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NATCHAUG HOSPITAL

Community Health Needs Assessment

JUNE 2018
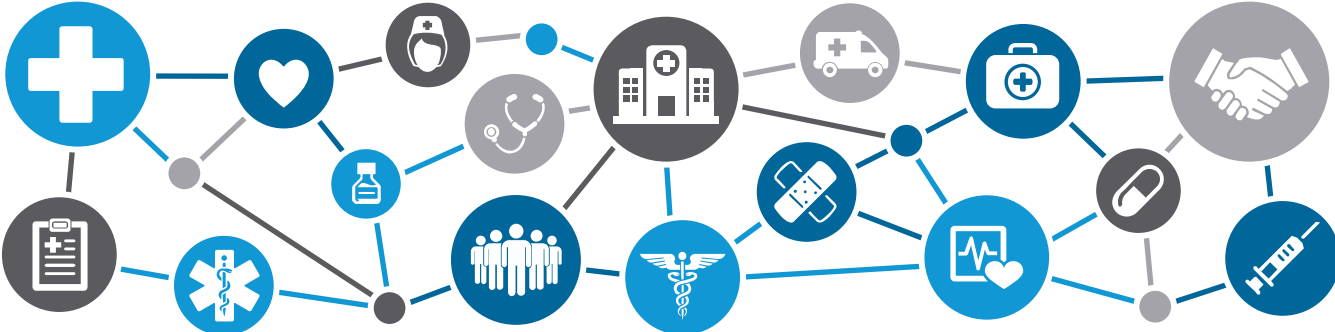
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INTRODUCTION AND OVERVIEW

ENGAGEMENT BACKGROUND AND PURPOSE

The 2018 Community Health Needs Assessment ("CHNA") for Natchaug Hospital ("Natchaug" or the "Hospital"), part of Hartford HealthCare, leverages numerous sources of local, regional, state and national data along with input from community-based organizations and individuals to provide insight into the current health status, health-related behaviors and community health needs for the Hospital service area.

In addition to assessing traditional health status indicators, the 2018 CHNA took a close look at social determinants of health such as poverty, housing, transportation, education, fresh food availability, and neighborhood safety.   Social determinants of health have become a national priority for identifying and addressing health disparities, and Hartford HealthCare is committed to addressing these disparities through the Community Health Improvement Plan that will follow this Assessment.

This CHNA will be used to develop an ongoing, measurable Community Health Improvement Plan ("CHIP") that will focus on those top priorities identified in this CHNA in order to:

- Improve the health status of the community;
- Identify opportunities for better preventive care and wellness initiatives;
- Address social determinants of health and health disparities within the service area;
- Continuously improve access to and quality of health care and community education that will enable community members to improve their overall well-being.

Percival Health Advisors, a national health care advisory firm with a strong commitment to community health improvement efforts, conducted this Community Health Needs Assessment in conjunction with Hartford HealthCare, its East Region Board, and its many community health partners.

METHODOLOGY OVERVIEW

This assessment incorporates data from both quantitative and qualitative sources. The quantitative assessment allows for comparison of leading health indicators to benchmark data at the state and national levels. Additionally, where available, local data was compared to Healthy People 2020 ("Healthy People") target metrics.

The Healthy People initiative provides national objectives for improving the health of all Americans. The objectives were developed through an extensive stakeholder feedback process that integrates input from public health and prevention experts, and federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public.

Key sources of quantitative data include, but are not limited to:

- Connecticut Department of Public Health
- Centers for Disease Control and Prevention
- Connecticut Hospital Association
- United States Census Bureau
- U. S. Department of Health & Human Services

In addition to the quantitative data sources outlined above, qualitative input was used to further inform the CHNA. A focus group and individual key informant interviews were conducted from February to June 2018 with representatives from Hartford HealthCare, the Hospital and numerous community-based organizations and social services agencies. Participants were asked to identify and discuss the top community health issues facing the service area. These responses were tallied and summarized, and additional qualitative perspective was added from key informant interviews. This summary was presented to the Hartford HealthCare Central Region Board for further discussion and input regarding the top community health needs and priorities.

IRS FORM 990 SCHEDULE H

For non-profit hospitals, a Community Health Needs Assessment (CHNA) also serves to satisfy specific requirements of tax reporting, under provisions of the Patient Protection & Affordable Care Act of 2010. The following table cross-references which sections of this report relate to the hospital's reporting requirements on IRS Form 990 Schedule H.

