

Community Health data platform

Need ratings for health topics

Criteria for assessing level of need

Within the Community Health data platform, 85 measures are organized into 15 health topics and compared to the national value (benchmark) for the measure. The comparison is based on whether or not the desired direction for each measure is better or worse than the benchmark value.

Each health topic or “domain” (e.g., housing) is categorized according to level of need: Low, Moderate, High, Very high. The level of need is a function of the number of measures within the domain that are at least 20% worse than the national benchmark. That number can range from 0 to the total number of measures in the domain; so for a domain with 3 measures there are 4 possible numerical levels: 0,1,2,3 measures that are more than 20% worse than benchmark.

The criterion for assignment is to divide the numerical levels equally among the need levels to the extent possible; for example for 3 measures: 0 = Low need, 1 = Moderate, 2 = High, 3 = Very high. For the need ratings we use 20% as the cutoff for classifying a value as “worse than benchmark.” The 20% value was selected somewhat arbitrarily to be *clinically* significant rather than statistically significant, i.e., a meaningful difference from the national average.

Calculating the difference from the benchmark

The formula for calculating the percent difference from the benchmark is:

$$(benchmark-value)/benchmark * 100$$

For example, if the smoking rate is 12% and the national average is 10%, then the 12% value is 20% worse than the benchmark $[(10-12)/10 * 100 = -20\%]$.

Note: The “good” direction of a measure is taken into consideration of whether or not a value is better or worse than the benchmark. If the good direction is “lower is better,” negative percent differences mean the value is worse than the benchmark, as in the smoking example above. If the good direction is “higher is better,” the difference from the benchmark must be multiplied by -1 to determine if the value is worse than the benchmark.

See the example below of calculating the need rating for the access to care domain based on the difference from the national benchmark.

Access to care measure	"Better" direction	National average (benchmark)	Service area value	% difference from benchmark (absolute value)	% worse than benchmark (adjusted for better direction)
Low birth weight births	Lower	8.1%	7.5%	7.4%	7.4%
Pre-term births	Lower	11.4%	9.7%	14.9%	14.9%
Dentists per 100,000 population	Higher	71.0	57.6	18.9%	-18.9%
Infant deaths	Lower	4.2	5.5	-31.0%	-31.0%
Physicians per 100,000 population	Higher	75.4	59.0	21.8%	-21.8%
Uninsured children	Lower	4.9%	2.6%	46.9%	46.9%
Percent uninsured	Lower	8.8%	6.5%	26.1%	26.1%
Medicaid/public insurance enrollment	Higher	35.0%	43.4%	-24.0%	24.0%

In this example, the need rating would be “moderate,” since 2 of the 8 measures are more than 20% worse than the national benchmark.

For health domains where values for most geographic areas are worse than the national benchmark (such as severe housing cost burden in California), the same formula can be used to calculate the difference from state benchmarks to see if need ratings change.

Note: In some cases the “good” direction for a measure could be either better or worse, depending on context. For example, for enrollment in public insurance programs, “higher” is considered better because it means more people have coverage; on the other hand, lower enrollment may be associated with lower poverty. One of the measures in the food and nutrition security domain — SNAP enrollment — is set to “lower is better” even though higher enrollment is associated with higher food security, because we do not know the number of people who are eligible for federal food resources.

Number of indicators more than 20% worse than national benchmark to determine level of need for each health topic

When the numerical levels cannot be divided equally, we err on the side of rating the domain as higher need; e.g., for 4 measures: 0 = Low need, 1 = Moderate, 2 = High, 3 & 4 = Very high.

The number of measures in each domain and the number worse than benchmark for need ratings are shown in the tables below.

Health topic (domain)	Number of measures
Access to care	8
Cancer	5
Chronic disease & disability	10
Climate & environment	9
Community safety	5
Education	5
Family & social support	4
Food & nutrition security	5
HEAL opportunities	5
Housing	7
Income & employment	7
Mental/behavioral health	4
Sexual health	4
Transportation	3
Unhealthy substance use	4
Total	85

Number of measures worse than benchmark by level of need

Number of measures	Number of levels	Low	Moderate	High	Very high
3	4	0	1	2	3
4	5	0	1	2	3,4
5	6	0	1	2,3	4,5
6	7	0	1,2	3,4	5,6
7	8	0,1	2,3	4,5	6,7
8	9	0,1	2,3	4,5	6,7,8
9	10	0,1	2,3	4,5,6	7,8,9
10	11	0,1	2,3,4	5,6,7	8,9,10

Questions about the need rating methodology? Email chna-kp@kp.org