

# Community Health Assessment



Collective Action to Create a Healthier Community

## *Primary Contributors*

Laurel Holmes, MSW, Director of Community Partnerships + Population Health, L+M Healthcare  
 Russell Melmed, MPH, Supervisor Health Education and Community Outreach and Epidemiologist, Ledge Light Health District  
 Jennifer Muggeo, MPH, Supervisor Finance and Administration and Special Projects in Population Health, Ledge Light Health District

## *SE CT Health Improvement Collaborative Steering Committee Members*

*\*\*also a Focus Group Facilitator/Scribe*

Maritza Bond, MPH, Executive Director, Eastern Area Health Education Center  
 Yolanda Bowes, Director Community Outreach Services, United Community and Family Services  
 Megan Brown, CFRE, Senior Director of Marketing and Development, Thames Valley Council for Community Action  
 \*\*Stephanye Clarke, New London NAACP, Universal Health Care Foundation Advocacy Communications Fellow, African American Health Council  
 Nancy Cowser, Senior Vice President of Strategy, United Community and Family Services  
 Jim Haslam, Staff Attorney, CT Legal Services  
 Leah Hendriks, BSN, RN, Supervisor School Health and Wellness and Program Administrator Nurse-Family Partnership, Visiting Nurse Association of Southeastern CT  
 Jerry Lokken, Recreation Services Manager, Groton Parks and Recreation  
 Alejandro Melendez-Cooper, President, Hispanic Alliance  
 Cathy McCarthy, LCSW, Social Worker, L+M Cancer Center  
 Patrick McCormack, MPH, Director of Health, Uncas Health District  
 Jennifer O'Brien, Program Director, Community Foundation of Eastern Connecticut  
 Michael Passero, Mayor, City of New London  
 Tracee Reiser, Associate Dean for Community Learning, Associate Director Holleran Center, Connecticut College  
 \*\*Dianna Rodriguez, LMSW, Behavioral Health Clinician, Community Health Center Inc.  
 Ariella Rotramel, PhD, Assistant Professor of Gender and Women's Studies, Connecticut College  
 \*\*Michele Scott, MSOL, Community Development Specialist, Mashantucket Pequot Tribal Nation  
 \*\*Stephen Smith, MD, Community Health Center  
 Kathleen Stauffer, MPA, Chief Executive Officer, The Arc New London County  
 Victor Villagra, MD, UCONN Health Disparities Institute

## *Consultants and Support*

Jessica Hill, AHEPA, Focus Group Facilitator  
 Shaniece Jones, Ledge Light Health District, Intern  
 Kenn Harris, Pastor, Born Again Evangelistic Outreach Ministries, Focus Group Facilitator  
 Toby Matthew, Focus Group Scribe  
 Sharon Mierszwa, MPH, Community Partner Forum Facilitator  
 Colleen Milligan, Senior Manager, Baker Tilley Virchow Krause LLP, Prioritization Event Facilitator  
 Jessica Seyfried, MPH/MSW, Ledge Light Health District and L+M Hospital, Intern  
 Aracelis Vázquez Hayes, M.Div, M.Ed, Church of the City, Focus Group Facilitator  
 Crystal Worsley, Focus Group Facilitator and Scribe

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Guided by the Southeastern CT Health Improvement Collaborative, a coalition of health care providers, local public health, federally qualified health centers, tribal representatives, higher education, and numerous non-profit organizations serving the region, L+M Hospital (L+M) and Ledge Light Health District (LLHD) considered data from primary and secondary sources to identify and elucidate the leading health indicators for the region included in this report. Accompanying this assessment is a Community Health Improvement Plan (CHIP) to address the Community Health Assessment findings.

The data sources in this assessment provided a rich array of information and moved the process toward a more holistic understanding of health status, perceptions, barriers, and strategies for improvement. Community member input revealed consistent themes around communication, connections and bias, disparities, access to care, safety concerns, mental health, and chronic disease.

Recognizing the significant contribution of social determinants to overall health and wellness, particular attention has been paid in this assessment to the interaction between socioeconomic and environmental conditions as well as to health disparities. One such social determinant, economic security—or the ability to regularly and comfortably pay for one’s basic needs such as food, housing, transportation, and other goods and services, is closely associated with health outcomes. Although fewer residents of New London County experienced poverty in the past 12 months compared to the state, there still exist disparities around family construct and geography. Residents in lower income categories reported higher anxiety and depression, and lower incomes are correlated with higher suicides and self-inflicted injuries. There are also significant disparities related to employment in Greater New London; the real unemployment rate among Blacks is more than twice that of Whites.

Housing stock in the region is older in general and more likely to harbor health hazards such as defective lead paint, failing plumbing, and asbestos insulation, contributing to poorer health among lower income residents who are more likely to live in poor quality housing. Further, transportation emerged as a key issue impacting health; when asked about their vision of a healthy community, focus group and web survey participants and community partners repeatedly cited the need for more and better public transportation, bike lanes and pedestrian-friendly roads .

As it relates to chronic disease, there are repeated associations between poor health and social determinants in the assessment data. When sedentary lifestyle is examined by income, those with incomes less than \$50,000 are more likely to be sedentary than the state and Greater New London overall. Smoking, diabetes and heart disease also have higher prevalence among those within lower income categories and those with lower levels of education. Lower income and education is also correlated with higher emergency department use, the delaying of healthcare, not getting necessary care, and not getting necessary medications due to cost.

Mental and emotional wellbeing is an area of concern, with disparities by race and also by income. Mental health concerns and substance use are often co-occurring—in 2015, depression was the fourth most prevalent condition among hospitalizations and alcohol/substance use was the fifth. Although the data reflect a time period before the most recent dramatic spike in opioid overdoses and related deaths, there nonetheless is an upward trend seen in recent years.

Racial and ethnic health disparities were evident on several indicators including asthma (higher among Hispanics and African Americans), oral health (less preventive care among African Americans), hypertension (higher among African Americans) and the experience of violence (higher among Hispanics). African Americans and Hispanics are more likely to use the hospital emergency department (ED) for care, considered a proxy for access to care in the community.

Understanding the connections between wide-ranging factors and their relative contributions to overall health is one goal of the community health assessment process. Only through this understanding can the community effectively impact policies, systems and practices toward a healthier community.

### *Contact*

L+M Healthcare, Community Partnerships + Population Health (860) 271-4698,  
[lhomes@lmhosp.org](mailto:lhomes@lmhosp.org) or  
Ledge Light Health District (860) 448-4882 ext. 300, [jmuggeo@llhd.org](mailto:jmuggeo@llhd.org)

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With a shared vision for a healthy community, and continuing a long-term partnership on many community health improvement activities, Lawrence + Memorial Hospital (L+M) and Ledge Light Health District (LLHD) joined together in 2015-16 to lead a Community Health Assessment (CHA) process for Greater New London (see map page 7). Guided by the Southeastern CT Health Improvement Collaborative, a coalition of health care providers, local public health, federally qualified health centers, tribal representatives, higher education, and numerous non-profit organizations serving the region, L+M and LLHD considered data from primary and secondary sources to identify and elucidate the leading health indicators for the region included in this report. Accompanying this assessment will be a Community Health Improvement Plan (CHIP) to address the CHA findings, developed by the Southeastern CT Health Improvement Collaborative. Through the prioritization and planning process, the Collaborative will identify initiatives that include addressing social determinants in order to achieve improved health outcomes. While the CHA and CHIP are designed to meet the requirements for L+M to maintain their non-for-profit status as a community hospital and for LLHD to earn accreditation through the Public Health Accreditation Board, both organizations intend for the reports to serve as guides for planning future programs and policies for these agencies and for the community overall.

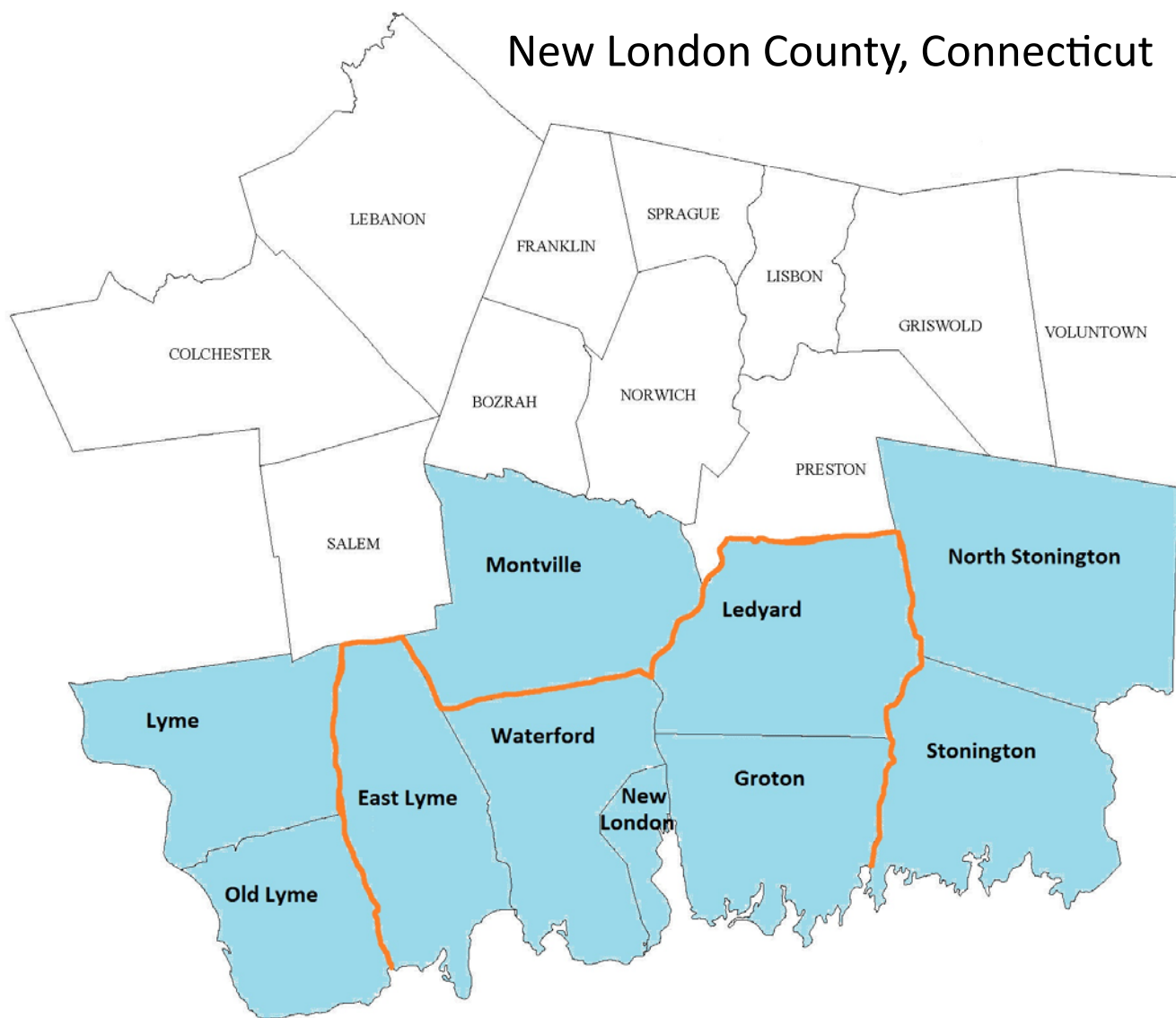
Among public health and human service advocates in Greater New London, there is a recognition that social determinants, such as poverty, educational attainment, food security, housing, and transportation, contribute to overall wellbeing and health more than clinical care, behaviors or family history. Otherwise stated, zip code is more important than genetic code as a contributor to health. Developing the best strategies to improve health requires an understanding of how social

determinants influence health. It is especially important when considering health inequities; that some groups within our communities bear disproportionate rates of disease and/or experience disparate quality of care is related to many intersecting factors. Achieving a “healthy community” where everyone has the same opportunities to make healthy choices and access quality, culturally and linguistically sensitive, timely and affordable health care requires us to examine inequities in socioeconomic conditions, and the policies and practices that create them.



This Community Health Assessment Report focuses on the leading health indicators of Greater New London, which is the Lawrence and Memorial Hospital primary service area (highlighted in blue on this map) and includes the member municipalities of Ledge Light Health District (outlined in orange).

### New London County, Connecticut



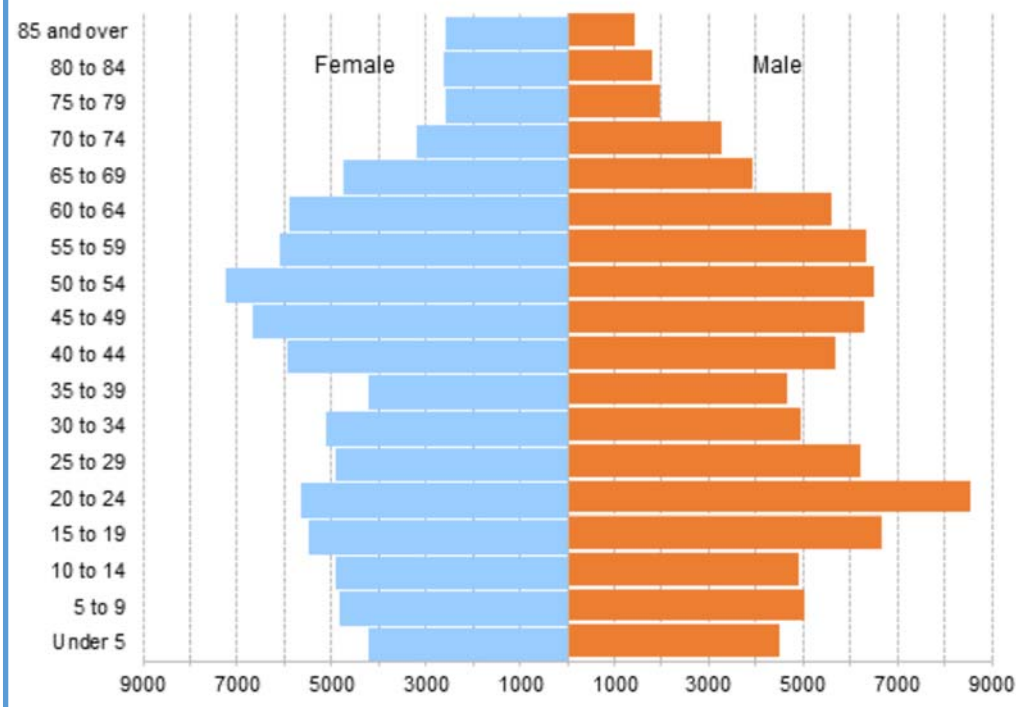
The Lawrence + Memorial Hospital service area covers 17 U.S. Census zip code tabulation areas. The information presented in this section reflects the total population of those areas from the American Community Survey.

<b>Total Population</b>	174,814
<b>Gender</b>	
Male	50.5%
Female	49.5%
<b>Race/Ethnicity</b>	
White, Non-Hispanic	76.0%
Hispanic or Latino of Any Race	10.4%
Black, Non-Hispanic	5.5%
Asian, Non-Hispanic	4.1%
Two or more Races, Non-Hispanic	3.4%
American Indian/Alaska Native, Non-Hispanic	0.5%
Some Other Race, Non-Hispanic	0.1%
<b>Disability</b>	
Total Population	12.1%
Under 5 Years	1.8%
5 to 17 Years	5.4%
18 to 64 Years	10.0%
65 Years and Over	30.1%

	Languages Other than English Spoken in Greater New London		
	Rank	% of Population who Speak the Language	% Who Speak English Less than "Very Well"
Spanish or Spanish Creole:	1	6.5%	37.9%
Chinese:	2	1.3%	55.5%
Tagalog (Filipino):	3	0.6%	36.5%
French (incl. Patois, Cajun):	4	0.5%	17.4%
Italian:	5	0.4%	23.3%
Other Asian languages:	6	0.4%	19.2%
French Creole:	7	0.3%	83.6%
German:	8	0.3%	16.4%
Hindi:	9	0.3%	40.0%
Russian:	10	0.3%	38.6%



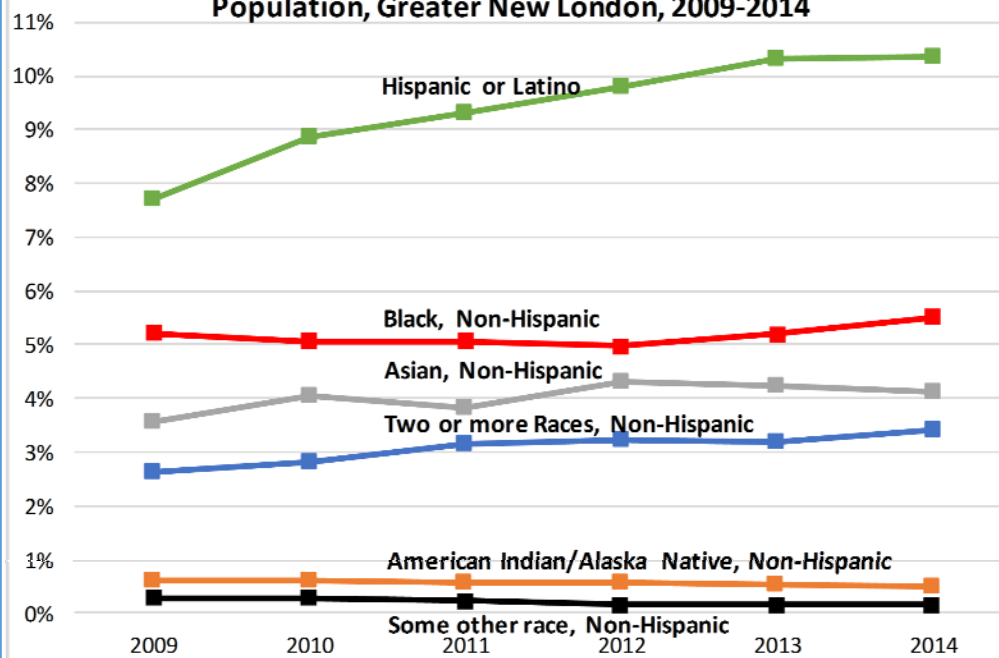
**Population of Greater New London by Age and Sex**



According to the 2014 American Community Survey, the population of Greater New London is 174,814, having grown by about 2,500 people in the past 5 years. The population is nearly evenly divided by sex, with 50.5% being male, though the population 65 years and older is made up of more females

(55.8%). Of particular importance is the large wave of those in and around the baby boom generation (ages 50-70). As this group continues to age, it will place increasing health, social and economic pressures on families, social service and governmental agencies. Both in absolute terms and as a percentage of the population (24%), the population of non-White minorities has grown in

**Change in Minority Population as a Percentage of the Total Population, Greater New London, 2009-2014**



Greater New London over the past 5 years (up from 20% in 2009). This growth has been driven primarily by those identifying as Hispanic or Latino, whose population has grown from 7.7% of the population in 2009 to 10.4% in 2014.

On May 26, 2015, L+M and LLHD organized the first meeting of what would become the Southeastern CT Health Improvement Collaborative (Collaborative). Representatives from a number of community agencies were invited to serve as a steering/advisory committee for L+M and LLHD's assessment. The Collaborative met bimonthly and provided insight and guidance in the design of data collection efforts. In November, Collaborative members joined other community agencies for a facilitated conversation considering the assets and challenges to health in the region. At subsequent Collaborative meetings, members organized focus groups and reviewed preliminary data. LLHD and L+M hosted a preliminary data release in March 2016 and a prioritization event in May 2016.

This assessment includes review and analysis of data from primary and secondary data sources:

The statewide Wellbeing Survey of adults, conducted by DataHaven in the late summer and fall of 2015. A statewide telephone survey of area residents with oversampling conducted in select communities, the survey included 1,200 residents from Greater New London. The survey was delivered in English and Spanish and included both landline and cell phones. The sampling methodology and survey tool are included as Appendix A.

A supplemental survey tool developed in English and Spanish and deployed in community settings including clinic waiting rooms and sporting events. The goal of the supplemental survey was to obtain information from individuals who may not have been represented in the initial telephone survey.

The November key informant/community partner forum with over 30 participants (see distribution list Appendix B). At the forum participants shared their insights on the most important health and wellbeing issues in our region and how to address them.

Qualitative data from 12 focus groups held in early 2016 in order to explore issues of concern revealed in the household survey. These groups included conversations among African Americans, Hispanics, Native Americans, youth, seniors, LGBTQ people, and people living in poverty (see focus group reports in Appendix C).

Secondary data from a wide range of sources, including Centers for Disease Control, the CT Department of Public Health, the U.S. Census, Healthy People 2020, and the CT Hospital Association. A complete list of data sources for this report are listed on page 15.

Community engagement was a key component of the CHA. The CHA included participation of not only public health experts and health care providers but also representatives, ranging in age from 12 to 87, of medically underserved, low income, minority, and youth populations and an array of community organizations from throughout the region. Their voices were heard through a community partner forum, twelve focus groups including diverse representation, the CHA steering committee, and a web-based survey. Throughout the various engagement activities, several themes emerged.

## Connections, Communication, Bias

In general, there is a feeling that there has been a loss of sense of community locally. Community members and

partners said that there is a lack of communication, coordination, and understanding of differences, between people and with organizations and systems. Examples of widespread bias along many lines—racial/ethnic, mental health, gender, age, ability, sexual orientation, resulting in discrimination, disparities, and stigma and ultimately negatively impacting access to care and quality of services, were described. Within organizations, there is a need for greater cultural competence to bridge differences. The “we know best” culture, particularly in healthcare, needs to be addressed. Some feel that although there is division within the community overall, communication may be better within a single culture.

*“A lot of people in this area are invisible.”*  
—faith community focus group participant

The complexity and fragmentation of the healthcare system impacts access; it’s difficult to navigate, with many barriers including finances, health insurance status,

## Access

literacy, time constraints, and “how it is organized.” As a region, there is a need to start thinking collectively and to examine the infrastructure, education and training deficits. It is generally

*“The high cost of health care is making individuals skimp in ways like splitting pills, deferring care, and foregoing dental care and on necessities like food.”*

—access to care focus group participant

understood that the area doesn’t benefit from as many state resources as do the urban centers elsewhere in the state; this calls for standing together and demanding attention and support.

Some challenges include an inadequate public and safety net transportation system which has a major influence on access to services including health and social services, lack of access to safe affordable housing, place-based issues including neighborhood challenges, and economic disparities. The region’s population is aging and experiencing increased isolation. Focus group participants and community partners expressed concern that technology may create new barriers to access, particularly among older residents.

## Safety

Many focus group participants cited safety concerns including neighborhood issues, family violence, bullying, and sexual abuse. Factors contributing to a decreased sense of safety include drug and alcohol use, poverty, and mental health. Residents expressed concern that children are witnessing drug use and extreme violence. Older residents feel that increased law enforcement in a neighborhood leads to a safer environment, but younger residents noted an overall decrease in feeling safe. Youth expressed worries about early death or injury from violence.

*“A gun is easier to get than an apple.”  
—youth focus group participant*

## Mental Health

As it relates to mental health, stress and anxiety are cited as having a dramatic impact on the overall health of residents and these concerns are increasing. Community members indicate that greater awareness, education, de-stigmatization, understanding, and coordination of care, to include integration of behavioral health services with medical care. There are excellent resources available in this region but it is felt that they aren't as networked or as culturally competent as they should be. Young people cited the stress of helping their parents provide for their families.

*“There are so many people in this building who have mental health issues and need services, but they don't know where to go or how to pay for the services. I have friends who are survivors of traumatic domestic violence who need support services, but they don't know who to go to or how to get started. These are parents—with heavy baggage—raising kids in a place no one else in the community cares about. We love each other but know we're a bunch of throwaways, like those misfit toys in that Christmas special.”  
—public housing focus group participant*

Residents have many ideas about contributing factors to chronic disease. They cited lack of access to healthy foods, too many processed foods that are easily obtained, cost of

## Chronic Disease

fresh foods, and limited nutritional education, including information on appropriate portion sizes. There are cultural practices that contribute to poor nutrition and which could potentially be improved with education. It is also believed that greater information about available recreational opportunities for all residents would have a positive influence on overall health.

*“Kids are not moving as much, there isn't as much recess, and all of the technology is keeping them inside.”  
—community member*

Smoking, air quality, built environment, and lack of trust in the healthcare system were also raised as influences on health.

Focus group and web survey participants were asked about their vision for a healthy community. Ideas cited included integrated community development, readily accessible healthy foods, recreational opportunities available for all regardless of age or ability, and a transportation system that truly meets the community's needs. Despite the challenges acknowledged, there is a sense of optimism that Greater New London has a healthy future.

Thinking ahead about the future of your community, what is your vision related to people's health? What do you think needs to happen to make this vision a reality?

*"Full Service Community Center with a state of the art gym, pool, fitness guidance classes all at affordable rates."*

*"There needs to be innovation in how services are provided and made available to support holistic health."*

*"Better/more information regarding services available to the underserved."*

*"Improvement in the diet of the community- e.g. less processed food and more fresh, healthy options."*

*"Provide low cost care not only with primary doctors, but also for specialists."*

*"Sustainable public spaces that promote health and wellness."*

*"Elder care is an increasing issue, both health services and living spaces."*

*"Better services for people with disabilities."*

*"Middle class benefits - most people making a middle class income are just getting by or not and makes it impossible to qualify for services."*

*"More public transportation."*

*"Bicycle paths and sidewalks to walk safely on would be wonderful!"*

*"More inclusion in politics."*

*"More community leaders stepping up and folks buying into the notion of taking care of one another instead of looking out solely for themselves."*

*"A greater focus on walkability."*

*"Early intervention with children's needs."*

*"Less racism."*

*"Improving mental health and domestic violence prevention are very important to me."*

*"Better availability of paid maternity leave, preschool, neighborhood childcare."*

*"Safer and better maintained housing for low income families."*

*"More and better employment opportunities that pay a living wage."*

*"More public health, safety out reach groups. There needs to be more youth activities for the children."*

The graphs and information included on the following pages reflect data from several sources:

- The 2015 DataHaven Wellbeing Survey (2015 Wellbeing Survey)
- The American Community Survey (ACS)
- Centers for Disease Control and Prevention (CDC)
- Connecticut Department of Public Health (CT DPH)
- Connecticut Health Foundation
- Connecticut Hospital Association
- Environmental Protection Agency (EPA)
- FBI Uniform Crime Reporting
- Harvard School of Public Health
- Institute for Future Studies
- Lawrence + Memorial Hospital (L+M)
- Ledge Light Health District (LLHD)
- Locally Conducted Focus Groups
- Robert Wood Johnson Foundation
- Southeastern Regional Action Council (SERAC)
- United Way of Southeastern Connecticut (ALICE Report)
- University of Massachusetts
- World Health Organization

The applicable data source is noted on each graph.

As much as possible, where valid data were available from the 2015 Wellbeing Survey, these graphs reflect the primary service area of L+M Hospital, as shown on the map on page 7 and as reflected in the demographics highlighted on pages 8 and 9 and referred to as “Greater New London.” In some cases, the graphs reflect data only for the LLHD member municipalities (see map on page 7), while in other cases the graphs reflect New London County or the state of Connecticut. In these instances, the geographic scope of the graph is noted.

L+M and LLHD identified leading health indicators in eight domains. The indicators selected are limited to those for which there are local data. This report will be updated if additional sources of local incidence or prevalence of disease, illness or injury are identified. It should be noted that there is a significant lack of local population health data on children. Data about childhood asthma, vaccinations and substance use are included; there may be other leading childhood health indicators for which local data are not currently available.

The domains and sub-categories include:

## Social Determinants of Health

- >Education
- >Economic Security
- >Housing
- >Employment
- >Transportation
- >Public Safety
- >Social Cohesion

## Health Systems and Access to Care

- >Public Health and Healthcare Infrastructure
- >Emergency Department Use
- >Health Insurance
- >Barriers to Care
- >Emergency Preparedness

## Chronic Disease

- >Risk Factors
- >Diabetes
- >Cardiovascular Disease
- >Chronic Lower Respiratory Disease
- >Asthma
- >Cancer
- >Oral Health

## Infectious Disease

- >HIV/AIDS and Hepatitis
- >Sexually Transmitted Infections
- >Vaccine Preventable Diseases
- >Tickborne Disease
- >Foodborne Illness

## Maternal and Infant Health

- >Prenatal Care
- >Low Birthweight Babies
- >Births to Teens
- >Neonatal Abstinence Syndrome
- >Infant Mortality

## Mental Health and Substance Abuse

- >Mental and Emotional Wellbeing
- >Suicide and Self-Inflicted Injury
- >Substance Abuse and Overdose
- >Substance Abuse among Youth

## Injury and Violence

- >Violence
- >Unintentional Injury

## Environmental Risk Factors and Health

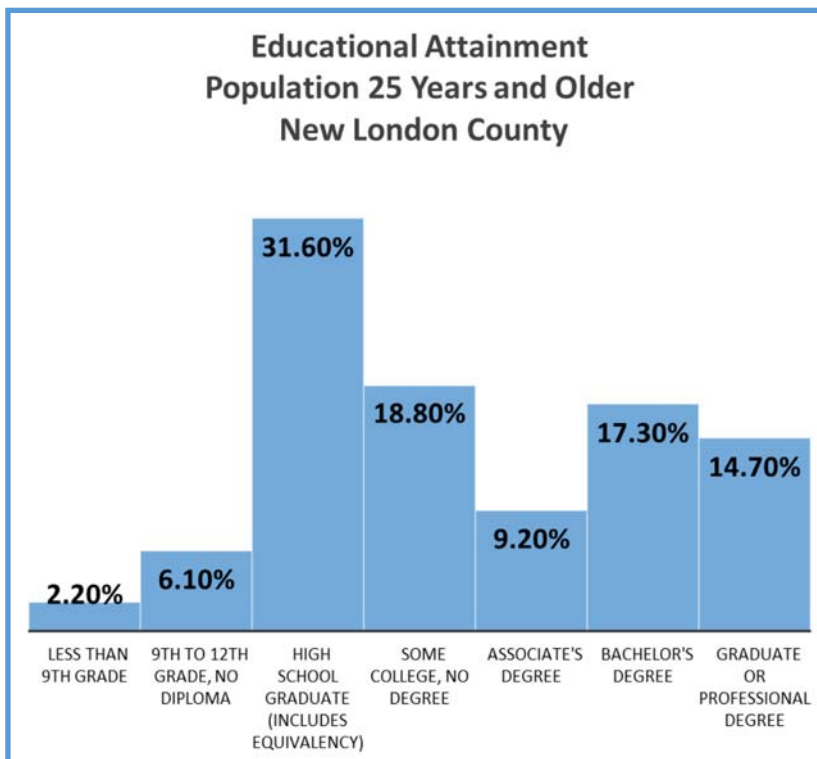
- >Lead
- >Radon

# Social Determinants of Health



Educational attainment is strongly associated with health and wellbeing. People with higher levels of education tend to live longer, healthier lives than those with lower levels of education. Existing research has documented that this association is not due to differences in health literacy or behavior alone, but also influenced by differences in income, housing, social support and childhood poverty and trauma.

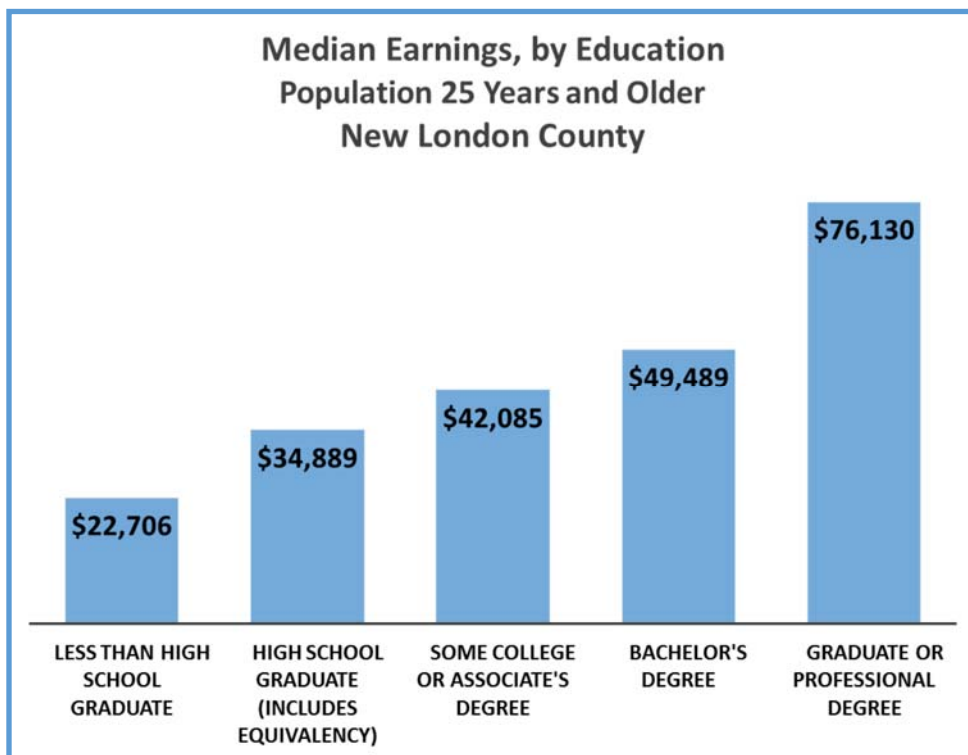
Residents of New London County enjoy high levels of educational attainment overall, though rates of adults with bachelor's or graduate degrees lag slightly behind the state (20.6% and 16.4% respectively).



