

13 | Community Health and Equity Index

A community’s health and well-being is influenced by a wide variety of complex and inter-related factors, including the social, lifestyle, and genetic characteristics of individuals; the land use patterns and transportation systems that make up the physical environment; and the governmental policies and cultural norms of the social and economic environment. Together, all of these factors help shape the individual choices and behaviors that can influence health.

To compare and better understand the intersection of multiple health factors and health outcomes in Los Angeles, the Community Health and Equity Index was developed to examine the spatial relationship between vulnerable populations, social and economic factors, mortality, morbidity, the physical environment, pollution, and crime, and to identify the areas of the City burdened with the most adverse conditions. The Index ranks and scores these variables for neighborhoods across Los Angeles. The Community Health and Equity Index applies weights to each set of variables and then averages the variables together. The result is a composite map that can be used to understand the areas of the City with the highest vulnerabilities and cumulative burdens as compared to other portions of the City.

The Community Health and Equity Index uses a normative approach to set the variable weights in the Index, using value judgments about the trade-offs between individual variables to identify the areas with the most adverse health conditions. The relative weight of each index or variable is shown in Table 2 along with a sub-total of the weights by sector. Health outcomes were given the relative rank of 25, one quarter of the Index total. Health outcomes include a selection of variables for mortality (life expectancy at birth) and morbidity (childhood obesity, low birth weight, and asthma).

Health outcomes are shaped by health factors, such as a community’s physical environment, social and economic factors, access to health care, and health behaviors. Social and economic factors are the largest driver of health outcomes.¹⁹⁷ Since social and economic factors play an important role in health outcomes, the Economic Hardship Index was given the highest weight (35) and crime was assigned a value of 7.5. Health behaviors – including what we eat, whether we are physically active, and how often we see a doctor – also affect our health. Access to healthy and unhealthy foods, represented by the modified Retail Food Environment Index, was given the fourth highest rank (10) as it relates to health behaviors as well as the physical environment. Land use patterns, urban design, transportation systems, housing, parks, and exposure to pollution strongly impact a community’s health behaviors and health status. As such, land use, transportation, and environmental pollution factors were all given equal weights (7.5).

Table 2: Community Health and Equity Index Components

INDEX OR VARIABLE	Topic	Weight
Hardship Index (Standardized Index Score for Overcrowding, Poverty, Employment Status, Educational Attainment, Age Dependency, and Income)	Demographic, Economic, Housing, and Education	35
Life Expectancy at Birth	Health	15
Health Variables (Childhood Obesity, Respiratory Disease, Heart Disease, Heart Attacks, Asthma, Low Birth Weight)	Health	10
Walkability Index (Standardized Index Score for Housing Density, Retail Density, Street Connectivity, and Land Use Mix)	Land Use	5
Complete Communities Index (Index Score of the Diversity of Amenities and Establishments)	Land Use	2.5
Multi-Modal Transportation Index (Walk and Bike Commuting, Transit Ridership, Street Connectivity, Bicycle Facilities, High-Frequency Transit Service, Collisions with Bicyclists and Pedestrians)	Transportation	7.5
Modified Retail Food Environment Index (Index Score of the Ratio of Healthy to Unhealthy Food Retailers)	Food	10
Crime Rate Index (Rate of Violent and Property Crime per 10,000 Residents)	Crime	7.5
Pollution Burden Index (Index Score for Pollution Exposure and Environmental Effects)	Environmental Health	7.5
Total		100
Subtotal: Demographic, Economic, Housing, and Education Indicators		35
Subtotal: Health		25
Subtotal: Land Use		7.5
Subtotal: Transportation		7.5
Subtotal: Food		10
Subtotal: Crime		7.5
Subtotal: Environmental Health		7.5

¹⁹⁷ Los Angeles County Public Health Department. (2013). Social Determinants of Health: How Social and Economic Factors Affect Health.

The Community Health and Equity Index illustrate the areas of the City in need of the most assistance. The Index could provide guidance on the areas of the City to concentrate outreach for the Health and Wellness Chapter, to focus staff time, resources, and programs, and to highlight where policy interventions are most necessary.

