Greater Waterbury
HEALTH
PARTNERSHIP

2019 Greater Waterbury Community Health Needs Assessment

Final Summary Report

CHESPROCOTT HEALTH DISTRICT

Connecticut Community Foundation
Timeless Impact

Trinity Health Of New England
Saint Mary's Hospital

StayWell Health Center

United Way
United Way of Greater Waterbury

Waterbury Hospital
Waterbury HEALTH

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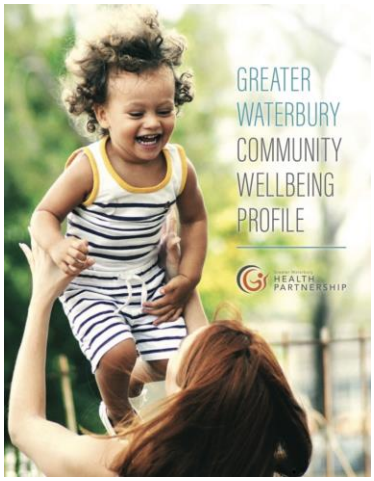
I. About this Report

The Greater Waterbury Health Partnership (GWHP) collaborates with clinical partners on a comprehensive Community Health Needs Assessment (CHNA) to evaluate the health needs of individuals living in and around Waterbury, Connecticut beginning in 2018. The GWHP partnership is comprised of Chesprocott Health District, the City of Waterbury – Department of Public Health, the Connecticut Community Foundation, Saint Mary's Hospital, StayWell Health Center, Inc., United Way of Greater Waterbury, Waterbury Hospital, and other community partners. The purpose of the assessment is to gather information about local health needs and health behaviors. The assessment examines a variety of indicators including risky health behaviors (alcohol use, tobacco use) and chronic health conditions (diabetes, heart disease). The CHNA process enables the Greater Waterbury Health Partnership to examine community health feedback and data comparatively over three cycles, 2013, 2016 and 2019. The findings from the assessment are deployed by the partnership to prioritize public health issues and develop a unified community health implementation plan focused on meeting community needs.

The Greater Waterbury Health Partnership is a non-profit organization that aims to provide access to quality, culturally sensitive, and evidence-based health information to Greater Waterbury residents and organizations, and to coordinate local healthcare services to improve overall community health. Our mission is based on community collaboration as a critical element to meet the needs of our diverse communities and is supported by data. **Healthy communities lead to lower health care costs, robust community partnerships that reinvest in community health initiatives and an overall enhanced quality of life. This Community Health Needs Assessment serves as a compilation of the findings of each health indicator.** This document is a companion to the 2019 Community Well-Being Profile, which is an executive summary of this more detailed report.



The 2019 Greater Waterbury Community Wellbeing Profile, (see example at left) is a summary report about the Greater Waterbury region and the towns within it. The Community Wellbeing Profile is produced by DataHaven in partnership with the Greater Waterbury Health Partnership and many other regional partners serving the Greater Waterbury area. The Community Wellbeing Profile serves as a resource for Greater Waterbury and the towns within it. Topics covered in the Profile include: overall community well-being, demographic changes, housing, transportation, early childhood education, K-12 education, economic opportunity, leading public health indicators (such as premature mortality, chronic disease prevalence, health behaviors, health care access, and the social determinants of health), and civic life.

This report provides additional local detail of relevance to the region, including data points on the individual towns within it that in some cases

would not fit within the Community Wellbeing Profile publication, which is intended for a wide public audience. It also documents the process that GWHP and clinical partners used to conduct the regional health assessment and health improvement activities. You may find the full Index attached to this chapter, or posted on the DataHaven, Greater Waterbury Health Partnership, Saint Mary's Hospital, Waterbury Hospital or any of the town health department websites. **This report was formally approved by the Greater Waterbury Health Partnership Steering Committee on September 23, 2019.** A full list of Steering Committee members can be found on the Partnership's website: www.healthywaterbury.org

II. Introduction and Purpose

Understanding the current health status of the community is important in order to identify priorities for future planning and funding, the existing strengths and assets on which to build, and areas for further collaboration and coordination across organizations, institutions, and community groups.

To this end, Greater Waterbury Health Partnership, as fully set forth in Appendix A – is leading a comprehensive regional Community Health Needs Assessment (CHNA) effort. This effort is comprised of two main elements:

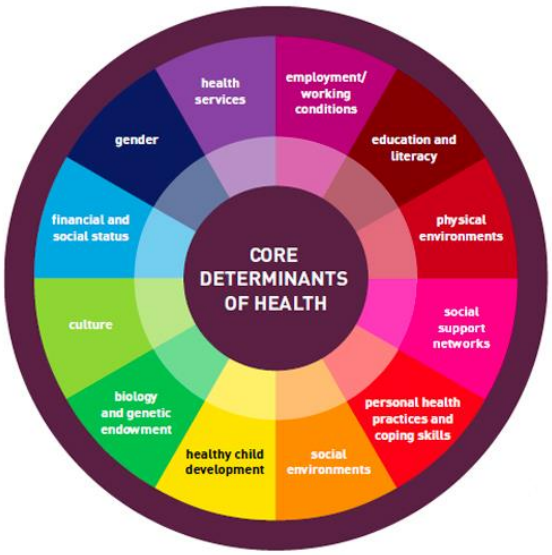
- Assessment – identifies the health-related needs in the Greater Waterbury region using primary and secondary data.
- Implementation Plan– determines and prioritizes the significant health needs of the community identified through this CHNA, describes overarching goals, and evaluates and proposes specific strategies being undertaken or to be accomplished across the service area. This ongoing process is known as the Community Health Improvement Plan (CHIP).

This report details the findings of the CHNA conducted from early 2018 through mid-2019. During this process, the following goals were achieved:

- examined the current health status of the region and its neighborhoods, and compared rates to statewide indicators and goals using data;
- explored current health priorities among residents and key stakeholders through community engagement; and
- identified community strengths, resources, and gaps in order to assist clinical and community partners in establishing implementation strategies, programming, and health priorities.

The CHNA defines health in the broadest sense and recognizes that numerous factors at multiple levels impact a community's health – from lifestyle behaviors to clinical care to social and economic factors to the physical environment. The social determinants of health framework guided the overarching process.

Social Determinants of Health- Informing the Process



The Greater Waterbury Health Partnership adopted **the Association of Community Health Improvement's (ACHI)** Community Health Assessment Framework to guide the CHNA and to ensure that it meets the needs of the hospitals' Internal Revenue Service requirements and those of the local health departments pursuing voluntary accreditation through the Public Health Accreditation Board**.**

We conduct this Community Health Needs Assessment to meet several overarching goals:

- To examine the current health status of the region
- To explore current health priorities – as well as emerging health concerns – among residents within the social context of their communities; and
- To meet the legal requirement of Saint Mary's Hospital and Waterbury Hospital to conduct a community health needs assessment at least once every three (3) years and to adopt a written implementation strategy to meet the community health needs identified through the community health needs assessment; and
- To meet voluntary health department Public Health Accreditation Board requirements.

GEOGRAPHIC SCOPE OF CHNA

To define community for CHNA purposes, this Community Health Needs Assessment uses a geographic approach focusing on Greater Waterbury. These communities are served by Saint Mary's Hospital and Waterbury Hospital and do not overlap with CHNA areas identified by other acute care hospitals and/or collaborations within New Haven County***. The needs assessment refers to three primary geographic areas: (1) Waterbury/urban core; (2) the inner ring, which includes towns contiguous to Waterbury (Naugatuck, Prospect, Cheshire, Wolcott, Middlebury, Watertown, Thomaston); and (3) the outer ring, which includes all remaining towns in the region (Beacon Falls, Oxford, Southbury, Woodbury, Bethlehem, Morris, Litchfield, Goshen, Warren, Washington, Roxbury, Bridgewater, New Milford).***

Upon defining the geographic area and population, we were diligent to ensure that no groups, especially minority, low-income or medically under-served, were excluded from the assessment process or data collection. The area encompasses western Connecticut and is relatively large with a population of approximately 313,000 residents. The geographic area was defined by primary service area (PSA) and secondary service area (SSA). The PSA is the area that the partnership predominantly serves and the hospitals' main catchment area. It comprises all of Waterbury and has a population of approximately 110,000 residents. The SSA includes portions of the surrounding communities served by the two hospitals and has a population of approximately 203,000 residents. The conclusions drawn from the various research components focus on the primary service area, the city of Waterbury, Connecticut.

III. EXECUTIVE SUMMARY: DATA COLLECTION METHODS USED IN THE CHNA

Quantitative and qualitative data is collected and reviewed throughout the CHNA process. Secondary data sources included, but were not limited to, the U.S. Census, U.S. Bureau of Labor Statistics, Centers for Disease Control and Prevention, State of Connecticut Department of Public Health, Connecticut Health Information Management Exchange (CHIME), as well as local organizations and agencies. Types of data included vital statistics based on birth and death records. In addition to these secondary data sources, GWHP partnered with DataHaven to sponsor the 2018 DataHaven Community Wellbeing Survey (DCWS) along with 80 other public and private partners statewide. The wellbeing survey included live, in-depth interviews with 2,319 residents in the region via cellular and landline phone; 1000 of which were from Waterbury. Additional information on survey methods are posted on DataHaven's website (ctdatahaven.org).

Methodology

The Community Wellbeing Survey was designed by DataHaven in consultation with over 100 local, statewide, and national survey research experts and local partners, in many cases drawing upon questions commonly used in other surveys. On behalf of DataHaven, the Siena College Research Institute (SRI) conducted the survey of 16,043 residents of the state of Connecticut, including 2,319 in the Greater Waterbury region (additional surveys were also completed in parts of New York State, but are not included in these estimates). Surveys were conducted from March 6 through November 29, 2018. Residents age 18 and older were interviewed from all 169 towns in Connecticut. Interviews were conducted in English and Spanish. The overall Connecticut sample of 16,043 and the Greater Waterbury sample of 2,319 were weighted by age, gender, reported race, and geography to ensure that they were statistically representative of the area's demographics. In addition to demographic parameters, the samples were also weighted to match current patterns of telephone status (landline only, cell phone only or both), based on the state-level estimates from the National Health Interview Survey.

Respondents were contacted via landline or cell phone. To ensure the selection of both listed and unlisted telephone numbers, the design of the sample incorporated random digit dialing (RDD). The cell phone sample was drawn from a sample of dedicated wireless telephone exchanges from within Connecticut. Approximately 1/3 of residents completed the survey on a cell phone. In addition to the traditional RDD samples for landline and cell, Data Haven augmented the sample using a stratified sampling technique. These stratified samples maintained RDD for both landline and cell but used information from the U.S. Census so as to enhance the composition of the sample, including targeted regions, urban centers, and high concentrations of minority populations. The primary supplier of the RDD landline and cell phone samples was Survey Sampling International (SSI) of Shelton, Connecticut. Additionally, for the cell phone sample Data Haven utilized SSI's Wireless LITe database which uses billing address to enable the targeting of cell phone sample by region or zip code. This database also permitted the inclusion of non-Connecticut telephone numbers as someone may have moved and their billing address is in the area but their cell phone number is not a 'typical' Connecticut telephone number (i.e., not a 203, 860 area code). All of these respondents were screened by live interviewers to confirm their residence in a qualifying town and zip code before interviews continued.

Reported Margins of Error

Margins of error are shown at the top of the crosstab. The "maximum" margin of error for the Greater Waterbury sample of 2,319 adults is +/- 2.4% with a 95% confidence interval, including the design effects resulting from weighting. This means that in 95 out of every 100 samples of the same size and type, the results that were obtained would never vary by more than plus or minus 2.4 percentage points from the result if every single member of the adult population of Connecticut was interviewed. This maximum margin of error applies when an observed percentage is 50%, and the margin of error becomes smaller as the percentage approaches the extremes of 0% or 100%. Margins of error are higher for small geographic or population groups.

Community Engagement

Additional community engagement work was conducted by Bonnie Weyland Smith (BWS) Consulting. GWHP contracted Bonnie Weyland Smith, MPH, CPH, CPP and Emily Melnick, MA who have extensive experience

analyzing public health data from administrative data, community, and school surveys. They have worked closely with stakeholders to determine which data are most relevant for community members and leaders to use in their strategic planning and decision making processes.

- On May 30th, 2019 a Key Informant Health Prioritization session was held at Naugatuck Valley Community College. That 3 hour session was attended by approximately 40 community leaders.
- Two focus group meetings were held at partner hospitals, Saint Mary's Hospital and Waterbury Hospital on June 4th and June 6th, 2019, respectively. Approximately 35 medical community professionals attended the 90 minute sessions and identified health priorities.
- On June 3rd, 2019 a focus group for the Chesprocott Health District was held in Cheshire and engaged approximately 22 community leaders and professionals/stakeholders from the district in a 90 minute discussion facilitated by BWS Consultants.
- Finally, two key neighborhood community conversations were held in two faith communities, Long Hill Bible Church and Our Lady of Lourdes/Saint Anne's in the South End. These informal 90 minute sessions were attended by a total of 51 neighborhood residents who identified health priorities for their communities.

A full summary report of Community Engagement Outcomes was provided by BWS, who worked with DataHaven for information included in the sessions. There is a concise summary of those report findings included later in this document in Appendix D.

Limitations of Methods

There are limitations to this data research. The sample Greater Waterbury includes the Urban Core of Waterbury in all tables. Community Engagement is limited to conversation in two ethnically diverse neighborhoods in Waterbury and did not include engagement from residents in the suburban communities of Greater Waterbury except for Cheshire, Wolcott and Prospect. All DataHaven surveys sampled residents in the region as well as in Waterbury.

IV. EXECUTIVE SUMMARY: KEY FINDINGS OF THE CHNA

The following section provides a brief overview of the key findings from the Community Health Needs Assessment for the region. This includes findings as they relate to the top health priorities that were selected for additional community health improvement planning at a regional level. Each priority lists a subset of focus areas that are representative of issues most effecting the community of Greater Waterbury. These priority areas were established through a combination of community input and partner review of data and have been carefully examined to insure inclusiveness of issues that contribute to health disparities in the community.

2018-2019 Health Priorities

- **Access to care**
  - Preventative/Primary/Prenatal care
  - Language
  - Transportation

- Readmissions
- Substance Abuse/Mental Health

➢ **Health Influencers**
- Access to food
- Housing
- Health Education/Outreach

➢ **Health Risk Factors**
- Obesity/Diabetes
- Hypertension/Heart Disease
- Asthma
- Infant Mortality

Overall findings related to the topics included in this report are also covered in the 2019 Greater Waterbury Community Wellbeing Profile document. **For more detailed data produced through this process, including data by town, please refer to the DataHaven website (ctdatahaven.org).**

Demographics and Social Indicators

Numerous factors are associated with the health of a community including what resources and services are available as well as who lives in the community. Individual characteristics such as age, gender, race, and ethnicity have an impact on people's health. With respect to geography, the needs assessment refers to three primary geographic areas: **(1) Waterbury/urban core; (2) the inner ring**, which includes towns contiguous to Waterbury (Naugatuck, Prospect, Cheshire, Wolcott, Middlebury, Watertown, Thomaston); and **(3) the outer ring,** which includes all remaining towns in the region (Beacon Falls, Oxford, Southbury, Woodbury, Bethlehem, Morris, Litchfield, Goshen, Warren, Washington, Roxbury, Bridgewater, New Milford).