IRS Form 990 Schedule H	Report Page(s)
Part V Section B Line 3a A definition of the community served by the hospital facility	20-23
Part V Section B Line 3b Demographics of the community	24
Part V Section B Line 3c Existing health care facilities and resources within the community that are available to respond to the health needs of the community	53-56
Part V Section B Line 3d How data was obtained	7-8
Part V Section B Line 3e The significant health needs of the community	11
Part V Section B Line 3f Primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups	Addressed Throughout
Part V Section B Line 3g The process for identifying and prioritizing community health needs and services to meet the community health needs	12-18
Part V Section B Line 3h The process for consulting with persons representing the community's interests	5
Part V Section B Line 3i The impact of any actions taken to address the significant health needs identified in the hospital facility's prior CHNA(s)	57-59

DATA SOURCES

In addition to the information provided by Hartford Healthcare and the Hospital, the external data sources included for each section of this report are as follows:

Data Element	Data Source
• **Local Area Definitions**	Connecticut Department of Public Health
• **Characteristics and Causes of Death**	Centers for Disease Control and Prevention
• **Insurance Coverage Estimates**	Connecticut Hospital Association
• **Medically Underserved Areas** • **Health Professional Shortage Areas**	U.S. Department of Health & Human Services
• **Demographics** • **Ethnicity Distributions** • **Median Household Incomes** • **Homeownership Rates**	The Nielsen Company
• **Poverty Metrics** • **Unemployment Rates** • **Educational Metrics**	American Community Survey
• **Children in Poverty and Single-Parent Households** • **Linguistically Isolated Populations** • **Uninsured Population Estimates** • **Clinical Provider Ratios** • **Physical Environment Metrics**	County Health Rankings
• **Crime Rates**	State of Connecticut
• **General Health Status Indicators**	Connecticut Department of Public Health Centers for Disease Control and Prevention
• **Cancer Prevalence and Screening Indicators**	Community Commons Health Indicators Report
• **Cardiovascular Disease**	Connecticut Department of Public Health Community Commons Health Indicators Report
• **Respiratory Disease**	Connecticut Department of Public Health Community Commons Health Indicators Report
• **Diabetes**	Connecticut Department of Public Health County Health Rankings Centers for Disease Control and Prevention
• **Infectious Diseases**	Connecticut Department of Public Health Centers for Disease Control and Prevention
• **Sexually Transmitted Diseases**	Centers for Disease Control and Prevention Community Commons Health Indicators Report
• **Births and Prenatal Care**	Centers for Disease Control and Prevention
• **Health Behaviors**	Connecticut Department of Public Health
• **Benchmark Metrics**	HealthyPeople2020

KEY PARTICIPANTS AND CONTRIBUTORS

The qualitative information included in this report was gathered through interviews, surveys, planning sessions and discussions with representatives from the following organizations:

- Center for Healthy Aging
- Connecticut Legal Services
- Eastern Connecticut Health Insurance Program (ECHIP)
- Eastern Connecticut Workforce Board
- Eastern Highlands Health District
- Generations
- Mansfield Youth Services
- NCDHD
- Natchaug Hospital
- Northeast District Department of Health
- St. Joseph's Living
- Town of Mansfield
- UConn Student Health Services
- United Services, Inc
- Willimantic DCF office
- Willimantic Fire Department
- Willimantic Police
- Windham Hospital
- Windham Public Schools
- Windham Region Transit District

LIMITATIONS IN DATA AND INFORMATION

While this report was designed to provide a comprehensive assessment of the community's overall health, we recognize that it cannot accurately measure all possible aspects of the community's health.

This assessment incorporates a significant amount of quantitative data that was collected from a variety of sources. However, this information was sometimes limited as to the level of geographic detail or demographic identifier, availability for all diseases and health indicators, and by the timeliness of the information's reporting period.

Qualitatively, many community individuals were involved in the development of this report, however, given that input was not provided by all community members, there may be instances where specific health issues are not adequately represented.

These information gaps could potentially limit this report's ability to assess all of the community's health needs.