Source: ACS, 2014 5-Year Estimates

## Education

Educational attainment is closely linked with the ability to earn a living, often trapping those with less education in jobs that pay very little. 1 in 4 adults in New London

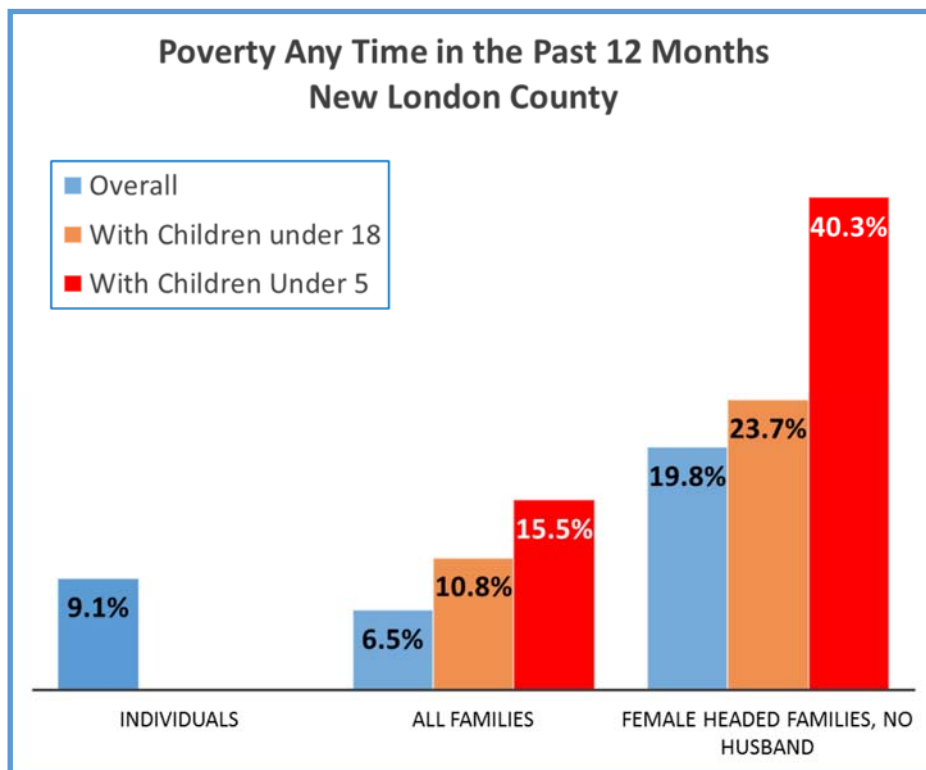


County without a high school diploma live in poverty.

Those with the highest levels of education on average earn more than three times as much as those with the least education.

Source: ACS, 2014 5-Year Estimates

Economic security, or the ability to regularly and comfortably pay for one’s basic needs such as food, housing, transportation, and other goods and services, is closely associated with health outcomes. Overall, residents of New London County appear to enjoy high levels of income, with median household earnings of \$66,693 (ACS 2014 5-Year Estimates). In



Source: ACS, 2014 5-Year Estimates

addition, fewer residents of New London County experienced

## Economic Security

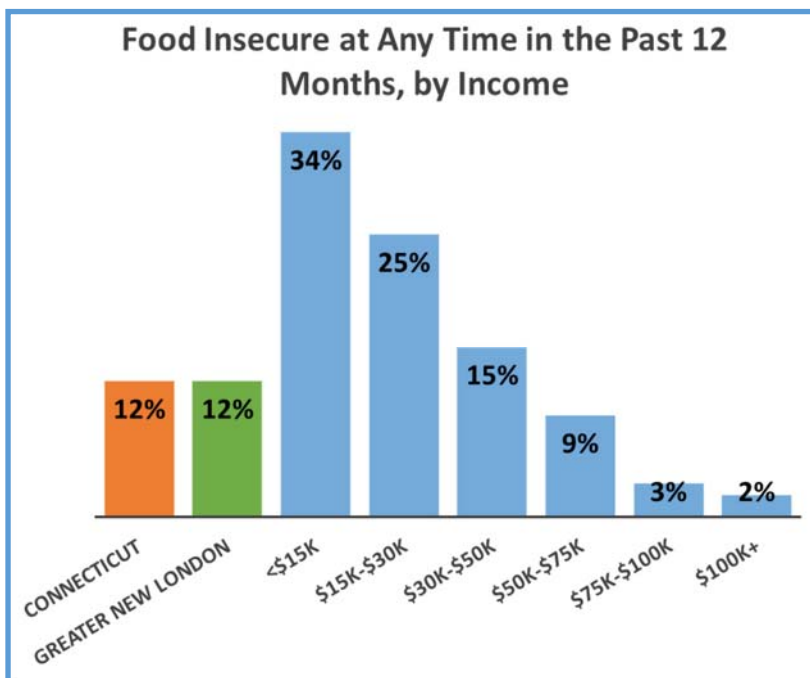
poverty in the past 12 months compared to the state (10.5%). Sadly, however, disparities still exist. Families with children, and in particular single-parent families with young children, had much higher rates of poverty.

While the median household income for the county appears high, according to the United Way of Southeastern CT (UWSECT), the basic survival budget for a household with young children is approximately \$63,000, only slightly below the county’s median income level.

According to the United Way of Southeastern CT, 26% of households in New London County are considered asset limited, income constrained, employed (ALICE).

Part of being economically “secure” is achieving a comfortable degree of financial stability and predictability. Many residents of the Greater New London area (46%) reported that if they lost their source of income, they could continue to live as they currently are for at least six months. About 1 in 5 residents, however, are less than one month away from having to make major life changes if their current source of income were to end, suggesting a tenuous or non-existent degree of economic security for a large portion of the population of the region.

One of the direst consequences of poverty is the inability to afford to buy food. Though comparable to the state overall, food insecurity in the past 12 months still rose to levels that should be considered unacceptable, especially among those earning less than \$30,000 per year. That there appear to be co-occurring epidemics of food insecurity and obesity, especially among low income populations, speaks to the nutritional density of affordable food, and suggests the very real need to address the food system in the region.

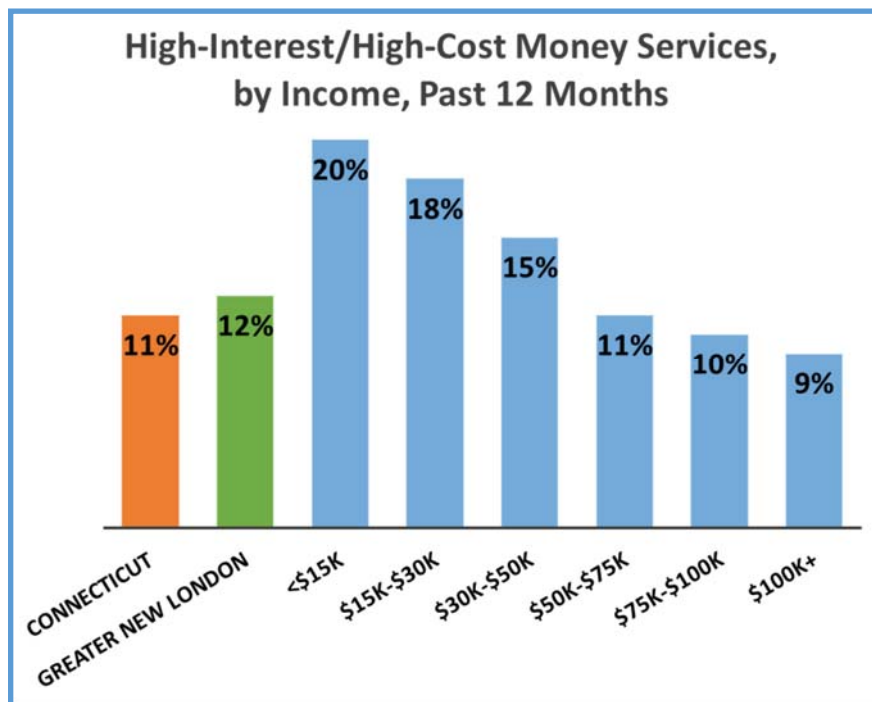


Source: 2015 Wellbeing Survey

## Economic Security

Though only about 1 in 8 adults overall used them in the past 12 months, high interest, high cost money

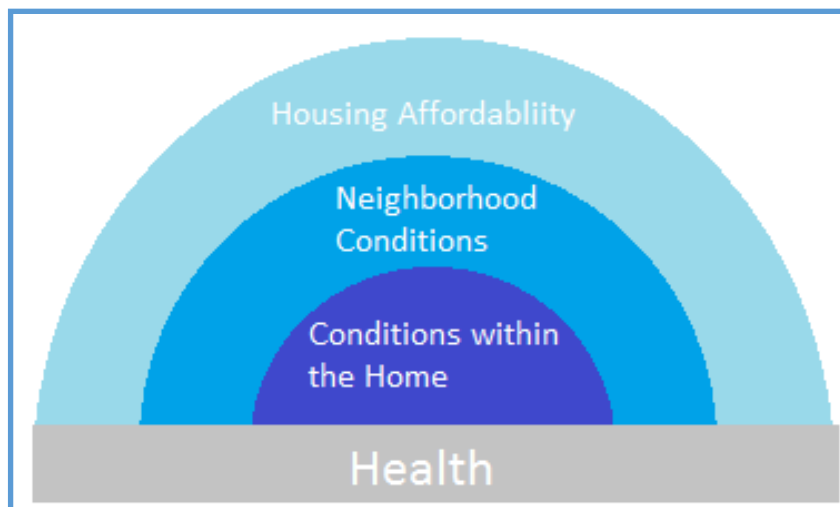
services such as check cashing, money orders, and refund anticipation loans exact an economic cost on people of low income far more frequently. Contributing to what is often referred to as the “poverty tax” because they are used by those who can least afford them, these services are needed more often by people of low income in order to pay regular bills, service debt, and purchase basic necessities like food. While 92% of adults



Source: 2015 Wellbeing Survey

overall in the Greater New London region held a bank account in the past 12 months, only 68% of those earning less than \$15K held one, increasing the need among this group to access alternative services. Though filling a need, these high-cost money services also exacerbate the economic struggles of those living in poverty.

According to the Robert Wood Johnson Foundation May 2011 brief on housing and health, good health depends on having safe, clean, affordable homes. Housing stability contributes to healthy neighborhoods and a sense of community. “Poor quality and inadequate housing contributes



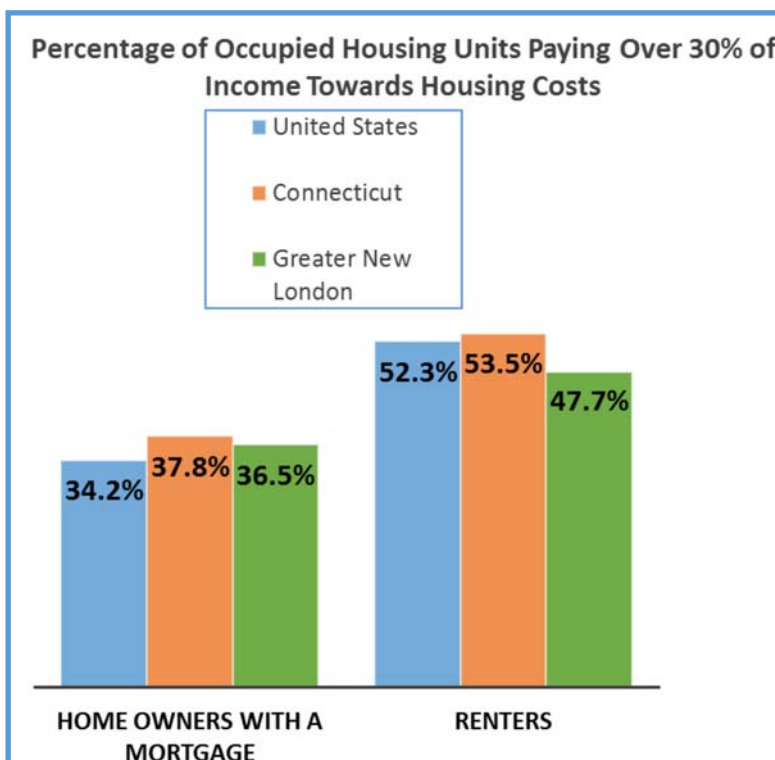
Source: Robert Wood Johnson Foundation

to health problems such as infectious and chronic diseases, injuries and poor childhood development.” Substandard housing typically presents many triggers to asthma including mold, rodents, cockroaches, dust, and poor air quality in general, and is often located near major roadways with associated increased air pollution.

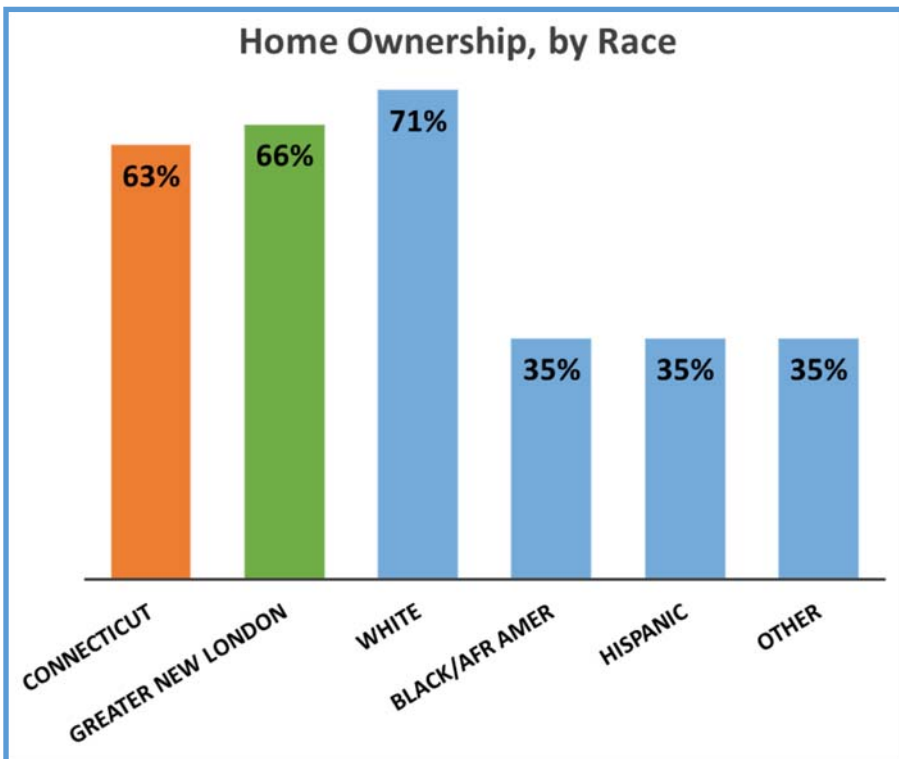
## Housing

Particular health problems associated with poor housing conditions include respiratory infections, asthma and other chronic diseases, lead poisoning, injuries, impaired child development, and poor mental health. Though on par with or slightly better than the country and the state, home ownership and rental costs as a percentage of income are still unacceptably high in the Greater New London area. When residents spend over 30% of their income on housing alone, some struggle to pay for other necessities such as food, transportation, healthcare, and child care. This burden is felt most acutely by low income residents.

Nearly 60% of all housing units in Greater New London were built before 1960 (ACS 5-Year Estimates). Older housing stock is more likely to harbor health hazards such as defective lead paint, failing plumbing, and asbestos insulation.



Source: ACS, 2014 5-Year Estimates



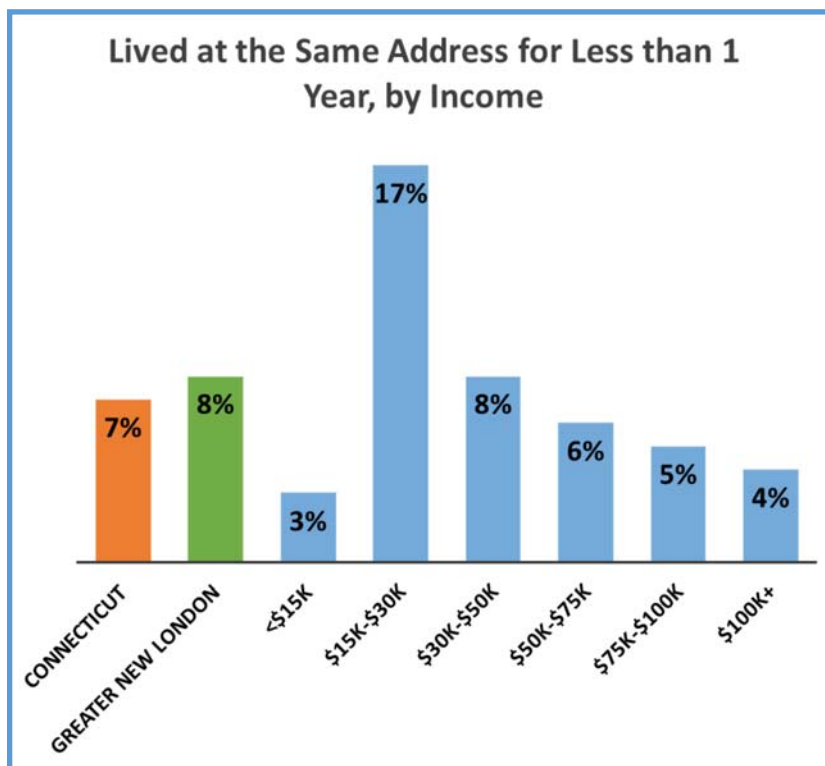
66% of residents in Greater New London own their home, slightly better than the state overall. Significant racial disparities exist, with the frequency of home ownership twice as high among Whites in the area compared to all other races. While much of this disparity can be attributed to the concentration of wealth among Whites, it remains possible that discrimination in the real estate and financing markets exist that make it more difficult for

Source: 2015 Wellbeing Survey

## Housing

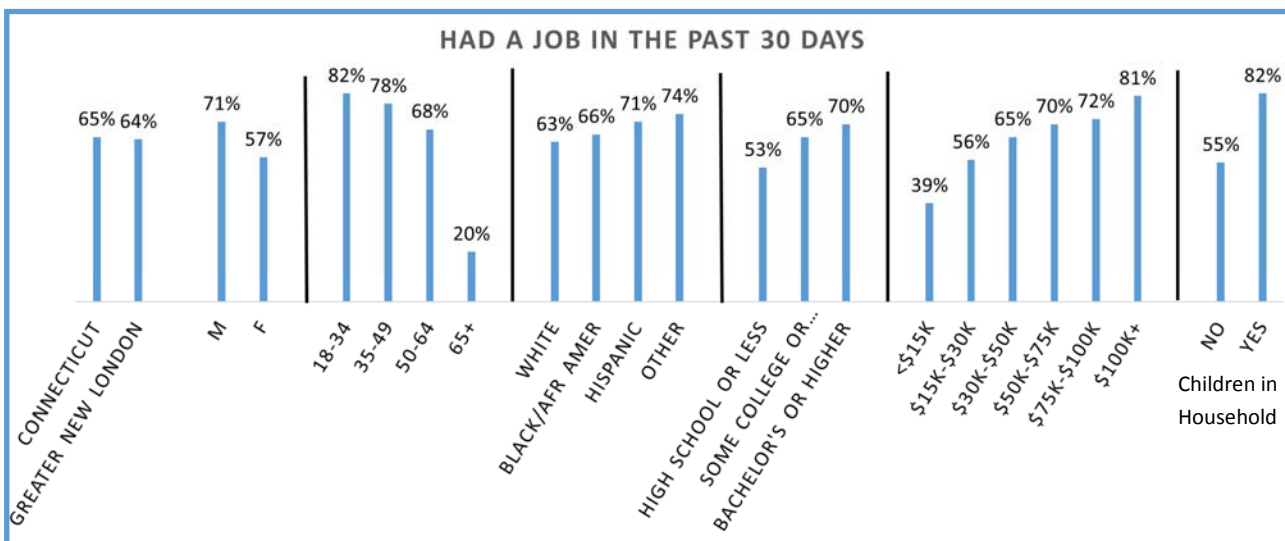
racial minorities to purchase a home.

Housing stability is fairly strong in the region, with only 1 in 12 residents in the Greater New London area having lived in their home for less than one year (about the same as the state overall). With the exception of those earning less than \$15,000 per year—who enjoy the highest level of housing stability (likely due to high levels of occupancy in subsidized housing), as income decreases, so does housing stability. About 1 in 6 people earning between \$15,000 - \$30,000 have lived in their current home less than one year—twice the overall rate.



Source: 2015 Wellbeing Survey

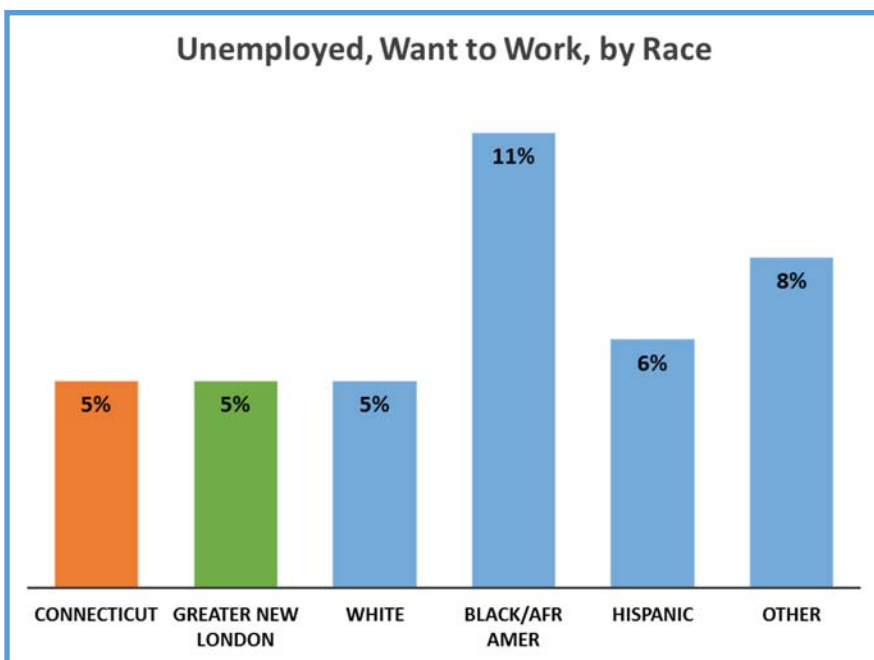
Having a steady job with good wages impacts health in a number of ways and provides more than just income. Employment often comes with benefits such as healthcare, retirement benefits, and support and paid time off to accommodate family needs. On the opposite end, losing a job or being unable to find work is associated with a number of negative health consequences including stroke, heart attack, heart disease, and arthritis (Robert Wood Johnson Foundation). While the overall employment rate for Greater New London is on par with the state's, the picture is much different for certain segments of the population.



Source: 2015 Wellbeing Survey

## Employment

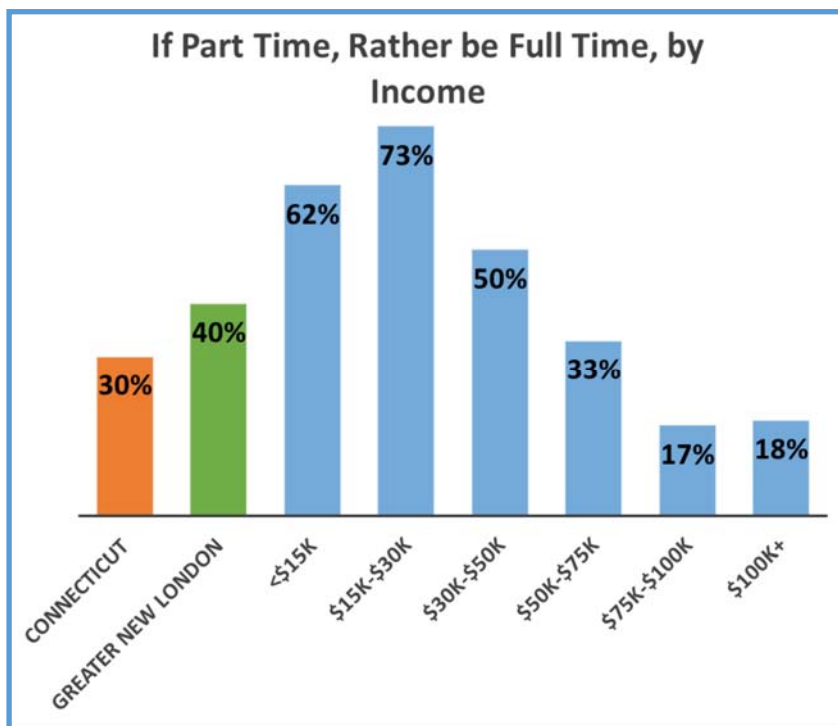
“Real unemployment” is the term used to reference the portion of the population who are unemployed but would like to be working. The real unemployment rate in Greater New London is the same as the state overall (5%) but racial disparities exist in our community.



Source: 2015 Wellbeing Survey

The real unemployment rate among Blacks is more than twice that of Whites. (Wellbeing Survey)

Overall, 69% of residents of the Greater New London area who are employed are full time, compared to 77% in the state. Of those who are part time, 40% would rather be full time, compared to 30% in the state. Both are troubling statistics that suggest the availability of full time jobs in the area is far from being robust enough to meet the needs of residents.

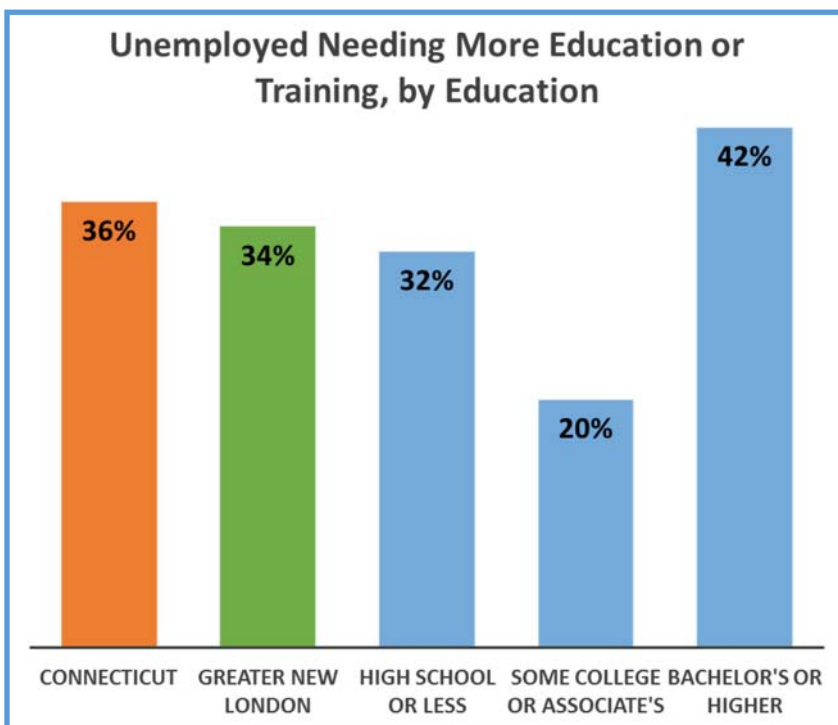


Source: 2015 Wellbeing Survey

## Employment

In the Greater New London area, only 1 in 3 residents rated the ability of people to get suitable employment as good or excellent, highlighting the perception among residents, even among some who are employed, that good jobs in the area are hard to come by.

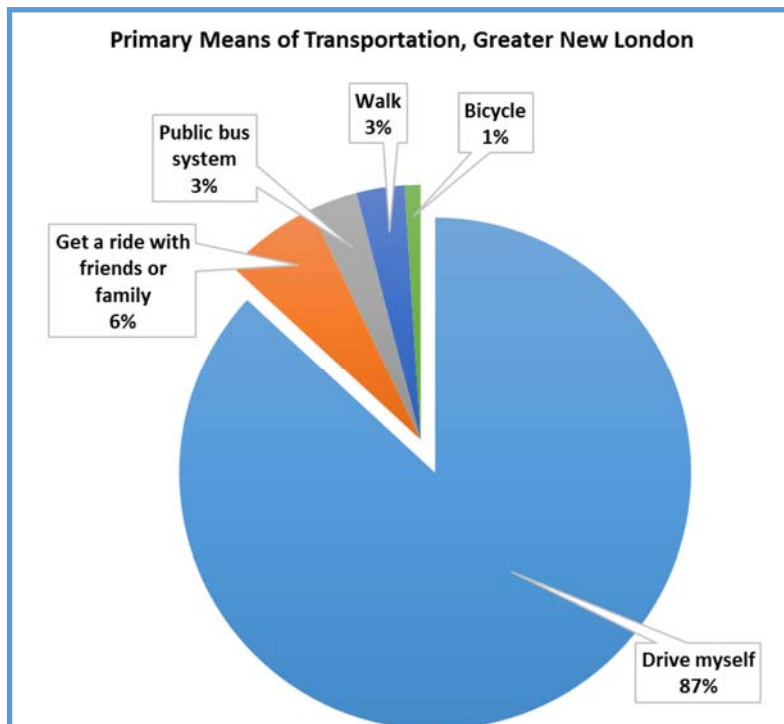
(Wellbeing Survey)



For those who are unemployed, 1 in 3 say they need additional education or training, about the same as the state overall. Interestingly, the group that more frequently said they required more education or training to get a job were those who already had a bachelor's degree or higher.

Source: 2015 Wellbeing Survey

Transportation impacts health both directly and indirectly. Injuries and fatalities from traffic accidents affect the health of a community, and pollution from the burning of petroleum products for fuel exacerbates chronic lung diseases. Additionally, transportation infrastructure often cuts off low income neighborhoods from the rest of their communities, isolating groups of people and making it difficult to access the goods and services necessary to live healthy lives.



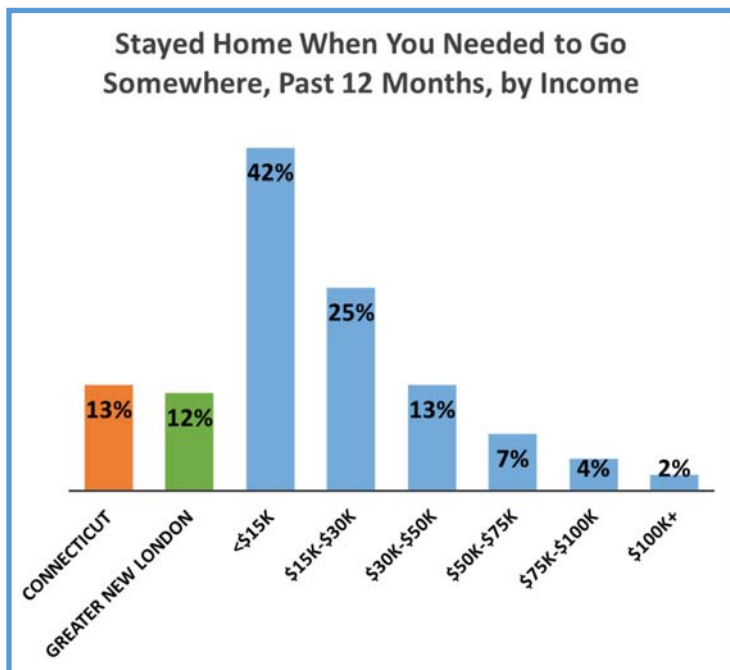
Source: 2015 Wellbeing Survey

## Transportation

The vast majority of residents, almost 9 in 10, drive themselves as their primary means of

Focus group and web survey participants repeatedly cited the need for more and better public transportation, bike lanes and pedestrian-friendly roads when asked about their vision of a healthy community.

transportation. But only about half of those earning the least, under \$15,000 per year, drive themselves, with 1 in 5 reporting never or almost never having access to a car. 1 in 4 people of low income report using buses as their primary means of transportation. 2 in 5 residents earning less than \$15,000 per year reported having to stay home when they needed to go somewhere in the past 12 months, nearly 4 times the rate of the Greater New London area and the state overall. Even those earning slightly more, between \$15K-\$30K per year, reported having to stay home at nearly twice the rate compared to the region and state.