Table 1.

Area	Total Population	Age 0-17	Age Over 65	White Non-Hispanic	Hispanic	Black Non-Hispanic	Other Race
State	3,594,478	762,732	575,757	2,446,049	551,916	350,820	245,693
Region	335,490	74,532	55,728	238,561	53,974	25,659	17,437
Urban Core	109,250	27,926	14,077	42,046	40,599	19,555	7,050
Inner Ring	124,669	25,682	21,127	105,674	7,508	4,730	6,757
Outer Ring	101,571	20,924	20,524	90,841	5,867	1,374	3,630

Source: (DataHaven, 2017)

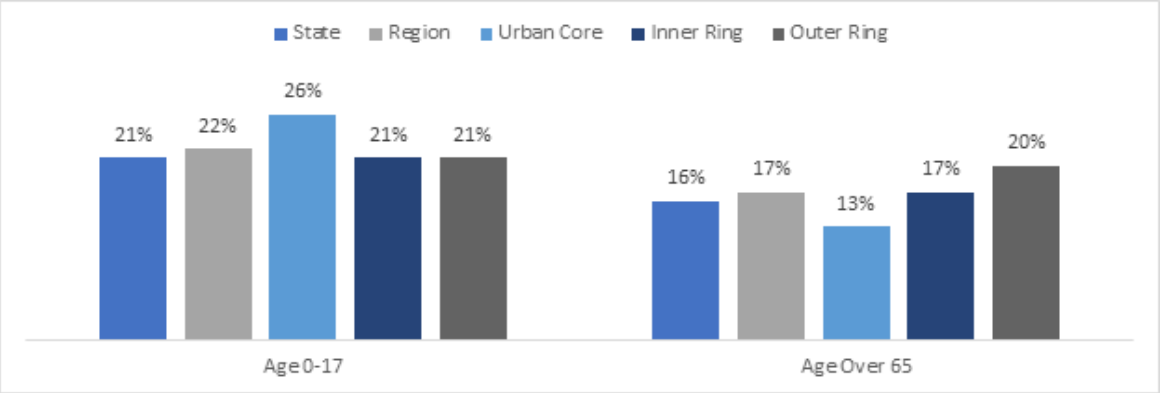
Population

The region, Greater Waterbury, is defined as: Waterbury, Naugatuck, Prospect, Cheshire, Wolcott, Middlebury, Watertown, Thomaston, Beacon Falls, Oxford, Southbury, Woodbury, Bethlehem, Morris, Litchfield, Goshen, Warren, Washington, Roxbury, Bridgewater, and New Milford.
This region has a population of 335,490.

Age Distribution

The region's total population is projected to stay the same between 2015 and 2040, though the area's population ages 65+ is projected to grow by 35%. However, Waterbury, the urban core, is younger than the rest of the region.

Figure 1.

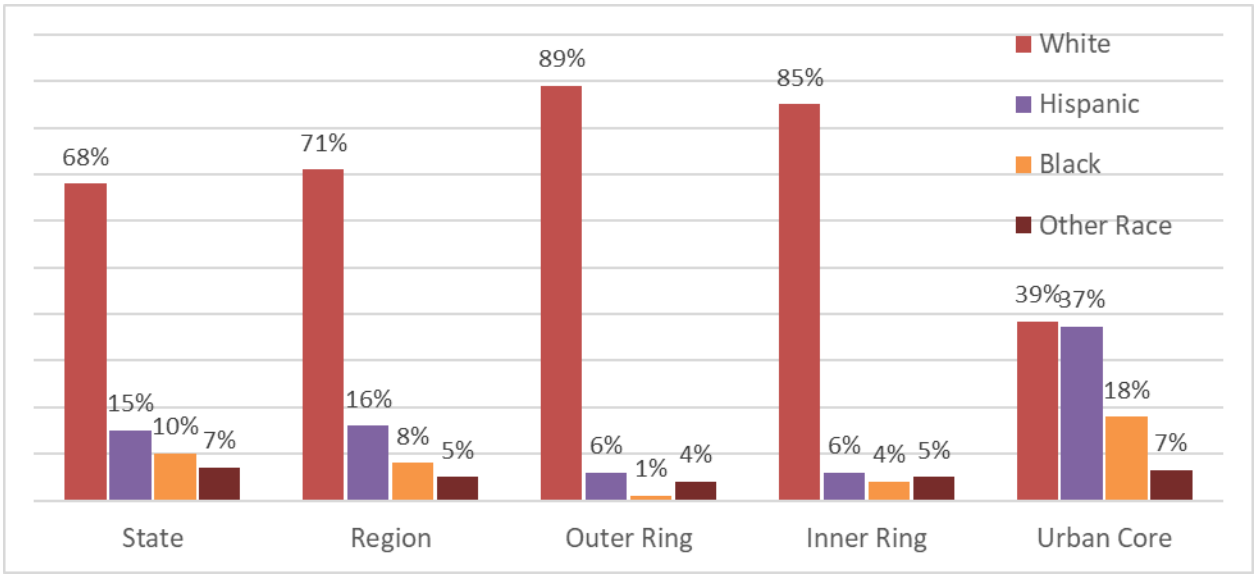


Source: (DataHaven, 2017)

Racial and Ethnic Diversity

Over one-third of the residents in the region live in Waterbury. These residents are younger (26% under 18, compared to 21% for the region) and more racially diverse than the Inner Ring and Outer Ring. While people of color make up 29% of the region's total population, they are 41% of the region's population under age 18, and 61% of Waterbury's residents (37% Hispanic, 18% black non-Hispanic, 6% other race). People of color make up only 15% of residents in the inner ring and 11% of residents in the outer ring.

Figure 2.



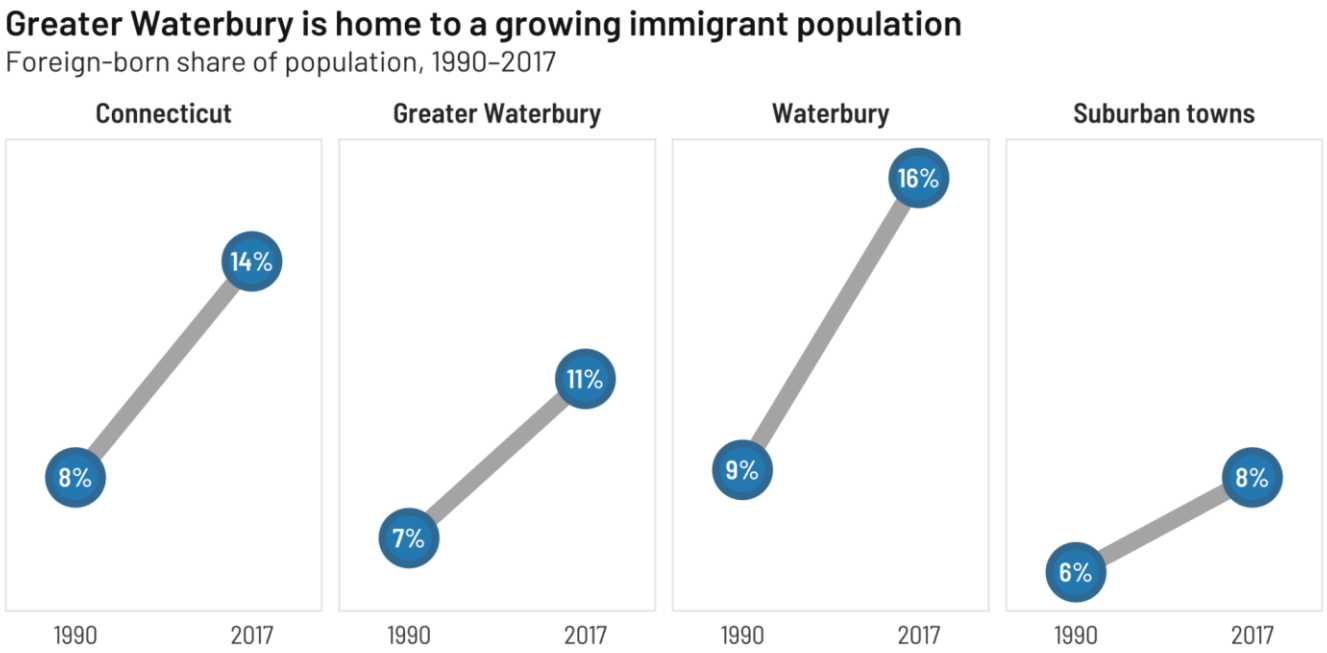
Source: (DataHaven, 2017)

Immigration/Migration

Immigrants play an important role in the region's economy and introduce linguistic diversity to the community. 11% of Greater Waterbury's population, or more than 36,000 residents, were born outside of the United States.

- In Waterbury proper, 16% are foreign-born. This is also higher than the 2015 state rate of foreign-born residents, which is 14.5% (American Immigration Council, 2017).
- The largest immigrant groups in the region come from the Dominican Republic, Italy, Jamaica, Poland, and Portugal. A large number of Puerto Rican residents also relocated to Greater Waterbury after Hurricane Maria hit the island in 2017 (The Naugatuck Valley Council of Governments, 2018).

Figure 3.

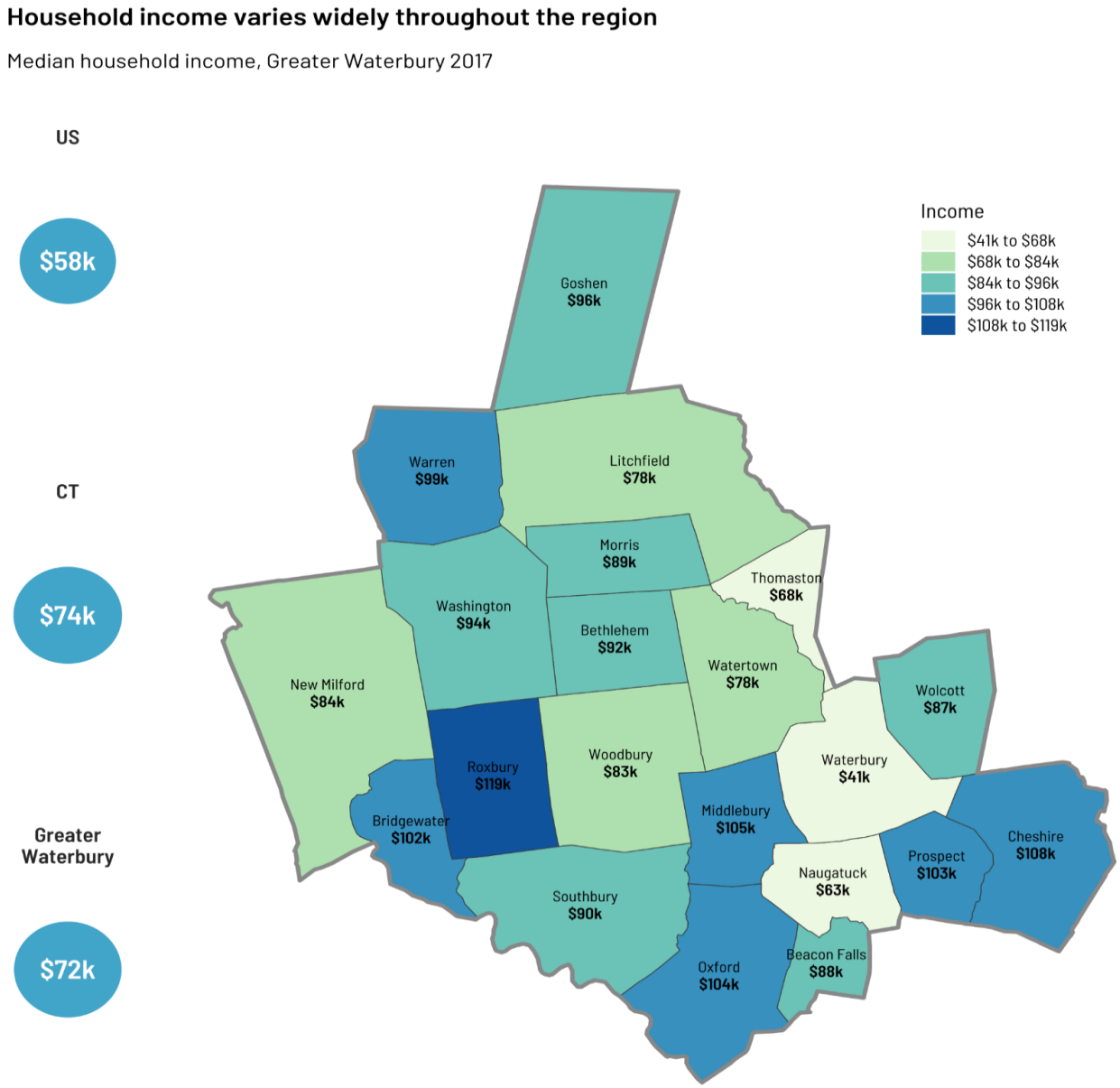


Source: (DataHaven, 2018)

Income, Financial Stress, and Poverty

Health is affected not just by physical environment, but by factors such as income and poverty. Greater Waterbury and the urban core have exhibited notable trends in employment related to distribution of income in the region. Poverty continues to be a factor affecting the urban core of Waterbury.

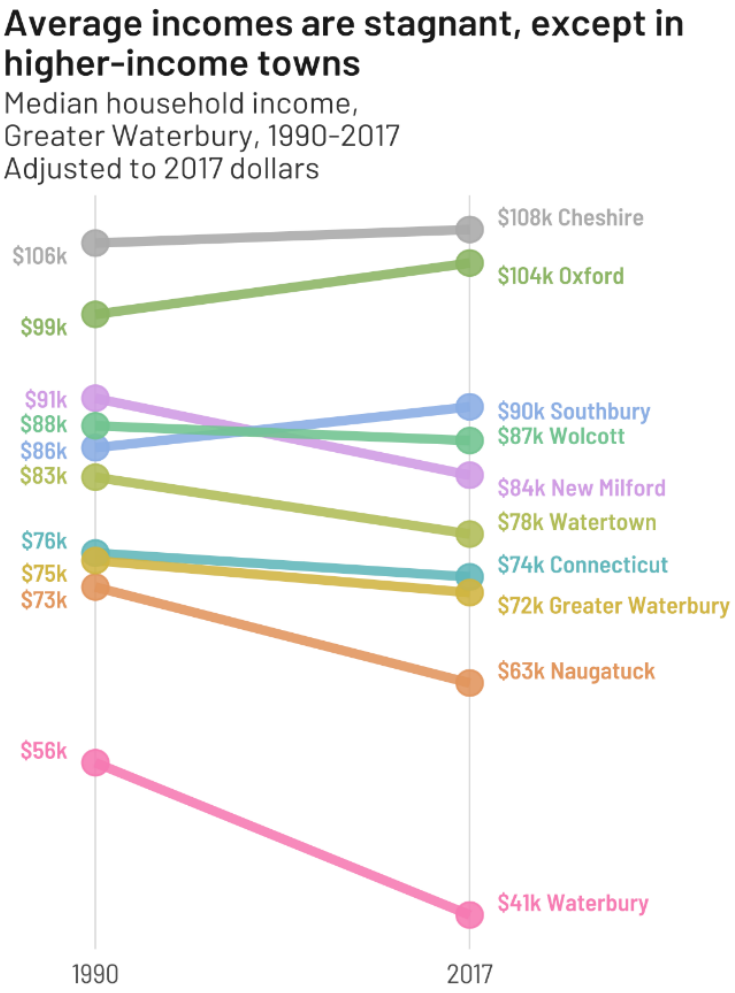
Map 1.