KEY FINDINGS AND PRIORITIES
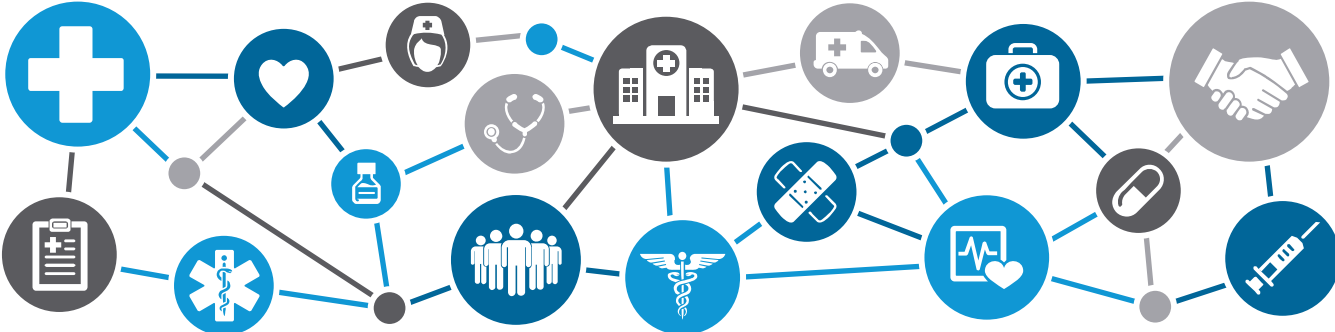
SIGNIFICANT COMMUNITY HEALTH NEEDS

Based on data analysis, surveys, focus groups, and interviews, these are the top community health needs and priorities identified for the Natchaug Hospital focus area. Mental health issues were identified as a top area need.

- Undocumented citizens not seeking or accepting care for fear of losing other services
- The stigma of mental health difficult to overcome
- Availability of services for children
- Home behavioral health services can be 6-8 weeks on the waiting list
- Need for more providers and more screening services
- Shortage of psychiatrists, difficult to recruit based on comparatively lower pay
- Need for more youth based mental health programs
- Mental health patients get dumped in hospital EDs — more and more are not able to be medically and behaviorally handled
- All three counties have less primary care physicians, dentists, and mental health providers per person than the State of Connecticut. New London County has better provider ratios than Windham or Tolland counties, which are significantly worse than the State of Connecticut and the top 10th percentile of counties across the United States.

Clinical Provider Ratios

Population Ratio [1]	New London County	Windham County	Tolland County	State of Connecticut	United States
Primary Care Physicians	1,486	1,976	1,966	1,180	1,030
Dentists	1,466	2,113	2,042	1,180	1,280
Mental Health Providers	309	360	477	290	330

Source: County Health Rankings
[1] Number of persons per provider

- The service area has slightly better physical health metrics and comparable mental health metrics to the State of Connecticut. Tolland County has the lowest rates of poor physical and mental health.
- The results of the community forum in May 2018, where participants asked to prioritize from a list of 15 top community needs, reveal mental health issues as the #1 top priority
- Substance abuse was identified as a top issue:
    - Prevalence of smoking is a big issue
    - Placement after discharge and follow-up issues for patients with substance abuse
    - Need for a detox facility in the area
    - Need for prevention in opioid treatment

HEALTHY PEOPLE 2020 KEY BENCHMARKS AND METRICS

The following table highlights some of the service area's key health metrics as compared to the State of Connecticut and the Healthy People 2020 targeted benchmarks. The indicators shown in the table below reflect data from the Connecticut Department of Health's Local Analysis.

Green text indicates metrics that are better than the Healthy People 2020 benchmark, and red text indicates metrics that are worse than the Healthy People 2020 benchmark. The service area and the State of Connecticut have the same indicators that are above and below the Healthy People 2020 benchmarks.

	SERVICE AREA	STATE OF CONNECTICUT	HEALTHY PEOPLE 2020
HEALTH STATUS INDICATORS			
Good Physical Health	84.2%	84.6%	79.8%
Good Mental Health	83.6%	84.0%	80.1%
Healthy Weight	35.9%	38.6%	33.9%
HEALTH RISK BEHAVIORS			
No Leisure Time or Physical Activity	22.5%	23.2%	32.6%
Current Cigarette Smoking	16.8%	15.3%	12.0%
Excessive Alcohol Consumption	19.1%	18.9%	25.4%
HEALTH PROTECTIVE BEHAVIORS			
Influenza Vaccination	43.2%	41.9%	90.0%
Pneumococcal Vaccination	72.0%	70.1%	90.0%
HIV Test	33.8%	35.6%	73.6%

LOCAL AREA INDICATORS

SELECTED LOCAL AREAS

In order to understand population health behaviors and indicators at a more granular level, metrics were retrieved from the Connecticut Department of Health based on their 53 local area definitions based on county subdivisions, with selected area definitions highlighted in the table below.

