Guide to using

The Westchester Index
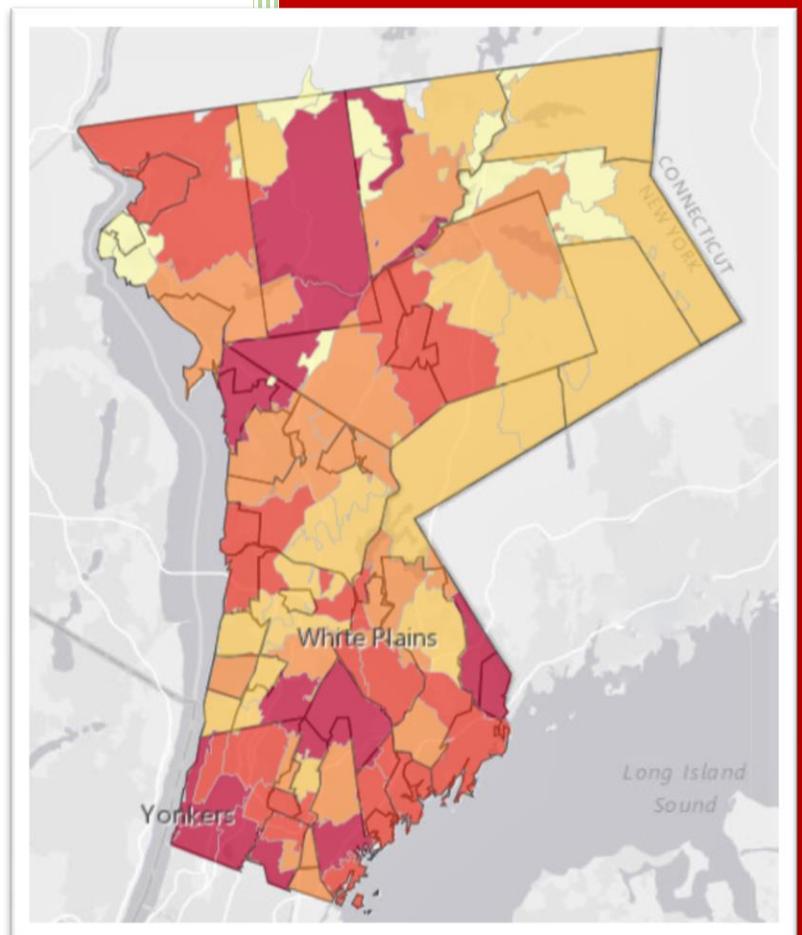
Introduction

Health is not only a result of access to medical care, but it also reflects the environments and conditions in which we live. Social determinants of health are the social, environmental, and economic indicators that are known to influence health outcomes. The Westchester Index is an interactive map that uses geographic information systems (GIS) technology to display social determinants of health data at a local scale, allowing users to better understand where gaps in opportunity may exist. The Westchester Index is a visual interpretation of data about the people of Westchester County.

The map is presented through nine geographic layers:

1. ZIP Code Boundaries (ZCTAs)
2. Municipal Boundaries
3. School Districts
4. US Congressional Districts
5. NYS Senate Districts
6. NYS Assembly Districts
7. Legislative Districts
8. 2010 Census Block Groups
9. 2010 Census Tracts

The map includes demographic, economic, housing, and other data from the American Community Survey. Additional health-related data are available selectively for some of the geographic levels.

The map is designed to be interactive. Users can select geographic areas of interest by filtering the layers at the bottom of the map. The map also provides hyperlinks to narrative profiles from the Census Bureau website, Centers for Disease Control Social Vulnerability Index, and district-level data at the website of the New York State Education Department.

The three geographies used in the Index do not share common boundaries. Generally, the school districts represent a larger geographic area than the ZCTAs, and the ZCTAs are larger than census tracts. Thus, it is possible to use the more granular geography, such as the census tracts, to examine various indicators within a larger area, such as a ZCTA or a school district. Or, users can stay within the big picture view offered by school districts, municipalities, and representative districts at the legislative and state level.

Exploring the Guide

A definitions guide provides explanations for the acronyms used for each data source. The acronyms are the Census Bureau's name for each variable, and the Definitions offers a descriptive label for each variable. For example, "NumHHRetInc" is decoded as "Number of households with retirement income," and "DiffCounty" is expanded into "Persons age 1 and older who lived in a different county one year ago."

The legend button enables the user to display the symbology of any active (checked) layer.

Data is presented within seven categories, which can be identified by hovering over this layer icon.

1. Household Demographics
2. Elderly
3. Poverty
4. US and Foreign Born
5. Health, Healthcare, and Hospitalizations
6. Housing
7. Obesity by School District

Users can view the CDC Social Vulnerability Index in the following categories: Elderly, Poverty, US and Foreign Born, Health, Healthcare, and Hospitalizations, and Housing.

The Chart button allows users to visualize variables through graphs. This feature is designed to help users uncover patterns, trends and relationships within selected data points related to demographics, income, age, education, housing, and health.