Source: DataHaven, 2018

Incomes are stagnant in the urban core as compared to the outer ring. As manufacturing jobs decline in the urban core and inner ring, health and social services jobs have increased. Manufacturing employees in Greater Waterbury declined from 14.9 thousand in 2000 to 11.9 thousand in 2016, meanwhile health and social services employees have increased from 16.2 thousand to 21.3 thousand in the same timeframe. Household income medians vary greatly throughout the region. Residents in the Urban Core make on average less than 50% of the median incomes of residents in the inner and outer ring towns.

Figure 4.

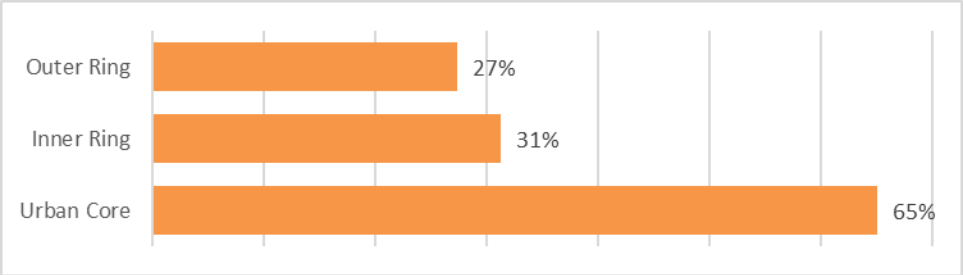


Source: DataHaven, 2018

Poverty

In Greater Waterbury the poverty rate is 12 percent. This means there are about 38,000 residents living in households with incomes less than the federal poverty level of $51,500 for a family of four. Further, the low-income rate is 25 percent. 82,000 residents in the region live in households earning less than twice the federal poverty level. Waterbury residents are more likely to be low income and poor with 47% of households falling within the low-income rate.

Figure 5. ALICE and Poverty Rates by Town, 2016



ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the U.S. poverty level, but less than the basic cost of living for the area (the ALICE Threshold). Combined, the number of poverty and ALICE households equals the total population struggling to afford basic needs (United Way of Greater Waterbury, ALICE Report- Connecticut, 2016).

Figure 6.

Rates of poverty and low income vary by geography, age, gender, and race, according to DataHaven and Opportunity Atlas.

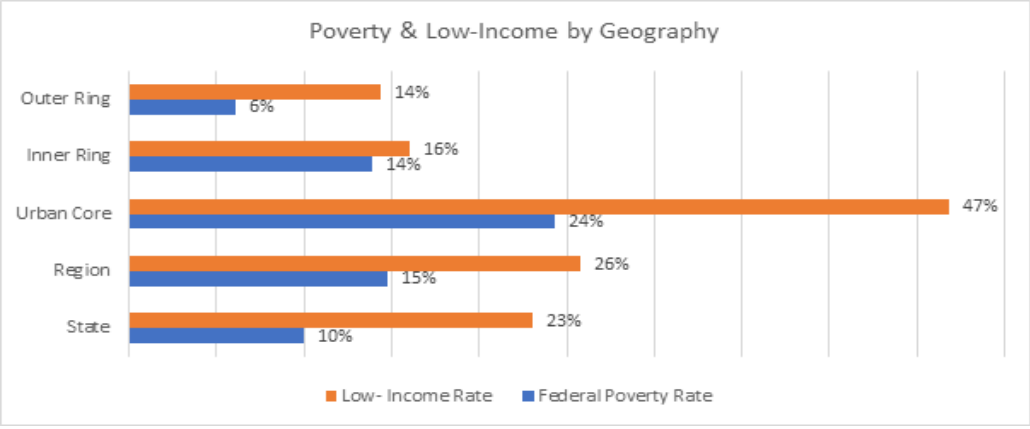
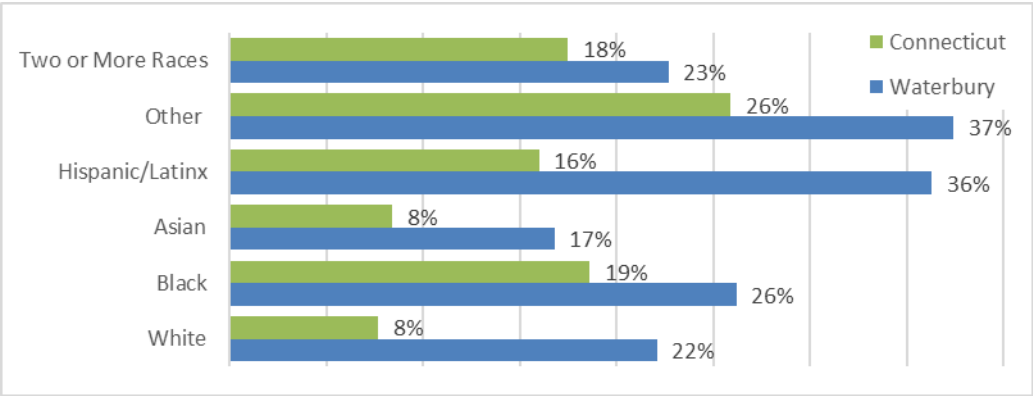


Figure 7.



- Waterbury is less financially secure than the region as a whole. 65% of Waterbury households are ALICE.
- Racial/ethnic disparities. Within these geographic areas, African American and Hispanic households are less financially secure than white households.
- Gender differences. 41% of women in the region say that they are just getting by or struggling financially compared to 20% of men. (Institute, 2018)

The preceding charts and tables provide further insight into which residents are most effected within ALICE households and the region as a whole. Each table or chart shows how some populations are disproportionately affected by poverty than others in our region.

Social and Physical Environment

Income and poverty are closely connected to health outcomes. A higher income makes it easier to live in a safe neighborhood with good schools and many recreational opportunities. Higher wage earners are better able to buy medical insurance and medical care, purchase nutritious foods, and obtain quality child care than those earning lower wages. Lower income communities have higher rates of asthma, diabetes, and heart disease. Those with lower incomes also generally experience lower life expectancies and lower life satisfaction, though individual experiences likely play a larger role than income alone. Other factors, such as housing and availability of healthy foods, play a role as social determinants of health in the region.

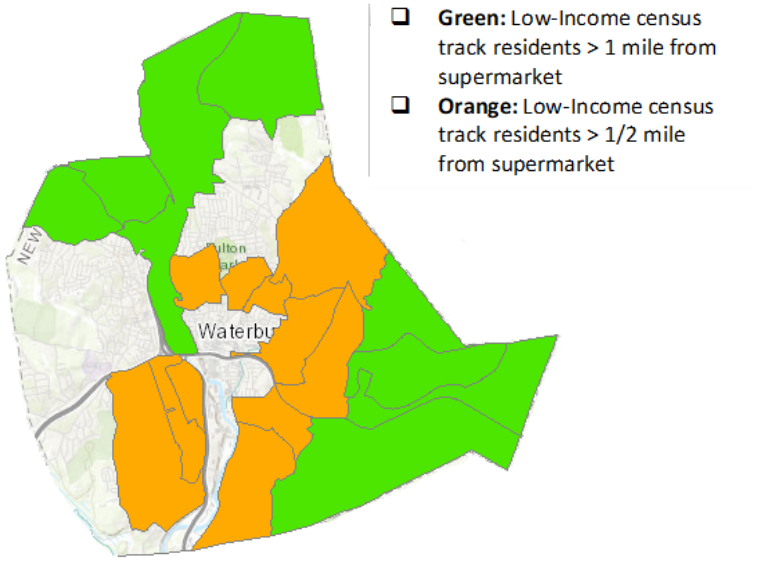
Food & Transportation:

Food insecurity is present, especially in Waterbury. 14% of adults in Greater Waterbury and 25% of Waterbury adults report food insecurity (having been unable to provide adequate food for their families at some point in the past year).

Lowest income people are particularly vulnerable. 43% of region residents making $15,000 or less reported not having enough money to buy food that they or their family needed. (DataHaven, 2018)

Many low-income Waterbury residents live in food deserts. A large percentage of Waterbury is classified as a food desert, meaning that residents lack access to fresh, high-quality food (United States Department of Agriculture, 2018).

Map 2.



Source: (United States Department of Agriculture, 2018).

Lack of transportation strains food desert residents:

Additional USDA data shows areas of the city in which residents have low vehicle access. The close correlation between food deserts and areas in which people lack access to cars indicates that residents have difficulty leaving the food desert to find healthy, high-quality groceries in other neighborhoods. In the Greater Waterbury region, 14% of residents reported being transportation insecure, 23% of Waterbury residents reported not having reliable transportation. Transportation affects a person's ability to buy food, pick up medication and drive to medical appointments. In Waterbury, 11% of residents did not attend a medical appointment due to lack of transportation compared to 6% of residents in Greater Waterbury.

Map 3.

Source: Waterbury Low Transportation Access Census Tracts Source: (United States Department of Agriculture, 2018).

Housing

The U.S. Census Bureau uses 30% of household income as a standard for measuring housing affordability. In order to be considered affordable, households should pay no more than 30% of their income towards housing (rent or mortgage + utilities). Cost-burdened households spend 31-49% of income on housing and severely cost-burdened households spend at least 50% of income on housing. Homelessness continues to be an issue affecting the Urban Core of Waterbury with 126 people counted as homeless as of January 2018 (Connecticut Coalition to End Homelessness, Point in Time Count). Residents that are severely cost burdened for housing are at greater risk for eviction and homelessness. **Housing instability contributes to many health risk factors such as lack of access to medication, lack of access to care or mental illness and substance abuse.**

- 16% of Greater Waterbury region's households are severely cost-burdened
- 26% of the region's renter-occupied households are severely cost-burdened
- 22% of people who rent in the region receive rental assistance through either a state or federal program
- 38% of the residents who moved into the region since 2016, and currently own a home or rent, did so for better quality or larger home (Greater Waterbury Health Partnership, 2018).

Figure 8. Housing cost burden and wage gap related to affordable housing

Source: (National Low Income Housing Coalition , 2018)

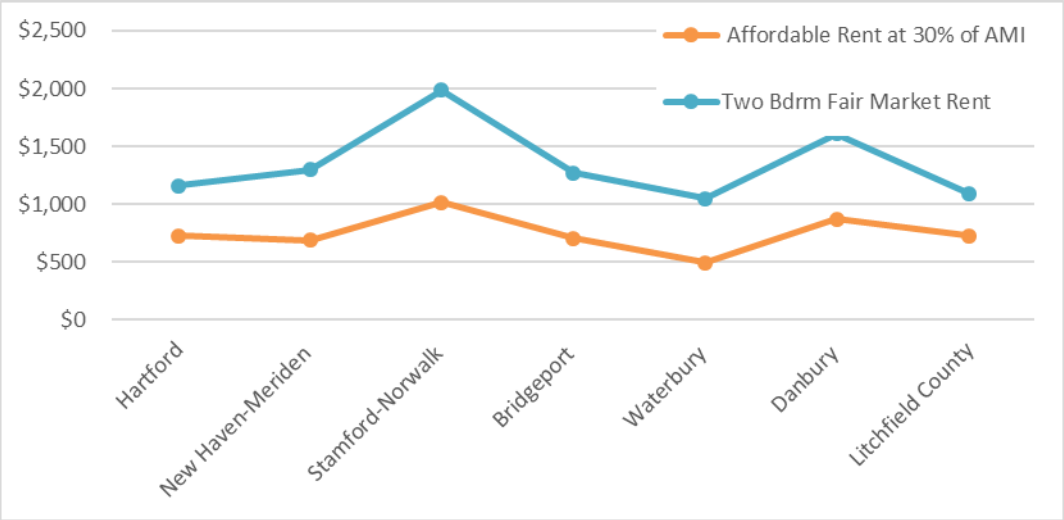
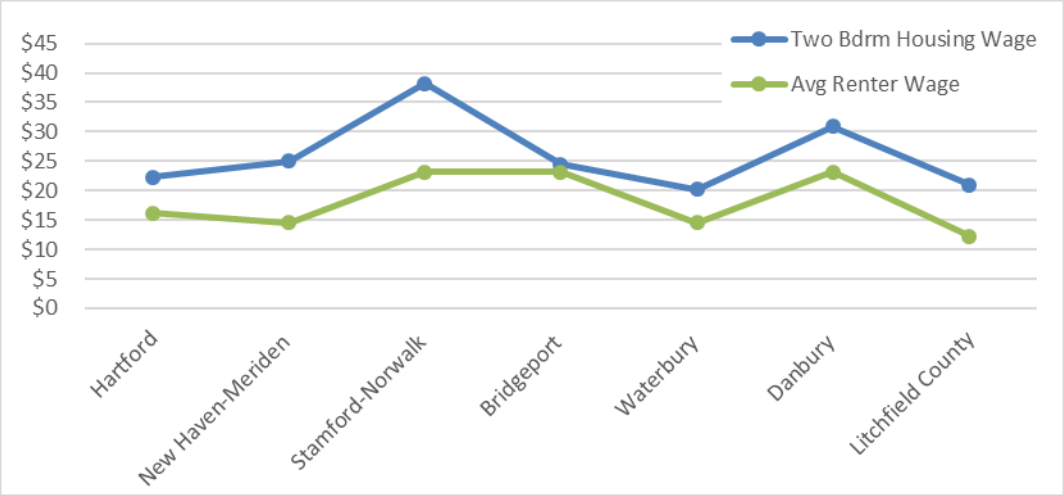


Figure 9.