Natchaug Hospital
Selected Local Areas

Local Area/Included Cities and Towns	Label
5 - East Windsor, Ellington, Enfield, Somers, Suffield, Windsor Locks	East Windsor
6 - Manchester, Vernon	Manchester
12 - Groton, New London	New London
13 - Chester, Colchester, Durham, East Haddam, East Hampton, Haddam, Hebron, Marlborough, Middlefield, Portland	East Haddam
14 - Killingly, Plainfield, Putnam, Sterling, Thompson	Killingly
19 - East Lyme, Ledyard, Waterford	East Lyme
21 - Andover, Ashford, Bolton, Chaplin, Columbia, Coventry, Scotland, Tolland	Coventry
25 - Bozrah, Lebanon, North Stonington, Salem, Stonington	Stonington
27 - Mansfield, Stafford, Willington	Stafford
39 - Clinton, Deep River, Essex, Lyme, Old Lyme, Old Saybrook, Westbrook	Old Saybrook
44 - Brooklyn, Canterbury, Eastford, Hampton, Pomfret, Union, Woodstock	Brooklyn
47 - Norwich	Norwich
48 - Franklin, Griswold, Lisbon, Montville, Preston, Sprague, Voluntown	Griswold
53 - Windham	Windham

Source: Connecticut Department of Public Health

LOCAL HEALTH INDICATOR DEFINITIONS

The following table provides definitions for each of the local health indicators.

Health Indicator Definitions

Health Indicator	Definition
Health Status Indicators	
Good or Better General Health (% of Adults)	General health categorized as "Good", "Very Good", or "Excellent"
Good Physical Health (% of Adults)	Less than 14 days in the last 30 days where their physical health was not good
Good Mental Health (% of Adults)	Less than 14 days in the last 30 days where their mental health was not good
Healthy Weight (% of Adults)	Body-mass index between 18.5 and 25.0
Health Risk Behaviors	
No Leisure Time or Physical Activity (% of Adults)	No participation in any physical activities or exercise, outside of work, in the last 30 days
Current Cigarette Smoking (% of Adults)	Smoke cigarettes every day or some days
Excessive Alcohol Consumption (% of Adults)	Classified as a heavy or binge drinker. Heavy drinking is defined as at least three drinks daily for men or at least two drinks daily for women. Binge drinking is defined as six or more drinks during one occasion for men, or five or more drinks per occasion for women.
Health Protective Behaviors	
Routine Check-Ups (% of Adults)	Visited a doctor for a routine checkup in the past two years
Influenza Vaccination (% of Adults)	Received a flu shot or vaccine within the last year
Pneumococcal Vaccination (% of Adults Aged 65+)	Received a pneumonia short or vaccine in their lifetime
HIV Test (% of Adults Aged 18-64)	Tested for HIV in their lifetime
Chronic Conditions	
Current Asthma (% of Adults)	Diagnosed with asthma
Arthritis (% of Adults)	Diagnosed with arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia
Diabetes (% of Adults)	Diagnosed with diabetes
Depression (% of Adults)	Diagnosed with a depressive disorder
Chronic Obstructive Pulmonary Disease (% of Adults)	Diagnosed with COPD, emphysema, or chronic bronchitis
Cardiovascular Disease (% of Adults)	Diagnosed with a heart attack, myocardial infarction, angina, coronary heart disease, or stroke

Source: Connecticut Department of Public Health

SUMMARY OF LOCAL INDICATORS

The following chart outlines health indicators by local area as compared to the State of Connecticut. Scores range from one to five stars, from significantly worse to significantly better than the State of Connecticut, respectively.