Source: 2015 Wellbeing Survey

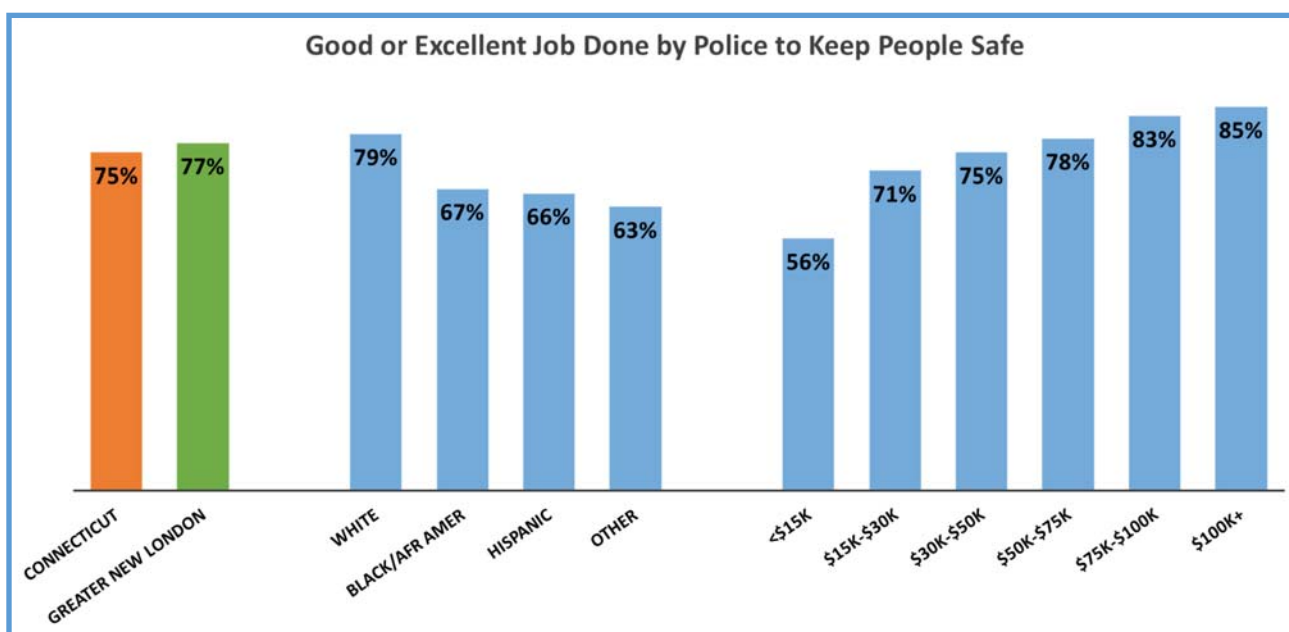


Having safe neighborhoods encourages residents to participate in a number of healthy activities, including socializing with neighbors, engaging in outdoor physical activity, and frequenting local businesses. On the flip side, when public safety is poor, residents are less likely to be outdoors in general or participate in other healthy activities. In addition, living in an unsafe neighborhood can contribute to the development of stress-related health conditions.

The total index crime rate for New London County in 2014 was 1,833.6 per 100,000 persons, slightly lower than the state rate overall. The leading crime reported, accounting for about 68% of all offenses, was larceny, or the theft of personal property. While the index crime rate has declined over the last 5 years in the county, the rate of larcenies has remained stable. Some in local law enforcement suggest that this could be related to the actions of residents struggling with addiction to heroin and other opiates who engage in theft, often from friends or family, in order to pay for drugs to feed their addictions.

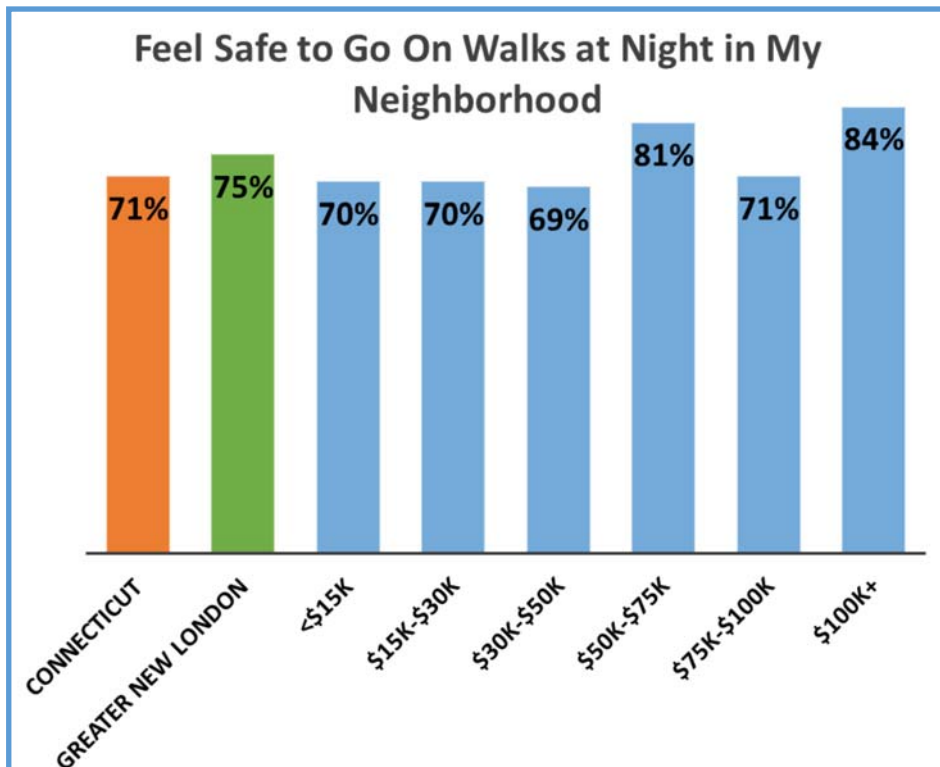
## Public Safety

In general, people in the Greater New London area feel that the police are doing a good or excellent job keeping residents safe. However, that perception is less favorable among racial minorities and people with lower incomes.



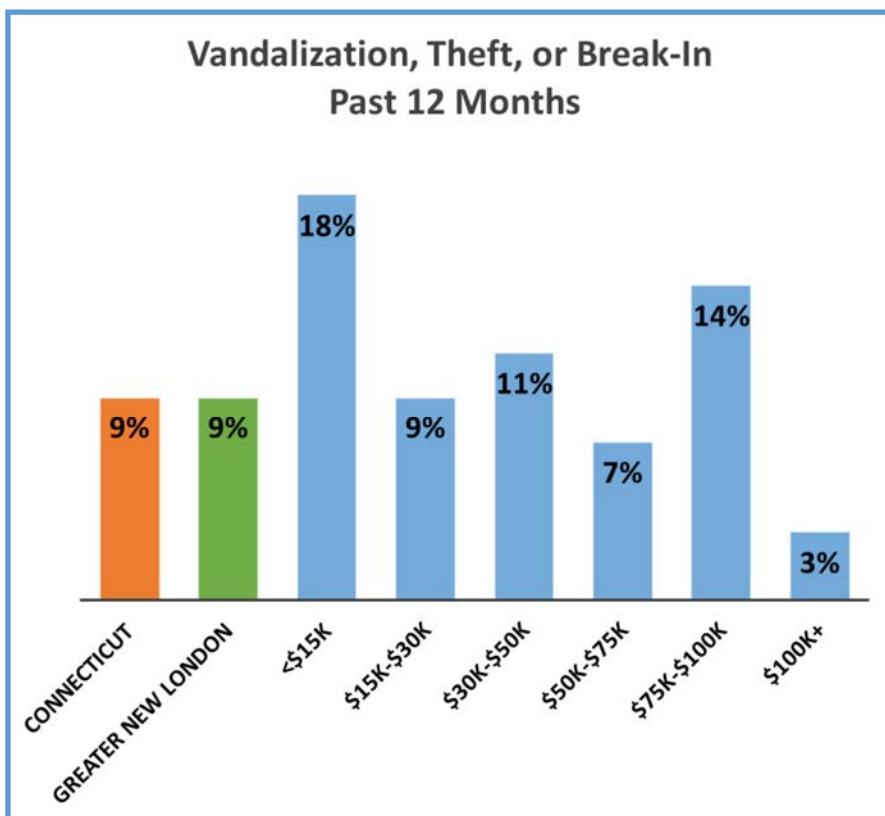
Source: 2015 Wellbeing Survey

75% of all residents in Greater New London reported feeling safe to go on walks in their neighborhood at night, slightly better than the state overall. Hispanics, however, were far less likely to report feeling safe. Disparities also exist between income groups.



Source: 2015 Wellbeing Survey

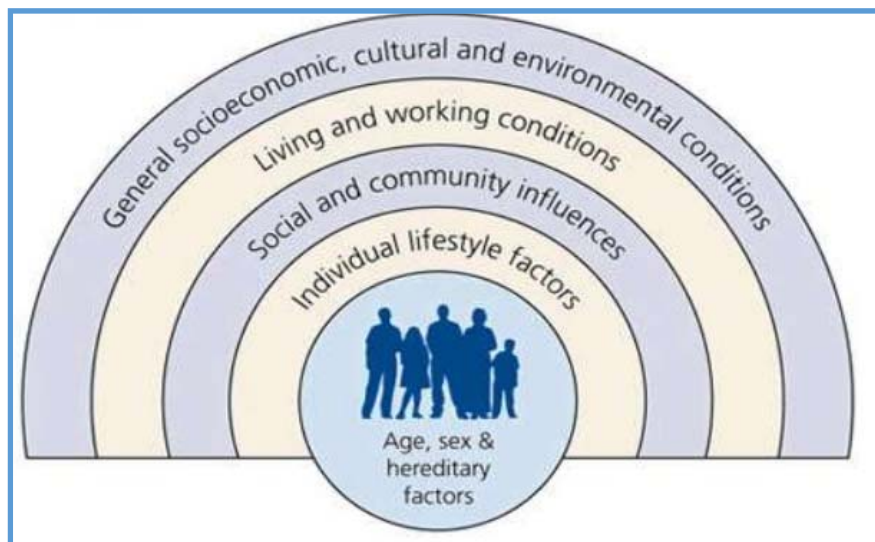
## Public Safety



Source: 2015 Wellbeing Survey

While the overall rate of experiencing vandalism, theft or break-in in the past 12 months for Greater New London is equal to the state, significant disparities exist between income groups.

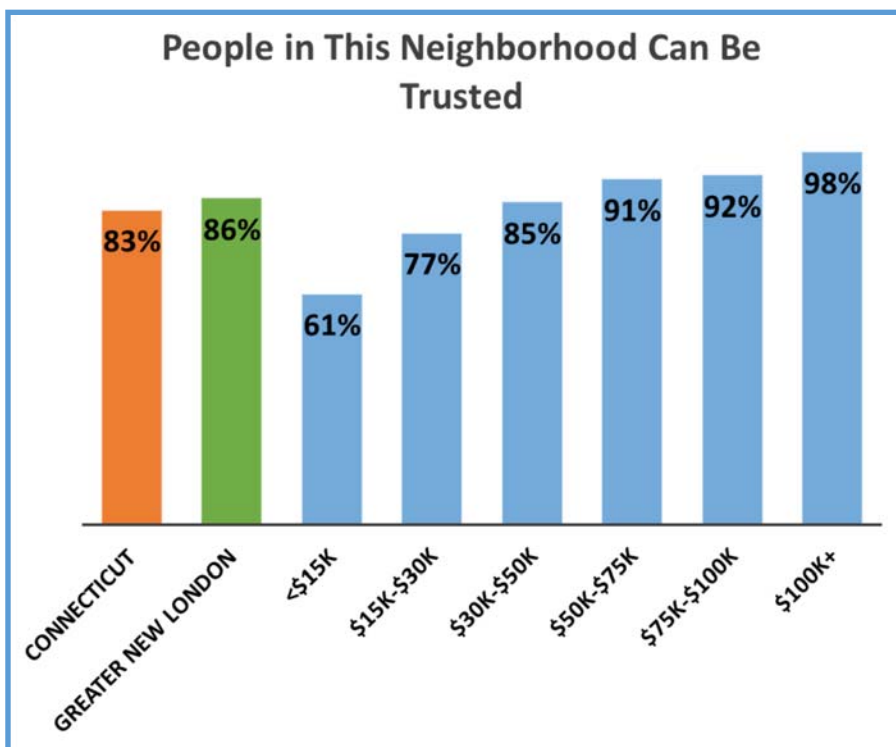
Having a strong social support system and feeling connected to a community can be a protective factor for both physical and mental health. Dahlgren and Whitehead's Social Model of Health and others hold social and community influences above individual lifestyle factors and genetics. Overall, most residents of Greater New London report they have friends or relatives they can count on for help, although the rates among Hispanics (89%) and those making less than \$15k per year (77%) were lower than among other groups.



Source: Dahlgren G, Whitehead M. 1991. Institute for Futures Studies.

Among survey respondents, there was a direct relationship between income and identifying positive role models for children in town, with only 63% of those in the lowest income bracket responding that there are role models compared with 84% of those in the highest bracket. (Wellbeing Survey)

## Social Cohesion



Substantially fewer people in the lowest income bracket reported that they trusted people in their neighborhood; this may be related to the higher rate of experiencing vandalism, theft or break-in in the past 12 months among this same group.

Source: 2015 Wellbeing Survey



# Health Systems and Access to Care

In CT, local public health departments differ significantly in size and structure. LLHD is a health district as defined in Connecticut General Statutes; the organization has a full time Director of Health and serves as the health department for the Town of East Lyme, the Town and City of Groton, the Town of Ledyard, the City of New London and the Town of Waterford. LLHD’s counterpart to the north is Uncas Health District, which counts Montville—part of the L+M primary service area and thus this report, as one of its 9 member municipalities. The other towns included in this report—Lyme, North Stonington, Old Lyme, and Stonington, have what is referred to as “part time” health departments. These stand alone health departments are incorporated into the municipal structure and, while they may have one or more full-time employees, have a part time Director of Health. In addition, the Mashuntucket Pequot and Mohegan Tribal Nations, which border the towns in the L+M service area, have their own health departments.

L+M Hospital, founded in 1912, is a 280 bed not-for-profit community hospital located in the city of New London, CT. The hospital served a total of 464,834 people in fiscal year 2015. 66.4% had government-sponsored insurance such as Medicaid, Medicare or Tricare while another 5,578 of

## Public Health and Healthcare Infrastructure

those patients treated reported to be

self-pay/uninsured. The hospital currently offers a wide range of inpatient, outpatient, and clinical services onsite, and gives back millions of dollars worth of community benefits services each year. In addition to providing outpatient and acute care services through L+M Hospital, the L+M Healthcare system includes primary and specialty care services delivered through the L+M Medical Group, the L+M Cancer Center, the Visiting Nurse Association of Southeastern Connecticut, and Westerly Hospital in southwestern Rhode Island.

A community’s public health infrastructure or system includes “all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction” (CDC). As the community hospital and one of the local health departments, L+M and LLHD constitute significant parts of the public health infrastructure in Greater New London, but the list of organizations and individuals who make up the whole is endless.

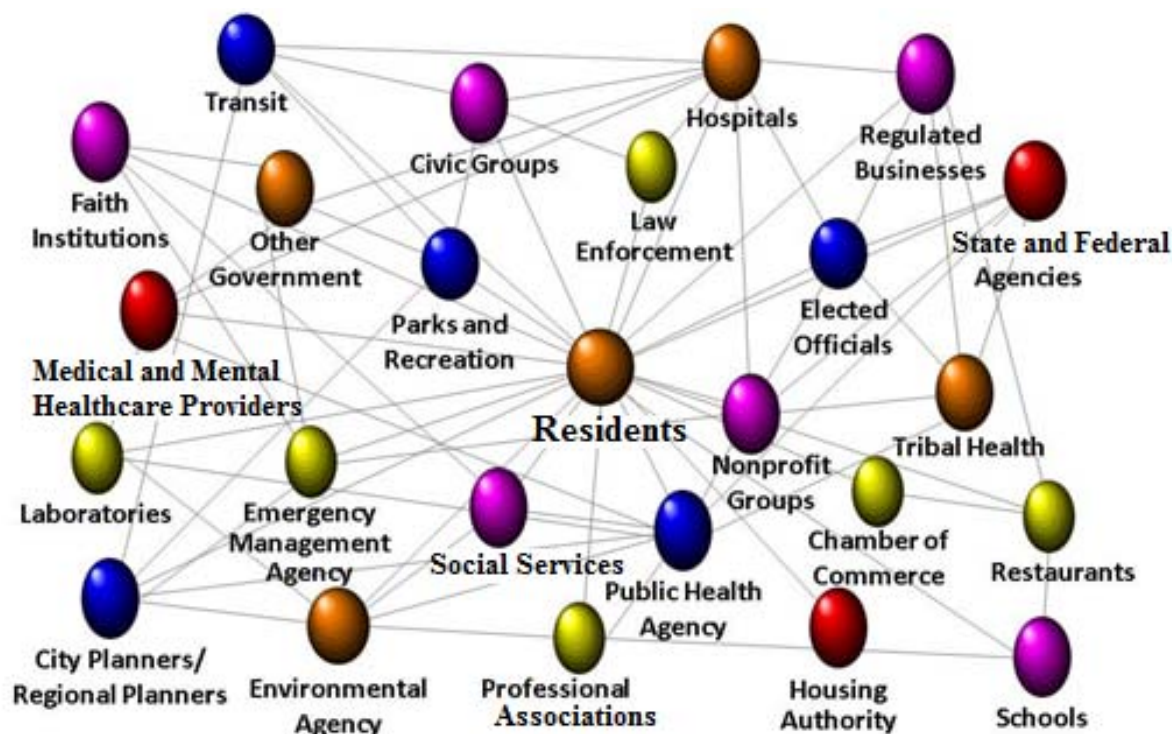
The area is served by three Federally Qualified Health Center locations—United Community and Family Services and the Groton and New London sites of Community Health Center, Inc. Both organizations provide primary and specialty care, including oral and mental health care, on a sliding fee scale to those without insurance. Together, they serve as the primary source of medical care for many of the area’s Medicaid beneficiaries.

Child and Family Agency of Southeastern Connecticut joins United Community and Family Services and Community Health Center, Inc. in providing both primary and mental healthcare to children at area schools through School Based Health Centers. These clinicians work hand in hand with school nurses and primary care providers to support the health and wellbeing of area school children.

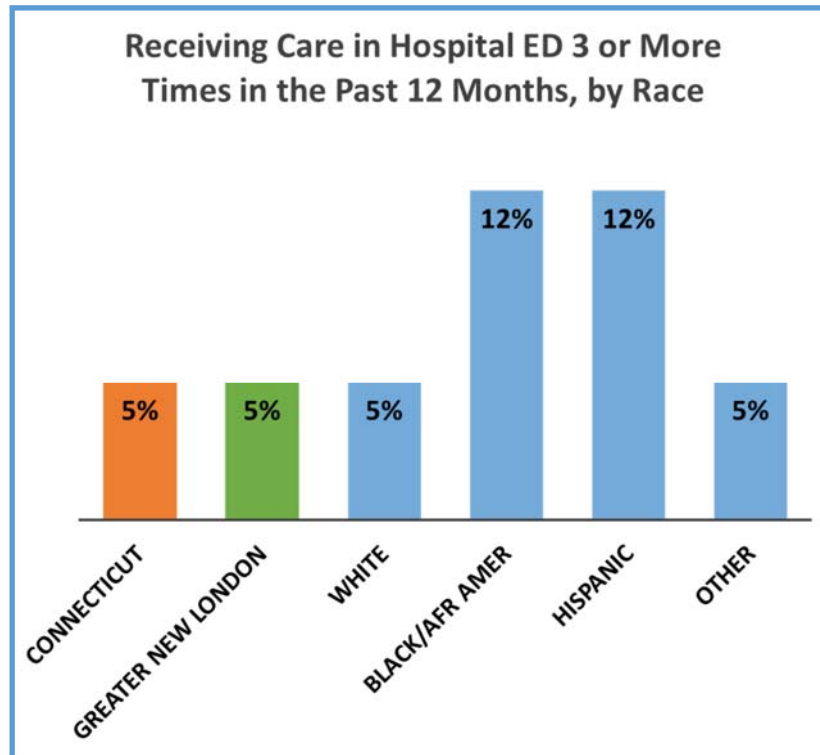
These public health and medical professionals are joined by countless social service agencies, schools, municipal departments, economic development organizations and advocacy and support groups who deliver services and support that impact health.

## Public Health and Healthcare Infrastructure

Stakeholders in the Local Public Health and Healthcare Infrastructure



Emergency Department (ED) utilization has increased dramatically in the last decade, resulting in longer wait times and a higher cost of care. Frequently these visits are for routine healthcare that would be better addressed within a community, primary care setting. Insurance status is associated with patterns of ED use and the most often cited reason for the ED visit is seriousness of medical issue, according to the National Health Statistics Report (Feb 2016). National studies have demonstrated that people living



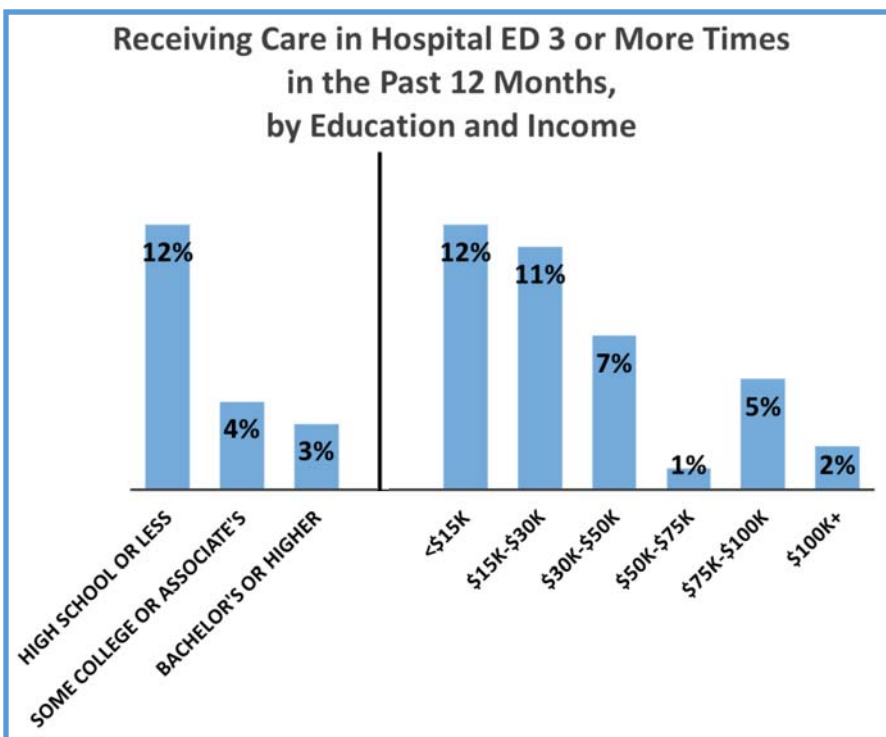
Source: 2015 Wellbeing Survey

in poverty and non-Hispanic Black and Hispanics are more likely to visit an ED more than once during a year. That disparity is evident locally, where Black and Hispanic

residents are more than twice as likely as Whites to have received care in the ED 3 or more times in the past 12 months.

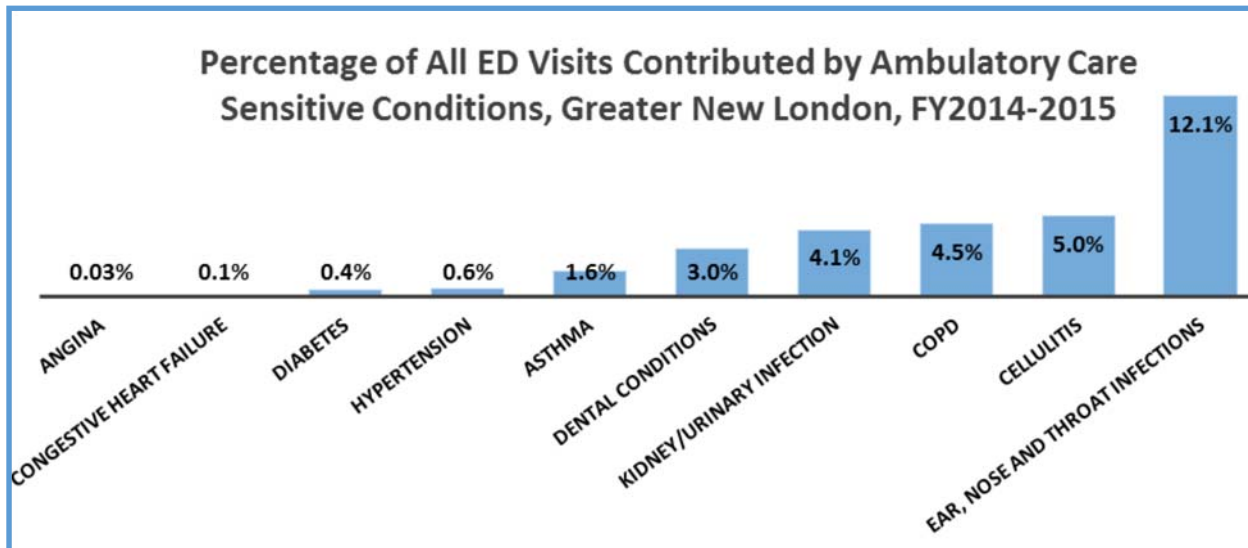
## Emergency Department Use

ED utilization is also closely linked to insurance status with Medicaid beneficiaries the most likely to have multiple ED visits. In Greater New London, frequent use of the ED decreases as education and income increase.



Source: 2015 Wellbeing Survey

At times residents access care through the emergency department for conditions that would be better addressed in another setting. In 2015, 31.5% of all ED visits by residents of Greater New London were for ambulatory care sensitive conditions—health concerns that require care but are typically not emergency situations.



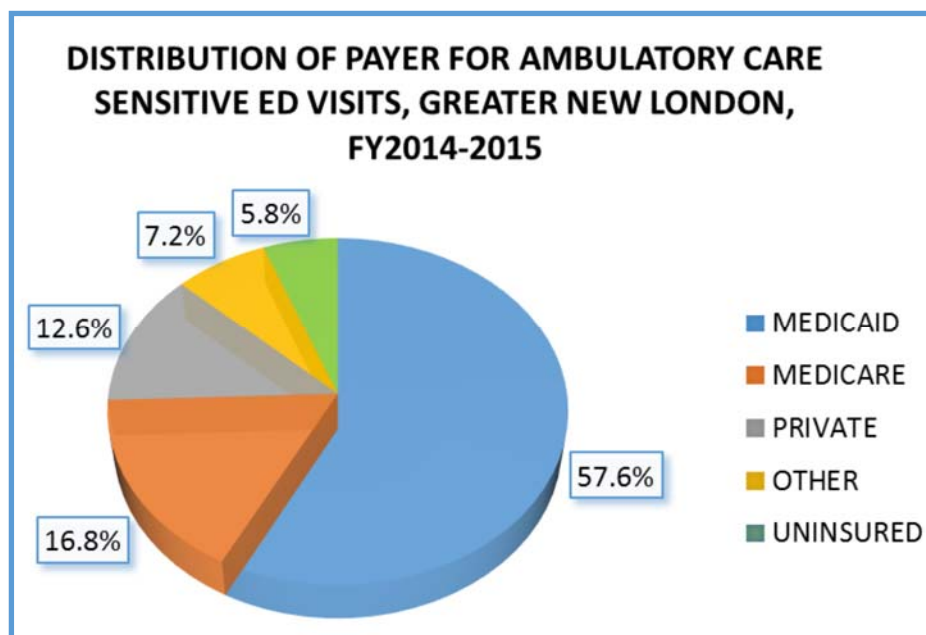
Source: Connecticut Hospital Association

## Emergency Department Use

Ear, nose and throat infections ranked as the most frequent ambulatory care sensitive condition, followed by cellulitis, COPD and kidney/urinary infection.

While some of these visits occurred during the overnight and early morning hours, 55.7% of them were between 8am and 5pm, when care is typically available in a provider’s office. The association between

insurance status and ED use is evident in the data regarding ambulatory care sensitive conditions as well; 57.6% of these visits were among Medicaid beneficiaries. The fact that so many visits occur during daytime hours and are among this group could be indicative of local Medicaid beneficiaries having difficulties accessing primary care services.

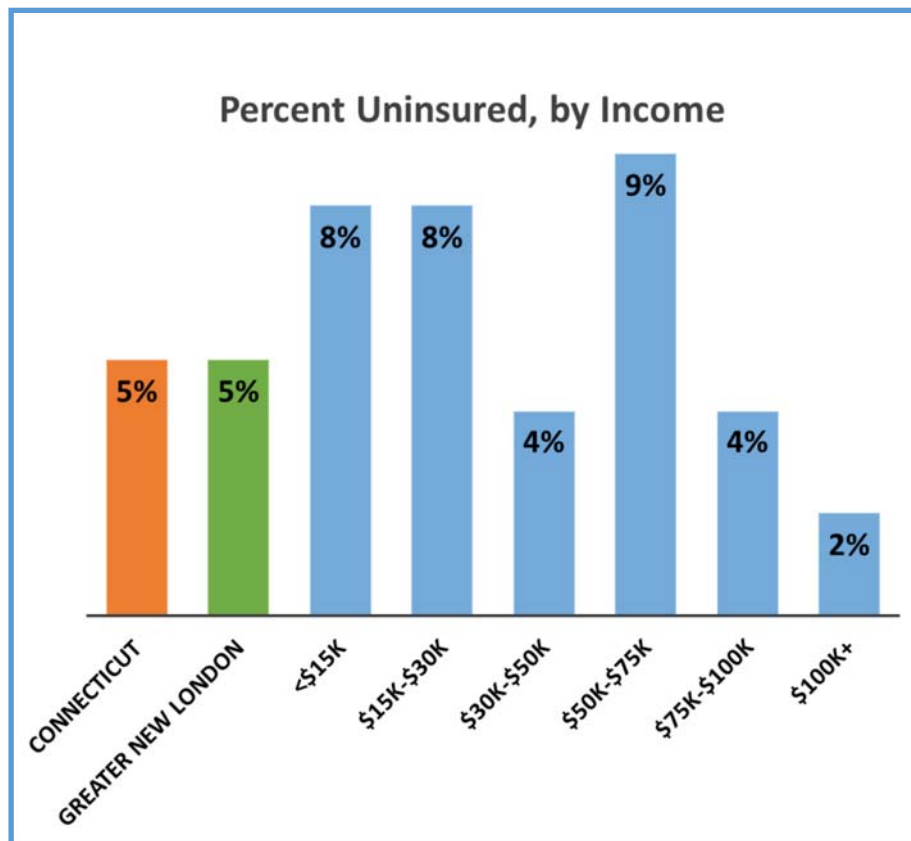


Source: Connecticut Hospital Association



Having health insurance is one important part of accessing quality healthcare. In the fall of 2015, following the implementation of the Affordable Care Act but before the first tax penalties for lack of insurance were assessed, 5% of residents in Greater New London reported being uninsured.

That rate was higher among those making



Source: 2015 Wellbeing Survey

## Health Insurance

under \$30,000 per year and among those making \$50,000-\$75,000. Residents in lower income brackets are less likely to have access to employer-sponsored plans but may make too much to qualify for Medicaid coverage.