Source: (National Low Income Housing Coalition , 2018)



- While the Waterbury market may be more affordable than the rest of the state, households still face affordability issues and low-income residents are severely cost-burdened.
- Race can be a factor.
    - 14% of Hispanics reported not having had enough money to provide adequate shelter or housing for themselves or their families.
    - 28% of African American residents reported that their utility company threatened to shut off services to their home. 19% of Hispanics and 14% of Whites experienced this. (Institute, 2018)

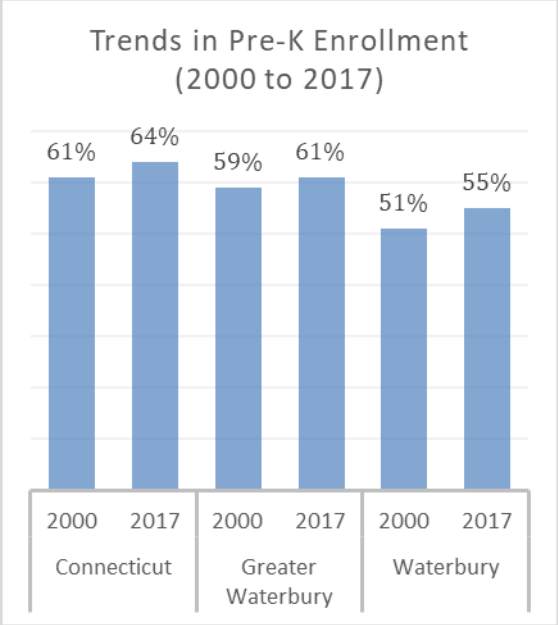
- Among renters there is a large disparity in the frequency of evictions in Waterbury compared to Connecticut and New Haven County. Waterbury residents are evicted at a rate of 6.1% which is 3.67% higher than the national average and 3.06% higher than the Connecticut average. (Princeton University, 2019)
    - Waterbury had Connecticut's top eviction rate in 2016, above Hartford and New Haven. In cities with at least 100,000 residents, Waterbury had the highest eviction rate in the Northeast, and ranked 22nd in the nation. (Seaberry, 2018)
    - "The neighborhoods hit hardest by evictions tend to, on average, have lower renter incomes, higher poverty rates, lower property values, and greater racial diversity than the state… In these lower-income areas, a third of renting households have to put at least half their income toward rent and other housing costs, such that even a moderate rent can become impossible to pay." (Seaberry, 2018)
- There are wide disparities in rates of homeownership.
    - 69% of Greater Waterbury residents own the homes they live in; within that regional figure, only 44% of Waterbury residents own their homes.
    - Across the region, 70% of Whites reported owning their homes compared to 32% of African Americans/Blacks and 35% of Hispanics. (Institute, 2018)

Educational Attainment

Early Childhood Education

Early Childhood Education can be a predictor of future child health and well-being. Early developmental opportunities can provide a foundation for children's academic success, health, and general well-being. Preschool-aged children experience profound biological brain development and achieve 90 percent of their adult brain volume by age 6. Children in low-income families often are exposed to more adverse early childhood experiences (ACES) and environmental factors that delay or compromise their development and place them at a disadvantage for healthy growth and school readiness. Free childcare and early education programs are available in Waterbury, although space is limited for enrollment. The percent of children enrolled in a Pre-K program in Waterbury and Greater Waterbury has increased over time.

Figure 10. Preschool Enrollment 200-2017



Source: DataHaven 2017 Population analysis ages 3-4, Decennial census ACS 5-year

Post-Secondary Attainment

Education is connected to health and well-being. Those with a college diploma will live an average of nine years longer than people without a high school diploma. Across the region, 33% of adults age 25 and up have a Bachelor's degree or higher, while only 10% of Waterbury adults have a Bachelor's degree. There are three institutions of higher education in Waterbury: Naugatuck Valley Community College, University of Connecticut, Waterbury campus, and Post University.

Table 2. Educational Attainment, 2017

	Population ages 25+	No HS diploma	% No HS diploma	% Bachelor's degree only	% Bachelor's degree or higher
Connecticut	2,480,297	242,500	10%	22%	39%
Greater Waterbury	232,850	25,327	11%	19%	33%
Waterbury	70,296	14,690	21%	10%	16%

Source: DataHaven, 2018 Analysis of population age 25+ 2017 ACS 5-year

Life Expectancy and Mortality Rates

Mortality statistics provide a picture of community health and are used to monitor health, formulate plans to prevent premature mortality, and improve overall quality of life. Life expectancy in the Urban Core is

considerably less (76.8 years) than that of the rest of the state of Connecticut (80.3 years). Poverty and housing cost burden are also the highest in the State in the Urban Core.

The five leading causes of death for people of all ages in the region (DataHaven 2018):

- cancer
- accidents (unintentional injuries)
- infant/fetal mortality
- heart disease
- drugs

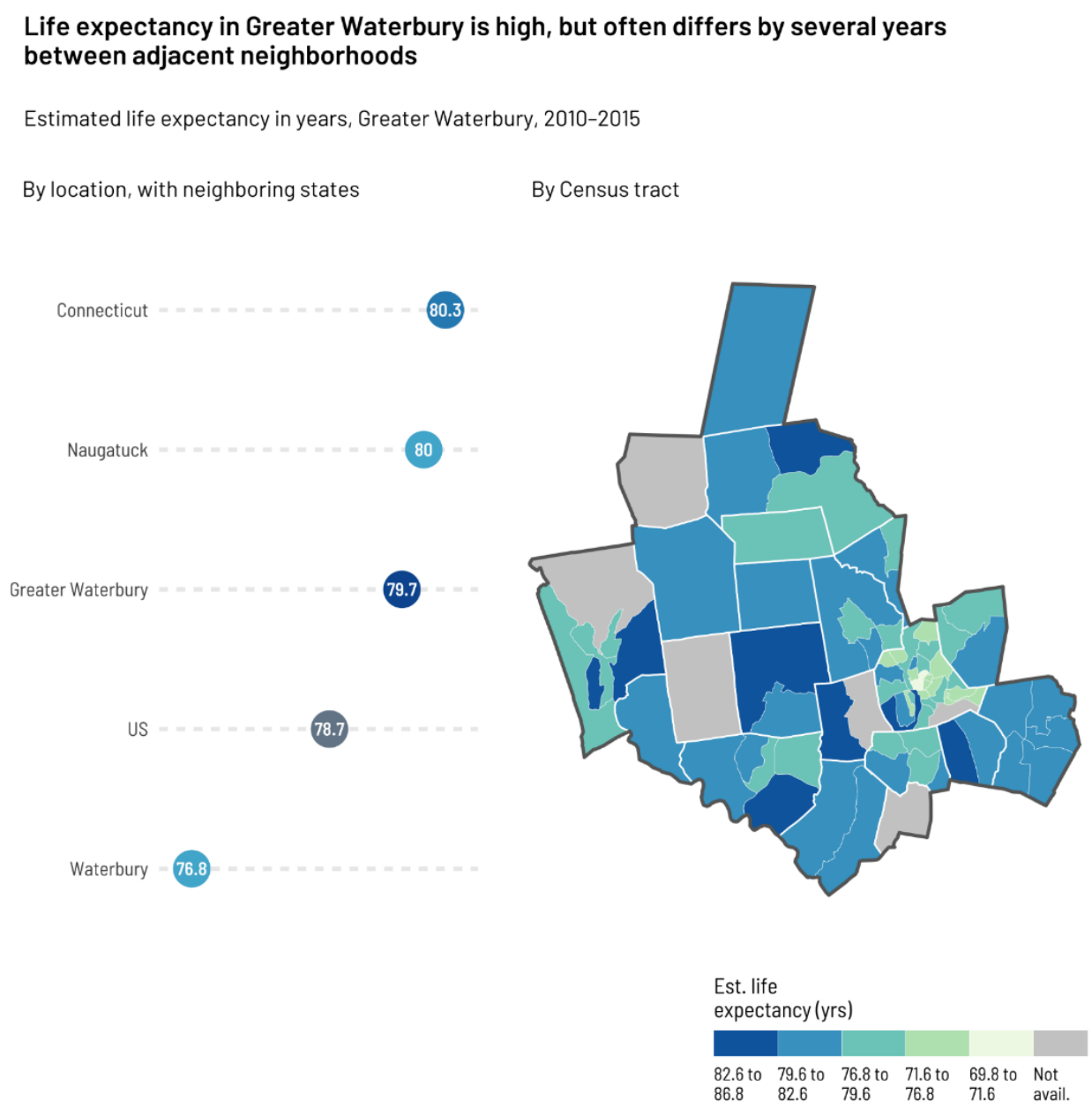
There are differences in mortality associated with age, where teens and young adults are more likely to die from accidents or motor vehicle accidents while older adults are more likely to die of diseases of the heart.

Mortality/ Causes of Years of Life Lost

Infant Mortality Highest Among Connecticut Cities:

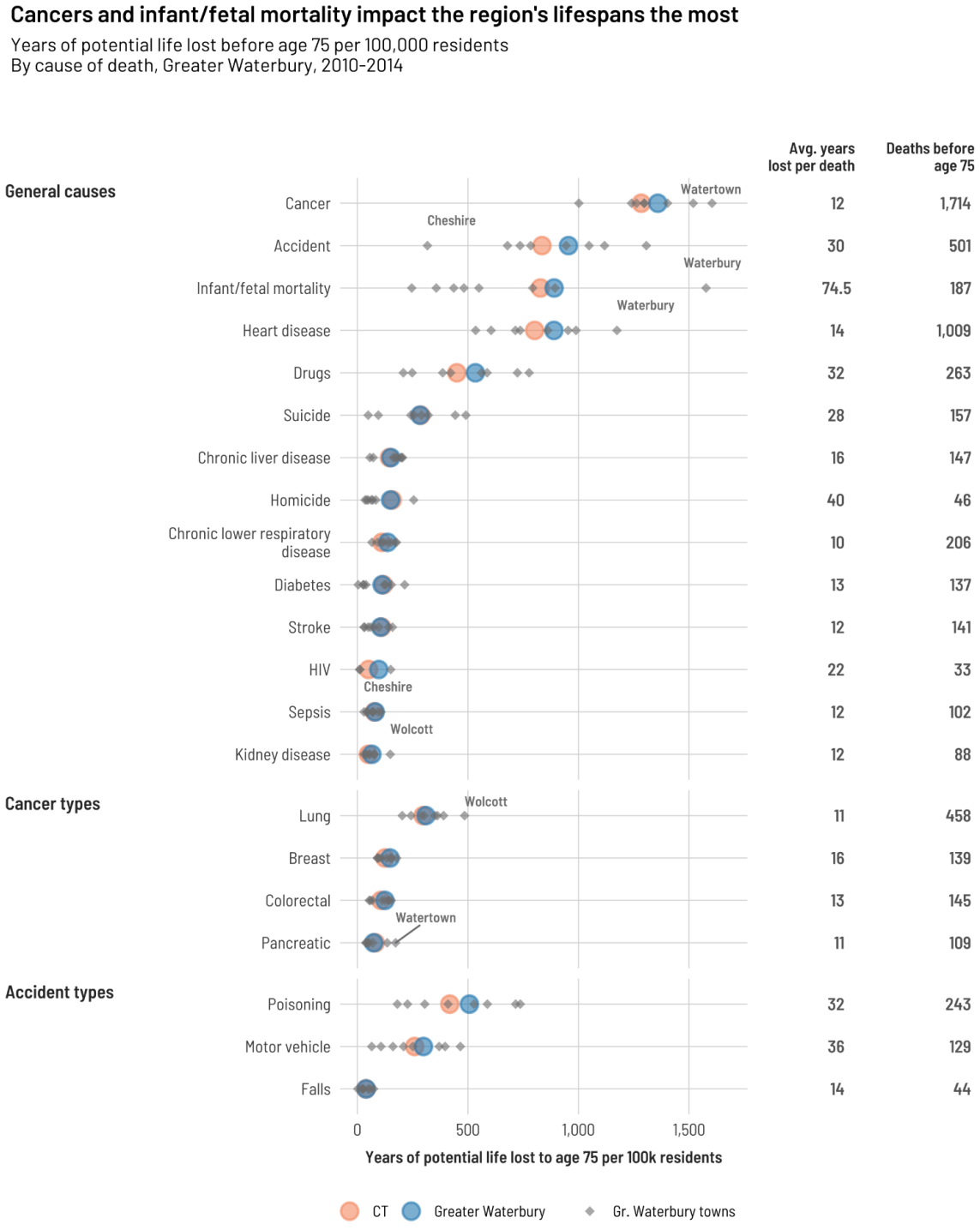
Waterbury has the highest infant mortality in the state. Women in Waterbury are significantly less likely to receive adequate prenatal care compared to the rest of the state. 18.6% of pregnant women in Waterbury received late or no prenatal care (Raul Pino, 2018). Waterbury health outcomes are poorer in many areas. The following charts depicts several areas in which health outcomes in Waterbury are significantly worse than statewide outcomes, resulting in years of potential life lost. Waterbury residents fare particularly worse than their counterparts statewide with respect to infant mortality, injury, heart disease, drugs and homicide.

Map 4.



Source: DataHaven, 2018

Figure 11.



Source: DataHaven, 2018

Other Factors of Community Wellbeing

Perceived quality of society contribute to a community's overall sense of wellbeing and quality of life. Measures of quality include but are not limited to: trust, safety, child-friendliness, perceptions of government services, poverty, and length of commute. Community residents were asked several questions related to how they experience their neighborhoods, parks and streets. While many parks are being improved in Waterbury, many residents do not feel parks are in good condition. Safe streets, parks and walkways help residents maintain better physical and mental health.

Perceptions of Neighborhood: Are they safe?

The way residents feel about the safety of streets in their neighborhood plays a role in quality of life and how likely someone is to walk to the store, school or work. Overall, only 46% of Greater Waterbury residents agreed that streets were safe as compared to 59% in Waterbury. Both of these groups report being less safe than the state at 60%.