	HEALTH STATUS BEHAVIORS	HEALTH RISK BEHAVIORS	HEALTH PROTECTIVE BEHAVIORS	CHRONIC CONDITIONS
Brooklyn	★★★★☆	★★★★☆	★★★☆☆	★★☆☆☆
Coventry	★★★★☆	★★★★★	★★☆☆☆	★★★☆☆
East Haddam	★★★★☆	★★★★☆	★★★☆☆	★★★★☆
East Lyme	★★★★☆	★★★★★	★★★★★	★★☆☆☆
East Windsor	★★★★☆	★★★☆☆	★★★☆☆	★★★☆☆
Griswold	★★☆☆☆	★★☆☆☆	★★☆☆☆	★★☆☆☆
Killingly	★☆☆☆☆	★★☆☆☆	★★★☆☆	★☆☆☆☆
Manchester	★★☆☆☆	★★☆☆☆	★★★☆☆	★★☆☆☆
New London	★★☆☆☆	★☆☆☆☆	★★★★☆	★★☆☆☆
Norwich	★★☆☆☆	★★★☆☆	★★★☆☆	★★★☆☆
Old Saybrook	★★★★☆	★★★★☆	★★★★☆	★★★☆☆
Stafford	★★★★☆	★★★☆☆	★★★☆☆	★★★☆☆
Stonington	★★★☆☆	★★★★☆	★★☆☆☆	★★★★☆
Windham	★☆☆☆☆	★☆☆☆☆	★★★★☆	★☆☆☆☆
Service Area	★★★☆☆	★★★☆☆	★★★☆☆	★★★☆☆

DETAILED LOCAL INDICATORS

The following tables provide additional detail for each local area's health indicator.

Health Indicators and Behaviors
Prevalence as a Percent of Adult Population

Health Indicator	Local Area							Natchaug Service Area	State of Connecticut
	East Windsor	Manchester	New London	East Haddam	Killingly	East Lyme	Coventry		
Health Status Indicators									
Good or Better General Health	89.1%	85.0%	83.0%	90.7%	81.1%	89.2%	90.5%	87.2%	85.6%
Good Physical Health	83.0%	82.3%	84.2%	87.4%	80.1%	83.4%	87.4%	84.2%	84.6%
Good Mental Health	83.6%	81.3%	76.0%	85.1%	83.5%	84.6%	87.1%	83.6%	84.0%
Healthy Weight	35.8%	31.4%	38.5%	37.8%	30.0%	36.3%	37.3%	35.9%	38.6%
Health Risk Behaviors									
No Leisure Time or Physical Activity	25.4%	21.9%	29.0%	20.5%	25.1%	16.1%	16.4%	22.5%	23.2%
Current Cigarette Smoking	16.9%	21.9%	23.4%	11.7%	21.1%	9.6%	11.2%	16.8%	15.3%
Excessive Alcohol Consumption	20.6%	17.3%	18.9%	20.0%	19.1%	13.6%	22.4%	19.1%	18.9%
Health Protective Behaviors									
Routine Check-Ups	88.5%	84.2%	89.8%	85.5%	84.7%	90.4%	86.8%	87.0%	86.8%
Influenza Vaccination	41.3%	41.2%	38.8%	47.8%	44.0%	50.8%	43.7%	43.2%	41.9%
Pneumococcal Vaccination	72.0%	74.7%	74.9%	71.8%	75.0%	78.0%	66.5%	72.0%	70.1%
HIV Test	32.9%	39.1%	45.9%	29.3%	33.2%	30.4%	27.2%	33.8%	35.6%
Chronic Conditions									
Current Asthma	9.4%	12.7%	11.9%	13.4%	12.2%	11.5%	9.9%	11.0%	9.8%
Arthritis	25.7%	25.8%	22.5%	23.8%	30.2%	28.6%	23.6%	26.0%	23.9%
Diabetes	9.5%	8.8%	7.9%	6.9%	13.9%	8.0%	7.7%	8.9%	9.1%
Depression	18.9%	23.5%	22.8%	13.4%	20.7%	17.1%	17.5%	18.9%	17.2%
Chronic Obstructive Pulmonary Disease	6.4%	8.3%	6.9%	4.8%	9.4%	6.0%	4.9%	6.7%	5.5%
Cardiovascular Disease	7.6%	8.0%	6.7%	8.0%	8.6%	8.2%	7.2%	7.6%	7.3%

