

Updates to Measures and Methodologies National Health Security Preparedness Index, 2020 Release

This document describes important updates to the measures and methodologies used in the 2020 Release of the National Health Security Preparedness Index, as compared to previous Index releases. Although some aspects of the Index methodology are described in this document, please refer to the publication entitled [Methodology for the 2020 Release of the National Health Security Preparedness Index](#) for a complete description of the Index’s structure, composition, and methodology.

CHANGES TO MEASURES

In total, the 2020 Index release uses 130 measures derived from 64 different sources. These measures are organized into six domains and 19 subdomains. Index values are calculated for seven years, 50 states, and the District of Columbia for each subdomain, domain, and an overall Index score.

New Measure Added

One new measure was added to the Index in 2020, bringing the total number of measures to 130. This new measure **M880** indicates the percentage of nursing home residents who receive care at facilities that were not cited with a deficiency in infection control practices during the year. This measure is constructed using nursing home inspection reports submitted to the U.S. Centers for Medicare & Medicaid Services (CMS), as reported in the CMS Nursing Home Compare database. Estimates for this measure were generated retrospectively for each calendar year 2013 through 2019 and included in the Index. This measure was added to the Healthcare Delivery domain of the Index, within the Long-Term Care subdomain.

	2019 Release	2020 Release
Standard Measures	110	111
Foundational Measures	19	19
Total Measures	129	130

Existing Measures Discontinued

No existing measures were discontinued from the Index in 2020.

Existing Measure Modified

One existing measure was modified in the 2020 Index release due to a change in the data source. Prior to the 2019 calendar year, this measure **M22** indicated whether or not the state health department has an electronic syndromic surveillance system that can report and exchange information. This measure is obtained from the Association of State and Territorial Health Officials periodic profile survey of state health agencies. Due to a change in the survey instrument in 2019, the measure used for the 2019 calendar year indicates whether or not the state health department performs syndromic surveillance.

CHANGES TO METHODOLOGY

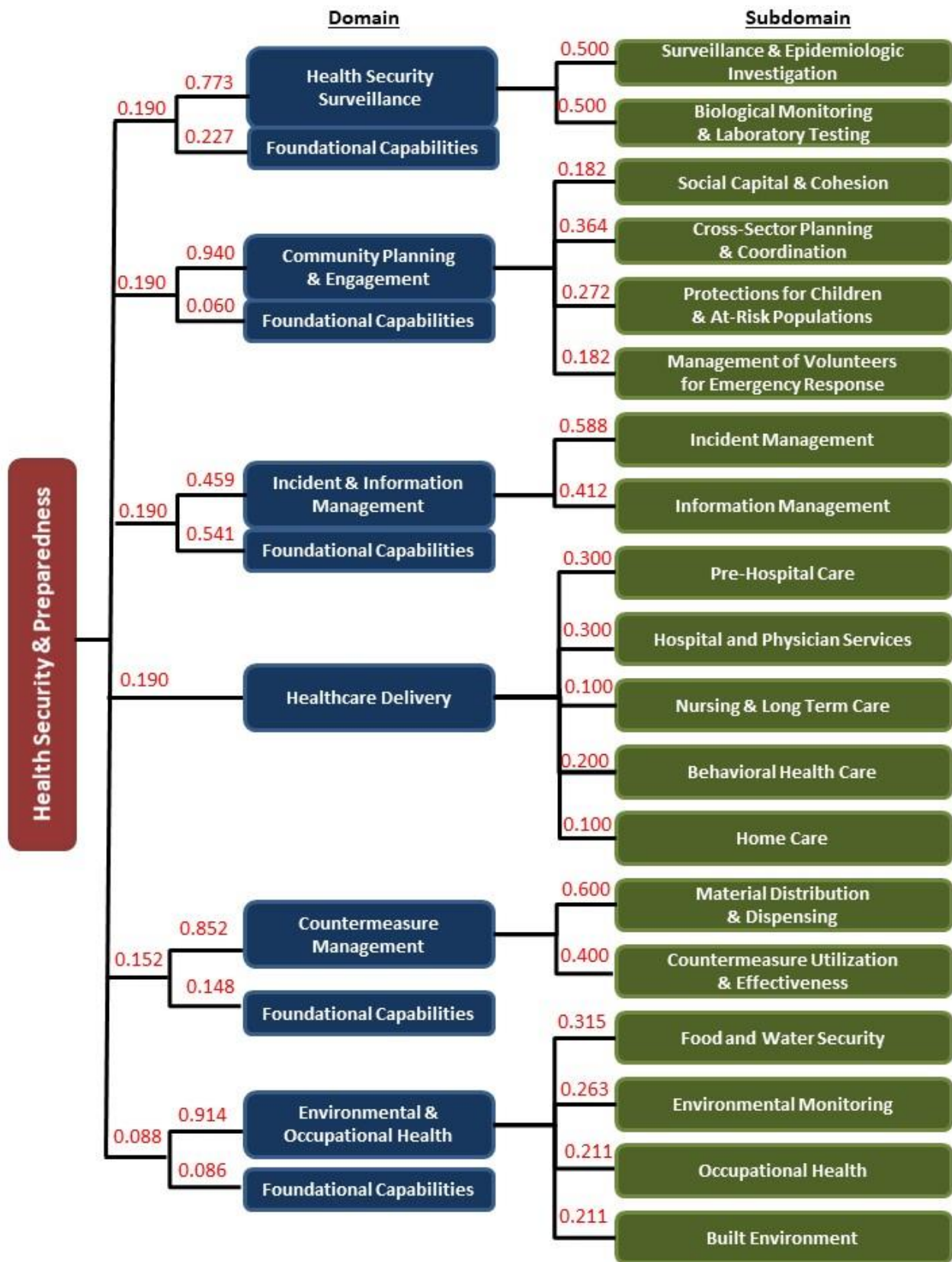
There are no changes to the analytic methodologies used in computing Index values for the 2020 release. All methods used for the 2016, 2017, 2018, and 2019 Index releases have been continued in the 2020 release including:

- Normalization of each measure to a standard 10-point scale;
- Weighting of each measure based on expert panel ratings;
- Imputation for missing values;
- Longitudinal comparisons for measures for seven years of data (increased from six years in 2019 Index); and
- Computation of confidence intervals for national summary measures.

Index Weight Values

Index weights have been adjusted slightly to accommodate the one new measure added to the Index in 2020. Weights are derived from an online multi-stage expert panel Delphi process that has been used for previous Index releases (refer to the 2020 Index Methodology document for details). For the new measure, **M880**, we assigned a weight to this measure that is based on the weight of a closely related measure in the same subdomain, **M303B**. Because both measures reflect nursing home capabilities, we took the original weight value for **M303B** and split this weight equally between the new measure **M880** and the existing measure **M303B**. The final weights used in Index calculations are shown in the figure on the following page.

Figure: Weights Assigned to Each Index Domain and Subdomain Based on Expert Panel Assessments of Importance



NOTE: numbers indicate Delphi expert panel weights

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