Figure 12. Safe Streets

There are safe sidewalks and crosswalks on most of the streets in my neighborhood.
Source: DataHaven 2018

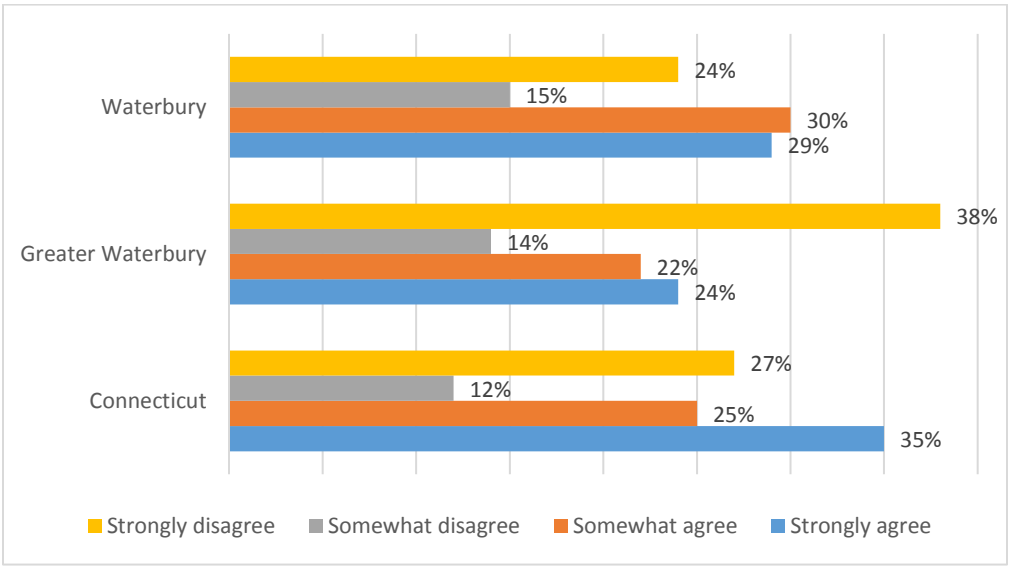
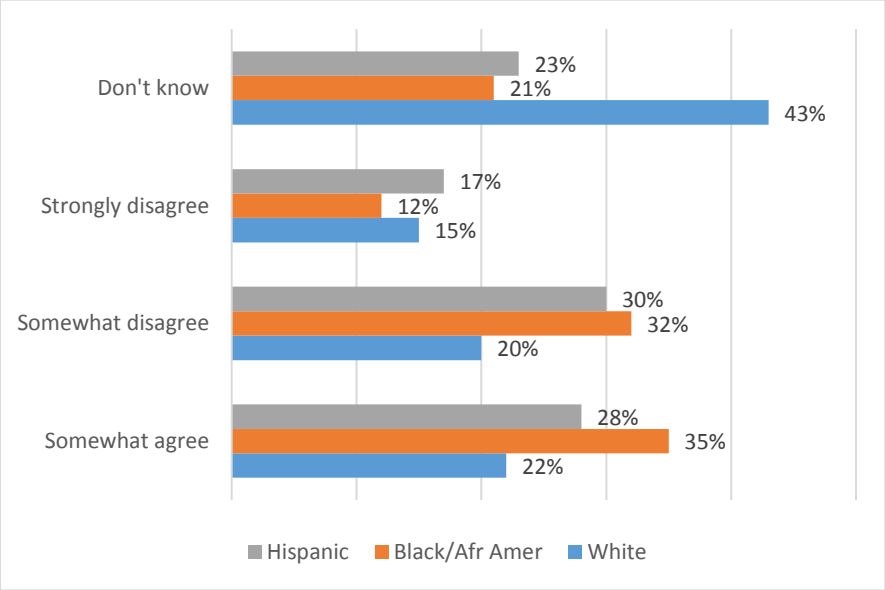


Figure 13.



Are parks nearby in good condition?

Clean and safe outdoor spaces provide opportunities for exercise, socialization and wellbeing. 67% of Greater Waterbury residents report that parks are safe and in good condition, in contrast to 41% of residents in the Urban Core. Connecticut on the whole fares better in this area at 72% of residents satisfied with the condition of parks and outdoor spaces.

Table 3. Parks and Recreation

My neighborhood has several free or low cost recreation facilities such as parks, playgrounds, public swimming pools, etc.

	Connecticut	Greater Waterbury	Waterbury
Strongly agree	36%	33%	31%
Somewhat agree	33%	32%	33%
Somewhat disagree	13%	13%	15%
Strongly disagree	17%	21%	19%

Source: DataHaven, 2018

Are neighbors invested and engaged?

73% of Greater Waterbury adults agree that people in their neighborhood are trying to improve it, compared to 74% statewide and 57% in Waterbury.

Table 4. Neighborhood Engagement

People in this neighborhood are involved in trying to improve the neighborhood.

	Connecticut	Greater Waterbury	Waterbury
Strongly agree	32%	34%	24%
Somewhat agree	42%	39%	33%
Somewhat disagree	14%	14%	20%
Strongly disagree	7%	9%	19%

Figure 14.

Community wellbeing comes from a number of different factors, the figure below shows those factors throughout the state and then translates the index components into a Community Index rating.

Components of the DataHaven Community Index, Greater Waterbury, 2019

Source: DataHaven, 2018

Health Risk Factors and Clinical Care

The region indicates health disparities by race/ethnicity in several health risk factors. Health risk factors include but are not limited to availability of food, dental health, transportation, employment, obesity and others. Obesity is reported in 40% of Black residents in Greater Waterbury, compared to 33% in White residents. Waterbury residents report higher rates of Obesity at 41% and Smoking at 26% when compared to Greater Waterbury residents. The region's Hispanic residents also report higher rates of anxiety, 19% and depression, 16% than White residents, 13% and 9%, respectively.

Table 5. Health Risk Factors by Geography

Source: DataHaven, 2018

	Very good self rated health	Diabetes	Obesity	Has health insurance	Dental visit in past year	Anxiety	Depression	Smoking
Connecticut	59%	10%	29%	95%	74%	12%	9%	14%
Region	57%	10%	33%	95%	74%	13%	10%	16%
Waterbury	49%	12%	41%	91%	68%	17%	16%	26%

Table 6. Health Risk Factors by Race

Source: DataHaven, 2018

Region	Very good self rated health	Diabetes	Obesity	Has health insurance	Dental visit in past year	Anxiety	Depression	Smoking
White	57%	10%	33%	96%	74%	13%	9%	14%
Black	54%	15%	40%	93%	70%	11%	15%	22%
Hispanic	58%	5%	35%	92%	73%	19%	16%	19%

Obesity

Maintaining a healthy weight in relation to height is important to overall physical health. People who have obesity, compared to those with a normal or healthy weight, are at an increased risk for many serious diseases and health conditions, including hypertension, diabetes, heart disease and stroke. The region exhibits a higher percentage of obesity than the rest of Connecticut. Additionally, Hispanic people experience the highest percentage of obesity in Waterbury at 43% compared to residents in the region and the state.

Figure 15. BMI/Obesity

BMI Based on Height and Weight

Source: DataHaven, 2018

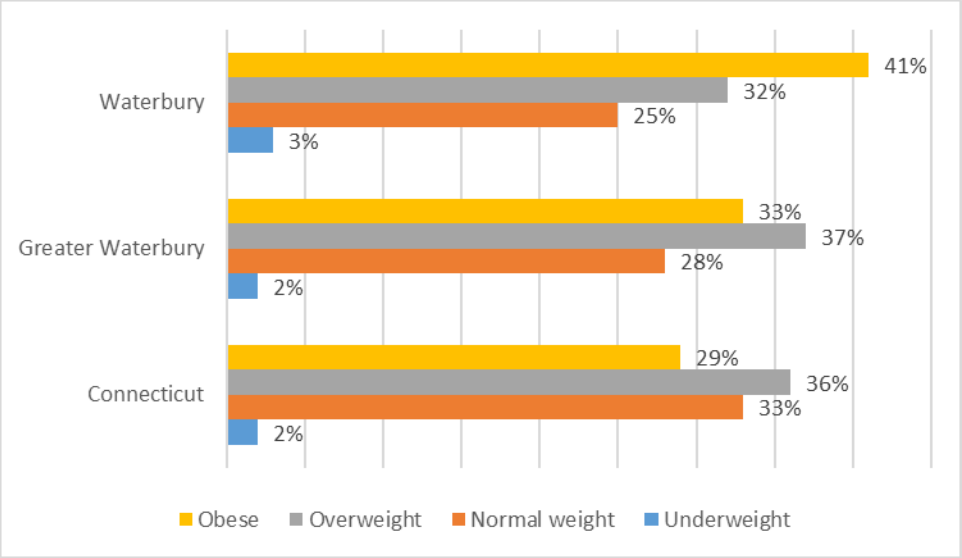
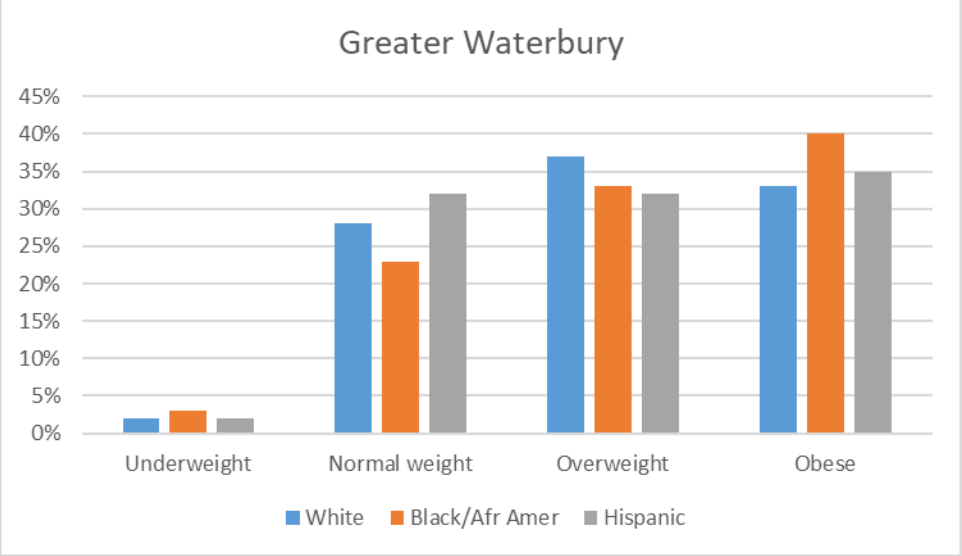


Figure 16.

Source: DataHaven, 2018



Prevalence of Exercise

Regular, moderate physical exercise reduces many health risks such as obesity, cardiovascular disease, diabetes and stress. Waterbury exhibits the highest percentage of people that report engaging in no physical exercise weekly at 26%. For adults not getting at least 3 days of exercise a week, the negative trend increased between 2015 and 2018 with Greater Waterbury residents rising from 34% to 44% and Waterbury rising 42% to 49%. (DataHaven, 2019)

Table 7. Weekly Exercise

In an average week, how many days per week do you exercise?

	Connecticut	Greater Waterbury	Waterbury
None	20%	21%	26%
One	8%	8%	7%
Two	14%	15%	16%
Three	19%	19%	16%

Source: DataHaven, 2018

Diabetes

Diabetes is a major health concern across the United States, in Connecticut and particularly in the Greater Waterbury Health Partnership service area. As of 2017, the Center for Disease Control reports that 9.4% of the U.S. population is living with Diabetes and another 84.1 million Americans have prediabetes. As evidenced in the chart below, residents in Greater Waterbury and Waterbury are told more frequently that they have Diabetes than residents in Connecticut overall. People with Diabetes are at a higher risk for serious health complications such as kidney failure, blindness, stroke and amputation. Diabetes rates are highest in the center of Waterbury as pictured in the Center for Disease Control 500 Cities map (Map 4).

Table 8. Diabetes

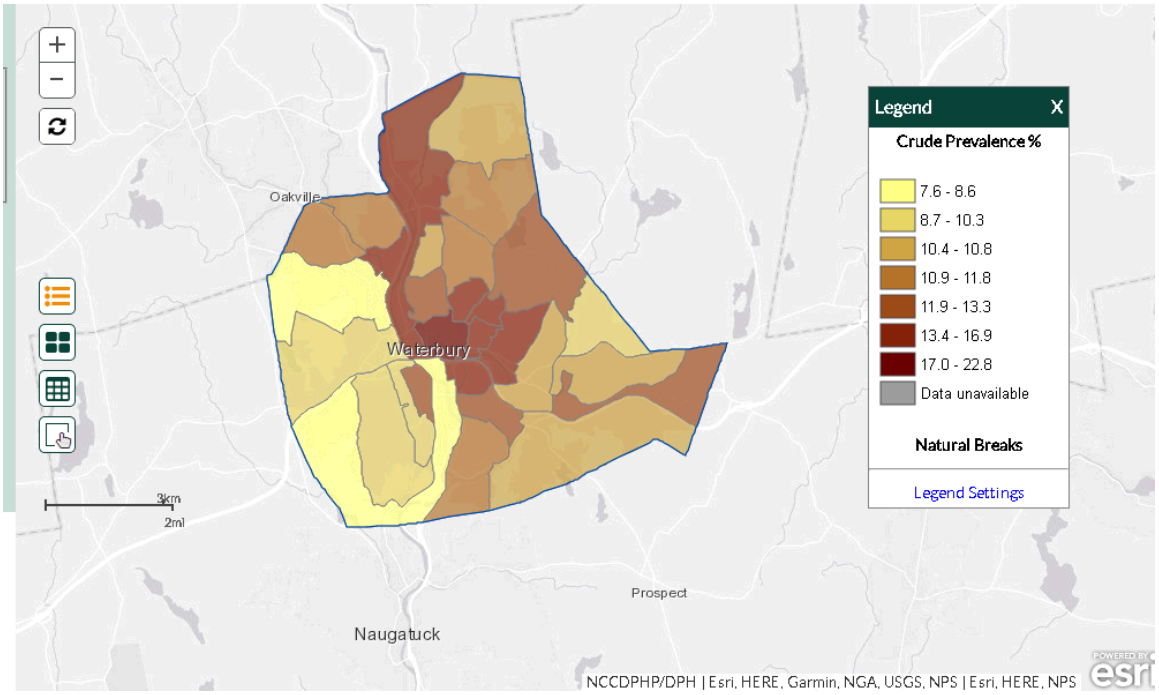
Percentage of respondents told by a doctor or health professional that they have Diabetes

Connecticut	Greater Waterbury	Waterbury
10%	10%	12%

Source: DataHaven, 2018

Map 5.

Model-based estimates for diagnosed diabetes among adults aged >=18 years – 2016



Source: Center for Disease Control 500 Cities Project, 2019

Asthma

In Greater Waterbury asthma affects a significant portion of children and adults and is poorly self-managed. Waterbury experiences high volumes of emergency department encounters related to asthma and avoidable admissions. Although the percentages of people with asthma do not vary significantly from the state, the number of people reporting frequent asthma attacks at a rate of once a week is 28% in Waterbury compared to 20% in Connecticut, and slightly less in Greater Waterbury at 23%. Factors of housing quality such as mold and dust contribute to higher rates of asthma in urban communities.

Table 9. Current Asthma Rate

Connecticut	Greater Waterbury	Waterbury
10%	11%	13%

Source: DataHaven, 2018

Tobacco & Vaping

Tobacco use and vaping are concerns on the rise. According to the DataHaven Community Wellbeing survey, 25% of Waterbury residents report current smoking. Use of vape devices or E-cigarettes is a concern with 25% of Waterbury residents and 18% of the region's residents surveyed reporting that they have used or tried vaping. On the positive trend, current cigarette smoking fell from 17% to 16% from 2015-2018 in Greater Waterbury residents. (DataHaven, 2018)

Table 10. Current Tobacco Use

(If smoked 100 cigarettes in entire life) Do you currently smoke cigarettes every day, some days or not at all?