The Near Me button allows users to search near a specific address. Bee Line Bus Routes, Bus Stops and Land Use information is automatically reflected.
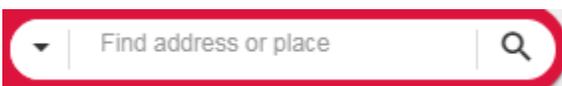
Users can also search by an address at the top of the Index.

Attribute Tables

The attribute table button allows for the display of data related to active layers.

Markers

Placing a marker allows one to "mark" a specific address and then search various layers.

Hyperlinks

Some variables include a "More Info" hyperlink to the American Community Survey.

About the American Community Survey

The Index includes numerous American Community Survey measures. It is important to recognize that many of the standard Census Bureau measures expressed as rates (poverty rate, percentage of movers, uninsured rate, disability percentage, etc.) are based on a denominator that is slightly different from the total population. For example, the poverty rate and related poverty measures are based on that part of the population for whom poverty rates is determined (slightly less than the total population).

Users should refer to the American Community Survey links for more detailed information on the data they are viewing.

Other Health-Related Measures

The Index includes measures of behavioral health and chronic conditions among inpatient hospital discharges. The data were derived from 2015 SPARCS files provided by the NYS Department of Health (DoH). The files include all inpatient stays for Westchester County residents (by ZIP codes).

The relative prevalence of such conditions among the general inpatient population may help identify disproportionate need in certain parts of the County. Similarly, the Index includes the number of inpatient hospitalizations deemed to be "preventable" by federal and state standards, with separate attention to those involving diabetes, circulatory, or respiratory disorders. These are often interpreted as indicators of the need for improved preventive and primary care.

Data on observed and expected cancer rates is derived from the Department of Health's 2005-2009 data collection through the state's cancer registry. Users should note that the DoH reports ZIP codes somewhat differently than the way the Census Bureau translates postal ZIP codes in Census ZCTAs.

Data on perinatal care measures, including low birthweight births and late prenatal care, are from the Department of Health.

Student Overweight and Obesity Data

The New York State Department of Health collects weight data on children and adolescents attending public schools in New York. The Student Weight Status Category Reporting System is available [here](#).

The Westchester Index provides information on overweight or obese children by school district. The data included in this Index is the reported percentage of students who are overweight or obese from 2012 to 2014.

Defining Childhood Obesity

According to the Centers for Disease Control, "childhood obesity is a serious problem in the United States putting children and adolescents at risk for poor health."

Obesity is defined by the National Institutes of Health (NIH) as a BMI (Body Mass Index) of 30 and above. A BMI of 30 is about 30 pounds overweight. The BMI, a key index for relating body weight to height, is a person's weight in kilograms 9kg) divided by their height in meters (m).

Environmental health hazards, **land use**, and **access to bus transportation** can be viewed in the Housing Category. Zoom in to view these attributes.

Environmental Health - Toxic Release Inventory and Hazardous Waste Sites

The Index includes two indicators related to environmental health as identified by the Environmental Protection Agency.

Toxic releases[1]

Hazardous Waste Sites[2]

Land Use[3]
a. Agricultural Uses - Farms, Stables, Nurseries
b. Single Family Residential
c. Two & Three Family and Multi-Structure Properties
d. Condominiums, Apartments & Multi-Family Residential Use
e. Common Land Homeowners Assoc.
f. Vacant Properties
g. Commercial and Retail
h. Manufacturing, Industrial and Warehousing
i. Office and Research (including Campus Office Parks)
j. Mixed Use Institutional and Public Assembly
k. Transportation, Communication and Utilities
l. Cemeteries
m. Public Parks and Parkway Lands
n. Private Recreation
o. Nature Preserves
p. Water Supply Lands
q. Interior Water Bodies

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[1] The Toxics Release Inventory (TRI) contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment. http://www.epa.gov/enviro/html/tris/index.htm.

[2] http://www.epa.gov/enviro/html/rcris/index.html

[3] Data provided by Westchester County.

Floodplains

100-year floodplains (areas with a 1% annual chance of flooding) and 500-year floodplain (areas with a 0.2% (or 1 in 500 chance) annual chance of flooding) as identified by the Federal Emergency Management Agency (FEMA).[4]

Bee-Line Bus Information

Bee-Line Bus information, including bus routes and bus stops can be accessed in the Housing Category by scrolling in to a specific location.

Bee-Line Bus stops include Route lines, stop names, shelter availability. Viewers can access photos and google street view, including 360-degree panorama for every bus stop.

The attribute table provides options to filter and sort by route, shelter availability, stop name, street and cross street name.

The Westchester Community Foundation thanks James Welsh, Sam Wear, Ana Hiraldo-Gomez, Anjali Sauthoff, and Garrison Daly for contributing their expertise to this project.

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[4] Floodplains information is derived from the National Flood Insurance Program (NFIP) https://www.fema.gov/national-flood-insurance-program and includes the Digital Flood Insurance Rate Map (DFIRM) as of 2007