Source: Connecticut Department of Public Health

Significantly Better Than State Average

Significantly Worse Than State Average

Health Indicators and Behaviors
Prevalence as a Percent of Adult Population

| Health Indicator | Local Area | | | | | | | Natchaug Service Area | State of Connecticut |
	Stonington	Stafford	Old Saybrook	Brooklyn	Norwich	Griswold	Windham		
Health Status Indicators									
Good or Better General Health	87.8%	87.9%	91.2%	90.7%	83.4%	88.1%	77.7%	87.2%	85.6%
Good Physical Health	86.7%	86.0%	87.2%	88.2%	82.9%	83.6%	76.8%	84.2%	84.6%
Good Mental Health	87.1%	84.2%	87.2%	84.5%	83.7%	85.8%	78.3%	83.6%	84.0%
Healthy Weight	39.2%	45.7%	40.3%	39.6%	28.5%	30.0%	36.0%	35.9%	38.6%
Health Risk Behaviors									
No Leisure Time or Physical Activity	16.3%	21.5%	18.0%	20.6%	28.5%	24.2%	31.0%	22.5%	23.2%
Current Cigarette Smoking	13.9%	12.4%	12.0%	16.1%	27.0%	16.6%	21.1%	16.8%	15.3%
Excessive Alcohol Consumption	20.3%	21.5%	20.2%	14.2%	14.5%	24.8%	17.2%	19.1%	18.9%
Health Protective Behaviors									
Routine Check-Ups	88.5%	87.1%	87.6%	88.7%	86.9%	87.0%	82.0%	87.0%	86.8%
Influenza Vaccination	43.8%	42.7%	48.4%	41.7%	39.8%	40.8%	37.8%	43.2%	41.9%
Pneumococcal Vaccination	65.3%	70.0%	76.9%	75.7%	66.5%	66.9%	65.0%	72.0%	70.1%
HIV Test	27.8%	34.8%	30.9%	30.5%	38.5%	27.8%	45.3%	33.8%	35.6%
Chronic Conditions									
Current Asthma	5.0%	9.4%	8.2%	13.2%	11.4%	11.2%	14.4%	11.0%	9.8%
Arthritis	26.7%	21.5%	28.8%	29.8%	27.9%	28.7%	24.7%	26.0%	23.9%
Diabetes	7.5%	7.3%	5.5%	11.7%	11.1%	10.6%	10.0%	8.9%	9.1%
Depression	13.8%	16.9%	16.0%	18.5%	20.0%	18.5%	29.6%	18.9%	17.2%
Chronic Obstructive Pulmonary Disease	5.0%	5.0%	5.0%	10.0%	9.1%	9.2%	5.0%	6.7%	5.5%
Cardiovascular Disease	10.1%	6.2%	6.2%	8.6%	7.7%	7.0%	5.0%	7.6%	7.3%