	Connecticut	**Greater Waterbury**	**Waterbury**
Every day	25%	26%	39%
Some days	10%	10%	16%
Not at all	64%	64%	45%
Smoking Prevalence *(based on multiple questions in DataHaven survey)*	**14%**	**16%**	**25%**

Source: DataHaven, 2018

Cancer

The incidence rate of cancer in the state of Connecticut is 479.6 per 100,000 (2011-2015).
Data source: North American Association of Central Cancer Registries (NAACCR), 2018
Cancer affects Waterbury residents at a rate of 484.3 per 100,000 and is the second leading cause of death and is higher than the incidence rate of the state. Overall, the total cancer incidence rate of 484.3 is similar to or lower than that of Connecticut and peer cities.

Table 11. Cancer Incidence in Waterbury per 100,000 (2010)

Primary Cancer Site	Crude Rate	Age-Adjusted Rate
Breast	139	128.9
Colorectal*	60	57.6
Lung & Bronchus*	77.4	74.8
Prostate	115.4	120.8
All sites	506.3	491.1

Source: Connecticut Tumor Registry, Health Statistics & Surveillance Section, CT Department of Public Health
* Denotes that State-Town comparison rates are higher than the state rate

The mortality rate per 100,000 for all cancer types is 139.5 as of 2017. This exceeds the standard metric target 161.4 of Healthy People 2020.

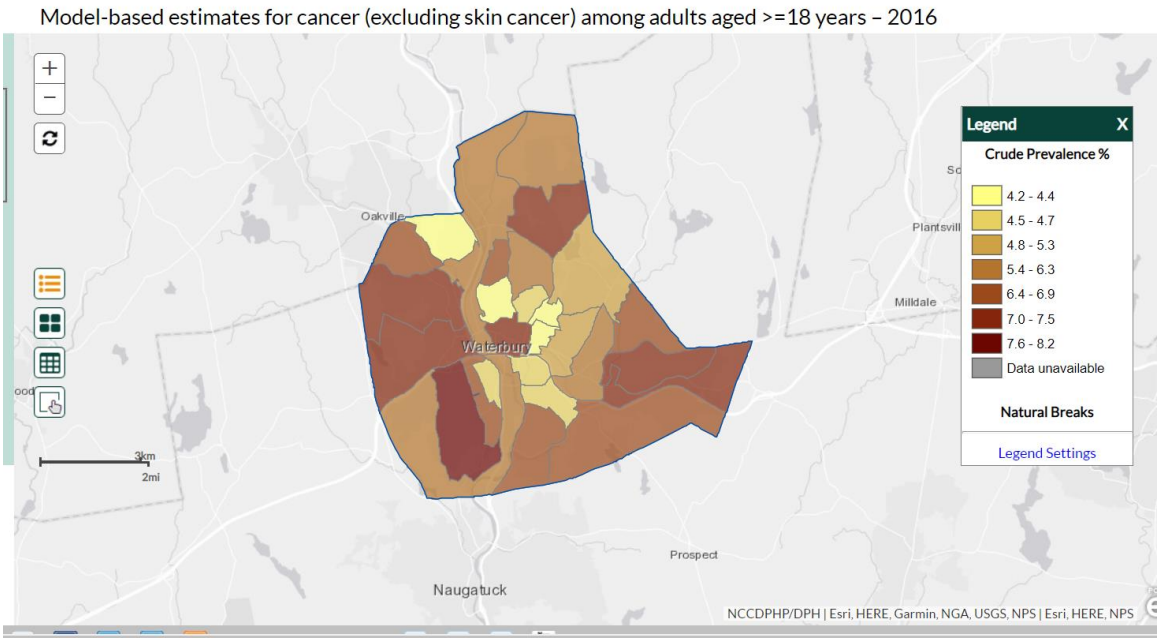
Table 12. Overall Cancer Deaths in Total in Connecticut

	2015	2016	2017
Rate	146.2	144.9	139.5

Source: Healthy People 2020 (2019) State-Level Data: Connecticut

The Urban Core of Waterbury demonstrates concentrated higher crude prevalence rates of cancer by neighborhood as seen in the chart below. A **crude rate** is the number of new cases (or deaths) occurring in a specified population per year, usually expressed as the number of cases per 100,000 population at risk. The neighborhoods in the Eastern section of Town Plot, Bunker Hill, the city center, Lakewood, East Mountain, Pierpont Road, among other neighborhoods in the West end of the city also experience higher prevalence rates of cancer. This may be attributed to the aging population having better access to healthcare and cancer screenings, leading to more cancer being detected at an earlier stage.

Map 6.



Source: CDC 500 Cities Project https://nccd.cdc.gov/500_Cities

Cardiovascular Disease

According to the Connecticut Hospital Association, hypertension (high blood pressure) was the most prevalent condition among hospital encounters in Waterbury. The encounter rate of hypertension per 10,000 residents is approximately double that of the neighboring town of Watertown in the Inner Ring. 32% of Waterbury residents responded that they had been told by a health professional that they had high blood pressure. It should be noted that in the data presented, the region includes Waterbury which will skew the % higher than if Waterbury was not included in the database. Additionally, African American residents in the region experience the highest percentage of self-reported hypertension. Hypertension, obesity and lack of exercise are all contributing factors to more serious cardiovascular disease.

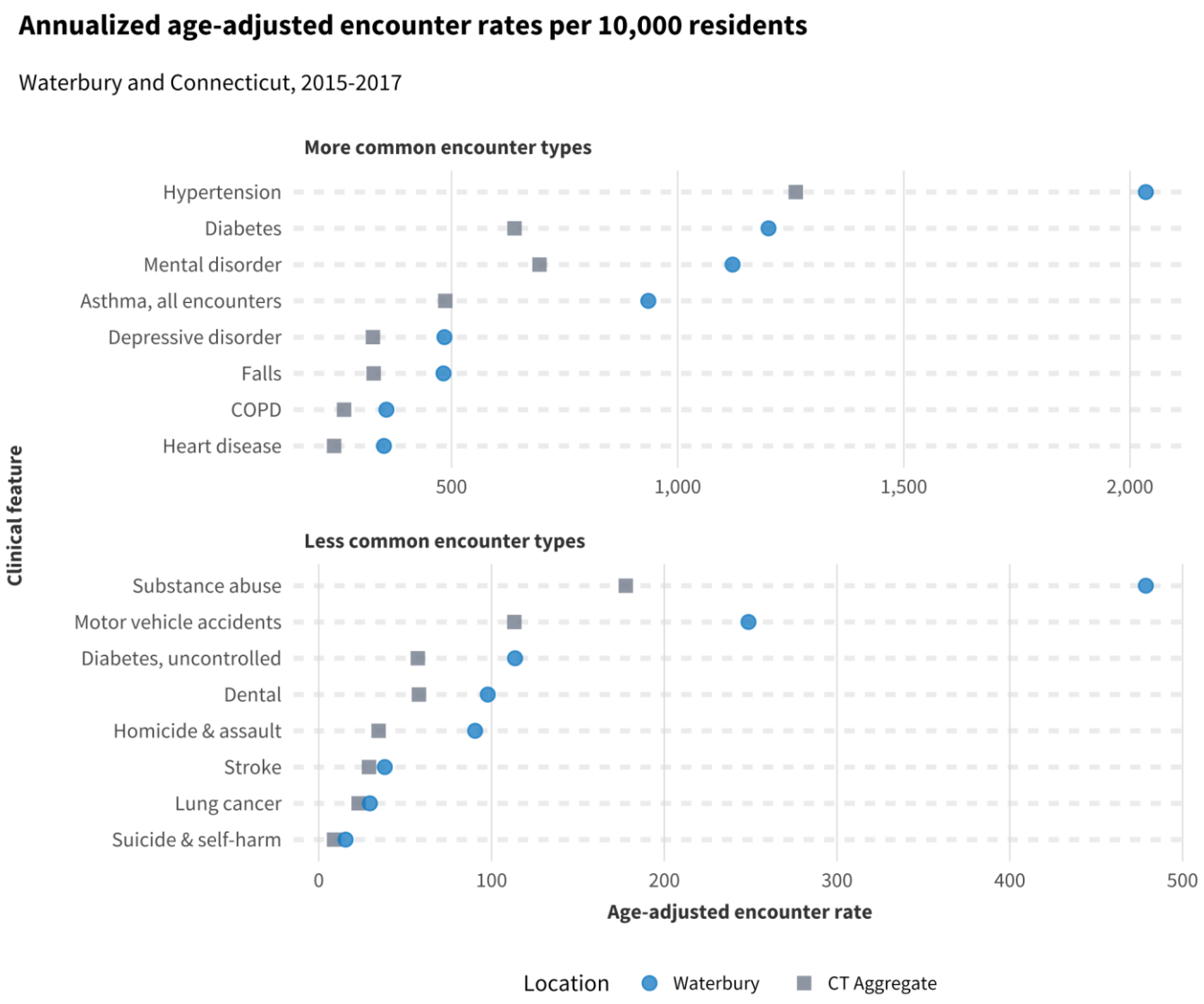
Table 13. Blood Pressure/ Hypertension by Race/Ethnicity

Percentage of respondents told by a doctor or health professional that they have High blood pressure or hypertension

			Race/Ethnicity (Greater Waterbury)		
Connecticut	Greater Waterbury	Waterbury	White	Black/African American	Hispanic
30%	32%	32%	33%	38%	16%

Source: DataHaven, 2018

Figure 17.



Source: DataHaven CHIME data analysis Watertown/Waterbury, 2019

Oral Health

According to the American Dental Association, most dental Emergency Room visits can be prevented by regular visits to a dentist. The ADA recommends dental cleanings and exams every 6 months. Poor oral health has been linked to several heart issues. Studies have found that oral health complications can lead to an increased risk of heart disease. People with gum disease have nearly double the risk for heart disease as those with healthy gums, according to the American Academy of Periodontology. Chronic inflammation from gum disease may also raise cholesterol levels. Poor dental health may also increase risk of a bacterial infection in the blood stream, which can have an effect on heart valves. Gum disease appears to be more frequent and severe in diabetics. In addition, people with gum disease have more difficulty controlling their blood sugar levels. In the DataHaven Community Wellbeing survey, 50% of Waterbury residents reported that they have visited a dentist in the last 6 months, compared to 60% statewide and in the region. According to CHIME data analysis in Figure 12., Waterbury residents have more dental related hospital encounters than any other city in the region.

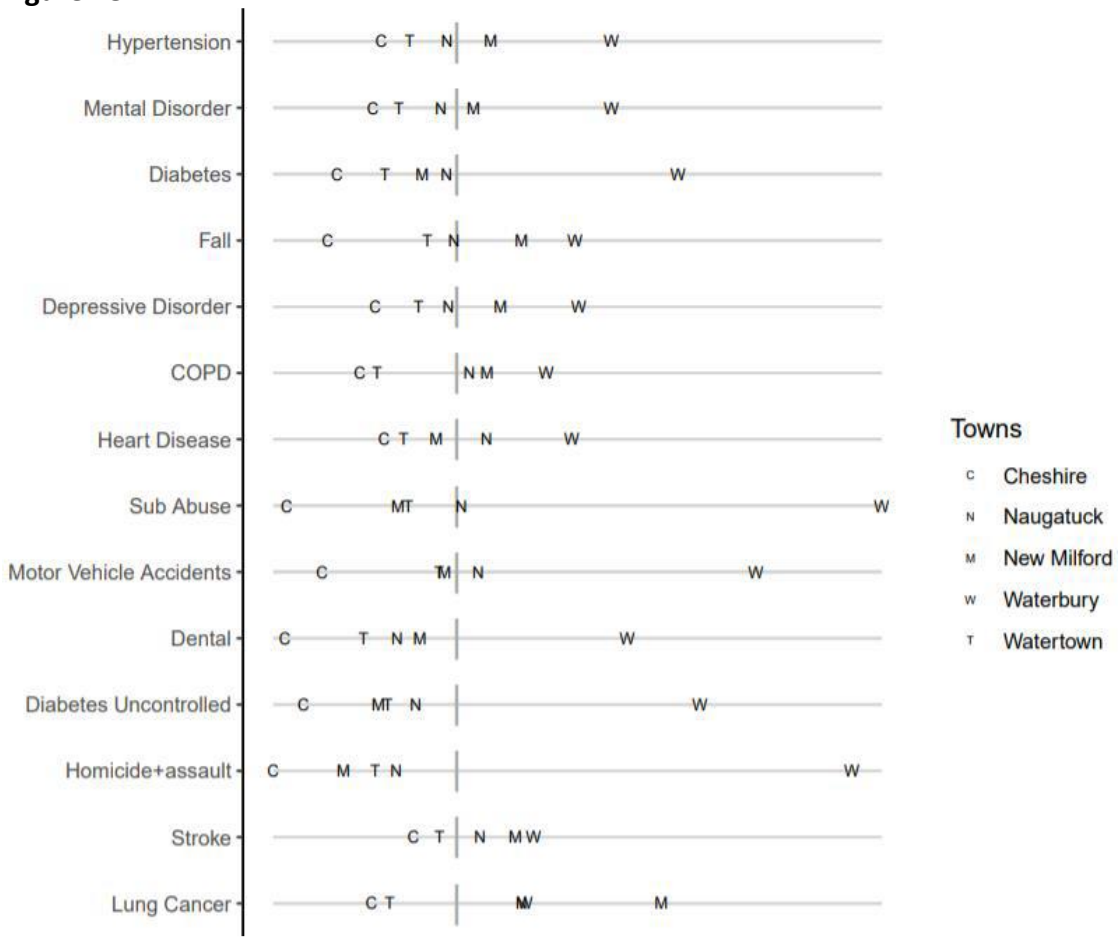
Table 14. Oral Health

When was the last time you visited a dentist?

	Connecticut	Region	Waterbury
Within the last 6 months	60%	60%	50%

CHIME data Annual Encounters per 10,000 residents, age adjusted 2015-2017

Figure 18.