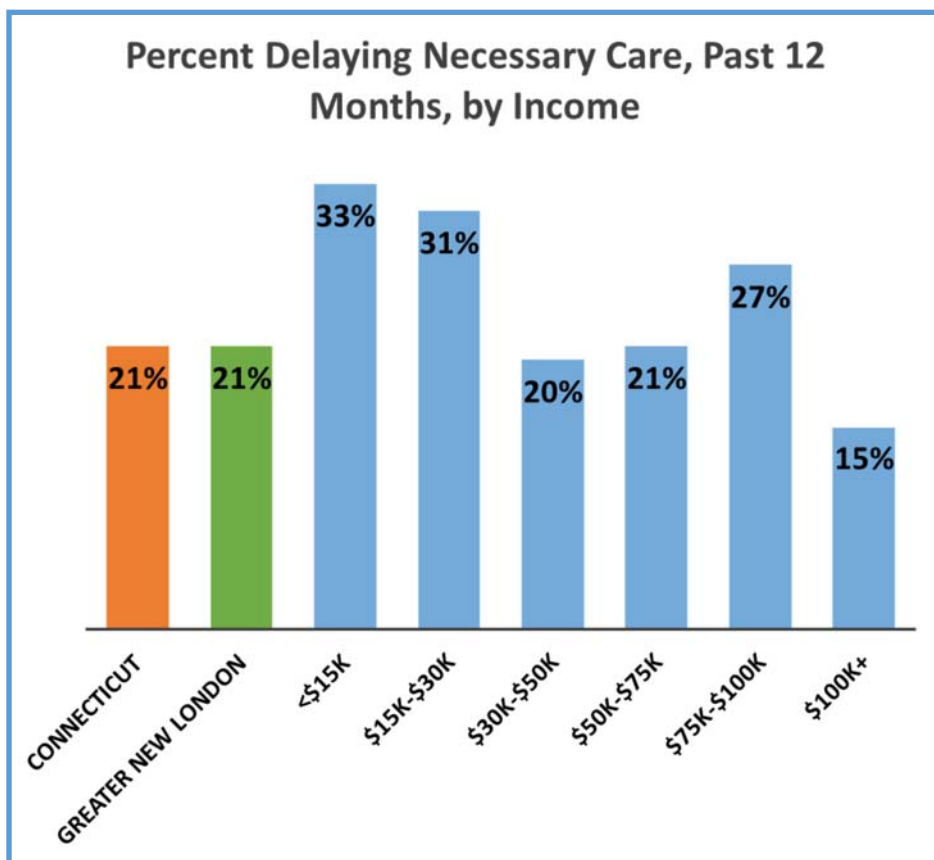
In 2016, approximately 8,700 parents across the state will lose Medicaid eligibility; a University of Massachusetts study estimated that out-of-pocket costs for these residents, who make 138-155% of the federal poverty level, will increase by \$1,200 a year (Connecticut Health Foundation).

This disparity may, unfortunately, increase in coming years as recent changes to the income caps for Medicaid qualification in Connecticut are rolled out. In 2015, one group of parents lost Medicaid eligibility and in 2016, a second, larger group will lose Medicaid when their transitional benefits expire. The CT Department of Social

Services has reported that of those who did not continue to be eligible for Medicaid, only 27% enrolled in a qualified health plan through Access Health CT; 44% of those who did enroll experienced a gap in coverage (Connecticut Health Foundation).

Possessing health insurance does not guarantee access to healthcare. There remain numerous barriers to care which result in individuals not getting the healthcare that they need, postponing necessary care, or needing to sacrifice other basic needs in order to get care. Barriers to care are more pronounced among those in the lower income categories, are associated with insurance status, cost of care, and availability of care at convenient times, and can be insurmountable. Access to medical specialists (orthopedics, gastroenterology, dermatology and others) for lower income and publicly insured individuals is particularly limited locally. Medical provider cultural competence also impacts access to care for people for whom language, literacy, sexual orientation, gender identity, and/or personal history (past trauma, domestic violence, previous negative experiences with medical providers, etc.) are factors. Impaired access often results in delayed care leading to an exacerbation of chronic conditions, increased ED use and hospitalizations, and premature mortality.

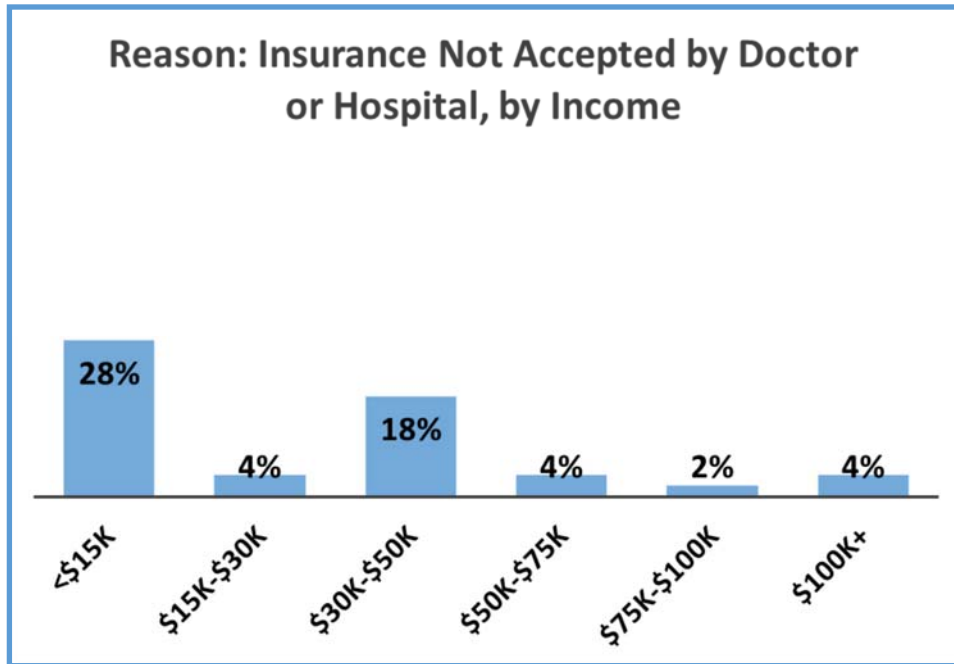
## Barriers to Care



According to the 2015 Wellbeing Survey, one-third of respondents with incomes below \$15,000 indicated that in the last 12 months they delayed receiving necessary care.

Source: 2015 Wellbeing Survey

Respondents who indicated they delayed care were asked if they did so because their insurance was not accepted by a doctor or hospital. More than a quarter of the <\$15,000 income group responded that they had. Availability of medical providers, particularly

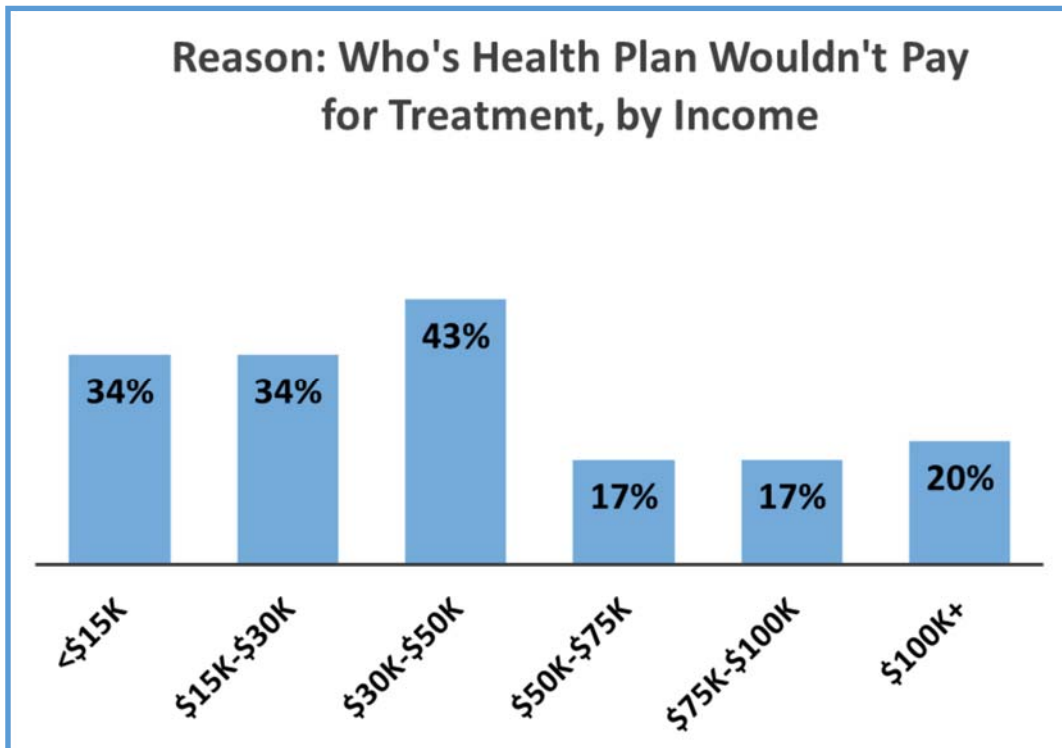


Source: 2015 Wellbeing Survey

providers of specialized care, that will accept uninsured or publicly insured patients is limited in the region. Individuals with public insurance report long wait times for appointments with the providers that do accept their coverage.

## Barriers to Care

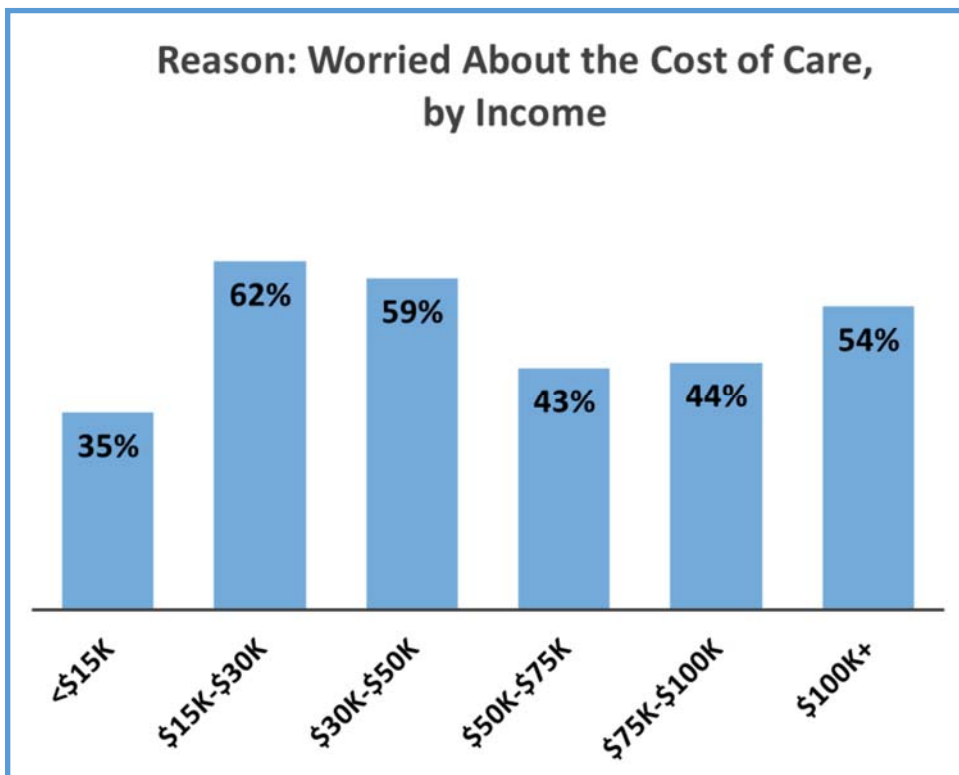
Yet another barrier to care has to do with insurance plan coverage, or lack thereof, of certain



Source: 2015 Wellbeing Survey

treatments. More than 1 in 3 residents in the lowest income groups reported that they did not receive treatment because their insurance would not cover it.

Among those who said they delayed necessary care, concern about cost of care was a evident among all income categories with a slightly higher percentage among the \$15,000 to \$50,000 income categories and slightly lower concern cited in the lowest income category. This may be associated with people transitioning



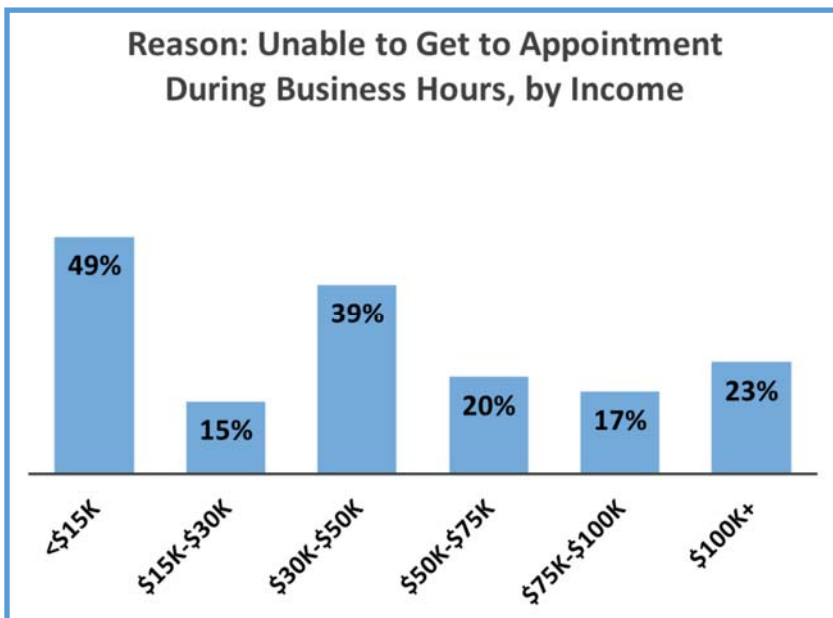
Source: 2015 Wellbeing Survey

### Barriers to Care

from Medicaid to high-deductible health insurance plans (and related increases in out-of-pocket costs) as their income increases above the Medicaid eligibility cap.

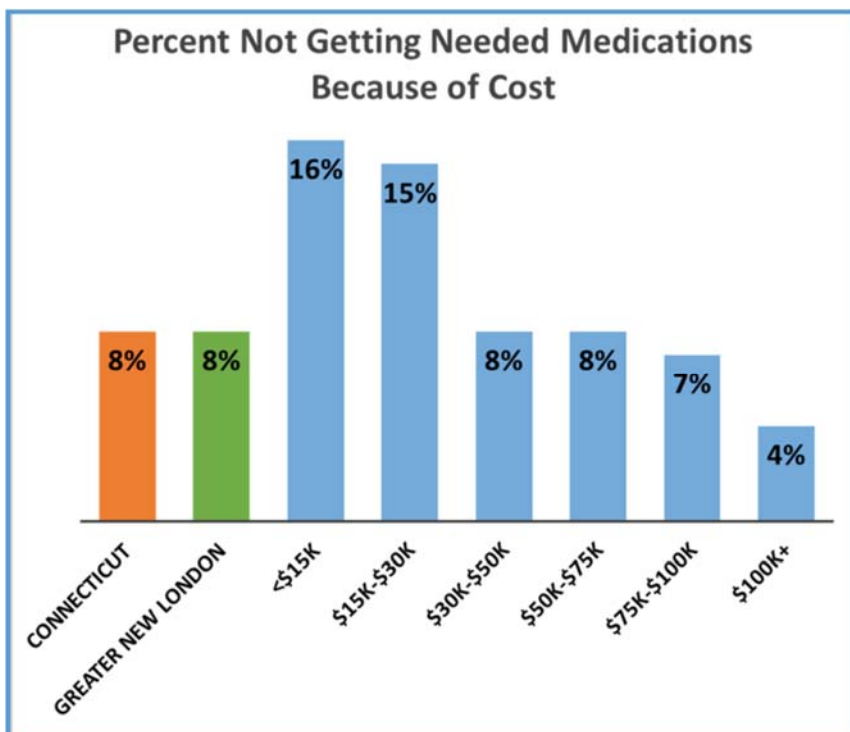
Modern economic realities require many to work multiple jobs in order to provide for their families. In addition, lower wage workers typically have jobs that allow less flexibility in schedules and don't provide paid time off for medical appointments. Both of these factors make scheduling

healthcare appointments challenging even as providers have begun to make evening and weekend appointment times available.



Half of Wellbeing Survey respondents in the <\$15,000 income group who said they delayed necessary care indicated that they did so due to an inability to attend an appointment during business hours.

Source: 2015 Wellbeing Survey



Even those who don't delay care may face barriers to complying with medical directives. The cost of prescriptions was cited by 1 in 6 respondents to the Wellbeing Survey in the  $\leq \$15,000$  and  $\$15 - \$30k$  income categories as a reason for not getting necessary medications. Deductibles, co-payments, and limited health insurance formularies often dictate whether individuals can or will obtain prescribed medications. These can pose

Source: 2015 Wellbeing Survey

## Barriers to Care

considerable economic strain and, as cited in focus groups, result in people making choices between other basic needs such as food, rent, electricity and their medications.

Patient nonadherence to a medical provider's care plan can have a significant impact on the individual's health as well as ultimately resulting in higher costs of care. It is important for healthcare systems and providers to understand the many intersecting barriers their patients experience in order to appreciate reasons for missed appointments and inconsistent adherence to care plans. Contributing factors include misunderstanding instructions, forgetting, or ignoring healthcare advice in addition to costs, beliefs, attitudes, subjective norms, cultural context, social supports, and emotional health challenges.

Patients must be given the opportunity to tell the story of their unique illness experiences and their financial, housing, transportation and social support situations. Knowing the patient as a person allows the health professional to understand elements that are crucial to the patient's adherence. Provider-patient partnerships are essential in designing care plans; mutual collaboration fosters greater patient satisfaction, reduces the risks of nonadherence, and improves patients' healthcare outcomes.

With a significant coastline and several potential targets for terrorism, southeastern Connecticut faces both manmade and naturally occurring public health threats. An emergency or act of terrorism at one of the local military installations, the Millstone Nuclear Power Plant in Waterford or one of the local Casinos could mean the emergency treatment and/or sheltering of thousands. The potential for significant destruction and widespread evacuation caused by a hurricane or other storm increases with each year as climate change results in shifting weather patterns and rising sea levels.

L+M Hospital, LLHD and Uncas Health District have deep staff capacity in emergency preparedness and regularly participate in regional planning meetings and drills with other partners. LLHD and Uncas Health District each have a Medical Reserve Corps (MRC) - a group of volunteers, some of whom are medical professionals, who train and prepare to respond to public health emergencies.

In 2015, the LLHD MRC organized an Epi-Strike Team, which went door-to-door in select

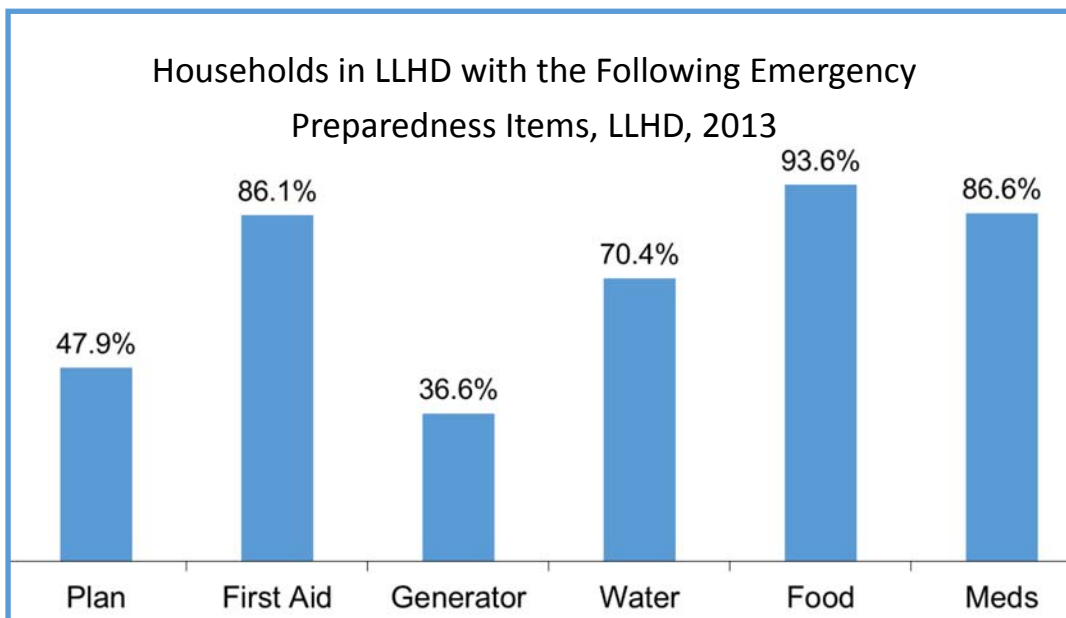
neighborhoods in the region surveying residents about their households' level of preparedness.

## Emergency Preparedness

The neighborhoods were selected to provide a statistical representation of the region using the CASPER Model from CDC.

85.7% of households in LLHD consider themselves "somewhat" or "well prepared" for an emergency. Only 47.9% report having an emergency plan and only 70% report having water for

everyone in the household for 3 days.

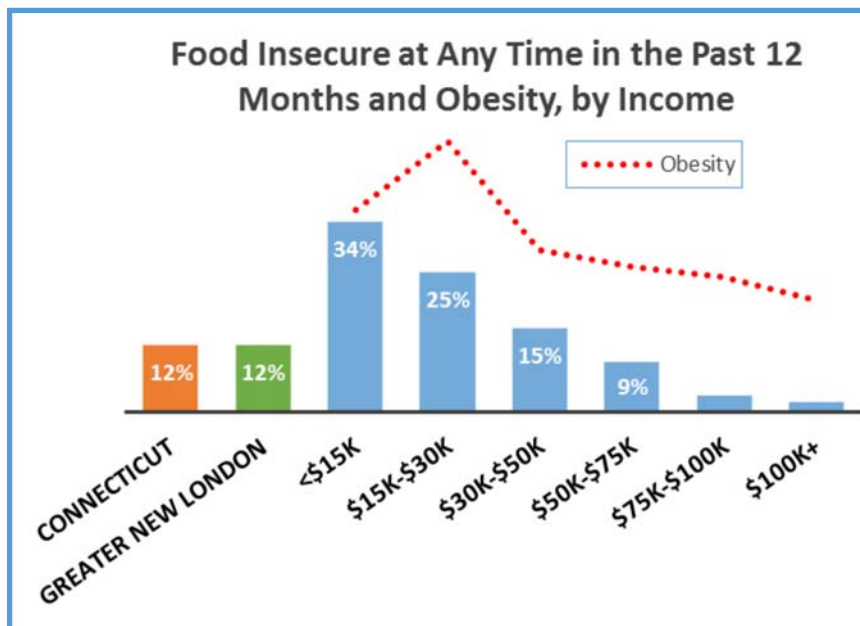


Source: 2015 Wellbeing Survey



# Chronic Disease

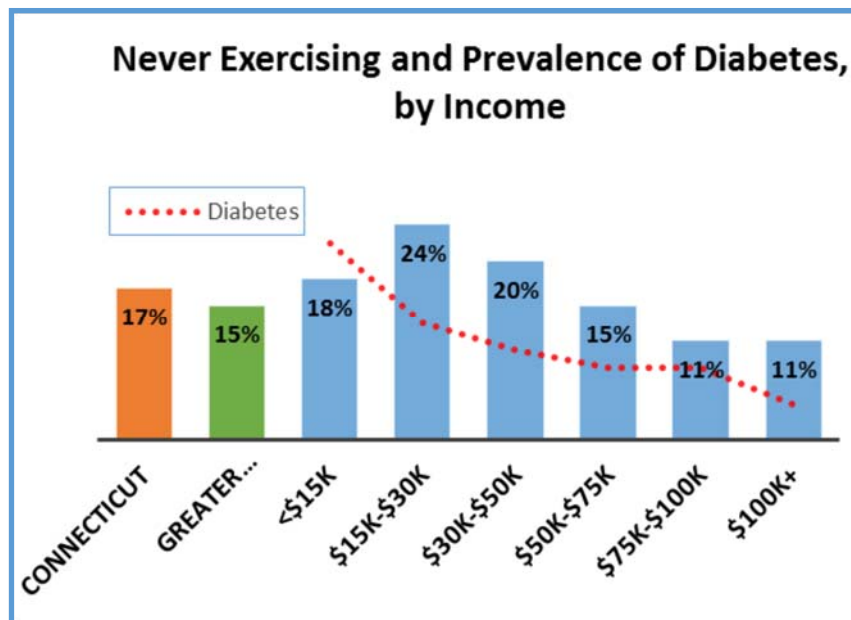
Having inadequate food resources is a risk factor for obesity that disproportionately affects low income residents. The apparent correlation between food insecurity and obesity as seen in Greater New London does not imply causality; they may be instead independent consequences of low income and the resulting lack of access to enough affordable nutritious food or stresses of poverty.



Source: 2015 Wellbeing Survey

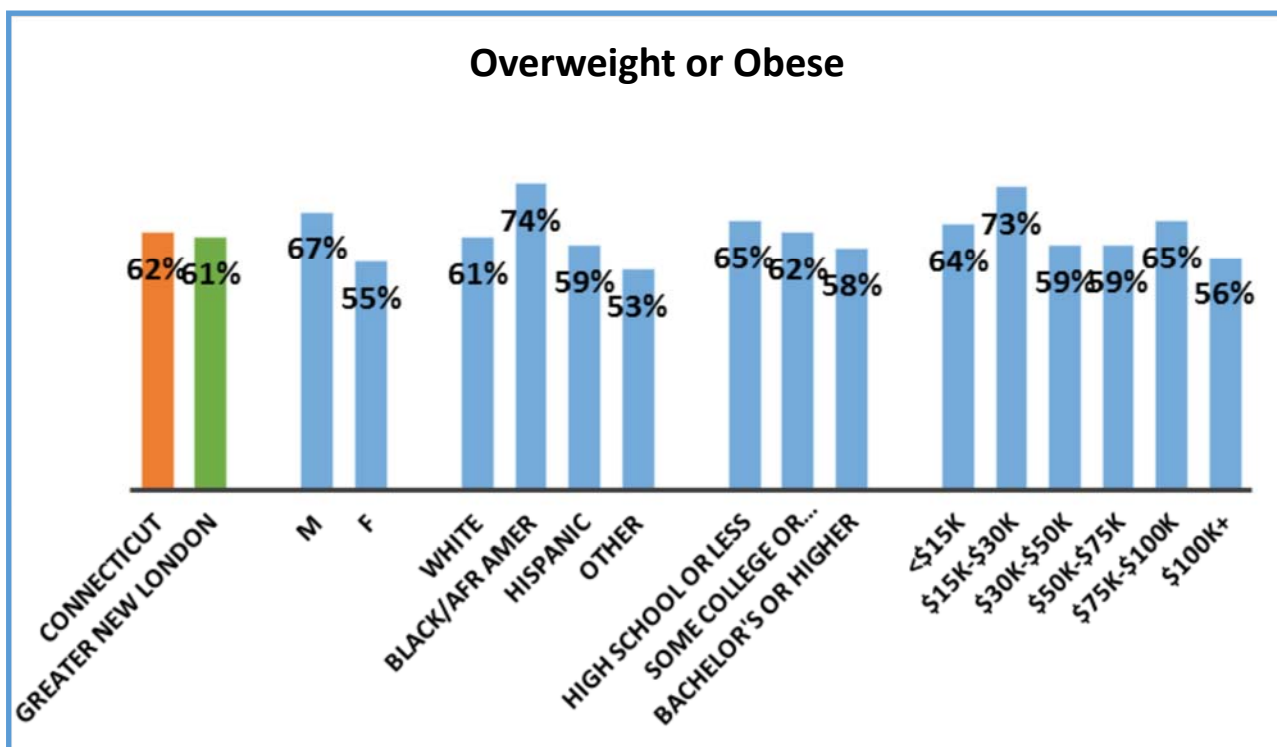
## Risk Factors: Sedentary Lifestyle, Nutrition and Obesity

According to the Harvard School of Public Health, about 90% of type 2 diabetes diagnoses could be prevented if just a few risk factors were eliminated. These risk factors include being overweight, poor diet, smoking, and not exercising. In Greater New London, there is an apparent correlation between never exercising and the prevalence of diabetes. Again, this correlation does not imply causality—they may also be independent consequences of low income and the resulting lack of access to enough nutritious food, safe recreational opportunities, or stresses of poverty.



Source: 2015 Wellbeing Survey





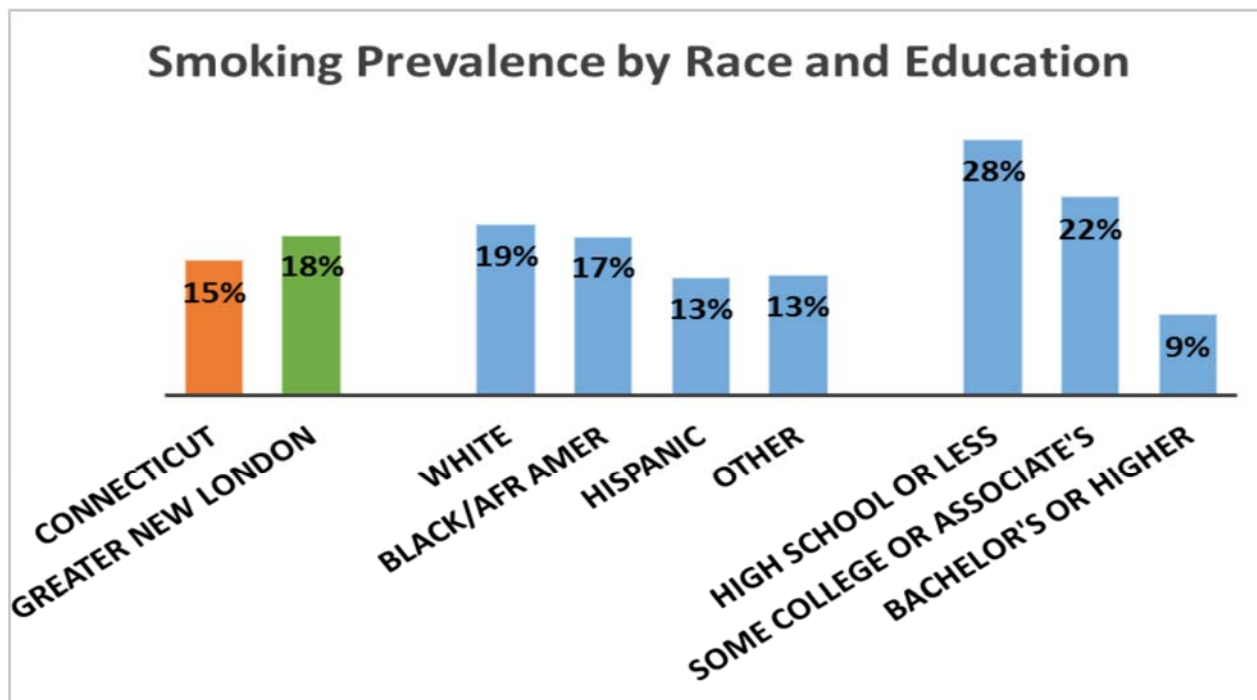
Source: 2015 Wellbeing Survey

## Risk Factors: Sedentary Lifestyle, Nutrition and Obesity

CDC states that “people who are obese, compared to those with a normal or healthy weight, are at increased risk for many serious diseases and health conditions, including...all causes of death”. Obesity impacts health outcomes from cardiovascular disease

and diabetes to mental health. It carries a heavy economic strain through direct costs related to increased use of the healthcare system to indirect costs like lower productivity in the workplace. Obesity has even been cited as a potential national security issue, with increasing numbers of potential military recruits failing to meet the military’s standards for weight and body fat. In the 2013 Youth Risk Behavior Survey, 13.9% of respondents in CT were overweight and 12.5% obese. There may be several intersecting factors contributing to obesity in the community—including individual genetics and behavior but also inequitable access to affordable healthy food and safe opportunities for physical activity.

