National Public Health Performance Standards Program

State Public Health System, Local Public Health System, and Local Governance Performance Assessment

Scoring Methodology
(Abbreviated Version)

The goal of the analysis strategy is to generate results that will be valid indicators of public health practice. The results are intended to be used by local and state public health system partners in their efforts to identify system strengths and weaknesses and develop plans for improvement. The data also will be aggregated and used to provide a better understanding of public health infrastructure nationwide.

The ten Essential Public Health Services, which is a nationally-accepted structure for describing overall public health activities, serves as the underlying framework for the performance assessment instruments. Each Essential Service section is further divided into several indicators, which represent major components, activities, or practice areas of the Essential Service. Associated with each indicator are model standards that describe aspects of optimal performance. Each model standard is followed by a series of assessment questions that serve as measures of performance.   These measures begin with a stem (or first-tier) question, followed by a series of sub-questions.

Based on field testing and sound statistical methods, a detailed scoring methodology was developed. It is applicable to all three instruments. (A more detailed scoring methodology is available from NPHPSP staff, upon request.)

PLEASE NOTE - these data are self-reported and are collected by a non-standardized methodology which limits its integrity for comparison. The unit of analysis for the state and local National Public Health Performance Standards assessment instruments is the public health system and therefore these data are not appropriate for purposes of accountability at an organizational or agency level.

Methodology
Scores are developed for four different levels:

I.   **First-tier or "stem" question scores** – This score is developed by establishing the weight value for each question, and then multiplying the weight value by the response value.
 - ▪ ***Determining the weight*** - The point value for each grouping of questions (stem questions plus all associated subquestions) is 1 point. The stem question is given 0.3 weight. The remaining 0.7 weight is equally distributed among the subquestions. If there questions underneath the subquestions, then the lead-in subquestion is valued at 0.3 of its weight, while the subquestions underneath are valued at 0.7.
 - ▪ ***Determining the response value***. Responses have been assigned scores as follows:

Survey Response	Associated Score
Yes	1.0
High Partially	0.67
Low Partially	0.33
No	0

Therefore, using the following question grouping, which has only one subquestion;

X.X.X. - answer "Yes"	1 x .3 = 0.3
X.X.X.1 – answer "High Partially"	0.67 x 0.7 = 0.469
	Total score = 0.769 or 76.9%

II.   **Indicator scores** – the average of all stem question scores found within this indicator section.
III.   **Essential Service scores** – the average of all indicators found within this Essential Service section.
IV.   **Overall Score** – the average of all ten Essential Service scores.

Schematic of Scoring Levels for NPHPSP Assessments

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                        │   Ovarall    │
                        │    Score     │
                        └──────────────┘
                               │
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│EPHS1││EPHS2││EPHS3││EPHS4││EPHS5││EPHS6││EPHS7││EPHS8││EPHS9││EPHS10│
└─────┘└─────┘└─────┘└─────┘└─────┘└─────┘└─────┘└─────┘└─────┘└──────┘
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┌──┴─────┬──────────┐
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│Indicator 1││Indicator2││Indicator3│
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      │
┌─────────────┐
│ Question 1.1.1 │
│ Stem question │
└─────────────┘
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│ Question 1.1.1.1 ││Question 1.1.1.2││Question 1.1.1.3│
│Leading /sub-question│└──────────────┘└──────────────┘
└────────────────┘
      │
┌────────────────┐
│ Question 1.1.1.1.1 │
│ Sub-sub-question │
└────────────────┘
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