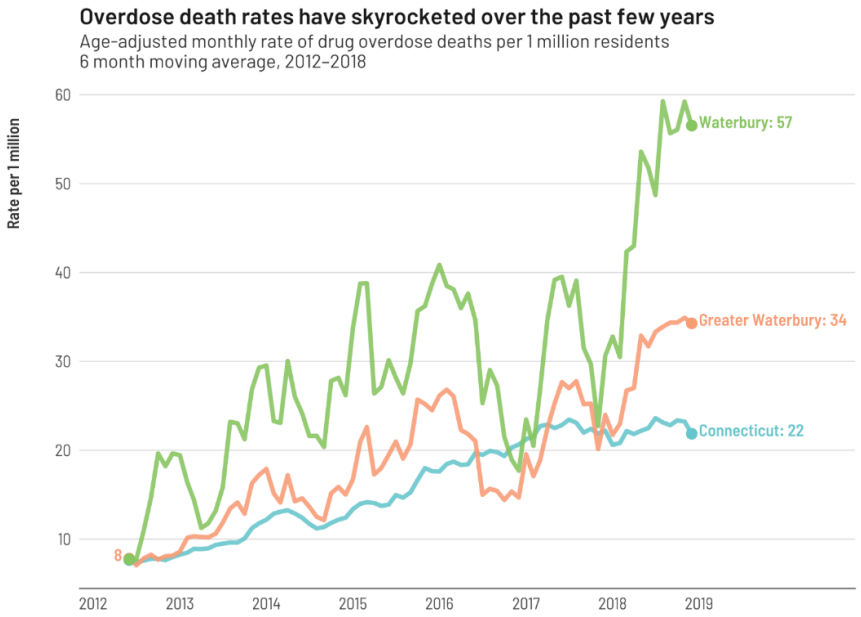
Source: DataHaven, 2018

Substance Abuse

Substance use in the state of Connecticut and particularly in the urban core of Waterbury has been a significant public health concern. Although the cases of overdoses are rising statewide in all communities, urban centers such as Waterbury have felt the strain in Emergency Departments and social services agencies. 12% of Waterbury residents and 10% of the region surveyed reported that they knew 2-4 people that have died from an opioid overdose. The city of Waterbury has a transient population and many travel to the city to purchase and use drugs, leading to a high number of overdoses of nonresidents. 43% of overdoses in Waterbury occur in a motor vehicle and 8% of overdoses occur in a moving motor vehicle (Waterbury Fire Department). The presence of Fentanyl as an ominous contributor to overdoses in the region has nearly doubled since 2016 with 81% of overdoses in 2018 being fentanyl related. The region has taken an active approach to fighting the opioid epidemic through overdose education and Naloxone training provided through a unified public safety

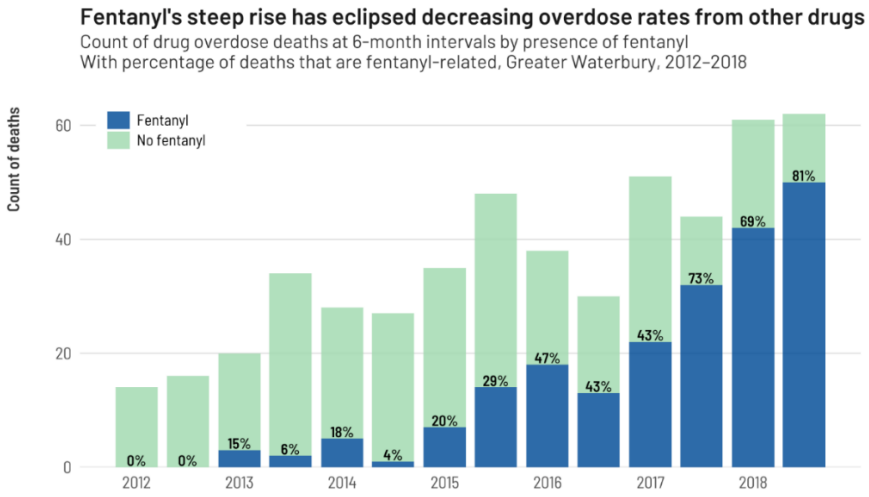
approach which includes the local health department, fire department and police department as well as through the concentrated efforts of local non-profits such as Western CT Coalition (Formerly Housatonic Valley Coalition against Substance Abuse/HVCASA) (DataHaven, 2019). See figures 13, 14.

Figure 19.



Source: DataHaven, 2019

Figure 20.



Source: DataHaven, 2019

Table 15. Mental Health

Do you usually/sometimes get the social support that you need?

	Connecticut	Region	Waterbury
Yes	49%	47%	46%

Source: DataHaven 2019

Table 16.

How often have you felt depressed in the past month?

	Connecticut	Region	Waterbury
Yes	4%	5%	8%

Source: DataHaven 2019

Table 17. Perceptions of Health

DataHaven Community, Personal Wellbeing, and Neighborhood Asset indexes

Name	Personal wellbeing index	Neighborhood asset index	Community Index
Connecticut	612	556	658
Greater Waterbury	575	518	627
New Milford	617	609	674
Waterbury	438	137	502

Source: DataHaven, 2018, Community Wellbeing Survey analysis scaled index values

DataHaven Community Index

Waterbury receives the lowest score on the DataHaven Community Index of the geographies listed in Tables 19. "The DataHaven Community Index, DataHaven Personal Wellbeing Index, and DataHaven Neighborhood Assets Index are developed by DataHaven (2019) based on an analysis of 22 indicators drawn from national datasets as well as the 2018 DataHaven Community Wellbeing Survey. More information is available via the DataHaven website (ctdatahaven.org)." See Appendix B for more details.

Barriers to Care

Access to care is a top concern for residents in the community. Residents all experience barriers to obtaining care related to the social determinants of health such as transportation, cost, employment and even lack of a primary care provider or affordable health insurance. While we know that since 2012 more people are insured, the co-pays and high deductible plans that are available make receiving affordable care out of reach for many residents in the region. A higher percentage of the Hispanic population reports not getting medical care in both the region and the urban core, this could be linked to language barriers. There are also disparities in care linked to cost and gender, a higher percentage of respondents in the region report that cost is a barrier when compared to the state. The tables below report information around access to care, medications and barriers.

Table 18. Access to Medical Care by Race

During the past 12 months, was there any time when you didn't get the medical care you needed?

			Race/Ethnicity Region				Race/Ethnicity Waterbury		
	Connecticut	Greater Waterbury	White	Black/African American	Hispanic	Waterbury	White	Black/African Amer	Hispanic
Yes	9%	9%	8%	10%	15%	12%	10%	11%	17%
No	90%	91%	92%	90%	85%	87%	89%	89%	83%

Source: DataHaven, 2018

Table 19. Access to Medical Care by Cost/Gender

If you postponed or did not get medical care in last 12 months, was it because of cost?

			Gender Region			Gender Waterbury	
	Connecticut	Greater Waterbury	M	F	Waterbury	M	F
Yes	50%	54%	57%	52%	50%	43%	57%
No	50%	46%	43%	48%	50%	57%	43%

Source: DataHaven, 2018

Other Barriers to Care

There are many reasons why residents delay seeking important medical care. Often, factors like caring for children, insurance and employment reduce the likelihood that someone will pursue seeking care when needed. The table below outlines multiple reasons respondents gave for not seeking care in the last 12 months.

Table 20. Multiple reasons respondents delayed care

	Connecticut	Region	Waterbury
Insurance not accepted	18%	16%	21%
Insurance did not cover treatment	29%	29%	31%
Appointment time conflict	30%	26%	34%
Too busy with work/other obligations	53%	53%	48%

Source: DataHaven, 2018

V. Advisory Structure and Prioritization Process for CHNA

The Community Health Needs Assessment was spearheaded and managed by GWHP and funded by Chesprocott Health District, Connecticut Community Foundation, Saint Mary's Hospital, United Way of Greater

Waterbury and Waterbury Hospital through the Greater Waterbury Health Partnership (GWHP). GWHP acts as a neutral non-profit collaborative health and wellbeing organization. (See Appendix A for a full list of organizational members). GWHP staff and board chairs facilitated the Key Informant Prioritization Process with consultants. The session included a research overview of quantitative data from DataHaven. Key informant participants were engaged in responsive conversation style interaction around the data presented. They were engaged in scoring a health matrix around key health domains identified by the group and the data. The matrix included measures on capacity and readiness of a community.
Appendix C contains a list of community assets considered when prioritizing need.

VI. Community Health Improvement Plan

In addition to guiding future services, programs and policies, the Community Health Needs Assessment and Community Health Improvement Plan (CHIP) are also prerequisites for health departments to earn voluntary accreditation, and for hospitals to maintain their tax-exempt status. The CHIP is developed using the key findings from the Community Health Needs Assessment described above.

What is a Community Health Improvement Plan?
The CHIP is an action-oriented strategic plan that outlines the priority health issues for a defined community, and how these issues will be addressed, including strategies and indicators for measurement, to ultimately improve the health of the community. CHIPs are created through a community-wide, collaborative planning process that engages partners and organizations to develop, support, and implement the plan. A CHIP is intended to serve as a vision for the health of the community and a framework for organizations to use in leveraging resources, engaging partners, and identifying their own priorities and strategies for community health improvement.

How to use a CHIP
A CHIP is designed to be a broad strategic framework for community health and should be modified and adjusted as conditions, resources, and external environmental factors change. It is developed and written in a way that engages multiple perspectives so that all community groups and sectors – private and nonprofit organizations, government agencies, academic institutions, community – and faith-based organizations can participate in the effort and unite to improve the health and quality of life for all people who live, work, and play in the region.

Methods
Building upon the key findings identified in the Community Health Needs Assessment, the CHIP aims to:

- Identify priority issues for action to improve community health
- Develop and implement an improvement plan with performance measures for evaluation
- Guide future community decision-making related to community health improvement

In addition to guiding future services, programs, and policies for participating agencies and the area overall, the Community Health Improvement Plan fulfills the prerequisites for a hospital to submit to the IRS as proof of its community benefit and for a health department to earn voluntary accreditation, which indicates that the agency is meeting national standards.

To develop the Community Health Needs Assessment and the Community Health Improvement Plan, the Primary Care Action Group (which includes representatives from local public health entities) was the convening organization that brought together community residents and the area's influential leaders in healthcare, community organizations, and other key sectors, including mental health, local government, and social services. Using the guidelines of the Association for Community Health Improvement (ACHI) the six-step health assessment and improvement process was designed to incorporate the following steps:

- Identification of a team and resources,
- Clearly defining the purpose and scope of the project,
- Collecting and analyzing data,
- Selecting priorities and developing a health improvement plan,
- Documenting and communicating results, and
- Planning for action and monitoring progress.

Waterbury Hospital and Saint Mary's Hospital will develop their CHIP with the information in this CHNA.

VII. Appendix A: List of GWHP Partners

Providers

Benchmark Quality
Community Health Center of Waterbury
Harold Leever Regional Cancer Center
Physician One Urgent Care
Saint Mary's Hospital
Salute Homecare
StayWell Health Center, Inc.
VNA Health at Home
Waterbury Hospital
Others

Health Departments

Chesprocott Health District
Pomperaug Health District
Waterbury Health Department

Faith Based
Long Hill Bible Church
Naugatuck Valley Project
Our Lady of Lourdes/ Saint Anne's Parish

Schools
Waterbury Public Schools
Western Connecticut State University
UConn Waterbury

Government
City of Waterbury
Waterbury Department of Public Health

Advocacy Groups or Other Non-Profits
American Heart Association
Brass City Harvest
DataHaven
Independence Northwest
Waterbury Chamber of Commerce
Waterbury Neighborhood Council
Western Connecticut Coalition

State Agencies
Connecticut Department of Public Health
CT DPH Diabetes Prevention and Control
Department of Mental Health and Addiction Services

Businesses
Cigna
Connecticare

Housing
Center for Human Development
Neighborhood Housing Services
Waterbury Housing Authority

Social Service Agencies
Boys and Girls Club of Greater Waterbury
Bridge to Success
Health 360
Malta House of Care

St. Vincent DePaul Mission
Waterbury Health Access Program
Waterbury Police Activity League
Western CT Area Agency on Aging
Willow Plaza Community Center
YMCA of Greater Waterbury

Mental Health Providers
Beacon Health Options
Community Mental Health Affiliates, Inc.
North West Regional Mental Health Board
The Guardian Model/ Melissa's Project
Western CT Mental Health Network
Wellmore Behavioral Health
Wellspring

Funders
Ion Bank
Connecticut Community Foundation
Saint Mary's Hospital
Waterbury Hospital
United Way of Greater Waterbury

VIII. Appendix B: Additional Data, Maps Used in CHNA and Works Cited

Content Sources:

- Centers for Disease Control and Prevention
- Office of the Associate Director for Policy and Strategy
- Detailed explanation of indexes: The DataHaven Community Index is based on DataHaven analysis (2019) of 12 indicators: (1) Opportunity youth, or the share of people ages 16 to 19 who are neither in school nor working, (2) the overall poverty rate, (3) the share of adults with a high school education or more, (4) the share of people with health insurance, (5) the share of children ages 0 to 5 living in poverty, (6) the share of three- and four-year-olds enrolled in preschool, (7) the unemployment rate, (8) average life expectancy, (9) the share of households paying 50 percent or more of their income towards housing costs, (10) young workers, or the share of the population ages 25 to 44, (11) the share of workers whose commutes are 30 minutes or less, and (12) median household income. The Community Index assigns each of the 12 component indicators a relative value from 0 to 1,000, where 1,000 is assigned to the best/preferred outcome among all areas in our analysis. In other words, the value is generated relative to the areas with the highest and lowest indicator values. This helps to control for the different distributions of each indicator, but may exaggerate the effect of outliers. Because the data used for these indicators is nationally available at different

geographic levels, local neighborhoods, towns, and regions in Connecticut were compared not just to each other, but to U.S. averages and metropolitan areas in nearby states of similar size to those in Connecticut. Data is from U.S. Census Bureau American Community Survey 2017 5-year estimates, Tables B01001, Sex by Age; B08303, Travel Time to Work; B14003, Sex by School Enrollment by Type of School by Age for the Population 3 Years and Over; B14005, Sex by School Enrollment by Educational Attainment by Employment Status for the Population 16 to 19 Years; B15001, Sex by Age by Educational Attainment for the Population 18 Years and Over; B17001, Poverty Status in the Past 12 Months by Sex by Age; B18135, Age by Disability Status by Health Insurance Coverage Status; B19001, Household Income in the Past 12 Months (in 2017 Inflation-Adjusted Dollars); B19013, Median Household Income in the Past 12 Months (in 2017 Inflation-Adjusted Dollars); B19127, Aggregate Family Income in the Past 12 Months (in 2017 Inflation-Adjusted Dollars); B23025, Employment Status for the Population 16 Years and Over; B25070, Gross Rent as a Percentage of Household Income in the Past 12 Months; B25091, Mortgage Status by Selected Monthly Owner Costs as a Percentage of Household Income in the Past 12 Months; and National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project (USALEEP): Life Expectancy Estimates Files, 2010–2015. National Center for Health Statistics. 2018. ACS tables available at https://factfinder.census.gov. USALEEP data available at https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html. Life expectancy is a prediction of the number of years a person born today might expect to live given the mortality rate among all age groups in the area in which they are born. Because of the interrelated nature of health and socioeconomic status, life expectancy can be understood as a measure of health and a measure of social well-being. The latest available data for life expectancy covers the period from 2010 to 2015 and is summarized here as the population-weighted average life expectancy for each geographic area based on the census tracts within that area.

