Rationale: Core elements of surface water control infrastructure contribute to health security through mitigation of flood risks and protection of drinking water sources.
- **P4—911 Call Center Cybersecurity.** Specification: state government implements or participates in a cybersecurity program designed to prevent interruption, damage, and unauthorized use of emergency 911 call center infrastructure. Rationale: The 911 Public Safety Answering Points (PSAPs) are essential for marshalling emergency response resources during a disaster or emergency—and are vulnerable to cyber-based threats. This measure is an indicator of cybersecurity risk reduction.

Suggested New Measures

- **P5—Community Water System Compliance with Non-Health Standards.**
Specification: Percentage of the population being served by a community water system that did not experience a non-health-based violation of the federal Safe Drinking Water Act (SDWA) (Note: An existing measure, M195, has a similar specification but is focused on health-based violations). Rationale: Non-health violations such as noncompliance with testing procedures and protocols provide early warning signals about weaknesses in capabilities for protecting drinking water safety and security.
- **P7—Community Water System Return to Compliance with Health and Non-Health Standards.** Specification: percentage of health-based violations of the SDWA that return to compliance by the end of the year. This measure can be specified for both health-based and non-health violations. Rationale: Water systems with the capability to quickly return to compliance following a violation offer their communities greater protection against large-scale health threats in the water supply.



Suggested New Measures

- **P8—Housing Buy-Outs for Flood Hazard Mitigation.** Specification: housing units purchased through the FEMA Hazard Mitigation Grant Program (HMGP) as a percentage of total housing units located in floodplains. Rationale: States can reduce health, safety and financial risks posed by flooding through pro-active use of the HMGP to remove high-risk housing units from occupancy.
- **P9—Flood Insurance Coverage.** Specification: FEMA National Flood Insurance Policies (NFIP) in-force as a percentage of total housing units located in floodplains. Rationale: NFIP participation indicates household and community awareness of flood risks and provides financial protections that accelerate community recovery after flood-related disasters.
- **P10—Population Covered by Storm Water Utilities.** Specification: percentage of the population that is covered by a storm water utility. Rationale: Storm water utilities reduce the environmental health risks caused by sewage overflows into surface waters during storms, especially for populations living in flood-prone areas.

Suggested New Measures

- **P11—Registered Environmental Health Specialist/Registered Sanitarian (REHS/RS) Credential.** Specification: Number of REHS/RS Credential holders as a percentage of environmental and health scientists and specialists. Rationale: Professionals with this credential conform to national standards in environmental health training and practice, including the ability to respond to emergency environmental health situations.
- **P12—Access to Pediatric Medical-Surgical Hospital Care.** Specification: Percentage of the population 18 years of age and younger who reside within 50 miles of a hospital facility that provides pediatric medical-surgical care. Rationale: Children are often more vulnerable than adults to health risks during disasters and disease outbreaks, and many of these events increase the demand for timely medical-surgical care for children.

Suggested New Measures

- **P13—Participation in National Syndromic Surveillance Program (BioSense).**
Specification: proportion of emergency department visits within the state that are represented in data that are in production through the NSSP. Rationale: States with broader emergency department coverage within the NSSP are able to conduct more accurate and complete syndromic surveillance using NSSP, resulting in faster detection and response to health security events. Use this new measure to replace the more limited measure M22 State Health Department Electronic Syndromic Surveillance.