In Greater New London, reported obesity is on par with the state with certain sub-populations experiencing higher percentages. Well over half of the population is overweight or obese; higher obesity among the lower income categories may be correlated with limited access to affordable healthy foods. (Wellbeing Survey)

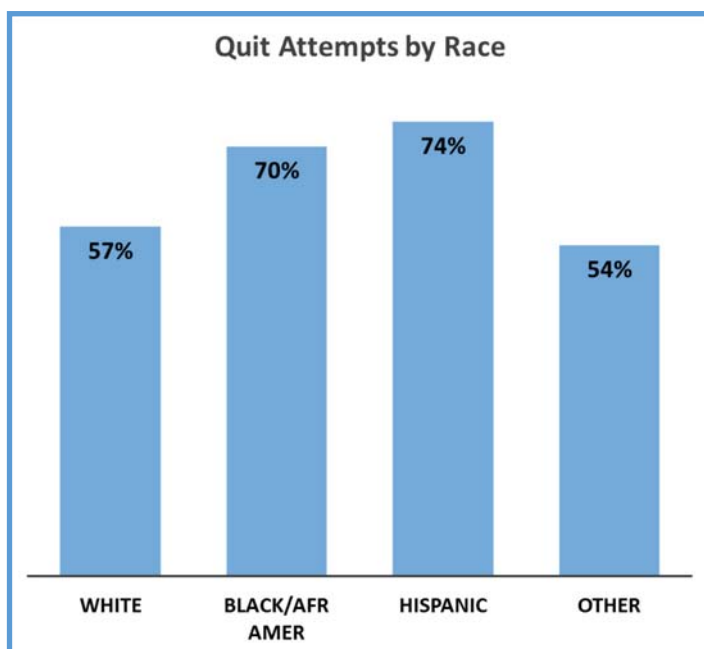


Source: 2015 Wellbeing Survey

## Risk Factor: Tobacco Use

According to CDC, tobacco use remains the single largest preventable cause of death and disease in the United States. Cigarette smoking kills more than 480,000 Americans each year, with more than 41,000 of these deaths occurring from

The smoking rate in Greater New London is higher than in the state overall. There are disparities related to race, education and income. (Wellbeing Survey)

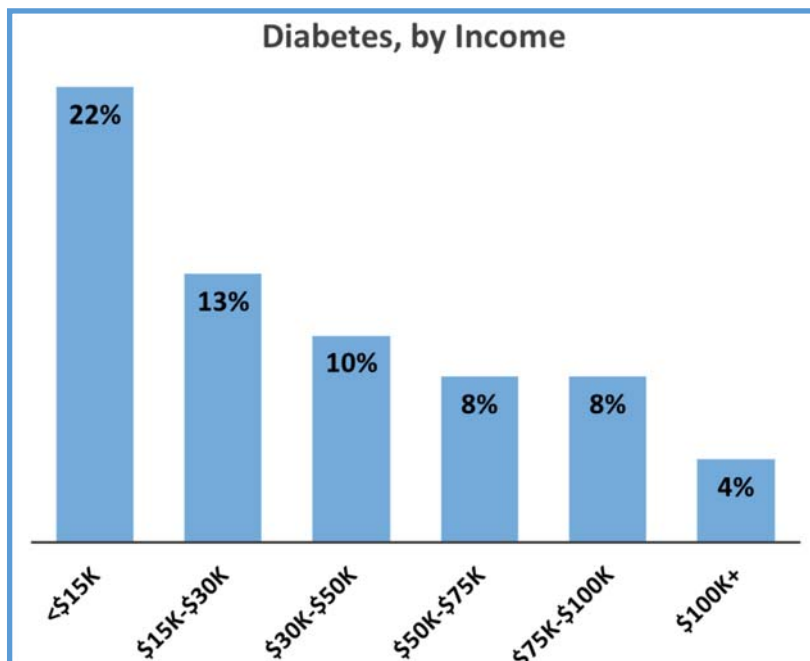


Source: 2015 Wellbeing Survey

exposure to secondhand smoke. In CT, tobacco use is the top cause of heart disease.

Quitting tobacco use has benefits at any age but more if tobacco use is stopped before age 35. On average, smokers make 8-11 quit attempts before success. In Greater New London, there is an apparent association between quit attempts and smoking prevalence with disparities between racial groups; Hispanics have the highest rate of quit attempts and the lowest rate of smoking.

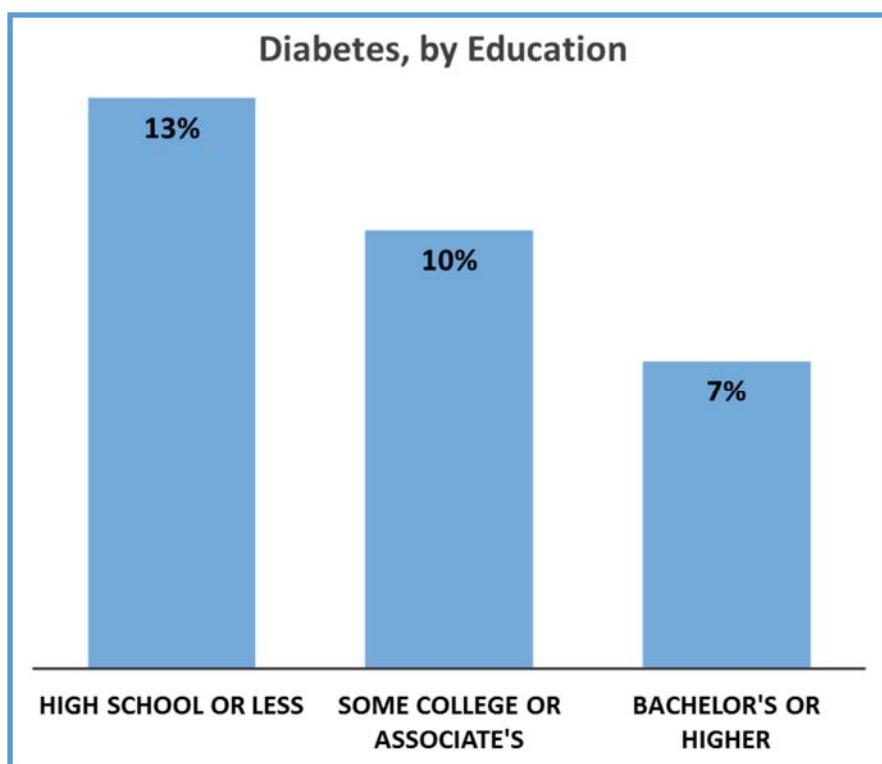
Diabetes affects an estimated 23.6 million people in the United States and is the seventh leading cause of death (CDC). Diabetes can be preventable. Often type 2 diabetes is preceded by pre-diabetes, a condition in which blood glucose is elevated but not yet to the level of diabetes. Regular exercise and modest (5-7% of total body weight) weight loss can dramatically reduce the risk of pre-diabetes progressing to diabetes.



Source: 2015 Wellbeing Survey

## Diabetes

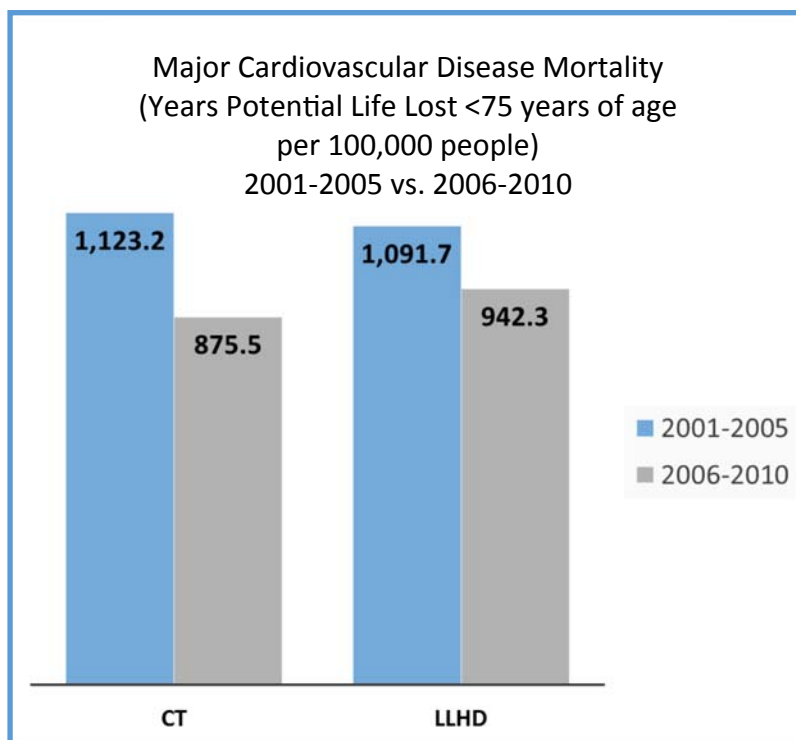
Overall, diabetes prevalence in Greater New London is on par with the state's. However, significant disparities exist by income, race and education. Those in the lowest income



categories have experienced the greatest increase in diabetes incidence as well as the most significant impact of the disease. With higher rates of risk factors such as sedentary lifestyle and limited access to healthy foods for lower income individuals, the Wellbeing Survey results are not surprising. National studies have documented correlations with the risk factors to diabetes among those with less formal education.

Source: 2015 Wellbeing Survey

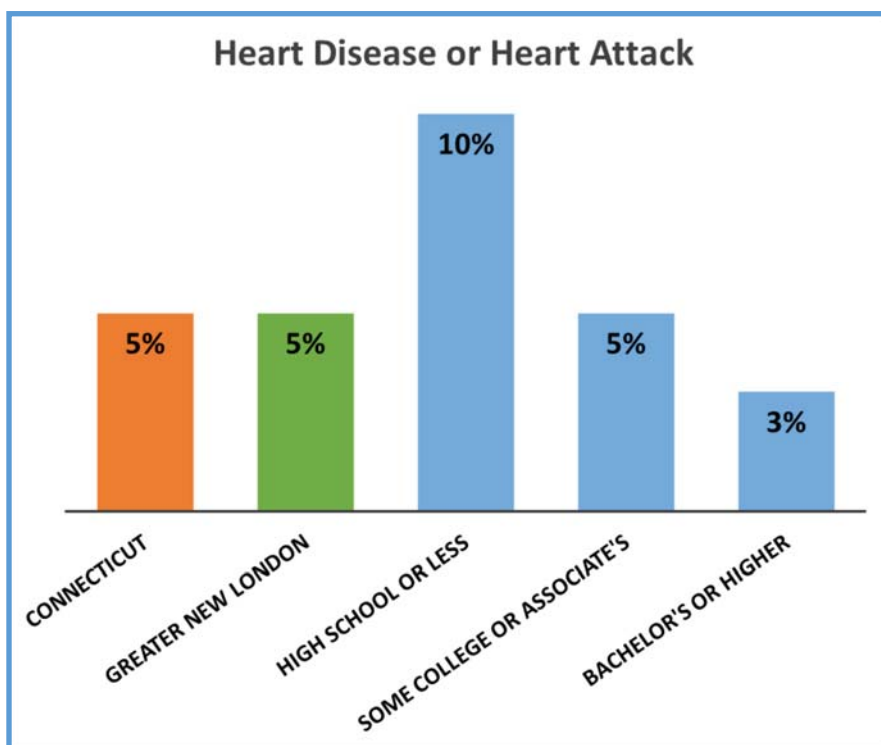
Cardiovascular disease is the leading cause of death for both women and men in the United States. Cardiovascular disease includes several conditions that affect the heart and blood vessels including heart failure, stroke, coronary artery disease, heart attack, and other conditions. Having high blood pressure, high cholesterol, diabetes, or obesity presents high risk for cardiovascular disease. Most cardiovascular



Source: CT DPH

## Cardiovascular Disease

diseases can be prevented by addressing behavioral risk factors such as lack of exercise, poor diet including high consumption of salt, smoking, and excessive alcohol consumption. In the last five years death from major cardiovascular disease decreased in CT; LLHD towns have not kept pace and now rates locally exceed those in CT.



In Greater New London, residents with a high school education or less have experienced heart attack or heart disease at double the rate of the general population. (Wellbeing Survey)

Source: 2015 Wellbeing Survey

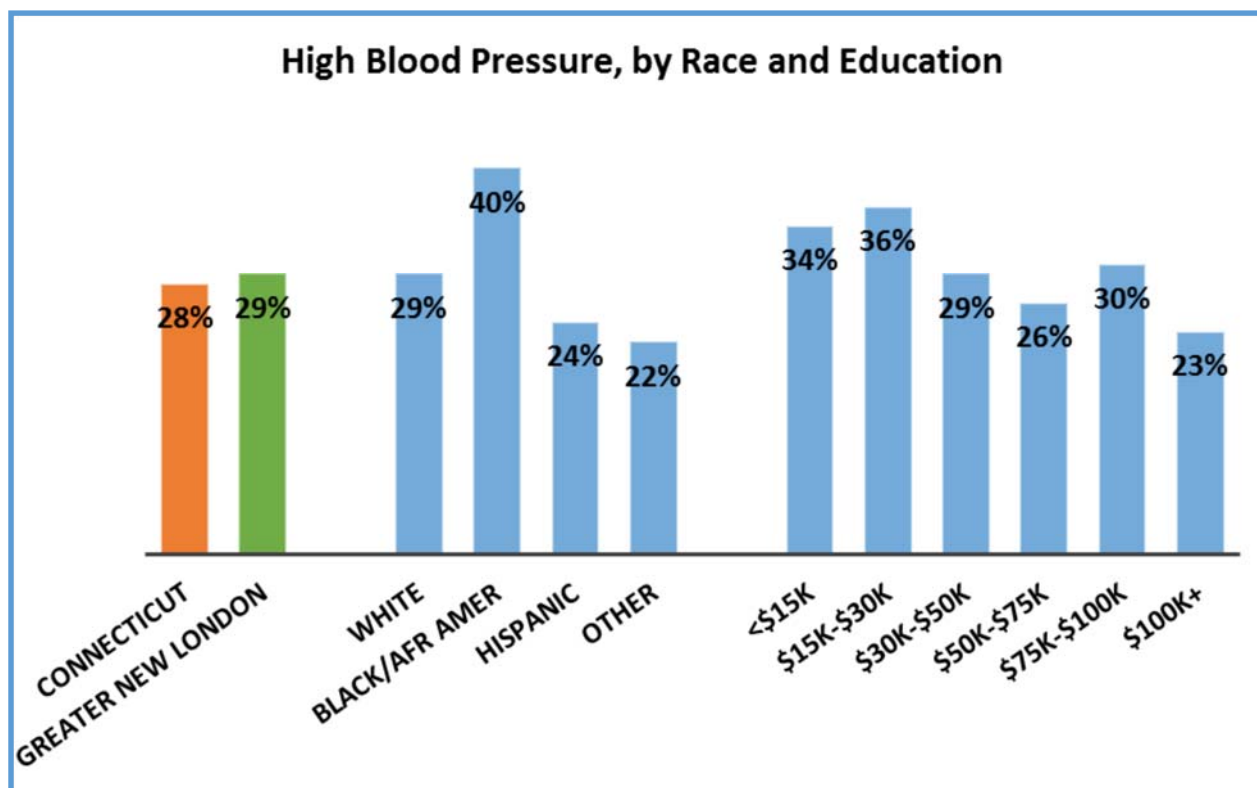
Hypertension, or high blood pressure, is a leading cause of cardiovascular disease and affects nearly one third of U.S. adults. Causes of high blood pressure include behavioral factors as well as environmental and social determinants.

According to CDC, 1 out of every 3 adults in the U.S. have high blood pressure and only about half have their condition under control. Another 1 in 3 American adults have pre-hypertension, defined as blood pressure that is elevated above normal but not yet in the high blood pressure range.

Racial and ethnic disparities exist in blood pressure, awareness, treatment, and control. Locally, disparities are evident by age and income as well.

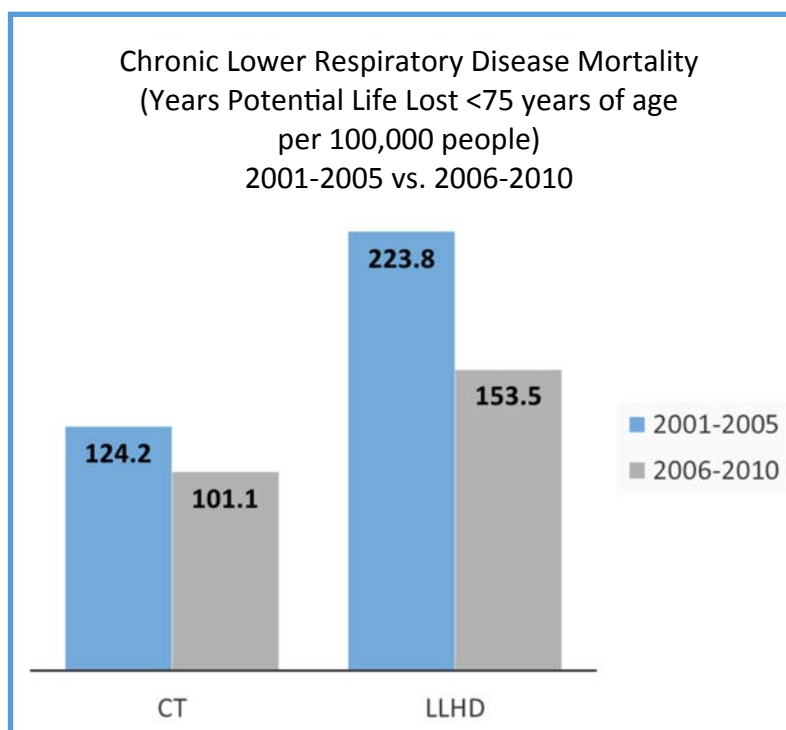
In Greater New London, 40% of Black respondents to the Wellbeing Survey report having been told by a doctor that they have high blood pressure.

## Cardiovascular Disease



Source: 2015 Wellbeing Survey

Chronic Lower Respiratory Disease (CLRD) includes three diseases: chronic bronchitis, emphysema and asthma, all of which cause airflow blockage and breathing problems. According to CDC, CLPD is the third leading cause of death in the U.S. In LLHD, from 2001-2010, CLRD mortality rates were 1.5 times the state rate.



Source: 2015 Wellbeing Survey

## Chronic Lower Respiratory Disease

Chronic Obstructive Pulmonary Disease (COPD) is used to refer to a subset of the diseases encompassed in the CLPD grouping—chronic bronchitis and emphysema. These disease are often co-occurring. The primary cause of COPD is cigarette smoking however air pollution, chemical fumes, dust, and genetic factors may also contribute. According to the CT Behavioral Risk Factor Surveillance Survey, the risk of COPD is significantly greater for adults over 55 years old, adults in low-income households earning less than \$35,000 annually, adults with disabilities, and adults with no more than a high school education.

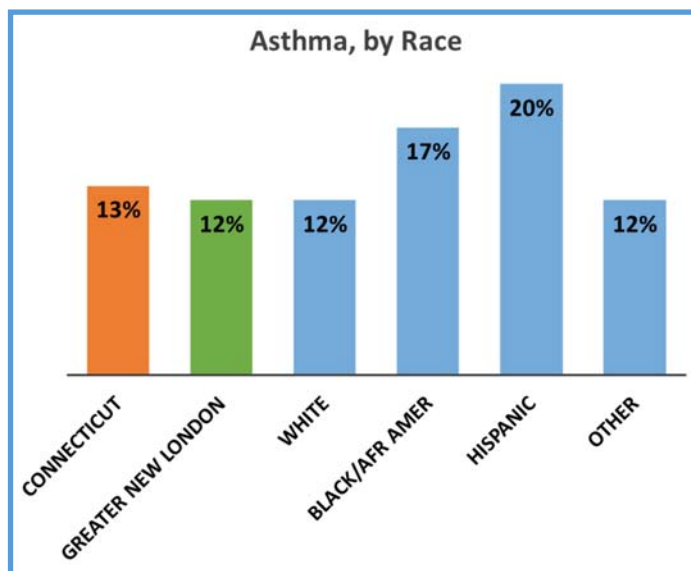
Calendar Year	Total Cases	Total Deaths	Mortality Observed
2012	521	9	1.73%
2013	526	13	2.48%
2014	588	14	2.40%
2015	643	16	2.50%

L+M Hospital  
Inpatients with a Discharge Diagnosis of COPD

Source: L+M Hospital

Both the total number of cases and the mortality rate from COPD among patients at L+M Hospital have been increasing in recent years.

The third disease included in the CLPD grouping is asthma. Far too many area children and adults have poorly managed asthma resulting in missed days of school and work, high use of acute healthcare services for treatment, and a generally degraded quality of life. Both pediatric and adult asthmatics and their caregivers possess gaps in knowledge and comprehension around recognizing environmental triggers, asthma signs and symptoms, and medication and inhaler/spacer use. A persistent health concern, rates in Greater New London and across the nation are significantly higher among Blacks and Hispanics. Socioeconomic status is a critical

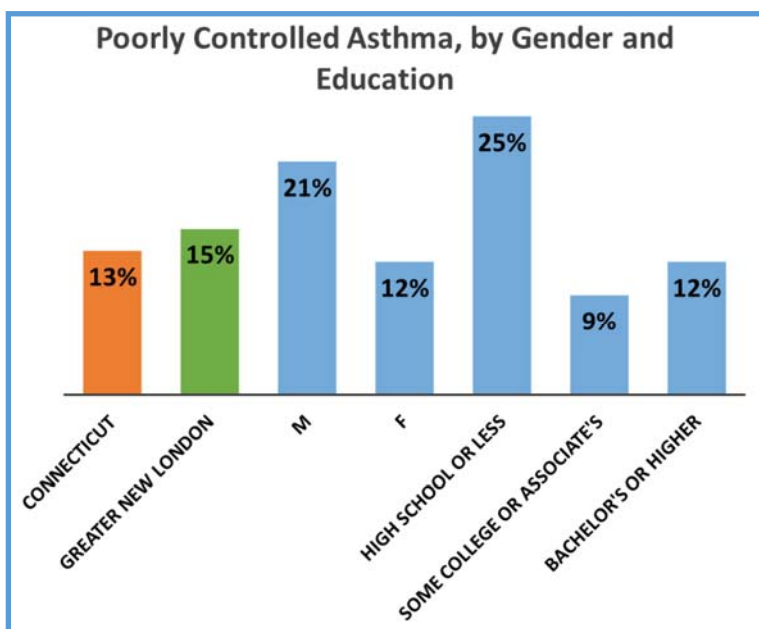


Source: 2015 Wellbeing Survey

**Asthma** determinant of differences in asthma prevalence and severity and race and ethnicity are strongly correlated with socioeconomic status.

Males were more likely to report poorly controlled asthma in Greater New London than females. There is not

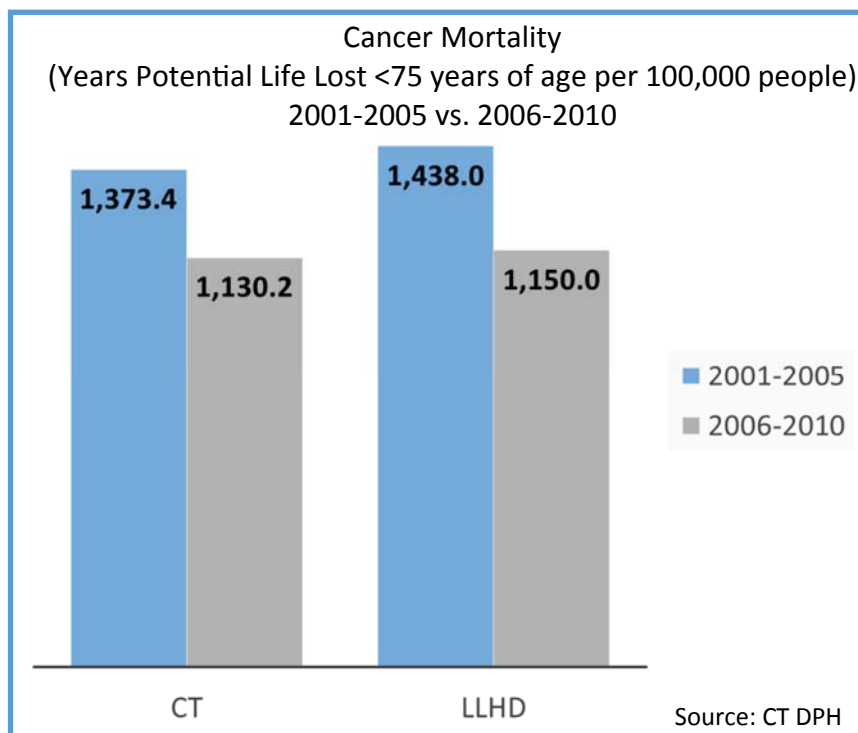
Asthma is a particular concern in area schools, where children with uncontrolled asthma miss classroom and recreational time. In the New London School District, 21% of enrolled students have a diagnosis of asthma. Asthma Management Plans, important asthma control tools, are dramatically under-utilized; only 1% of students in New London School District have one on file. (CT DPH)



Source: 2015 Wellbeing Survey

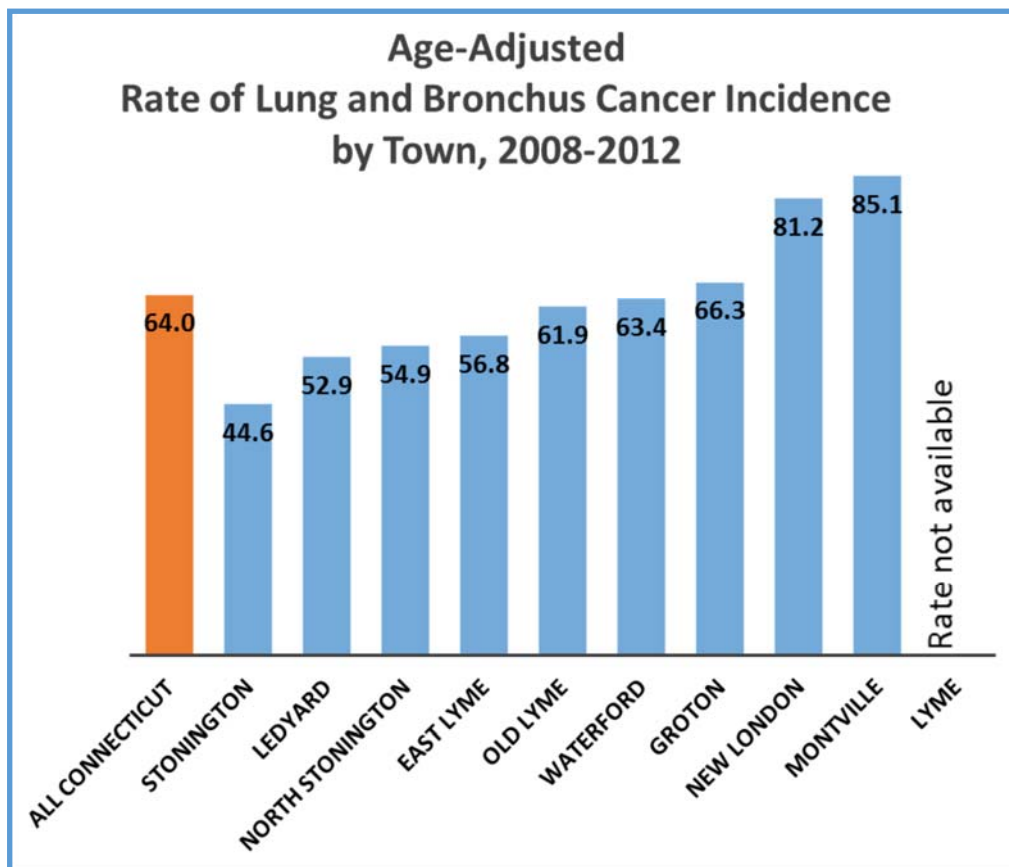
conclusive evidence to support a connection between gender and asthma control but there is for education, as a social determinant, and as correlated with risk factors such as smoking and poor quality housing . 25% of residents with less education report poorly controlled asthma.

Cancer is the second leading cause of death in CT; despite decreases in incidence and mortality rates and improvements in survival from the most common cancers, concerning disparities persist for some CT residents. Cancer related deaths in LLHD are roughly on par with the state but have decreased slightly in last 5 years.



## Cancer

In CT and in Greater New London, lung and bronchus cancer is the second most frequently diagnosed cancer.

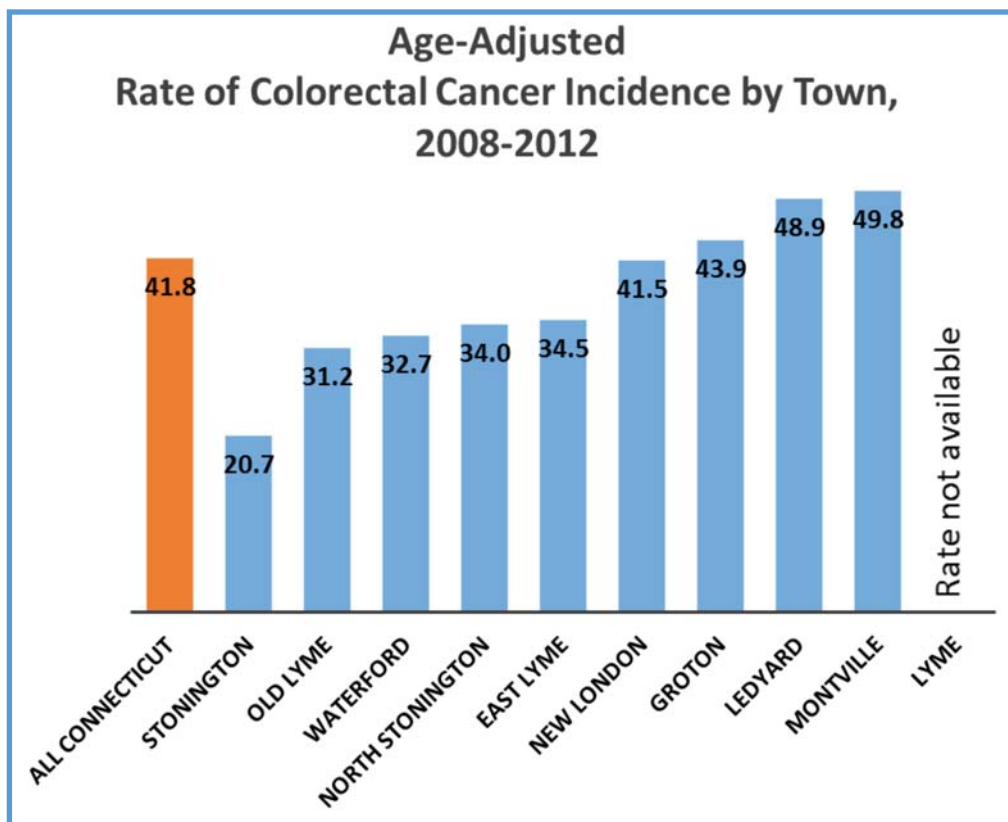


The top two risk factors for lung and bronchus cancer are smoking and radon. In Greater New London, where tobacco use exceeds the CT rate and the risk of radon exposure is high, the rate of lung cancer exceeds the CT rate in three communities.

Source: CT DPH



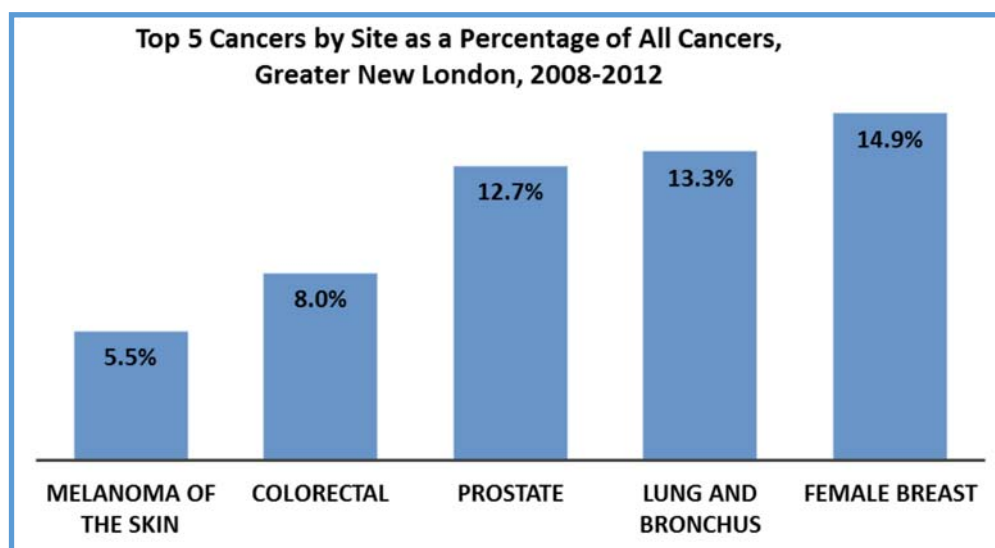
Colorectal cancer incidence rates in CT and in Greater New London are on par with national rates, however there are racial and gender related differences in mortality. Women more than men and Blacks more than other racial groups are more likely to die from colorectal cancer, possibly due to differences in access to screening services and in quality of care.