The DataHaven Personal Wellbeing Index is based on DataHaven analysis (2019) of questions from 2018 DataHaven Community Wellbeing Survey. The Personal Wellbeing Index is an aggregate of survey participants' positive ratings on 4 indicators about their health: (1) current anxiety, (2) current happiness, (3) satisfaction with their life, and (4) overall self-rated health. Likert-style responses (e.g."excellent," "very good," "good," "fair," "poor") were converted to scaled numeric values, averaged, and used for factor analysis to get a single composite score for each location and demographic group. These scores were then scaled to range from 0 (lower ratings of health) to 1,000 (higher ratings of health).

The DataHaven Neighborhood Assets Index is an aggregate of 2018 DataHaven Community Wellbeing Survey participants' positive ratings on 6 indicators about the area where they live: (1) condition of local parks, (2) quality of the area as a place to raise children, (3) responsiveness of local government, (4) availability of recreation facilities, and the presence of (5) safe places to bike and (6) safe sidewalks and crosswalks. Likert-style responses (e.g. "excellent," "good," "fair," "poor") were converted to scaled numeric values, averaged, and used for factor analysis to get a single composite score for each location and demographic group. These scores were then scaled to range from 0 (lower ratings of assets) to 1,000 (higher ratings of assets).

IX. Appendix C: List of Community Assets

Beacon Health Options
Boys and Girls Club of Greater Waterbury
Brass City Harvest
Bridge to Success
Cheshire Community Food Bank, Inc.
Chesprocott Health District

City Block Health
Community Health Center of Waterbury
Community Mental Health Affiliates, Inc.
CT Renaissance
CT 211
Harold Leever Regional Cancer Center
Health 360
Malta House of Care
Neighborhood Housing Services
North West Regional Mental Health Board
Pomperaug Health District
Safe Haven of Greater Waterbury
Saint Mary's Hospital
Saint Vincent DePaul Mission
StayWell Health Center, Inc.
Waterbury Chamber of Commerce
Waterbury Health Access Program
Waterbury Health Department
Waterbury Health Department HIV Prevention Program Mobile Testing Van
Waterbury Hospital
Waterbury Housing Authority
Waterbury Police Activity League
Waterbury Police Community Relations Division
Waterbury Senior Center
Wellmore Behavioral Health
Wellspring/ the Arch Bridge School
Western Connecticut Area Agency on Aging
Western Connecticut Coalition (formally HVCASA)
Willow Plaza Community Center
YMCA of Greater Waterbury

X. Appendix D: Additional Data Collection Methods Detail

The Greater Waterbury Health Partnership (GWHP) contracted with Bonnie Smith, MPH and Emily Melnick, MA of B. Weyland Smith Consulting in April 2019 to facilitate and conduct one key informant session, two resident focus groups, one resident and key leader focus group in Chesprocott Health District and one key leader conversation at each of the two hospitals in Waterbury, Waterbury Hospital and Saint Mary's Hospital. B. Weyland Smith Consulting first analyzed Greater Waterbury specific data from the 2018 Data Haven Community Wellbeing Survey and compared that data with the 2015 Data Haven Community Wellbeing Survey findings as well as other CT communities with Data Haven's "Urban Core" and "Suburban" classifications. The data was then organized into five domains based on the guidance from Data Haven, GWHP staff and the outcomes of past Community Health Needs Assessment Processes. The data that demonstrated

change from the 2015 outcomes were presented via four separate PowerPoints, during the Waterbury Key Informant Session, Waterbury Hospital, Saint Mary's Hospital and Chesprocott Health District Community Conversations. The purpose of these sessions was to provide current health and wellness data to solicit participant feedback based on their expertise and knowledge of community issues. The community resident community conversations did not include a presentation of data however, the consultants facilitated group discussions and a prioritization process at all six of the sessions.

Waterbury Key Informants

The Waterbury Key Informant Session was held on May 30th, 2019 at Naugatuck Valley Community College. The session lasted approximately 4 hours and had approximately 40 key leaders in attendance. The participants were asked to complete an "issue priority matrix" at the conclusion of the data presentation and conversation. This matrix included 5 domains including; healthy lifestyle, health status, access to healthcare, mental health, and substance use/misuse. Additionally, there were sub categories and an opportunity to note "other" items of importance. Participants were asked to rank each sub category on a scale of 1 to 5 according to impact, capacity, and readiness. Thirty five participants completed the "issue priority matrix".

Key Leader Conversations

A total of 3 Key Leader Conversations were conducted, two of which were held separately at each of the hospitals in Waterbury, Saint Mary's Hospital and Waterbury Hospital. There was a combined total of approximately 35 participants at these conversations. The third Key Leader Conversation was conducted for the Chesprocott Health District at Elim Park in Cheshire, CT where there were approximately 30 participants. These sessions were approximately 2 hours long and included a data presentation followed by a discussion and prioritization process. At the conclusion of the data presentation, community concerns were recorded on large poster paper. Participants were then directed to "vote" using stickers on health areas they felt were of most concern for the community. Participants ranked areas of local health and wellness concerns based on their opinions.

Waterbury Resident Community Conversations

Two separate Waterbury Resident Community Conversations took place at two faith communities within Waterbury at Long Hill Bible Church in the north end of the city and Our Lady of Lourdes located in the south end of the city. Each of the conversations lasted about 90 minutes. At Our Lady of Lourdes, a Spanish/English translator was utilized to support the majority of participants who spoke Spanish as their first language. There were approximately 20 participants at Long Hill Bible Church and 31 at Our Lady of Lourdes.

Community Engagement Key Findings

Below are the outcomes of the prioritization processes from each of the focus group sessions. The areas of concern were organized by categories that correspond with the 5 domains (Healthy Lifestyles, Health Status, Access to Healthcare, Mental Health, and Substance Use/Misuse).

Key Informant Session

The outcomes with the highest average matrix scores were food security (Healthy Lifestyle), childhood obesity (Health Status) and infant mortality (Health Status). The top concerns related to Healthy Lifestyle were food security, community environment and access to affordable and healthy foods. The top concerns related to Health Status were childhood obesity, obesity, diabetes, asthma, hypertension and falls. The top concerns related to Access to Healthcare were health insurance coverage, the inability to afford prescription medications, lack of a medical home, missed visits to a health care provider due to transportation and discrimination at health care provider. The top concerns related to Mental Health were emotional and social support, frequency of feeling down, depressed or hopeless and satisfaction with current life. The top concerns for Substance Use/ Misuse were the knowledge of someone who has died from an opioid overdose or someone with misuse/addiction, current cigarette smoking use and vaping.

Key Leader Conversations (Waterbury Hospital, Saint Mary's Hospital, Chesprocott Health District)

The conversations at Waterbury Hospital and Saint Mary's Hospital indicated that Healthcare Access and Healthy Lifestyles were the top two priority domains. The areas of concern under Healthcare Access included; lack of providers, lack of providers who accept insurance (especially Medicaid) and specialty care, high co-pays, lack of prenatal care, prescription drug affordability, transportation as it relates to access, and health literacy. The areas of concern related to healthy lifestyle were food insecurity, social issues/social determinants of health including income/poverty, education and housing. The Key Leader Conversation for Chesprocott Health District expressed the most concern for areas related to Mental Health, Substance Abuse and Healthy Lifestyles domains. The concerns expressed relating to Mental Health included the following; depression, youth access to mental health care, a lack of mental health providers and behavioral health insurance coverage. The concerns related to healthy lifestyle were obesity, exercise/activity, healthy food, and oral health care and prevention methods. The top concerns related to Substance Abuse were youth vaping and youth and parent awareness of health consequences, youth opioid deaths, and marijuana use becoming a social norm.

Resident Community Conversations

The priority domains identified during the Long Hill Bible Church community conversation were Healthy Lifestyle, Health Status, Mental Health and an issue not grouped by a domain, Homelessness/Housing. The area of most concern under the Healthy Lifestyle domain was access to high quality foods. The conversation around this topic expressed concerns about the cost of food at grocery stores in Waterbury compared to other towns, expensive farmer's markets with limited hours, disparity in quality of food between stores, and the quality of school foods. The top concerns related to Health Status were infant mortality and chronic disease such as diabetes, asthma and hypertension. The conversation about infant mortality expressed concerns including lack of parent education, trauma during pregnancy, teen pregnancy and not seeking prenatal care, lack of programming for new moms and substance use. The areas of concern related to Mental Health were trauma, depression and lack of self-care, postpartum care, and high levels of stress. Homelessness/ Housing was another top concern for this group. The conversation expressed concerns about youth couch surfing, schools being unaware of the conditions of the students' home life, impacts on sleep, self-care and routine, high rent, poor quality of homes, lack of subsidies for improvement compared to other communities, lack of mixed income communities, blight, absent landlords and transient community.

Overall Key Findings and Common Concerns/Themes:

- **Healthy Lifestyles/Social Determinants of Health:**
  - Housing quality and availability
  - Food insecurity/lack of access to healthy foods

- **Healthcare Access:**
  - High co-pays for care and prescription medications
  - lack of access to specialists for those who are insured under Medicaid/Medicare
  - lack of transportation
- **Health Status:**
  - chronic disease and the relationship to healthy lifestyles especially as related to healthy food
  - diabetes
  - lack of education on disease management
  - lack of ability to eat well due to financial, transportation and lifestyle reasons
  - serious health outcomes such as amputations

XI. Appendix E: Focus Group Participants by Session

Key Informant Session:

Name	Title	Organization
Allison Fulton	Executive Director	HVCASA (Western CT Coalition)
Althea Marshall Brooks	Executive Director	Bridge to Success
Angie Matthis	Executive Director	Greater Waterbury Health Partnership
Ashia Velez	Clinical Nurse Coordinator	CT DCF
Bill Quinn	Health Director	Waterbury Health Department
Brandi Fitzgerald	Finance Director	YMCA
Bud Behlman	Clinical Social Worker	WCMMM
Caitlin Collins	Health Educator	Waterbury Dept. of Public Health/ GWHP
Cindy Vitone	Assistant Health Director	Waterbury Health Department
Crystal Coggins	RN	Northern CT Black Nurses Association
Daisy DeFilippis	President	NVCC

Deb Kaszas	Chronic Disease Self-Management Program & RSC Supervisor	Western Connecticut Area Agency on Aging
Debby Horowitz	Live Well Regional Coordinator	Western Connecticut Area Agency on Aging
Deborah Stein	Consultant	Connecticut Community Foundation
Ellen Carter	Community Leadership Director	Connecticut Community Foundation
Gary Steck	CEO	Wellmore Behavioral Health
Greg Simpson	Regional Network Manager for Western CT	Beacon Health Options
JoAnn Reynolds-Balanda	Vice President of Community Impact	United Way of Greater Waterbury
Joe Gorman	Supervisor of Health and Physical Education	Waterbury Public Schools
Karen Mello	Director of Community Impact	United Way of Greater Waterbury
Karen Rainville	School Readiness Liaison	Waterbury Public Schools
Kat Bolt	Health Equity Programs Coordinator	American Heart Association
Kathi Crowe	Executive Director	Waterbury Youth Services
Lawrence Young	Director Community Health and Wellbeing	Saint Mary's Hospital
Loraine Shea	President/CEO	Easterseals Greater Waterbury
Louisa Printz	Community Educator	Safe Haven of Greater Waterbury
Lynn Ward	President & CEO	Waterbury Regional Chamber
Mara K. Ford	Executive Director	Waterbury Police Activity League
Maria Longo	MD	Pediatric Associates
Maura Esposito	Health Director	Chesprocott Health District
Melody J. Davis	Clinical Nurse Coordinator	CT Department of Children and Families
Mike Rokosky, MD	School Health Medical Advisor	City of Waterbury
Peter Adamo	CEO	Waterbury Hospital
Renee Young	Community Impact Manager	United Way of Greater Waterbury
Rodney Wade	Head Pastor	Long Hill Bible Church
Sabrina Trocchi	Chief Operating Officer	Wheeler Clinic
Sam DAmbrosi	President	Waterbury Board of Health
Tom MacMullen	Intern	Waterbury Health Department
Tricia Harrity	Executive Director	Health 360

Hospital Key Leader Conversations:

Name	Title	Organization
Angela Holmes	Community Program Coordinator	Waterbury Hospital
David Podell, MD	Chair of Medicine	Waterbury Hospital
Gloria Batista	Practice Manager	Waterbury Hospital
Jadwiga Stepczynski	MD	Waterbury Hospital
Jason Green	Network Manager, CRC	Waterbury Hospital
Jason Ouellette, MD	Internal Medicine	Saint Mary's Hospital
Jim Uberti, MD	ACO	Saint Mary's Hospital
Jocelyn Torres	Accountant	Waterbury Hospital
Justin Lundbye, MD	CMO	Waterbury Hospital
Kathleen Lucey	Director Orthopedics	Waterbury Hospital
Kathryn Ruszczk, RN, MSN	Director of Healthcare Services- CRC	Waterbury Hospital
LaTeena Bartee	Community Programs Department	Waterbury Hospital
Lauresha Xhihani	Marketing/ Community Outreach	Waterbury Hospital
Lawrence Young	Director Community Health and Wellbeing	Saint Mary's Hospital
Mark Holt	Administration	Waterbury Hospital
Patricia Gentil	Vice President Operations	Waterbury Hospital
Paul Porter, MD	CMO	Saint Mary's Hospital
Peter Adamo	CEO	Waterbury Hospital
R. Weissberger	Internal Medicine	Waterbury Hospital
Scott H. Kurtzman, MD	Chair Surgeon	Waterbury Hospital
Steven Schneider, MD	President	Saint Mary's Hospital
Terry Nowakowski	Consultant	Waterbury Hospital
Wendy Chrostowski, RN	Case Manager	Waterbury Hospital
Yarixa Lopez	Administration	Waterbury Hospital
Yolena Tituo	Internal Medicine	Waterbury Hospital

Chesprocott Health District Conversation:

Name	Organization
Amanda Sudhoff	Chesprocott Health District
Anne Harrigan	Cheshire Board of Education
April Duquette	Cheshire Food Pantry
Ashley Rendan	Campion Ambulance

Barbara Ecke	Chesprocott Board
Bilal Tajildeen	Connecticut Community Foundation
Brooke Franco	Chesprocott Health District
Chrissy Cassesse	Cheshire YMCA
Fellis Jordan	FOBK
Kathryn Glendon	Chesprocott Health District
Kathy Kirby	CHD
Kelly Lenz	Cheshire Public Schools
Kelsey Oddo	Atrinity Home Health
Kim Sima	Chesprocott Health District
Liz Normand	Prospect
Mary Morrone	Wolcott
Maura Esposito	Chesprocott Health District
Melissa Sorizelli	Chesprocott Health District
Nicole Caccomo	Elim Park
Pamela Roach	SCRCOG
Pat Geary	Prospect Town Council
Pranathi Saurosh	Cheshire Chamber of Commerce
Sarah DiMeglio	Atrinity Home Health
Sondra Amann	Cheshire

***Resident Neighborhood Conversations:**

Two neighborhood conversations were held in the north end of the city at Long Hill Bible Church and in the south end of the city at Our Lady of Lourdes Church. There were a total of approximately 51 participants in attendance.