



A Benchmarking Tool Overview

PURPOSE

The ESHE Index is a way to rank communities and geographic areas on factors related to healthy eating. We envision environments that encourage people to consume a high quality diet. The goal of ESHE is to stimulate changes in food and food policy landscapes that can facilitate high dietary quality. A high quality diet requires:

- Access to a favorable mix of food retailers and restaurants that provide a variety of healthful foods
- Competitive prices for healthy food and beverage options
- Supportive organizational policies with respect to healthful food access
- Policies that support nutrition education and promotion of healthy foods and restrict advertising of less healthy foods

The index is powered by the [CARES Engagement Network](#). The index is available as an interactive map and report through the [ESHE Index: Healthy Food Matters](#) Hub. ESHE is led by the Council on Black Health.

BACKGROUND

Indicators that rank geopolitical jurisdictions on health related factors are being increasingly used to foster health-positive changes^{1,2}. These indexes summarize health risk factors, health outcomes, and geographic area characteristics that support or discourage healthy behaviors. Indices such as these can serve as benchmarking tools that advocacy organizations, policy makers, and others can use to determine how their community measures up. Health-oriented rankings usually include at least one measure related to the food environment.

The ESHE Index combines multiple indicators pertaining to the food environment, and is designed to rank counties and states on factors that facilitate healthy eating. ESHE rankings allow both within and across-state comparisons, and can raise awareness of factors most or least likely to facilitate healthy eating. The goal of ESHE is to help foster positive changes in lower-ranked factors.

¹ See County Health Rankings and Roadmaps at <http://www.countyhealthrankings.org/>

² See America's Health Rankings – State data at <http://www.americashealthrankings.org>

WHY ESHE IS NEEDED

Understanding the food environment is the first step toward improving it.

- More attention to county and state level food environment characteristics is needed to stimulate and guide improvements that will make it easier and therefore more likely for people to achieve and maintain a high quality diet and healthy weight levels.
- Far too many Americans develop diet-related conditions that compromise health status, productivity, or overall quality of life and may lead to shorter lives: conditions such as type 2 diabetes, high blood pressure, heart disease, strokes, and some types of cancer.
- The proportion of Americans who consume enough of the types of foods and beverages recommended in the U.S. Dietary Guidelines as foundations for a high quality, healthy diet is surprisingly low.
- Most Americans consume too much of the types of foods that compromise good health and make it difficult to achieve and maintain a healthy weight.
- Dietary quality scores are low across the board, but particularly so for low income populations.
- Better diets can help all Americans, especially those with low income, reduce the burden of diet-related diseases.

ESHE DATA INDICATORS

Indicators included are shown in the *ESHE At A Glance* diagram below. They include elements of a well-established conceptual framework for describing nutrition and food environments, for which publically available county or state level data could be identified.

Variables either directly reflect food access and availability built environment or reflect government policies that affect the food environment: types and locations of food retail outlets and restaurants; nutrition policies and standards in organizational settings where food is provided including public schools and child care centers; nutrition education and access to nutrition information as well as commercial advertising – which often competes with nutrition education; and food and beverage prices.

STATE-LEVEL

Price and Policy

- Sales tax for chips and soda sold at vending machines
- Sales tax for chips and soda sold at retail stores
- Quality of meals served in child care settings
- Quality of public school meals
- A la carte food items in schools
- ❖ Nutrition education in schools
- ❖ Commercial food/beverage advertising in schools

Higher costs for less healthy foods

Better availability of healthy foods

Better information about healthy foods

COUNTY LEVEL

Geographic Access and Population-level Availability

- Low-income population with a large grocery store or supermarket close to where they live
- Availability of stores accepting SNAP relative to the low income population
- Availability of stores accepting WIC relative to the low income population
- Availability of farmers' markets for all
- ❖ Score on the Modified Retail Food Environmental Index (MRFEI)