Source: CT DPH

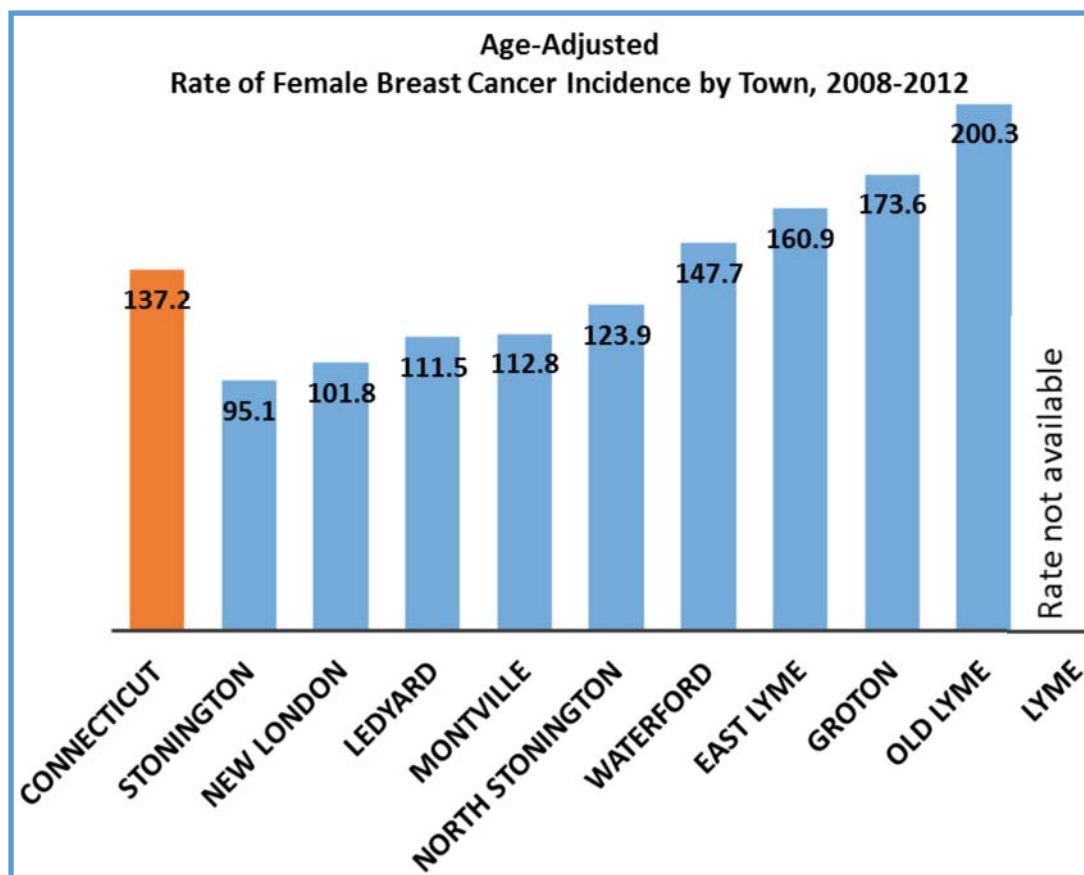
## Cancer

The top five cancers diagnosed in Greater New London between 2008 and 2012 were female breast, lung and bronchus, prostate, colorectal, and melanoma of the skin, together accounting for over



half of all cancer diagnoses. Both the order and proportions are similar to the state overall, though bladder cancer is more frequently diagnosed than melanoma across the state.

Source: CT DPH



Source: CT DPH

## Cancer

The National Cancer Institute estimates that 1 in 8 women will

develop breast cancer in their lifetime. Breast cancer incidence rates in CT are higher than in the U.S. but mortality rates are lower. Higher rates of breast cancer are correlated with higher socioeconomic status. Several risk factors for breast cancer are more common among women with higher income including delayed child bearing and bearing fewer children, using birth control pills and/or menopausal hormone therapy, and drinking alcohol. Racial disparities are evident in breast cancer mortality, particularly among Black women who are more frequently diagnosed at a later stage of cancer.

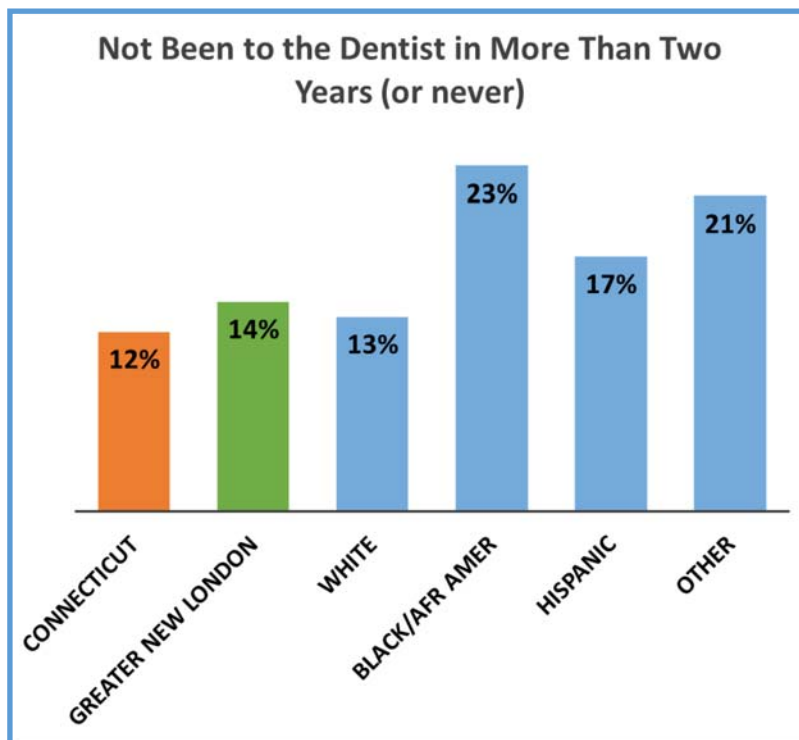
Except for skin cancer, prostate cancer is the most common cancer among American men. Most prostate cancers grow slowly and don't cause any health problems in men who have them. The rate of prostate cancer in CT is higher than in the U.S., with a higher incidence and rate of mortality among Black men.

The higher rates of diagnosed breast cancer and prostate cancer in some towns in the region may reflect a number of factors, including increased access to screening.

In Southeastern CT, rates of female breast cancer in East Lyme, Groton, Old Lyme and Waterford exceed the state rate. In East Lyme, Ledyard and Old Lyme rates of prostate cancer exceed the state rate.

(CT DPH)

Oral health is an essential component of overall good health and well-being. There is growing evidence that oral infections may increase the risk of heart disease, may put pregnant women at greater risk of premature delivery, and can complicate control of blood sugar for people with diabetes.

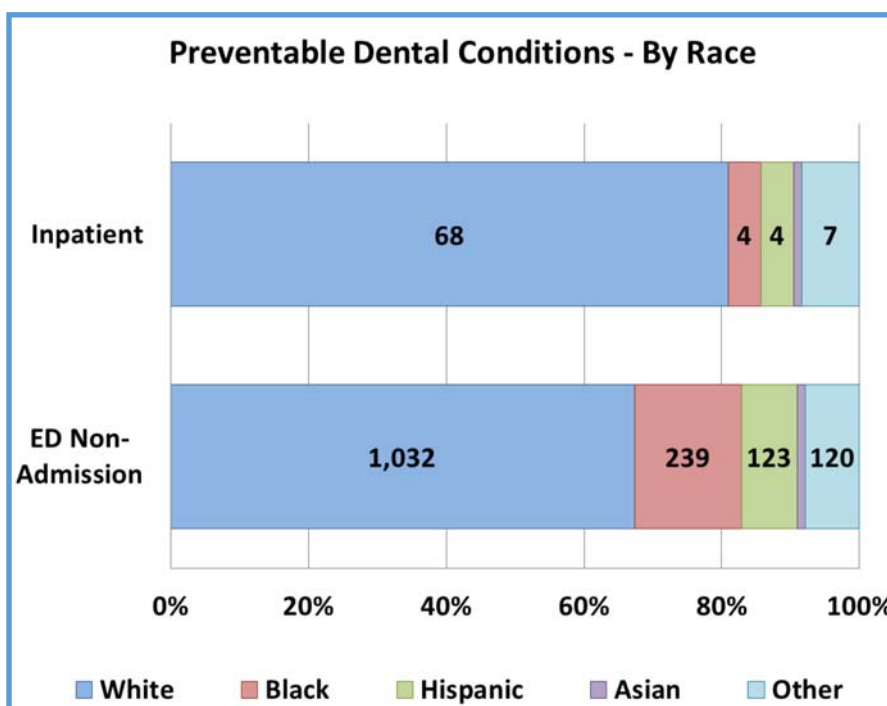


Source: 2015 Wellbeing Survey

## Oral Health

In the Wellbeing Survey, 1 in 4 Blacks reported not having been to a dentist in more than 2 years or never having been.

The American Dental Association reports that most dental ED visits are for non-traumatic dental conditions which would be more appropriately treated in a community dental setting. ED visits for



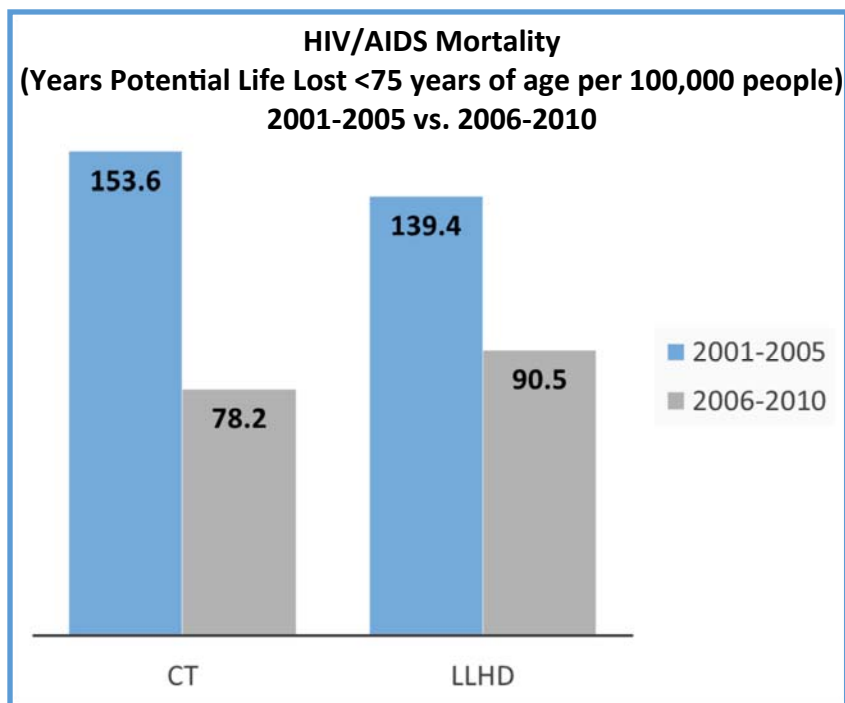
dental conditions are increasing, driven primarily by decreases in private dental insurance coverage among young adults combined with significant reductions in adult dental Medicaid programs, making accessing dental offices financially difficult for some. In Greater New London, ED visits for dental conditions disproportionately affects Hispanics, Blacks, and those of "other" races.

Source: CT Hospital Association



# Infectious Disease

Identification, prevention, and reduction of mortality from HIV infections is a national goal, with several related Healthy People 2020 objectives. Between the five year periods from 2001-05, and 2006-10, mortality from HIV/AIDS dropped in LLHD and the state of CT overall. While mortality from HIV/AIDS in LLHD used to be lower than the state, that has since reversed, with mortality now being higher in LLHD compared to the state. Still, the trend towards lower mortality is clear, and efforts should be made to



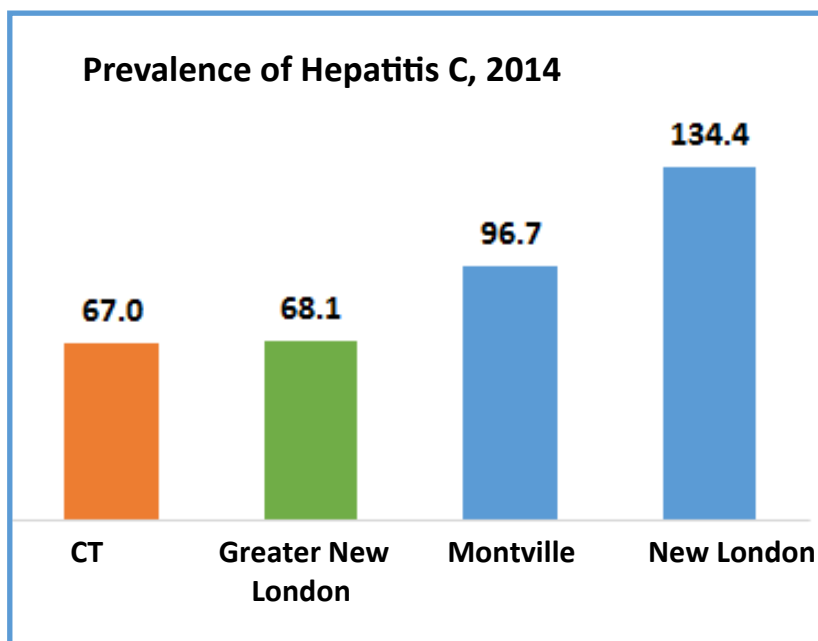
Source: CT DPH

continue that trend.

## HIV/AIDS and Hepatitis

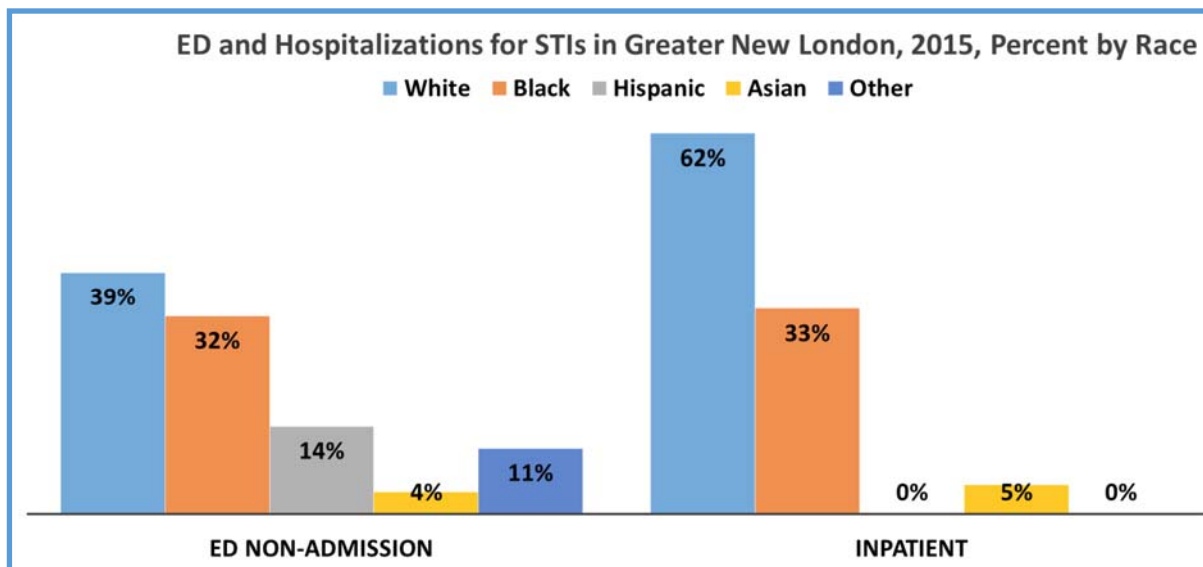
Hepatitis C is a viral infection that can result in serious health outcomes such as liver disease and even death. It is now most often transmitted through the sharing of needles during drug use, but was historically transmitted during routine medical procedures using donated blood and blood

products before screening of the blood supply was implemented in 1992. Hepatitis C and HIV/AIDS share some of the same risk factors for infection and there is a high co-infection rate.



In 2014, New London and Montville had higher rates of Hepatitis C infections than the state overall. (CT DPH)

Source: CT DPH



Source: CT Hospital Association

Because all sexually transmitted infections (STIs) are preventable, and most are curable with appropriate treatment, hospital utilization for these infections should be entirely avoidable. In the Greater New London area, that is approaching the truth, with fewer

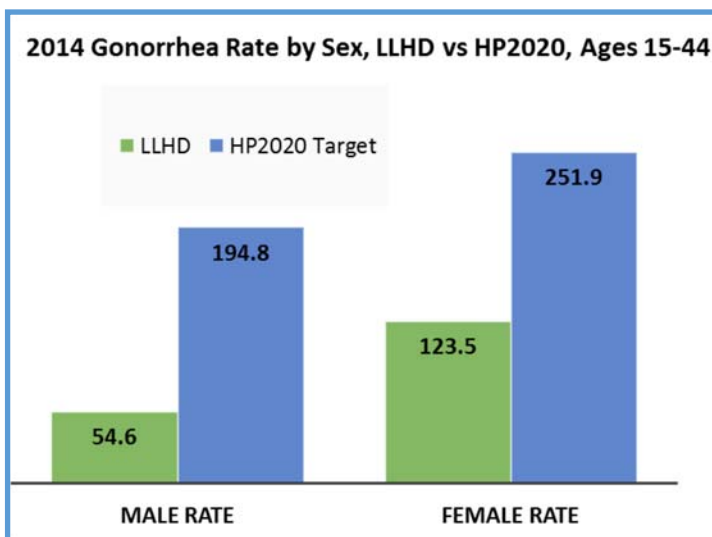
than 50 hospital encounters in 2015. Still, racial disparities exist. Though Blacks make up 5.5% of the population of the Greater New London area, they

accounted for 32% of emergency department visits and 33% of hospitalizations for STIs.

## Sexually Transmitted Infections

Gonorrhea is a very common sexually transmitted infection. Anyone who is sexually active can get gonorrhea, but it is most often found in people between 15-24 years old. In LLHD, the rate of gonorrhea infections is already below the Healthy People 2020 target for both men and women. Sometimes men, and often women, will not show any symptoms from the infection. Occasionally,

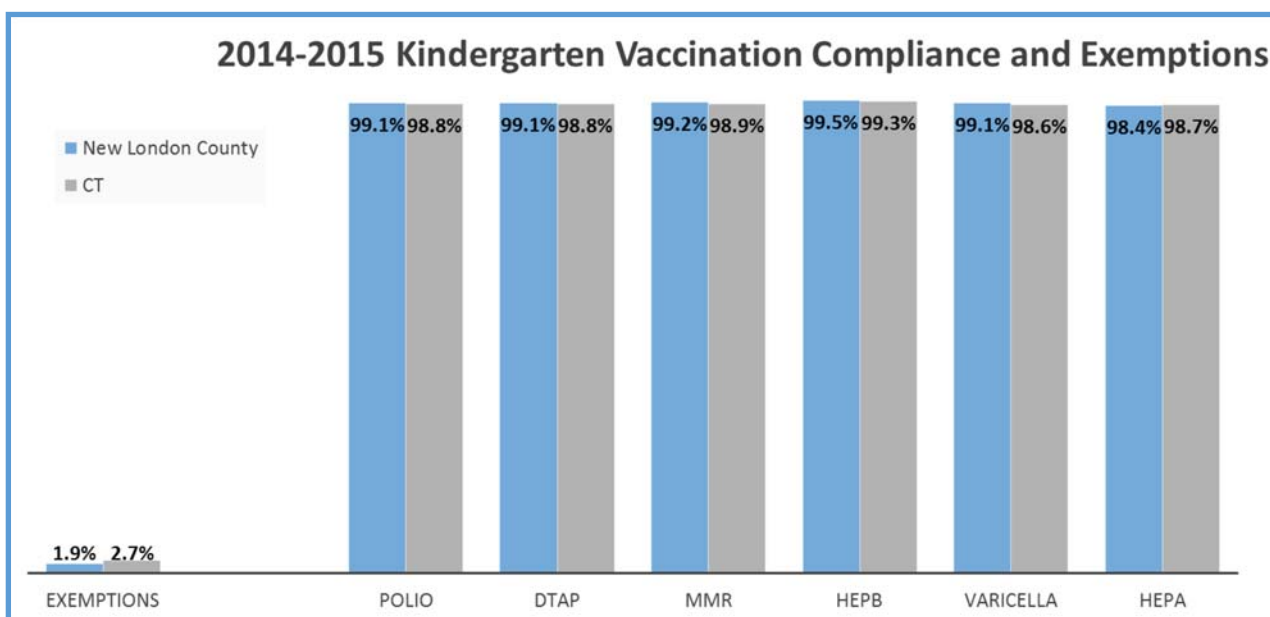
however, gonorrhea infection can result in serious outcomes, such as sterility/infertility, ectopic pregnancy, and pelvic inflammatory disease. Gonorrhea is increasingly being recognized as antibiotic resistant. It is important to maintain vigilance in prevention efforts to reduce the spread of the infection, and educate those who are infected about the importance of completing the prescribed course of antibiotics when being treated.



Source: LLHD

The development and use of vaccines as primary prevention of infectious diseases is one of the greatest public health accomplishments of the last 100 years, nearly eliminating morbidity and mortality from vaccine-preventable infections in CT over that time. Though localized outbreaks of some vaccine-preventable infections such as measles, mumps, and whooping cough do happen in CT from time to time, sustained community transmission of these infections no longer occurs. The Healthy People 2020 targets for kindergarten vaccination compliance for polio, DTaP, MMR, HepB, and varicella is 95%. Kindergarten children in New London County already far surpass these goals, with nearly 99% coverage for each vaccine in the 2014-2015 school year. It is necessary to continue emphasizing the importance of following the recommended vaccination schedule for children and adults in order to maintain the gains made in the county and state in preventing these infections from taking hold in our communities.

## Vaccine Preventable Diseases



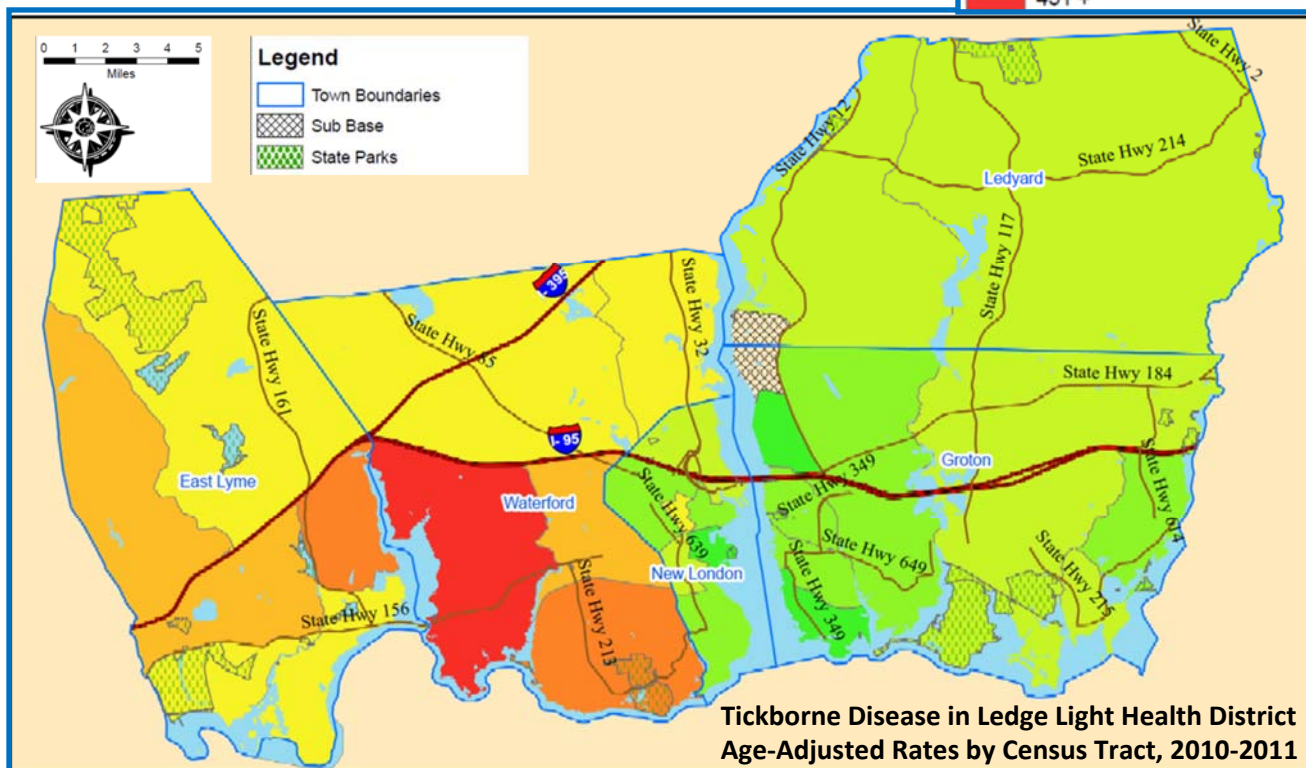
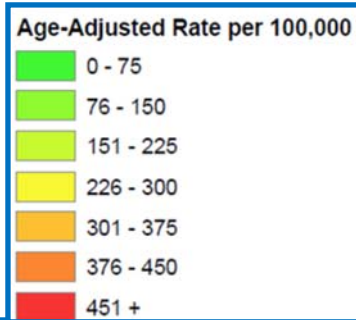
Source: CT DPH

Lyme disease, ehrlichiosis and babesiosis, which are commonly transmitted to humans through deer ticks, account for most cases of tickborne disease in the region and state. Symptoms of these diseases include fever, skin lesions, and flu-like aches and pains. While early diagnosis and antibiotic treatment usually alleviates symptoms, the disease can lead to severe neurological and heart conditions. Several parts of LLHD have particularly high rates of tickborne disease, as detailed in the map below. Tick bites can be prevented through personal protection measures including avoiding covering arms and legs completely when in wooded areas with high grass and/or leaf litter, using DEET or permethrin (as directed), and finding and removing ticks by showering and doing full body tick checks as soon as possible after coming indoors, checking hiking gear and pets for ticks, and putting clothes in the dryer at high heat. Tick-safe zones can be created in yards and community spaces (such as parks) by having borders of wood chips or gravel between wooded areas and play areas, clearing tall grass and leaf litter, and planting deer resistant crops. The Connecticut Agricultural Experiment Station's Tick

## Tickborne Disease

Management Handbook is a comprehensive guide to

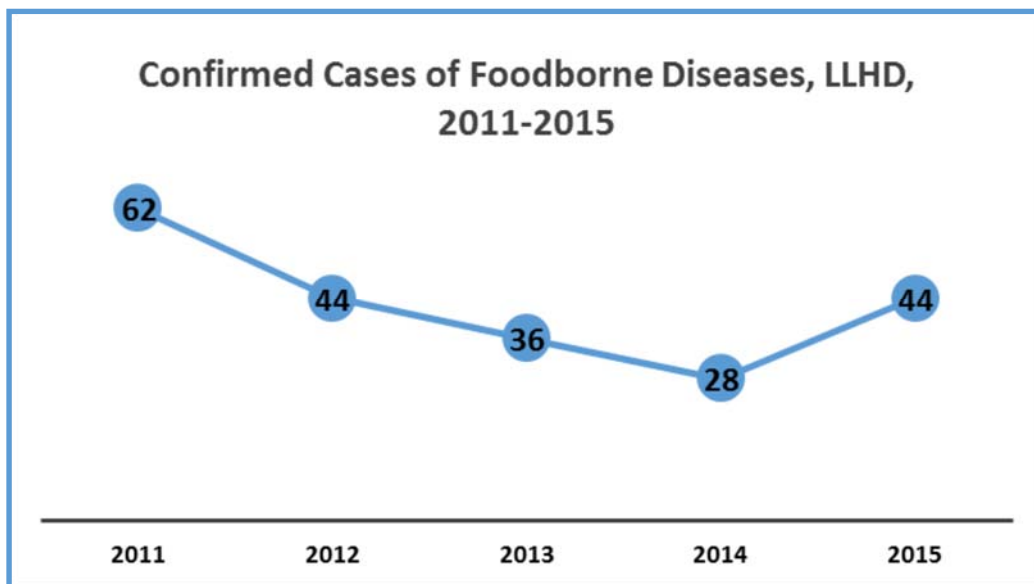
preventing ticks and tick bites through landscaping (available at [http://www.ct.gov/caes/lib/caes/documents/special\\_features/](http://www.ct.gov/caes/lib/caes/documents/special_features/))





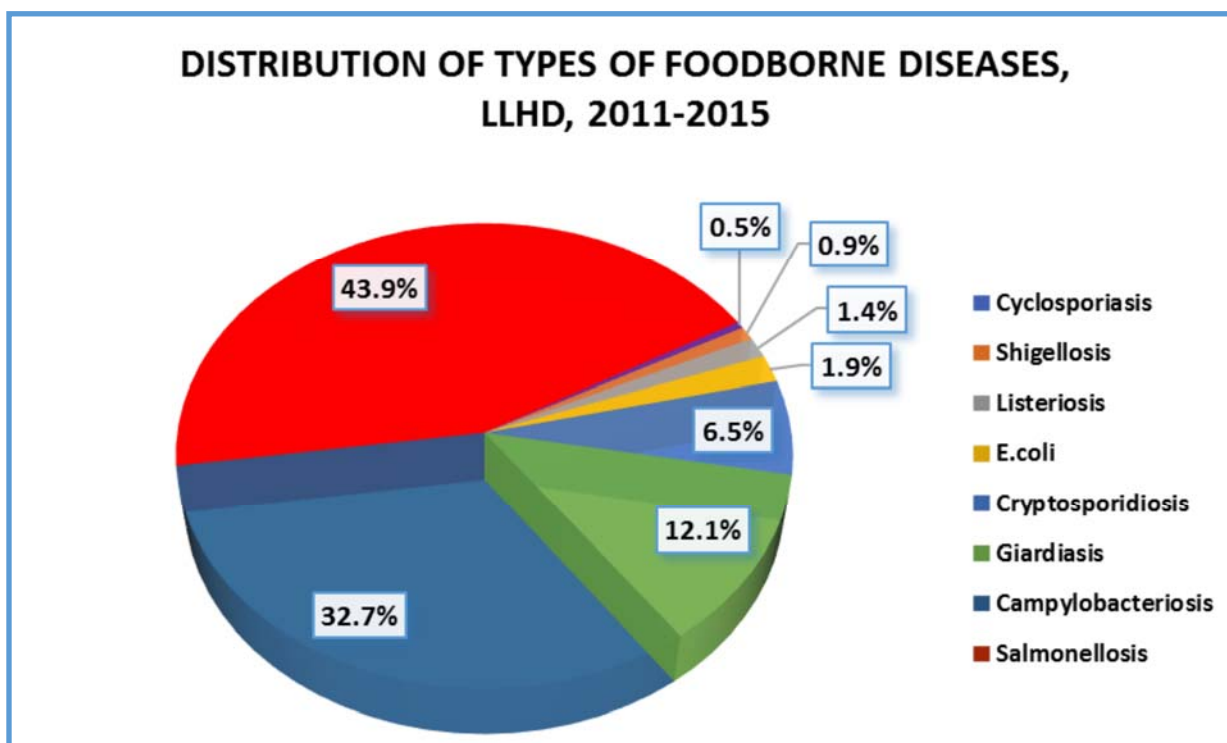
CDC reports that about 1 in 6 Americans get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases yearly. These illnesses cost the economy over

\$15 billion each year, according to the U.S. Department of Agriculture Economic Research Service. Source: LLHD



Severity of symptoms from foodborne illness range from mild or even non-existent, to severe and life threatening. The number of laboratory confirmed foodborne diseases in LLHD declined steadily between 2011 and 2014, but then rose slightly in 2015. The two most commonly diagnosed foodborne illnesses in LLHD are Salmonellosis and Campylobacteriosis, together accounting for more than 75% of all reported cases of foodborne disease in the area.