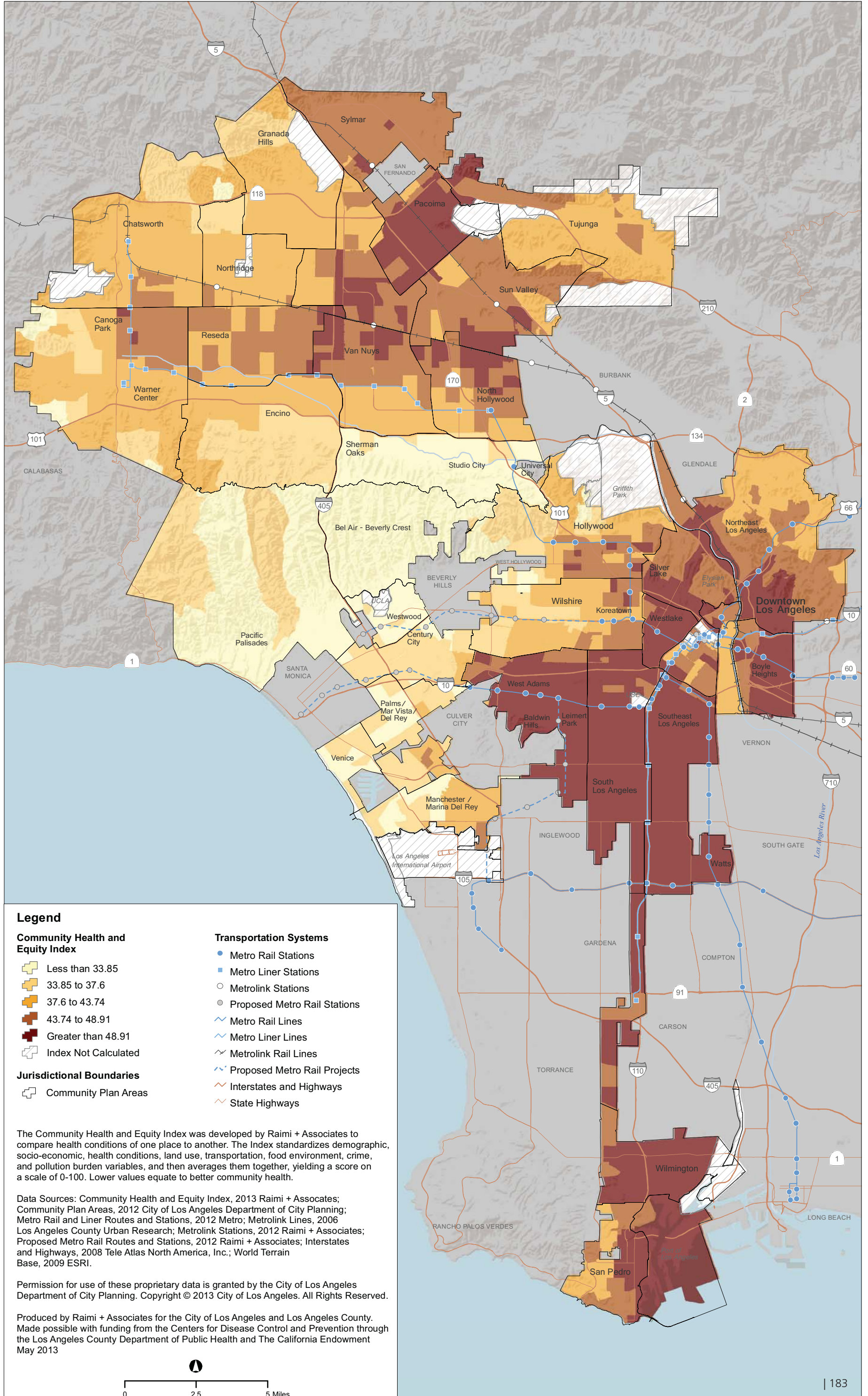
The Community Health and Equity Index provides a broad illustration of the vulnerable communities, other health factors, and health outcomes different areas of Los Angeles face. The Index combines demographic, socio-economic, health conditions, land use, transportation, food environment, crime, and pollution burden variables, standardizing the variables on a scale of 0 to 100. Lower values indicate better community health and more equitable conditions. The following table lists the indicator or index used and the weight applied to each. For more information on a specific index or indicator, please visit the earlier sections.

Map 114 shows the areas of the City with the best Community Health and Equity Index scores (lowest values) including the Westside of Los Angeles, the Santa Monica Mountains, and the western San Fernando Valley. Large portions of the Bel Air-Beverly Crest, Brentwood-Palisades, Palms-Mar Vista-Del Rey, Venice, Manchester-Marina Del Rey, and Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass CPAs had Index scores in the bottom 5% of areas within the City, meaning that these areas had the best health conditions.

As shown on Map 115, the areas with the worst health and equity scores (Index scores in the top quintile, 80% to 100%) were concentrated in the South Los Angeles, Southeast Los Angeles, Wilmington-Harbor City, San Pedro, West Adams-Baldwin Hills-Leimert, Boyle Heights, Westlake, North Hollywood-Valley Village, Arleta-Pacoima, and Van Nuys-North Sherman Oaks CPAs. The areas with the highest scores (97.5% to 100%) tended to be in Southeast Los Angeles and South Los Angeles. In particular, three Neighborhood Council Districts (Community and Neighbors for Ninth District Unit (CANADU), the Empowerment Congress Southeast Area and Watts) all had Index scores between 97.5% and 100%

Map 114

Community Health and Equity Index (2013)



Map 115

Community Health and Equity Index - Areas in the Top Quintile (2013)

