



Healthy Communities Transformation Initiative (HCTI)

Healthy Communities Index (HCI): Framework and Assumptions

The Healthy Communities Transformation Initiative (HCTI) created a Healthy Community Index (HCI) and easily implemented Healthy Community Assessment Tool (HCAT) intended to help local jurisdictions assess and improve community health. The HCI provides a summary measure of community health performance (i.e., the degree to which existing community infrastructure and resources support the health of residents, as measured by a set of key metrics). Collectively, the indicators reflect neighborhood performance with regard to a wide range of social, economic and environmental conditions necessary for optimal health. The HCI and its associated application tool, the HCAT, are designed to foster a greater understanding of how neighborhood-level factors influence health. This greater understanding should, in turn, assist communities identify and prioritize community health objectives as well as stimulate a greater investment in policies, programs and infrastructure that promote and sustain the health of community residents.

Key Assumptions about Health and Health Determinants

- The HCI uses the World Health Organization (WHO) definition of health: A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Using this definition, health indicators can include measures of disease or injury, quality of life, mental and physical functioning, and child emotional and physical development.
- According to the WHO, the main determinants of health include the social and economic environment, the physical environment, and a person's individual characteristics and behaviors. Key factors, beyond individual age, gender, biology and genetics and developmental experiences, that have been found to influence whether people are healthy or unhealthy include: income and wealth, social status, social support, education and literacy, employment, working conditions, physical environmental conditions, health care services, and culture. The WHO further defines the fundamental resources for health as "... peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice, and equity."

Neighborhood-Level Health Indicator:

For purposes of the HCI, a neighborhood-level health indicator is defined to be a reliable and valid measure of a social, economic, or environmental characteristic of, or condition in, a neighborhood that influences health and human development or that is broadly representative of the health and human development of the population in the place.

The rationale for using neighborhood-scale measures

- Neighborhood level health indicators are spatially representative versus representative of populations with particular social or cultural characteristics (e.g., spiritual beliefs, cultural beliefs about disease susceptibility, cultural aspects of diet).
- Neighborhood-scale measures describe the variation of conditions among neighborhoods within a city, which can help identify potential interventions.
- Neighborhood-level health indicators are distinguished from individual-level health indicator as measures of social, economic, or environmental or cultural characteristics of, or conditions in, a





neighborhood. As such, neighborhood-level conditions are *determinants* of individual level health and development outcomes. HCI indicators represent substantive outcomes versus mechanisms (such as policies, programs, and processes) that serve to achieve outcomes (e.g., the concentration of a pollutant versus pollution control policies; the number of injuries versus traffic safety education or enforcement). The table below describes the differences among health indicators at different spatial scales.

- Collectively, HCI indicators succinctly represent the most salient neighborhood properties in typical US metropolitan areas that influence health and human needs.

Health Indicators at Varying Geo-Spatial Scales

Level	Health Related Characteristics
City	<ul style="list-style-type: none"> • Government policies, including tax, finance, public infrastructure investment, education, environmental, etc. • Natural, agricultural, and industrial resources • Political inclusion • Equity (e.g., income inequality)
Neighborhood	<ul style="list-style-type: none"> • Quality of physical neighborhood features (e.g., air quality, water quality, noise, traffic, urban design, parks, and housing). • Accessibility and quality of public and private services (e.g., transportation, educational, and emergency response services and food markets). • Social characteristics (e.g., social integration, civil society activities, political participation, and safety from crime and violence).
Dwelling / Household	<ul style="list-style-type: none"> • Physical attributes of buildings (i.e., those that affect qualities such as light, heat, air, energy efficiency and safety). • Social qualities (e.g., income/wealth, household size, family structure, educational levels).
Individual	<ul style="list-style-type: none"> • Biological qualities (e.g., age, gender, disease, physical handicaps) • Cognitive abilities and qualities (e.g., reasoning, reading, computation, knowledge, attitudes) • Behavioral choices (e.g., smoking, diet, physical activity)

HCI Indicator Neighborhood Scale Measures

- The spatial definition and boundaries of the neighborhood-level indicators utilize a uniform convention for grouping and aggregating data spatially.
- To produce a neighborhood-level indicator at the uniform spatial scale, data may be obtained and aggregated from more granular spatial scales or interpolated from less granular spatial scales.
- In some cases, a neighborhood-level indicator will be directly collected; in others, the indicator will be derived from source data through aggregation, modeling, or other manipulation.
- Neighborhood-level health indicators may have multiple structural forms:
 - The absolute quantity of an outcome (e.g., pollutant levels, transit service frequency, acres of open space, etc.).
 - A relative measure of an outcome relative to the distribution (e.g., school’s rank among all schools with regard to student academic performance).
 - A binary measure relative to a standard or benchmark (e.g., whether a noise level is above or below an authoritative noise standard).