Suggested Measures to be Dropped

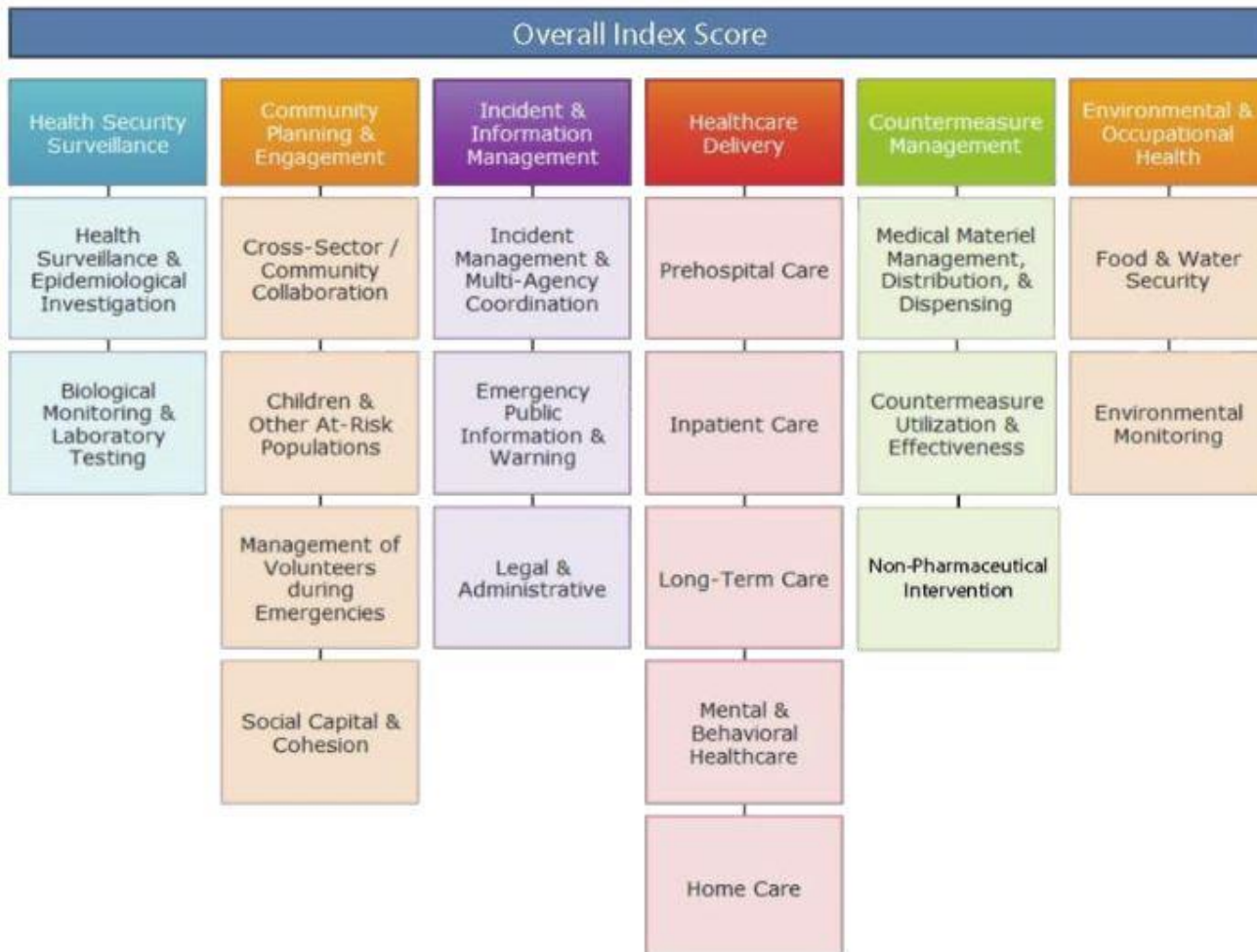
- **M172—Percentage of Residents Doing Favors for Neighbors.** These data from the U.S. Census, Current Population Survey have not been updated since 2013. The CPS Civic Engagement Survey is currently in the field (Sept. 2017) to be updated, but results will not be available for the 2018 release. Other Index measures of volunteerism provide better representation of this health security construct.
- **M340—Number of Entities Required to Report Foodborne Illness: clinical laboratories, physicians, hospitals, nurses, physician assistants, and/or other healthcare providers (e.g., chiropractors, veterinarians).** This data source has not been updated since 2013 [Public Health Law Research (PHLR), Temple University. Robert Wood Johnson Foundation (RWJF), LawAtlas: State Foodborne Illness Reporting Laws Map]. Furthermore, there is little empirical evidence suggesting that more reporting source types results in more complete surveillance.