## Foodborne Illness

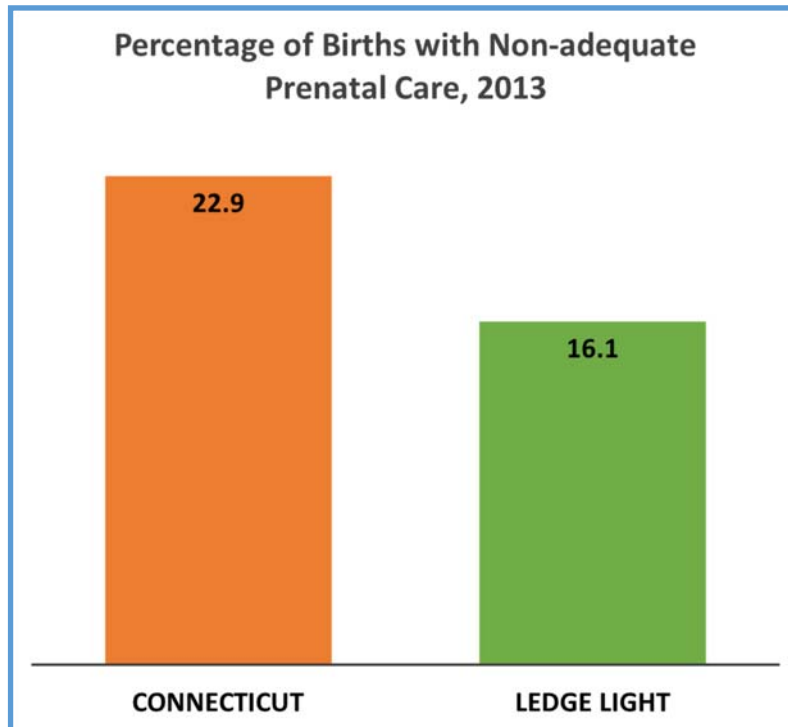


Source: LLHD



# Maternal and Infant Health

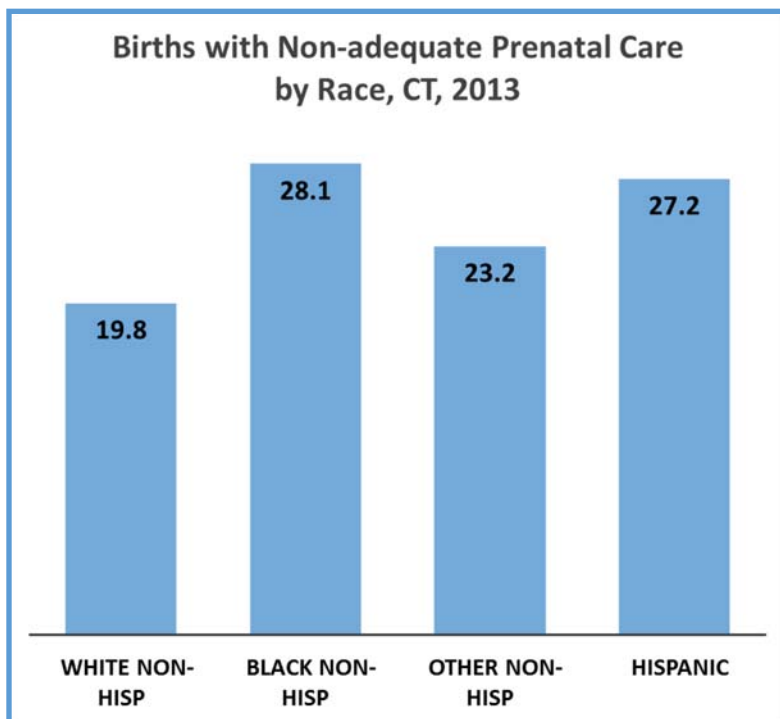
Prenatal care has the potential to reduce the incidence of poor birth outcomes by treating medical conditions, identifying and reducing potential risks, and helping women to address behavioral factors that that impact their pregnancy. It is more likely to be effective if women begin receiving care in the first trimester of pregnancy and continue to receive care throughout pregnancy, according to accepted standards of care.



Source: CT DPH

Statewide, fewer women have been accessing early and adequate prenatal care over the last decade. (CT DPH)

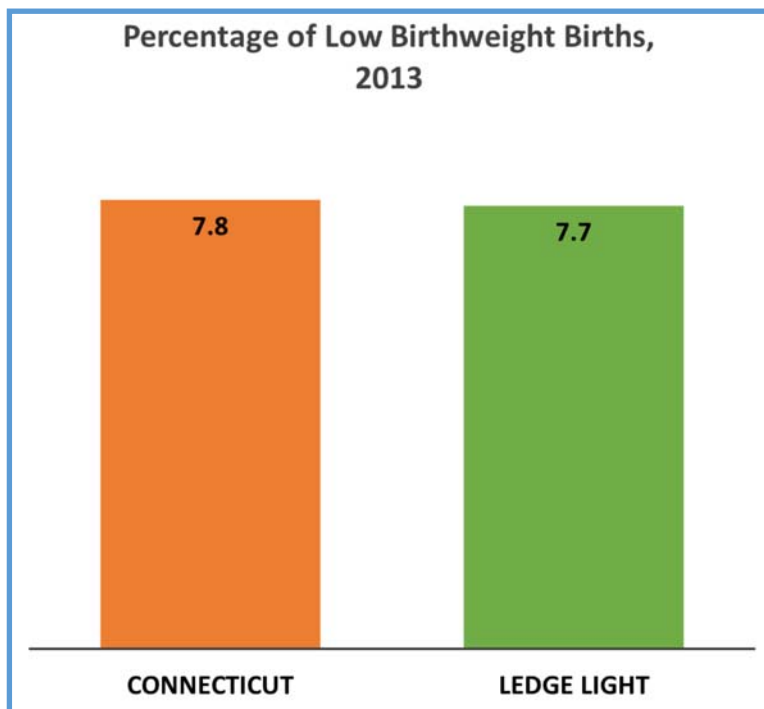
## Prenatal Care



Source: CT DPH

Inadequate prenatal care, defined by a combination of the month of first prenatal care visit and the total number of visits during pregnancy, is associated with an increased risk of preterm delivery. Overall in LLHD adequacy of prenatal care compares favorably with the state. At the state level, there are persistent racial and ethnic disparities as well as disparities related to insurance coverage which are most likely present locally as well.

Low birthweight, defined as a birth weight of less than 2,500 grams (or about 5.5 pounds), has been a persistent public health problem in Connecticut for many years. Low birthweight may result from pre-term birth or growth restriction in the uterus. Significant risks associated with low birthweight include infant death, developmental disabilities, cerebral palsy, hearing and vision impairments, cognitive deficiencies and poor neuropsychological outcomes, learning disabilities and

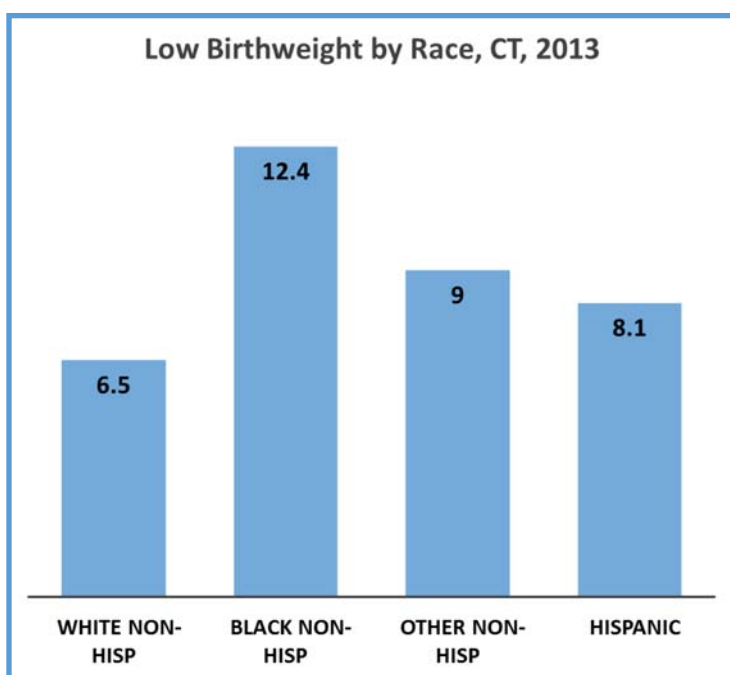


Source: CT DPH

## Low Birthweight Babies

poor educational performance, and behavioral problems.

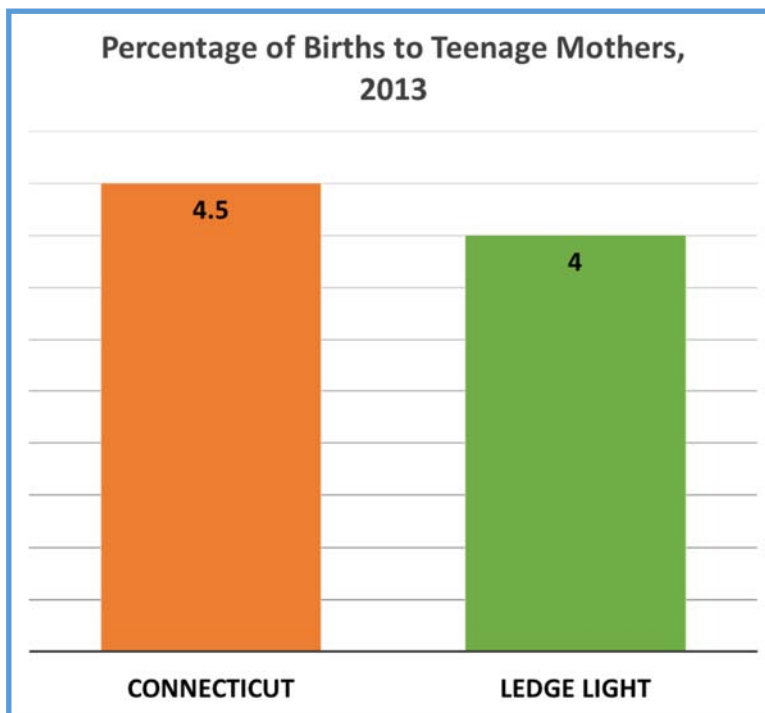
Participation in the WIC program, having strong social support during pregnancy, eliminating tobacco exposure and adequate prenatal care can all significantly reduce the risk of low birthweight.



Source: CT DPH

The percentage of low birthweight babies in LLHD is the same as in CT overall, however, here too racial and ethnic disparities are evident across the state, particularly among non-Hispanic Black women. This could be correlated with the racial and ethnic disparities in prenatal care. Further investigation is needed to determine if these disparities exist locally and, if so, why they are occurring.

The impact of teen pregnancy and birth is significant and multigenerational. Extensive evidence reveals that pregnant teens are at increased risk for premature birth, delivering low birthweight infants, other serious health problems, and death. Pregnant teens are more likely to interrupt or discontinue their education and their children are more likely to drop out of high school. Children born to mothers under age 20 are at greater risk of being in foster care or being a victim of abuse and



Source: CT DPH

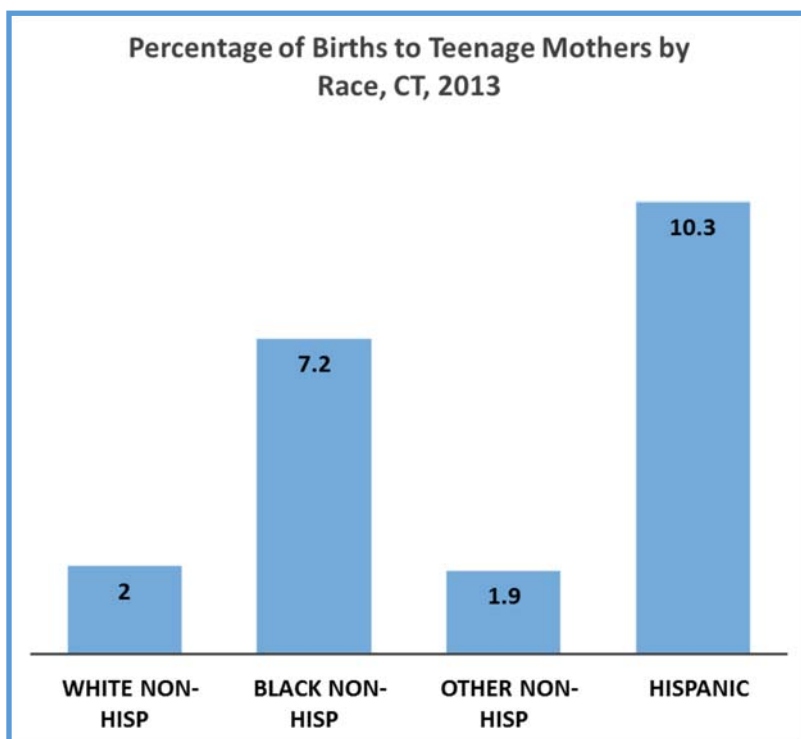
neglect. According to the CT Department of Public Health “64% of children born to

### Births to Teens

an unmarried, teenage high-school dropout live in poverty, compared to 7% of children born to women over age 20, who are married and are high school graduates.” The children of teens are more likely to themselves become teen parents as well as to have higher incarceration

rates and lower earnings. It is very positive then that in CT there has been a significant decrease in births to teens in the last decade and that the rate in LLHD is slightly lower than the state rate.

However, despite the downward trend overall and decreases among all racial and ethnic groups, disparities remain at the state level. The high birth rates among Hispanic teens may be consistent with high birth rates among Hispanics overall.

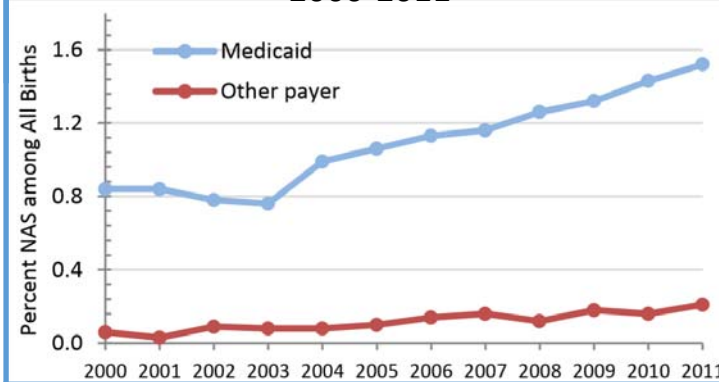


Source: CT DPH

Neonatal abstinence syndrome (NAS) is defined as a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the mother’s womb. Those drugs may have been prescribed by a medical provider for pain management or may be “street drugs”; in-utero exposure to either can cause serious and long-term health problems for the newborn.

Opioid-dependent babies experience significant withdrawal symptoms after birth and often require a stay in the neonatal intensive care unit.

Percent of Children Born with Neonatal Abstinence Syndrome, By Payer, Connecticut, 2000-2011



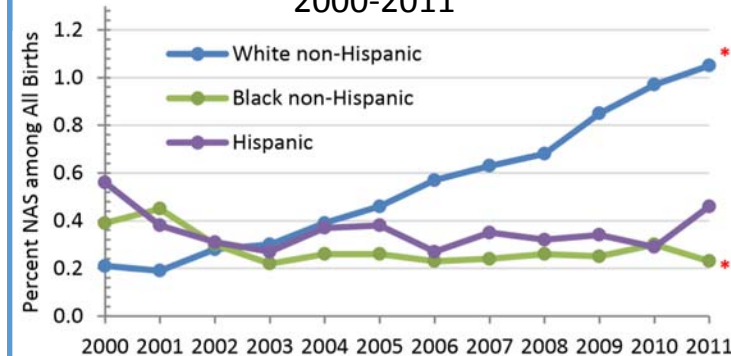
Source: CT DPH

According to the CT Department of Public Health, NAS has increased in the state in the last decade and is

## Neonatal Abstinence Syndrome

most prevalent among White non-Hispanics and persons with Medicaid insurance coverage.

Percent of Children Born with Neonatal Abstinence Syndrome, By Race, Connecticut, 2000-2011



Source: CT DPH

Note: \* indicates significant increasing trend for White non-Hispanics and decreasing trend for Black non-Hispanics (p<0.05).

### Babies born at L+M Hospital

Year      Number of Opioid-dependent babies

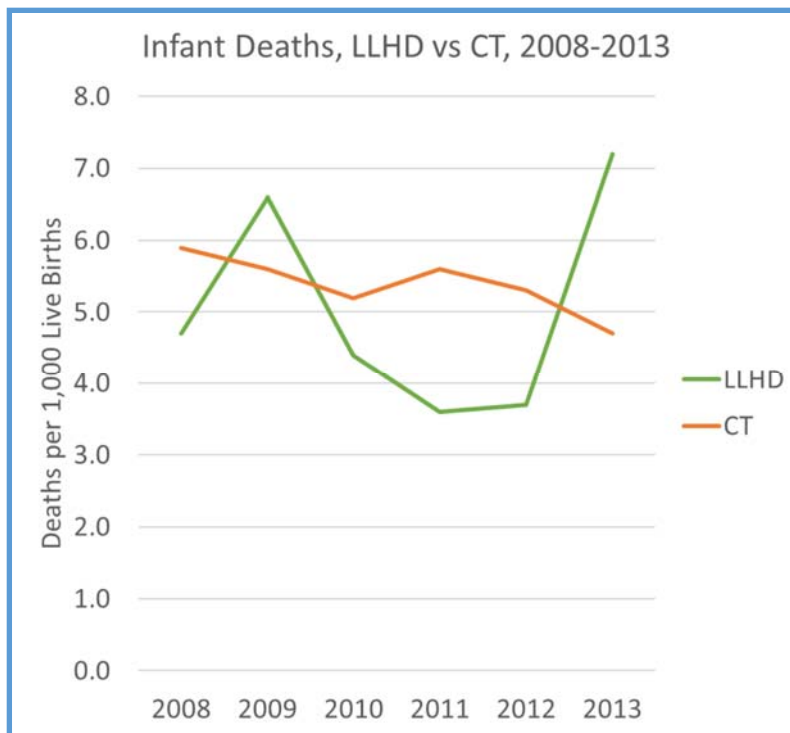
2013      20

2014      20

2015      32

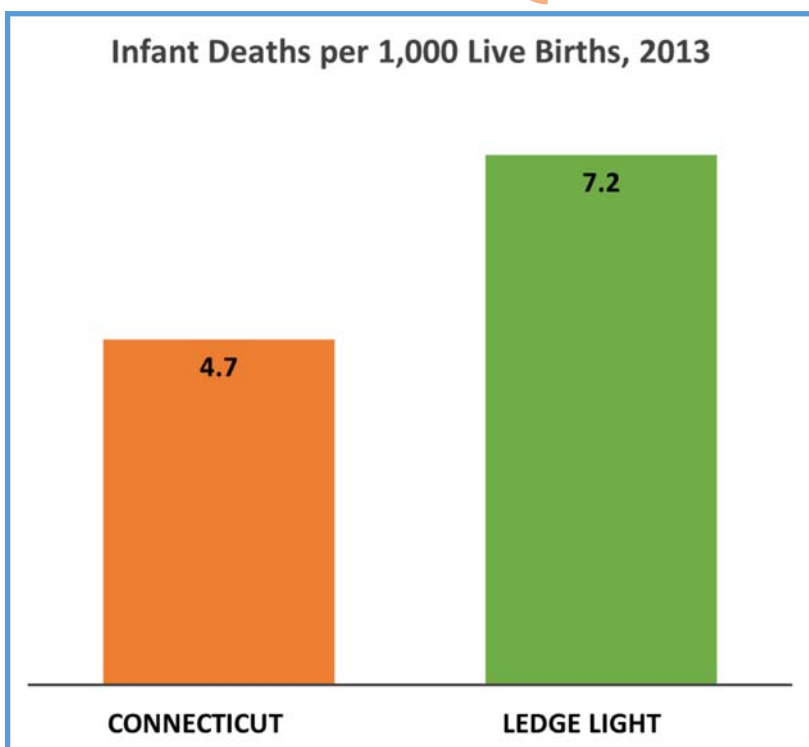
The statewide trend of increasing numbers of opioid-dependent babies is evident locally as well.

Infant mortality is defined as the death of a baby before his or her first birthday. Infant mortality can be an indicator of factors that impact the health of a community as a whole. CDC cites the top five leading causes of infant mortality nationally as birth defects, preterm birth and low birth weight, maternal complications of pregnancy, Sudden Infant Death Syndrome, and injuries. In CT, infant mortality has declined in the last decade and is below the Healthy People 2020 target of 6 per 1,000 live births but there has been a troubling uptick in the local rate.



## Infant Mortality

For 2013, LLHD is on par with Lebanon, Malaysia, Kuwait and Chile. This may be a one year statistical anomaly with local trends being highly variable, but it bears monitoring. (World Health Organization)



In 2013, the latest year for which data are available, the infant mortality rate in LLHD far exceeded the state rate as well as the rates in the cities of Bridgeport and Hartford. State data indicate that significant racial disparities exist.

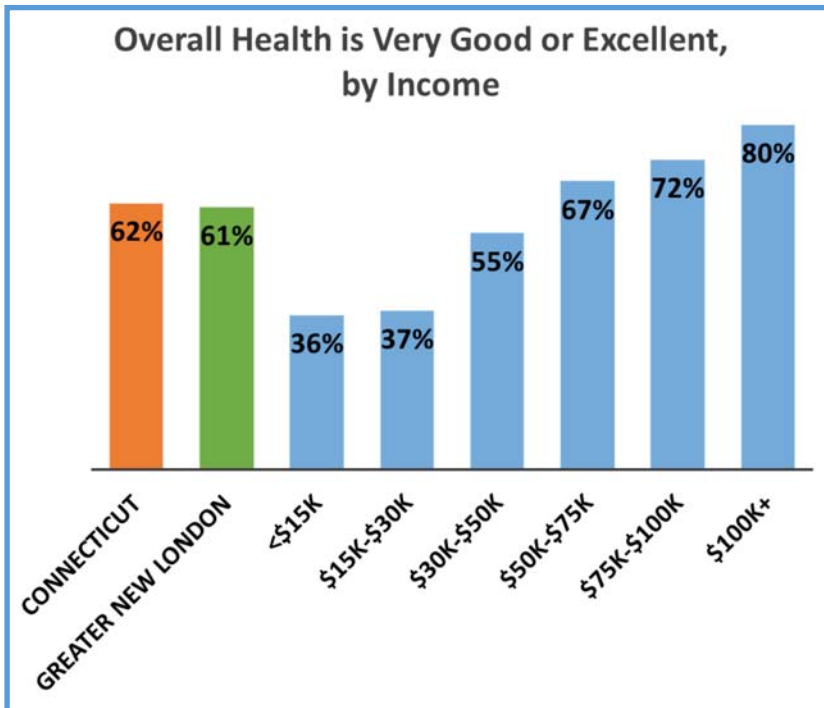
Source: CT DPH

A large orange graphic consisting of a vertical bar on the right side and a horizontal bar extending from the top of the vertical bar towards the left. The text "Mental Health and Substance Abuse" is centered within the horizontal bar.

# Mental Health and Substance Abuse



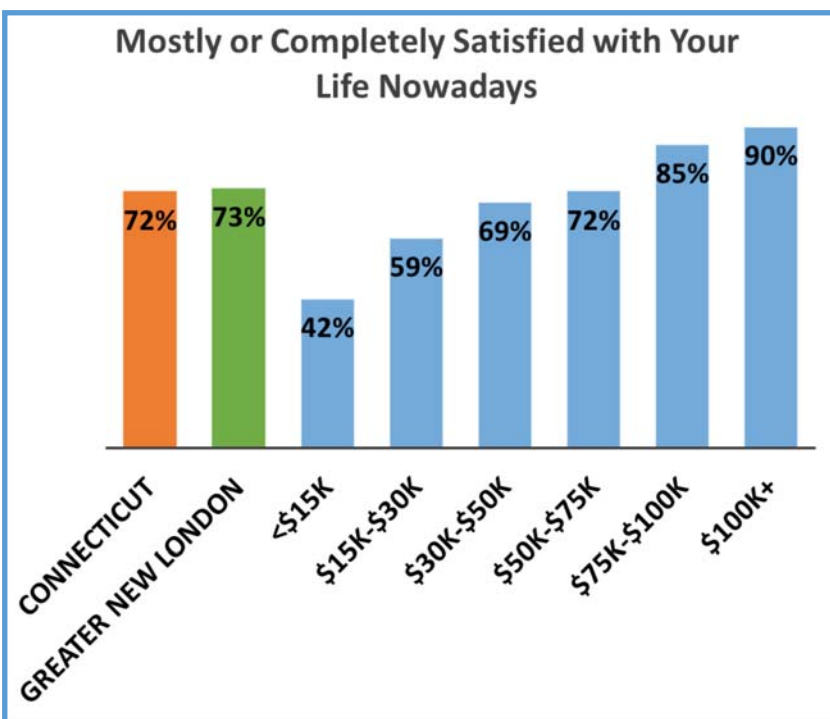
Feeling physically unwell can have significant impact on a person’s mental and emotional wellbeing. People with chronic pain or illness may become depressed or have anxiety about their futures, financial situations or families. In Greater New London, there is a direct relationship between reporting that one’s overall health is “very good” or “excellent” and income. Those making less than \$30,000 per year were half as likely to report general good health than those making \$75,000-\$100,000. This association is troubling but not surprising; as national studies



Source: 2015 Wellbeing Survey

## Mental and Emotional Wellbeing

and other local data presented in this report have shown, income is a significant determinant of health status.

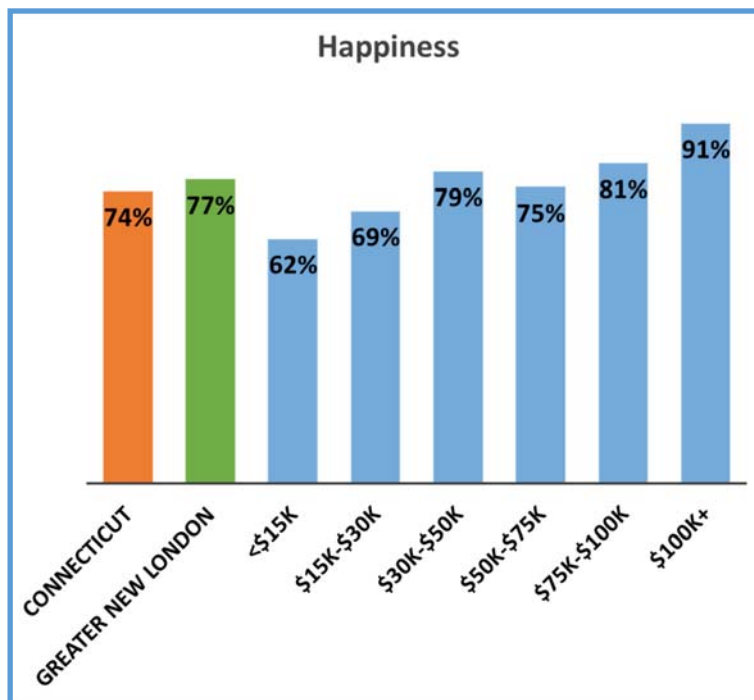


Source: 2015 Wellbeing Survey

Only 45% of Greater New London residents overall say they have the time to do the things they really enjoy. The percentage is much lower among Hispanics, those who make under \$15,000 and those in the \$30,000-\$50,000 income bracket. (Wellbeing Survey)

Again, there is a direct relationship between general satisfaction with one’s life and income; those in the highest income bracket were twice as likely as those in the lowest to say they are “mostly” or “completely satisfied with life nowadays”.

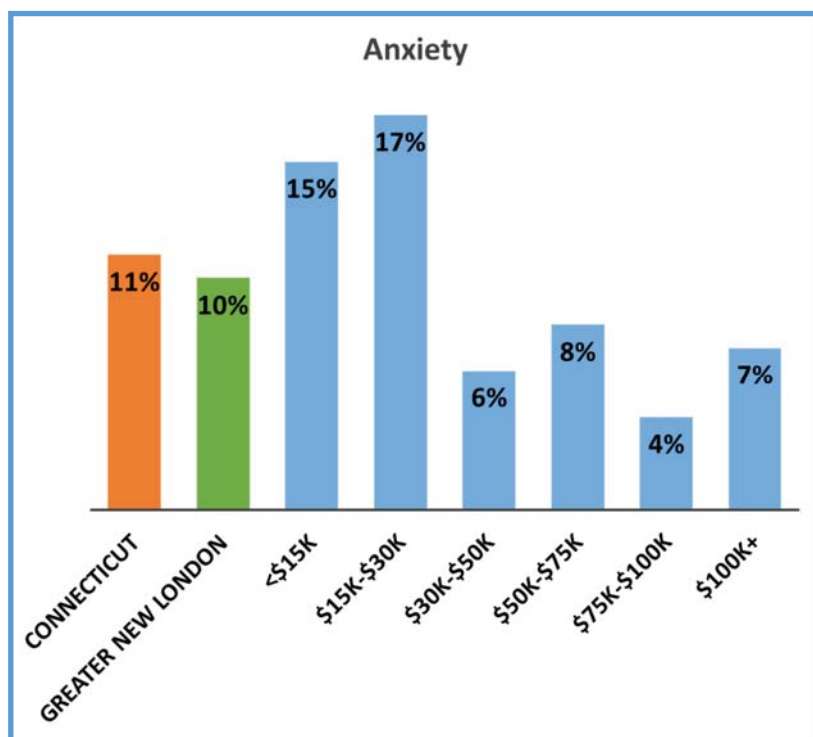
The Wellbeing Survey asked respondents about their overall happiness, anxiety and depression. These are not clinical diagnoses, but provide the best data currently available about how many of our local residents face barriers to good mental and emotional health, and where disparities exist.



Source: 2015 Wellbeing Survey

## Mental and Emotional Wellbeing

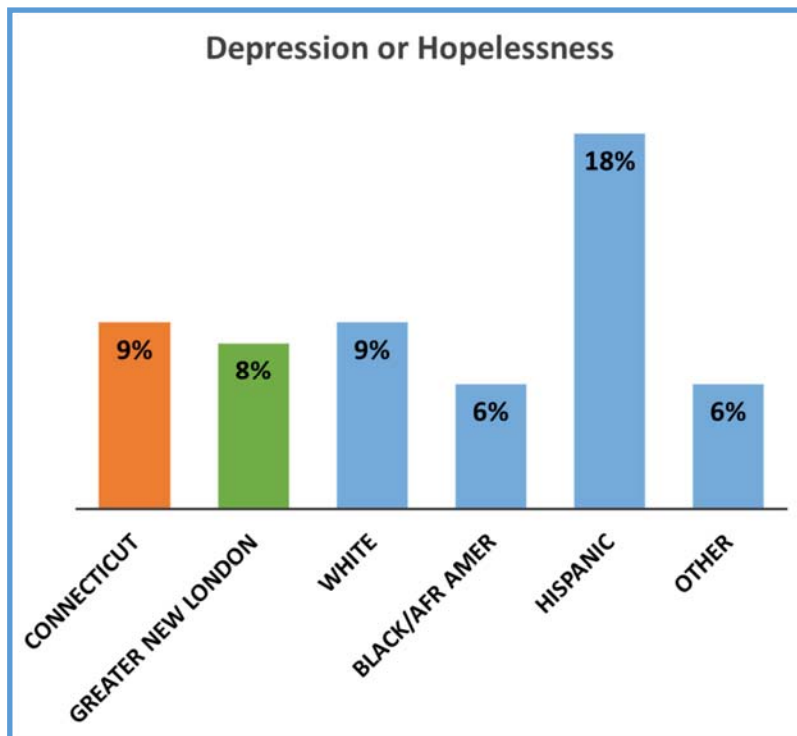
Despite the saying that “money can’t buy happiness” it is perhaps not surprising that Wellbeing Survey respondents in the higher income brackets reported better overall emotional wellbeing.



Source: 2015 Wellbeing Survey

The long-term activation of the body’s stress-response system, and the subsequent chronic overexposure to the hormones associated with that response, increases the risk of numerous health problems, including anxiety, depression, digestive problems, headaches, heart disease, sleep problems, weight gain, and memory and concentration impairment.

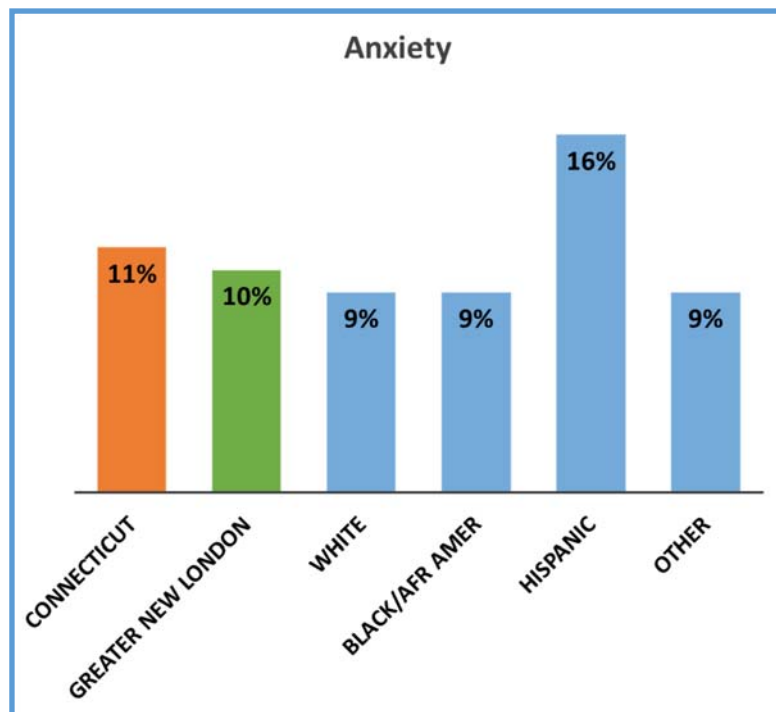
Hispanics were much more likely than the population overall to depression and anxiety in the Wellbeing Survey. Community key informants have theorized that this could be a combination of multiple factors, including, for immigrants, feeling loss associated with leaving their country of origin or concern over their or a family member's immigration status.