Adequate food access for low-income households

Access to local foods for everyone, including fresh produce

Healthier mix of food stores and restaurants

COMMUNITY LEVEL

Assessments Such as:

- Local status of food retail mix
- Food store quality
- Healthy food policies
- Worksite environments for healthy eating

ESHE indicators are based on publically available state and county-level data compiled by the United States Department Agriculture (USDA), the Centers for Disease Control and Prevention (CDC), the National Resource Center for Health and Safety in Child Care and Early Education, and the Bridging the Gap Program at the University of Illinois at Chicago. Some analysis of available secondary data is provided by the Center for Applied Research and Environmental Systems (CARES). The ESHE Index uses only publically available data to limit the cost that securing proprietary data might incur.

ESHE INDEX METHODOLOGY

All ESHE index indicators are rescaled to values ranging from zero to one. Rescaled values are weighted and then averaged to form the final index scores. The index is calculated three ways based on the geographic scale and reference:

1. County, within states: County-level input data are used. Indicators are rescaled by taking the distribution of values across counties within each State. These ESHE scores and ranks allow for comparison of two or more counties within the same state.
2. County, within peer groups: County-level input data are used. Indicators are rescaled by taking the distribution of values across counties within each peer group³. These ESHE scores and ranks allow for comparison of two or more counties from different states, but within the same group of peer counties.
3. State: State-level input data are used. Indicators are rescaled by taking the distribution of values across states. These ESHE scores and ranks allow for comparison of two or more states.

WEIGHTING AND AGGREGATION

Values for all indicators are calculated as a weighted score between 0 and 1 (where 1 signifies the most supportive environment). For the two county-level indexes, the highest weights are applied to primary food access variables (access to grocery stores and healthy food mix; lower weights are applied to seasonal food access indicators (farmer’s markets) and general food retail density indicators (SNAP and WIC store rates). The following weights are applied:

Indicator	Weight
Low Income Population with Access to Supermarkets or Large Grocery Stores, 2015	3.0
SNAP-authorized Stores per 1,000 Low Income Population, 2016	2.0
WIC-authorized Stores per 1,000 Low Income Population, 2012	1.0
Population with Access to Farmer’s Markets, 2016	1.0
Modified Retail Food Environmental Index Score, 2011	3.0

The state-level ESHE index is calculated by using the five county-level indicators and four additional state-level food policy indicators. The following additional weights are assigned:

INDICATOR	Weight
Additional Sales Tax on Chips and Pretzels, 2014	2.0
Additional Sales Tax on Soda, 2014	2.0
Child Care Nutrition Policy Score, 2011-15	2.0
School Nutrition Environment Score, 2012-13	4.0

³ The Community Health Status Indicators (CHSI), now under the auspices of CDC, use K-Means Clustering method to sort counties into 89 groups of counties sharing similar characteristics.

Additional information about each indicator used in the ESHE Index can be found in the complete ESHE Index Methodology.

ESHE COMMUNITY MEASURES TOOLKIT

[ESHE community assessment tools](#) are available to complement the ESHE Index County-level scores. Using the standard ESHE Index may stimulate interest in rating the supportiveness of food environments in specific communities below the level of a county, for example, sets of census tracts that constitute defined neighborhoods, policy related jurisdictions, or areas with certain demographic or health profiles (e.g., the “vulnerable population footprint” option on the [CARES Engagement Network](#)).

Community groups can explore and map variables that contribute to the ESHE County Level Index but are available at the Census Tract Level. In addition, the Toolkit will encourage participant engagement by providing guidance for collecting local data that are not available in databases. The Community Measures Toolkit includes instructions on how to use these instruments as well as examples of how the results of the data collection can be used for information dissemination and advocacy.

The county level ESHE indicators are shown in the top row of the Figure below. The bottom row shows potential variables that could be the focus of community level assessments using the ESHE Community Measures Toolkit as well as elements of community activation to use findings for advocacy.