Suggested Measures to be Dropped

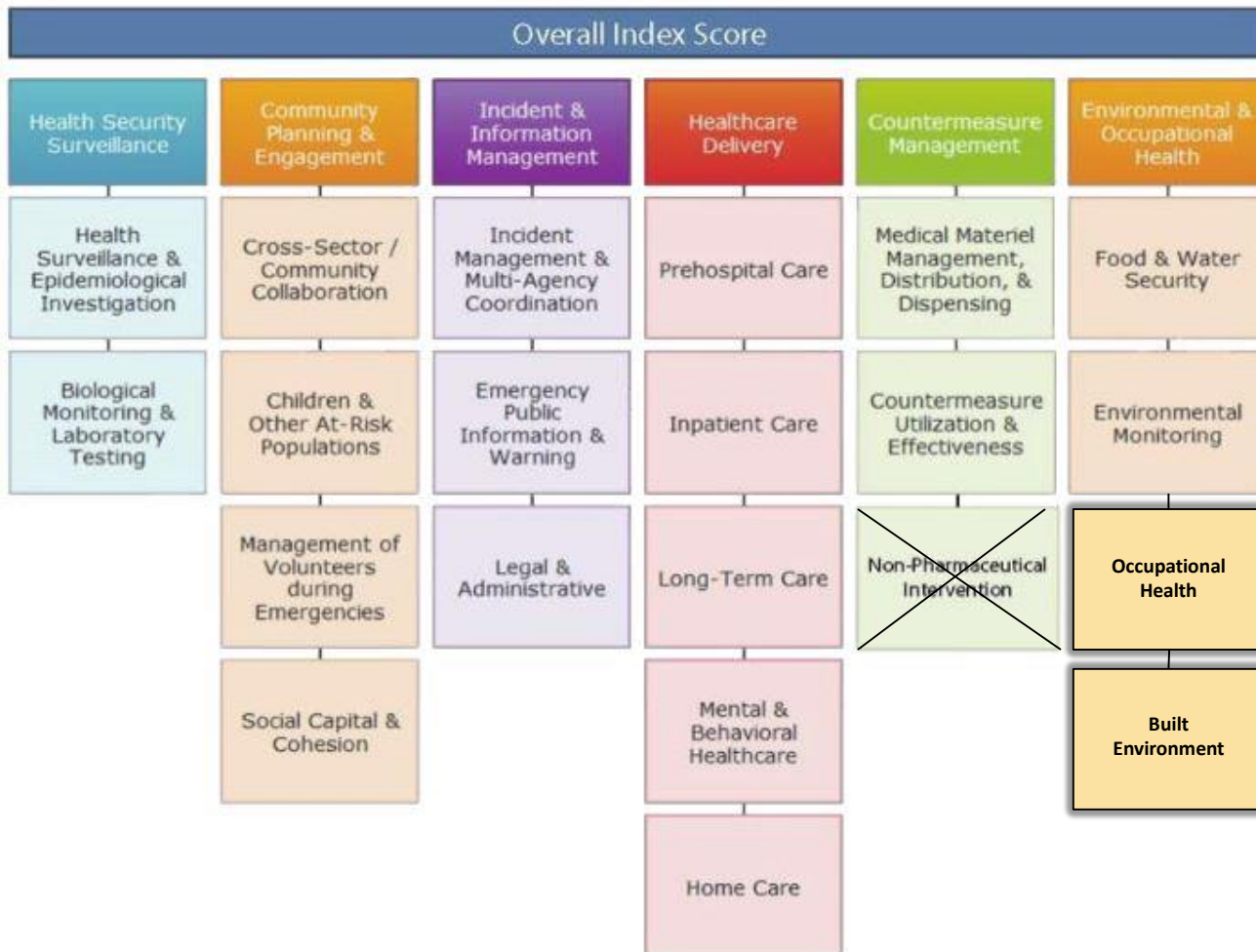
- **M22—State Health Department has an Electronic Syndromic Surveillance System that Can Report and Exchange Information.** This data source from the 2012 ASTHO State Health Profile is limited to syndromic systems maintained by the state agency, and does not account for state ability to use other systems such as the CDC's BioSense and NSSP. Replace this measure with the new proposed measure P13 described above.