Source: 2015 Wellbeing Survey

## Mental and Emotional Wellbeing

For 2015, Depression was the 4th most prevalent condition among hospitalizations in the Inpatient and ED Non-Admission settings for area residents. (CT Hospital Association)



These responses indicate the need for culturally and linguistically sensitive mental health care in Greater New London. In addition to ensuring care is available and accessible, work should be done at the community level to decrease any stigma associated with seeking mental health care.

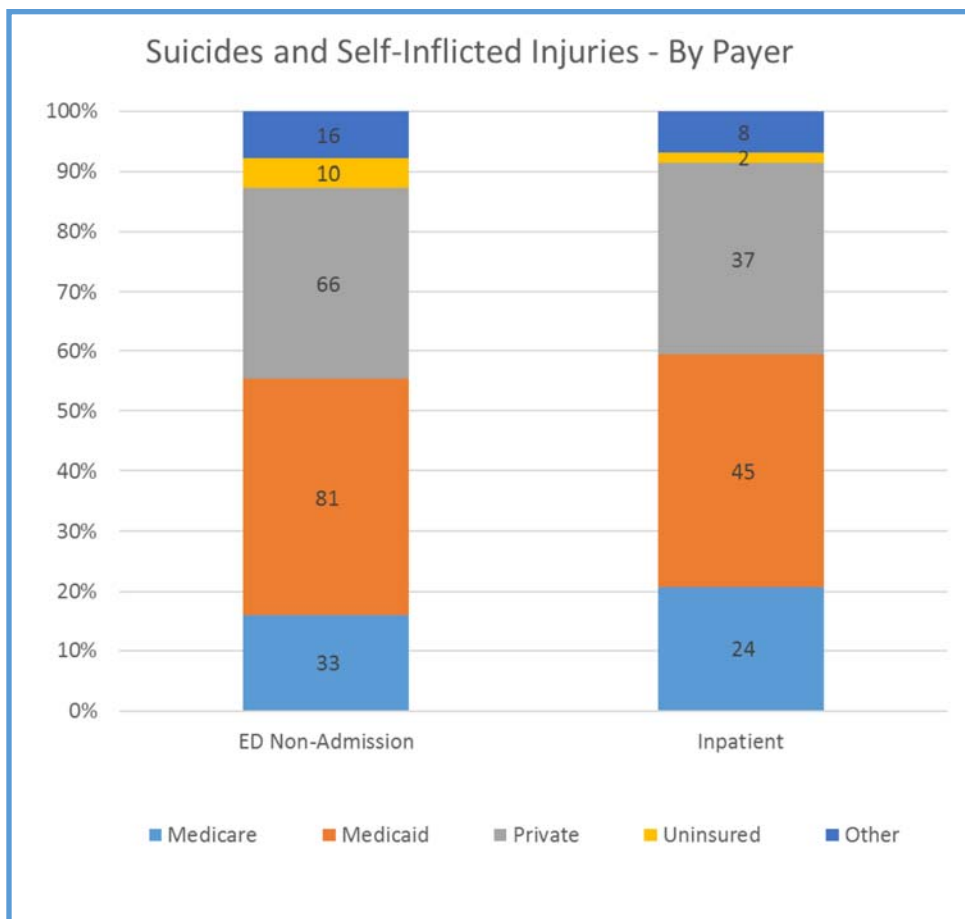
Source: 2015 Wellbeing Survey

Suicide and self-inflicted injuries result from multiple intersecting factors. Causes are individualized and may include multiple intersecting health and environmental factors. Common warning signs of suicide include individuals talking about suicide or wanting to hurt themselves, increasing substance abuse, and having changes to their mood, diet or sleeping patterns. Research shows that suicide can be prevented—on-going support as well as crisis intervention can stop someone who is considering suicide from taking their life. In addition to increasing awareness and understanding of suicide and suicide prevention through community education, environmental interventions can be effective in preventing people from taking their lives or hurting themselves. Environmental interventions include suicide prevention hotlines, suicide prevention signage and safety nets on bridges and measure that reduce access to guns and medications.

20% of residents in Greater New London have Medicaid but Medicaid beneficiaries account for 40% of all hospital encounters for suicides and self-inflicted injuries.

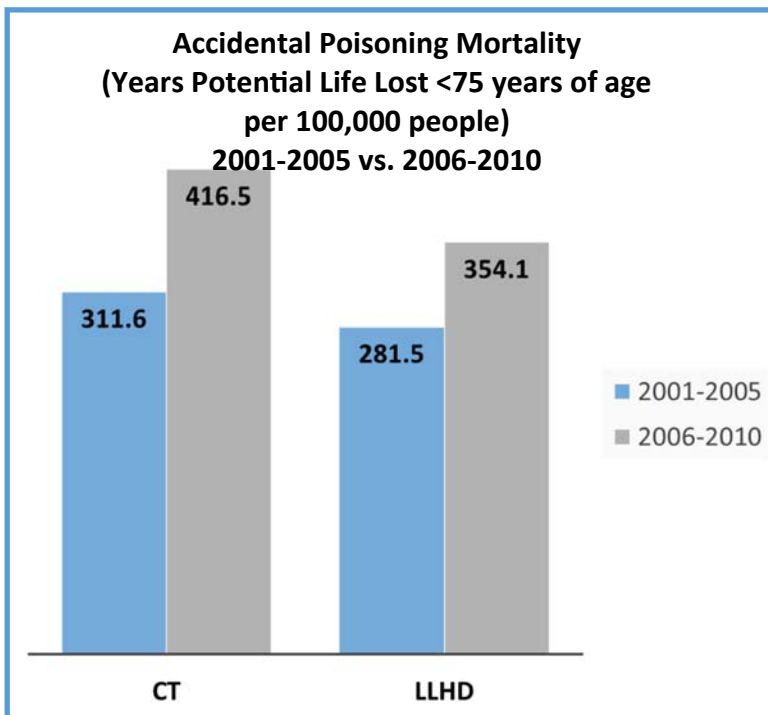
(CT Hospital Association)

## Suicide and Self-Inflicted Injuries



Source: CT Hospital Association

A report from the Association for Healthcare Research and Quality states that, nationally, between 2006 and 2011, the rate of ED visits for substance-related disorders (not including alcohol) increased 48%. Over the same time period, ED visits for alcohol-related disorders increased 34%. Accidental poisoning as a cause of death includes overdoses from alcohol or drugs. While not all these cases are related to an overdose, the increase at both the state and local levels between these two five-year periods could indicate a growing problem with use



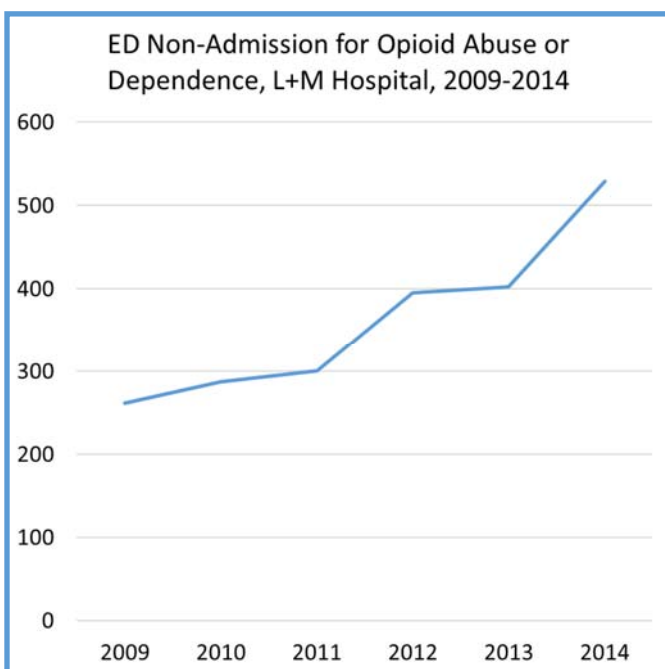
Source: CT DPH

## Substance Abuse and Overdoses

of substances.

For 2015, Alcohol and Substance Abuse was the 5th most prevalent condition among hospitalizations in the Inpatient and ED Non-Admission settings for area residents. (CT Hospital Association)

In 2015, local, state and national news began to focus on a “heroin epidemic”. Even before this, ED encounters at L+M for opioid abuse were rising—more than doubling between 2009 and 2014. Opioid



Source: CT Hospital Association

abuse includes both the misuse of prescription drugs and use of “street” heroin. Much attention has been paid to the abundance and availability of prescribed opioids. While these medications can be effective in controlling pain, they are also highly addictive. In some cases, the person who is prescribed the medication becomes addicted and in other cases, someone else accesses unused pills. Prescribing practices and disposal of unused medications can both impact access to opioids.

Preventing substance use among youth is seen as particularly important, both in order to prevent illness and injury among teens and to develop healthy habits that will decrease the likelihood of misusing alcohol or drugs as an adult. Across the region, lifetime and recent use of drugs is on par with or lower than U.S. rates. Evidence shows that when youth perceive substances to be harmful, they are less likely to use them. Use of alcohol and tobacco has decreased since 2008, which is associated with a simultaneous increase in the perception of harm of those substances.

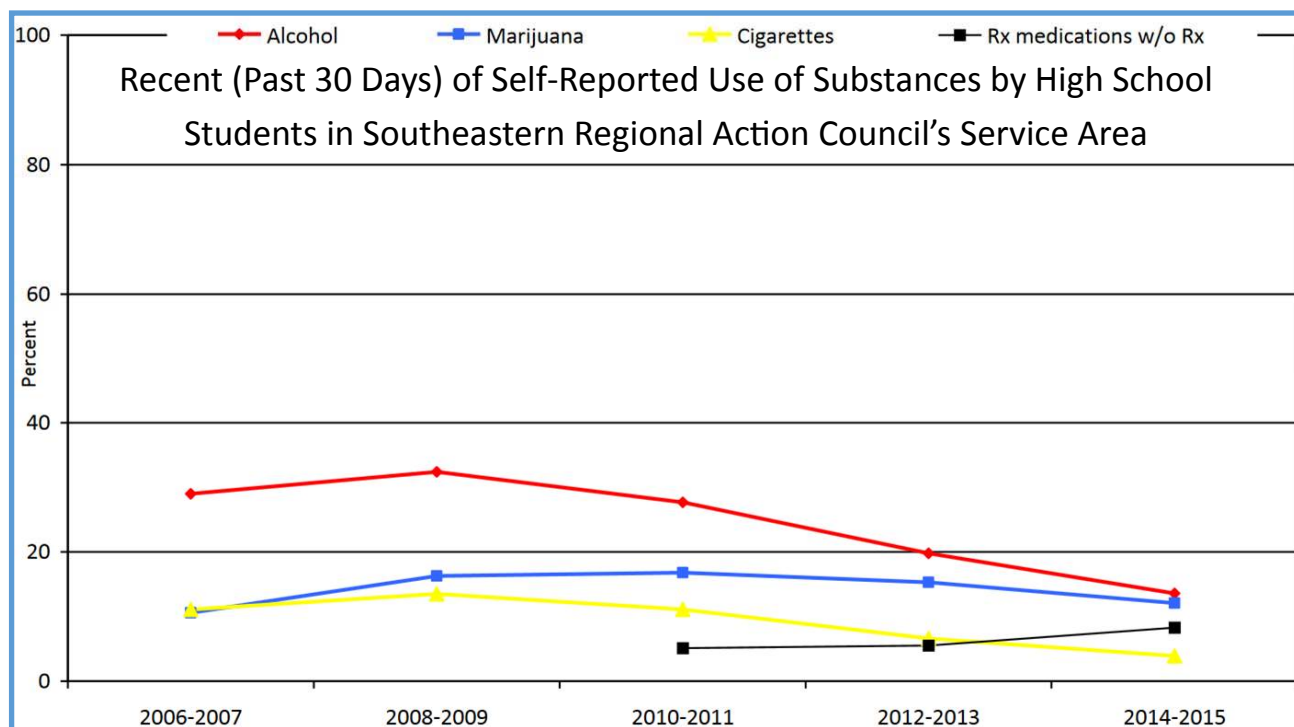
Marijuana use by teens has been somewhat steady following an increase between 2006 and 2008. The reported perception of harm of marijuana has been decreasing, possibly a reflection of the growing number of places across the country that have legalized either medical or recreational use.

There is a troubling increase in the reported misuse of prescription drugs by teens in the region. This trend is worrisome as the most commonly misused prescription drugs are opioid pain

## Substance Abuse Among Youth

relievers, which are highly addictive. Studies show that addiction to opioid prescription drugs can lead to heroin use, another opioid

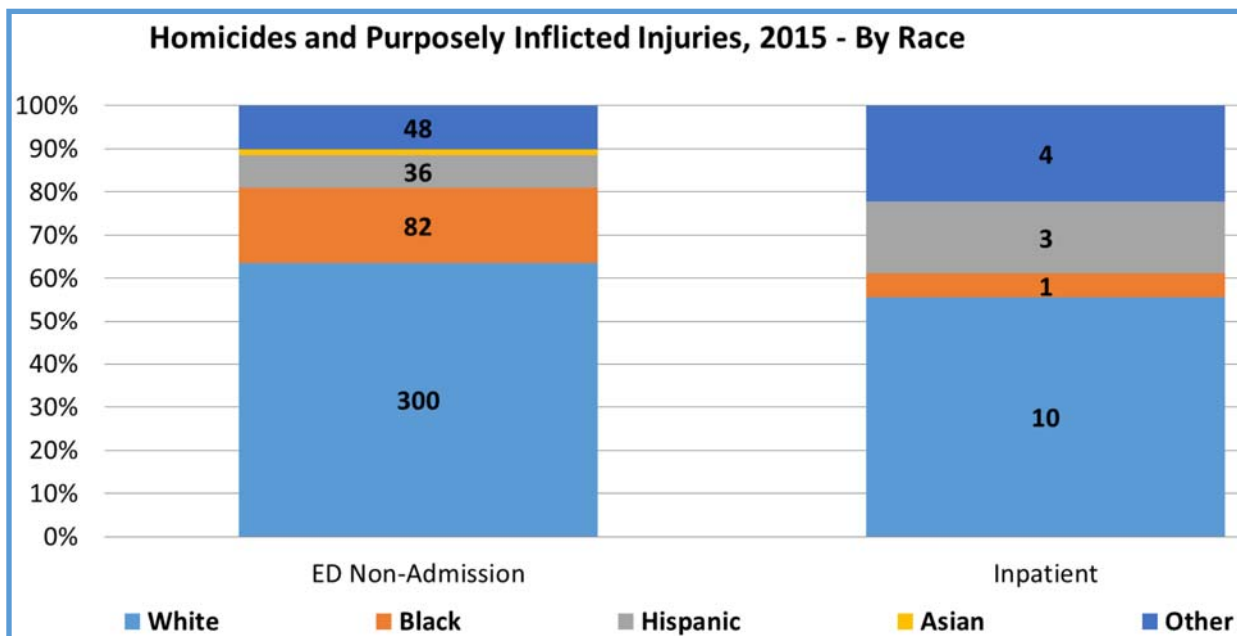
which can be less expensive than illegally purchased prescription drugs.



Source: SERAC



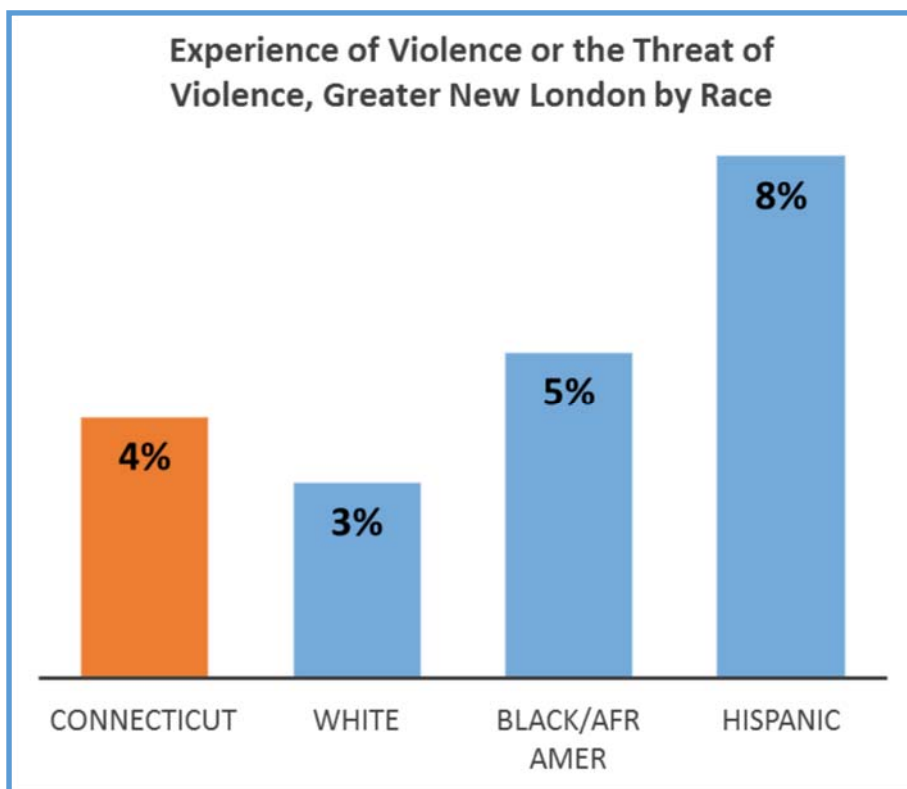
# Injury and Violence



Source: CT Hospital Association

## Violence

Racial disparities are evident in both the hospital encounters for violence and the reported experience of respondents to the Wellbeing Survey. While Blacks account for 6% of the Greater New London population, they made up 17% of the ED encounters and 22% of



Source: 2015 Wellbeing Survey

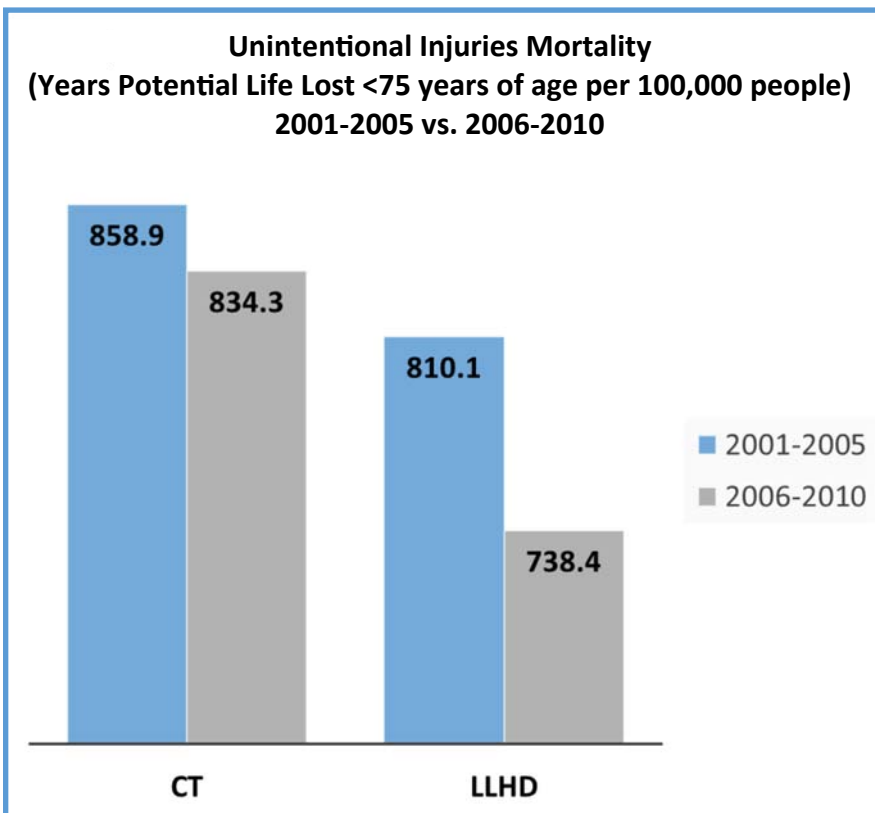
hospital admissions for homicides and purposely inflicted injuries. Hispanics reported the experience or threat of violence at double the overall rate.

Teen focus group participants report feeling less safe in their neighborhoods due to increased drug activity, people being shot at, and "strange people walking around."



While mortality from unintentional injuries overall decreased between the two five year periods 2001-2005 and 2006-2010 at both the state and local levels, mortality in Greater New London related to falls increased.

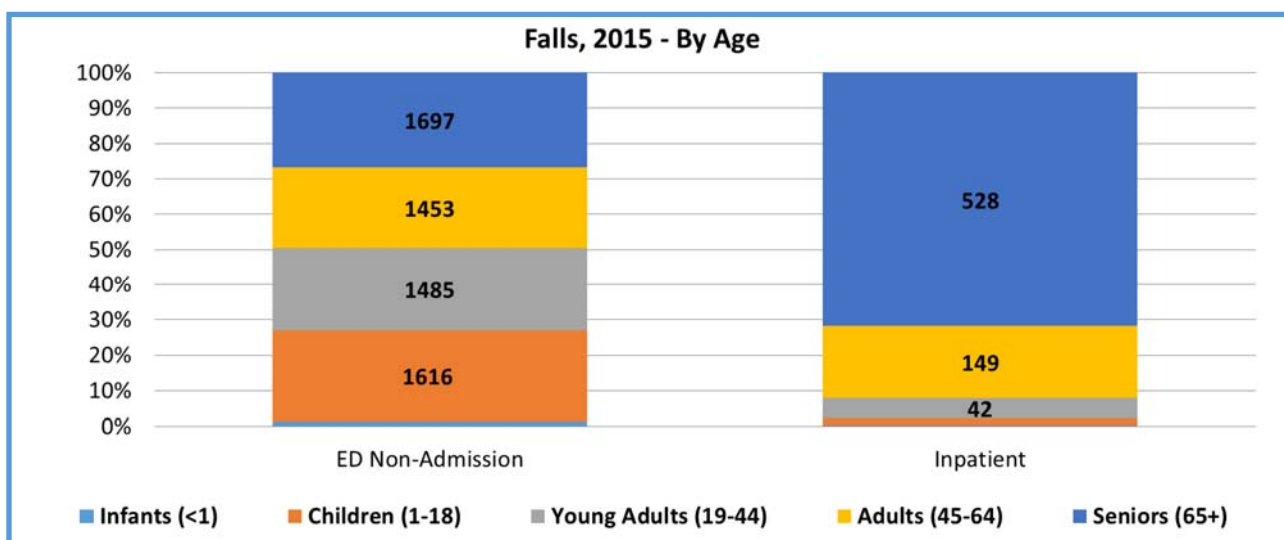
For 2015, ED non-admissions for falls for residents of Greater New London were almost evenly divided among the age groups 1-18, 19-44, 45-64 and 65+. Inpatient admissions however were



Source: CT DPH

## Unintentional Injuries

heavily skewed toward the 65+ age group, demonstrating the increased likelihood of more severe complications from a fall for the elderly.



Source: CT Hospital Association



# Environmental Risk Factors and Health

Before 1978, lead was used as an additive to paint used in houses. The age of the housing stock in Greater New London means that numerous homes may have layers of leaded paint on doors, windows, porches or walls. When this paint chips or peels lead dust can be ingested or inhaled. Lead can also be found in soil outside of older homes and in ceramic dishes, crystal and other items.

Children in Connecticut are required to be tested for lead at about ages one and two. In New London County, less than 20% of children receive both tests as mandated. (CT DPH)

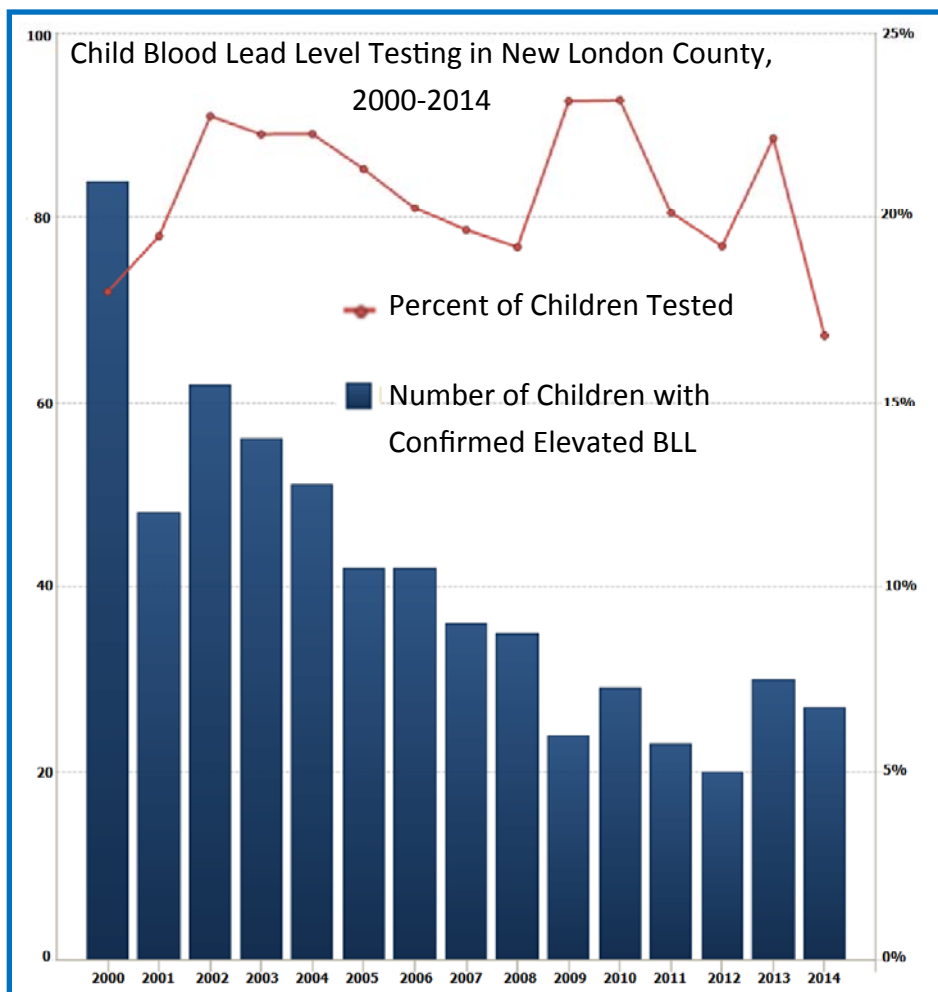
Local health departments including LLHD and Uncas Health District are charged with taking action when a child with elevated blood lead levels is identified. While the numbers of children with elevated blood lead levels in New London County have been under 40 per year for the last 10 years, lead poisoning remains a substantial public health concern as there is potential for severe and life-long health and developmental repercussions. While the Connecticut General Statutes designates certain

## Lead

blood lead levels as actionable by health departments, no level of lead is safe. Lead poisoning can cause growth

problems, hearing loss, learning problems, brain and neurological damage and even death.

Extensive research has noted correlations between elevated blood lead levels and poverty and renter-occupied housing.



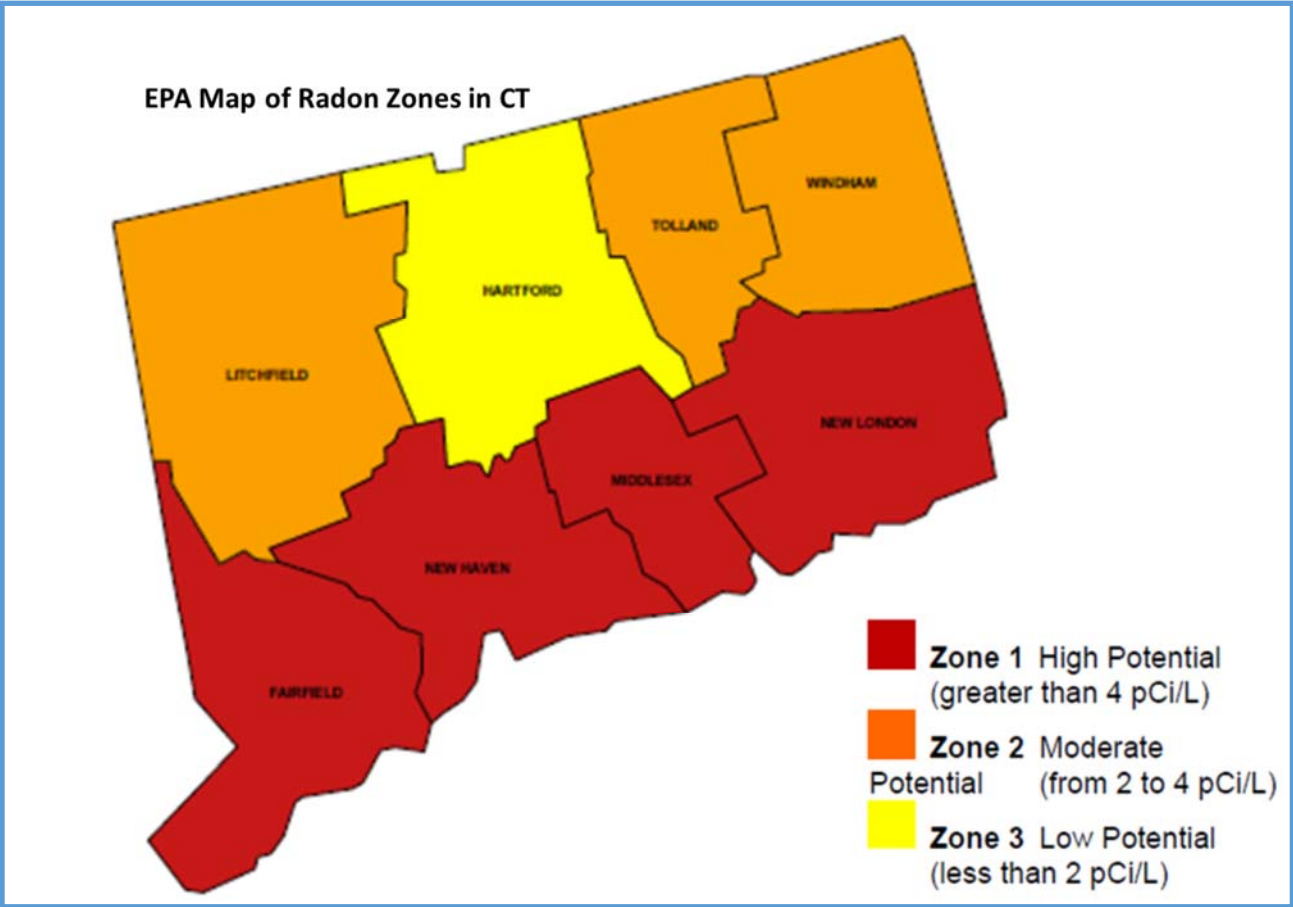
Source: CT DPH

Radon is a gas that forms when radioactive elements break down in rocks, soil and groundwater. Radon occurs naturally in some areas more than others. The EPA designates Greater New London, along with the entire southern coast of Connecticut, as a Zone 1, having high potential for radon exposure.

Radon is the second leading cause of lung cancer after cigarette smoking (CDC); the high potential for exposure in the area may be contributing to the locally high rates of lung cancer.

On the map below, each zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without the implementation of radon control methods. The radon zone designation of the highest priority is Zone 1, which is the designation of New London County.

## Radon



Source: EPA



# Next Steps

Understanding health and wellbeing and their contributing factors for the southeastern CT region is critical; addressing the question of how to impact identified issues is equally, if not more, important. Following the analysis of data collected through this Community Health Assessment, the Southeastern CT Health Improvement Collaborative (Collaborative) engaged in a process to prioritize issues and develop strategies to improve health and well-being in the region. The Community Health Improvement Plan developed by the Collaborative is a dynamic

document that serves as a roadmap for interventions going forward.

This work follows a collective impact model, one which is effective when addressing entrenched social and community issues. Collective impact begins with the idea that large-scale social change requires broad cross-sector coordination and occurs when organizations from different sectors agree to solve a specific problem. The key elements of collective impact include creating a common agenda, aligning and coordinating efforts, using common measures of success, maintaining excellent

communication among partners, and facilitating through a “backbone organization.”



## Collective Impact

### HOW Use a Balanced Portfolio of Interventions for Greatest Impact

- Action in one area may produce positive outcomes in another.
- Start by using interventions that work across all four action areas.
- Over time, increase investment in socioeconomic factors for the greatest impact on health and well-being for all.



Future work should focus on continuing to untangle the complex interactions among socioeconomic status, physical environment, individual health behaviors and clinical care—all factors that impact health and wellbeing.