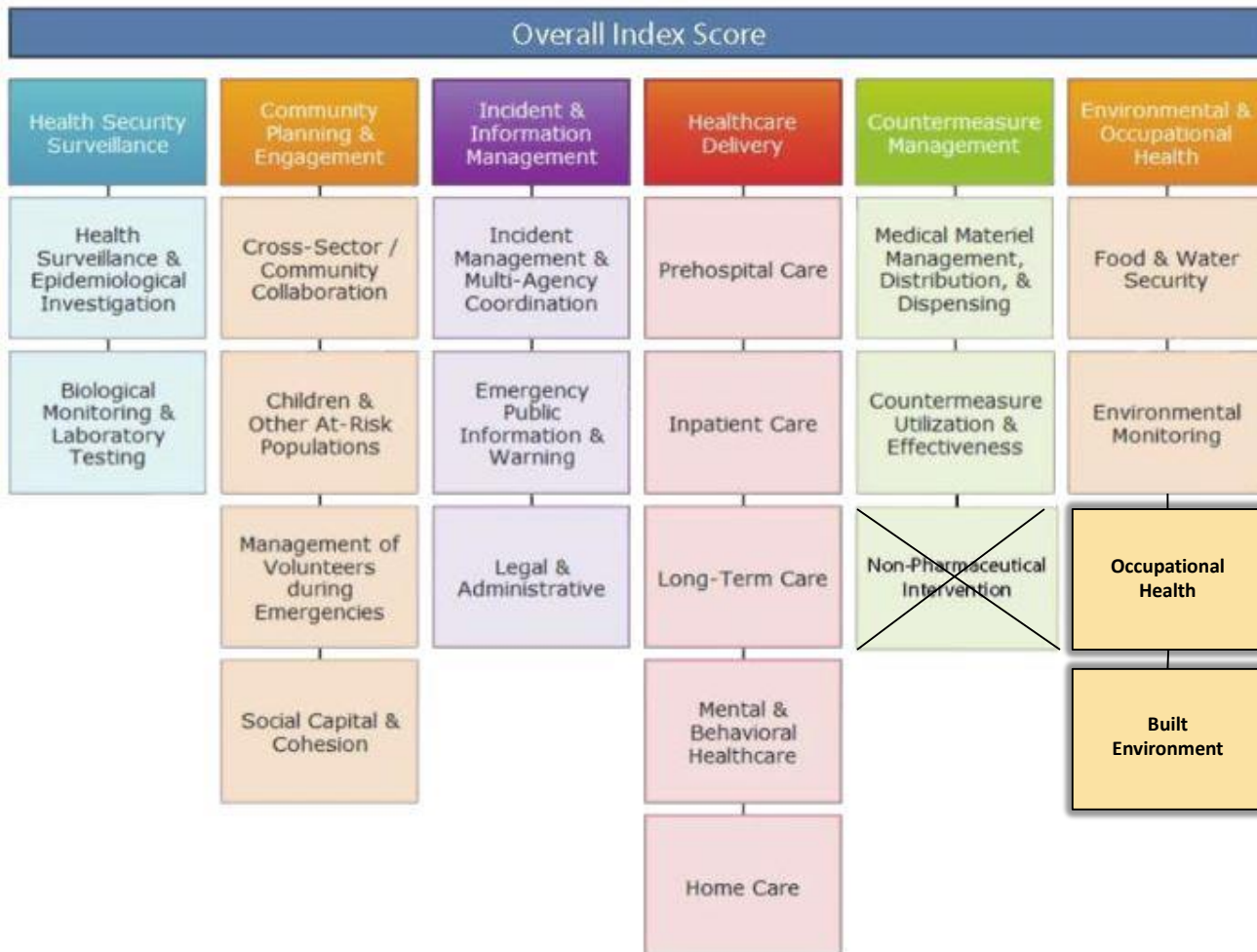
Current Structure: Subdomains



Subdomains

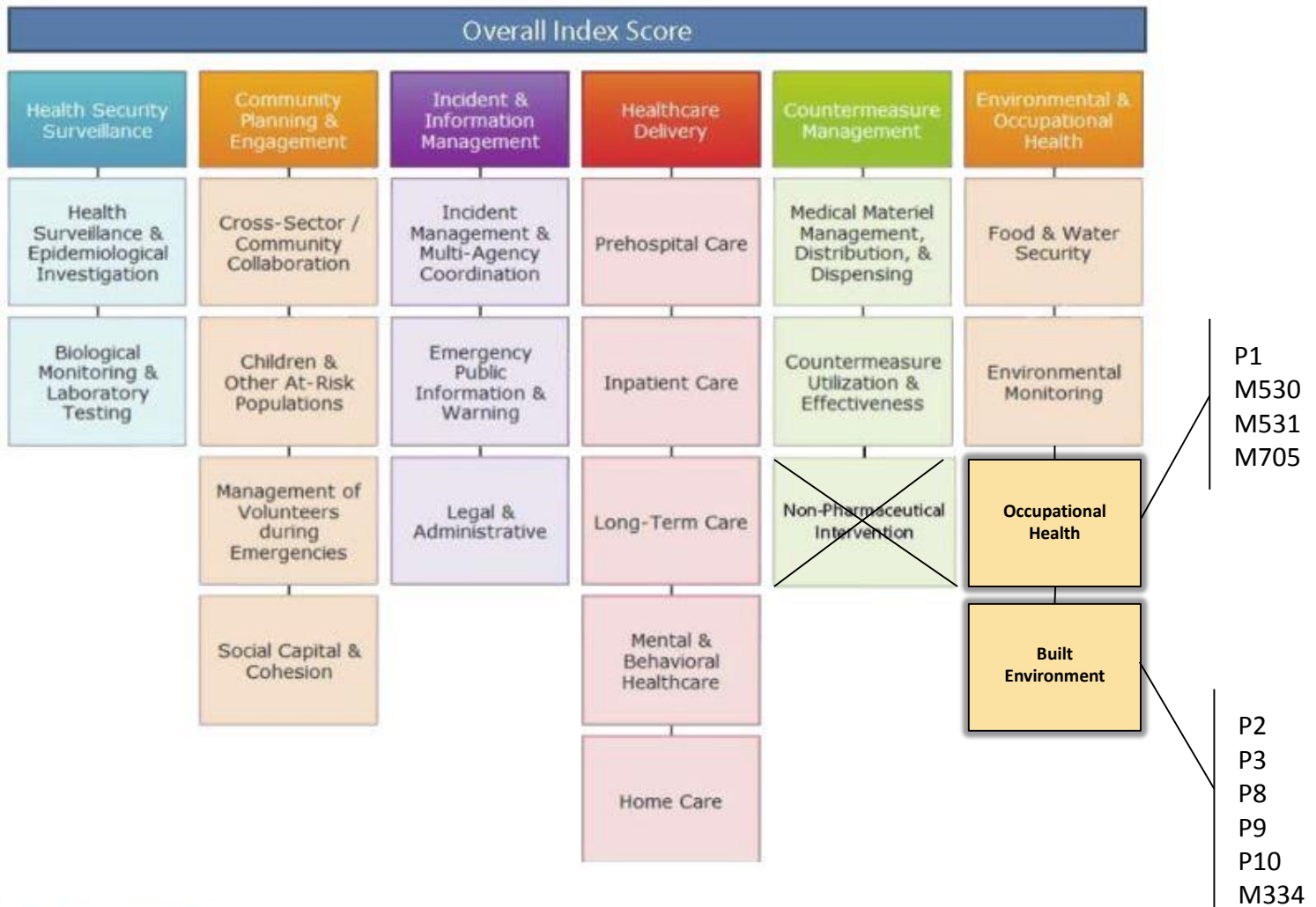


Subdomains



P1
M530
M531
M705

Subdomains



Delphi

- Will launch in October or November
 - Once IRB approval is in hand
- Seeking suggestions on participants
 - We'll include past participants, and would like to engage new people
 - Who do you suggest?

For More Information



National Program Office

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Systems for Action

National Coordinating Center

Systems and Services Research to Build a Culture of Health