Source: Connecticut Department of Public Health

Significantly Better Than State Average

Significantly Worse Than State Average

MAP OF RESIDENTS REPORTING GOOD MENTAL HEALTH
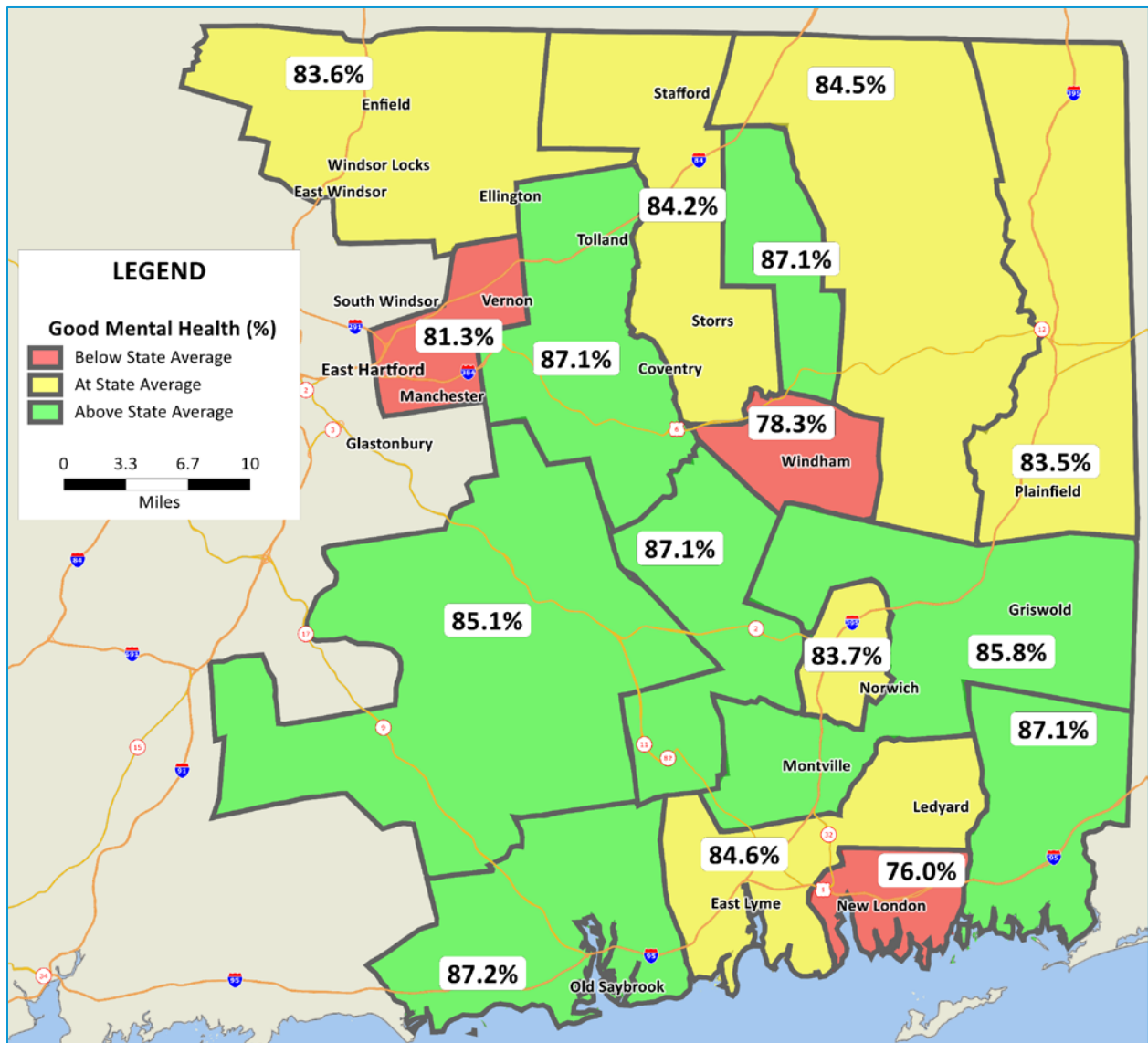
COMMUNITY DEFINITION AND OVERVIEW
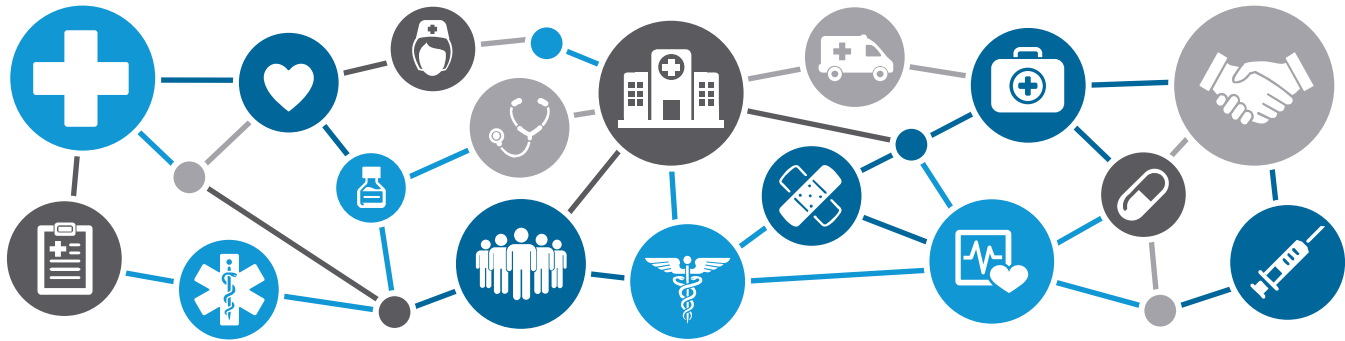
SERVICE AREA DEFINITION

The Hospital's service area definition was provided by Hartford HealthCare and is defined by the 82 ZIP Codes highlighted on the map below. When available, information relating to these specific ZIP Codes was integrated into this report.

COMMUNITY DEFINITION AND OVERVIEW

The following table outlines the ZIP Codes that comprise the Hospital's service area definition as provided by Hartford HealthCare.

Natchaug Hospital
Service Area Definition

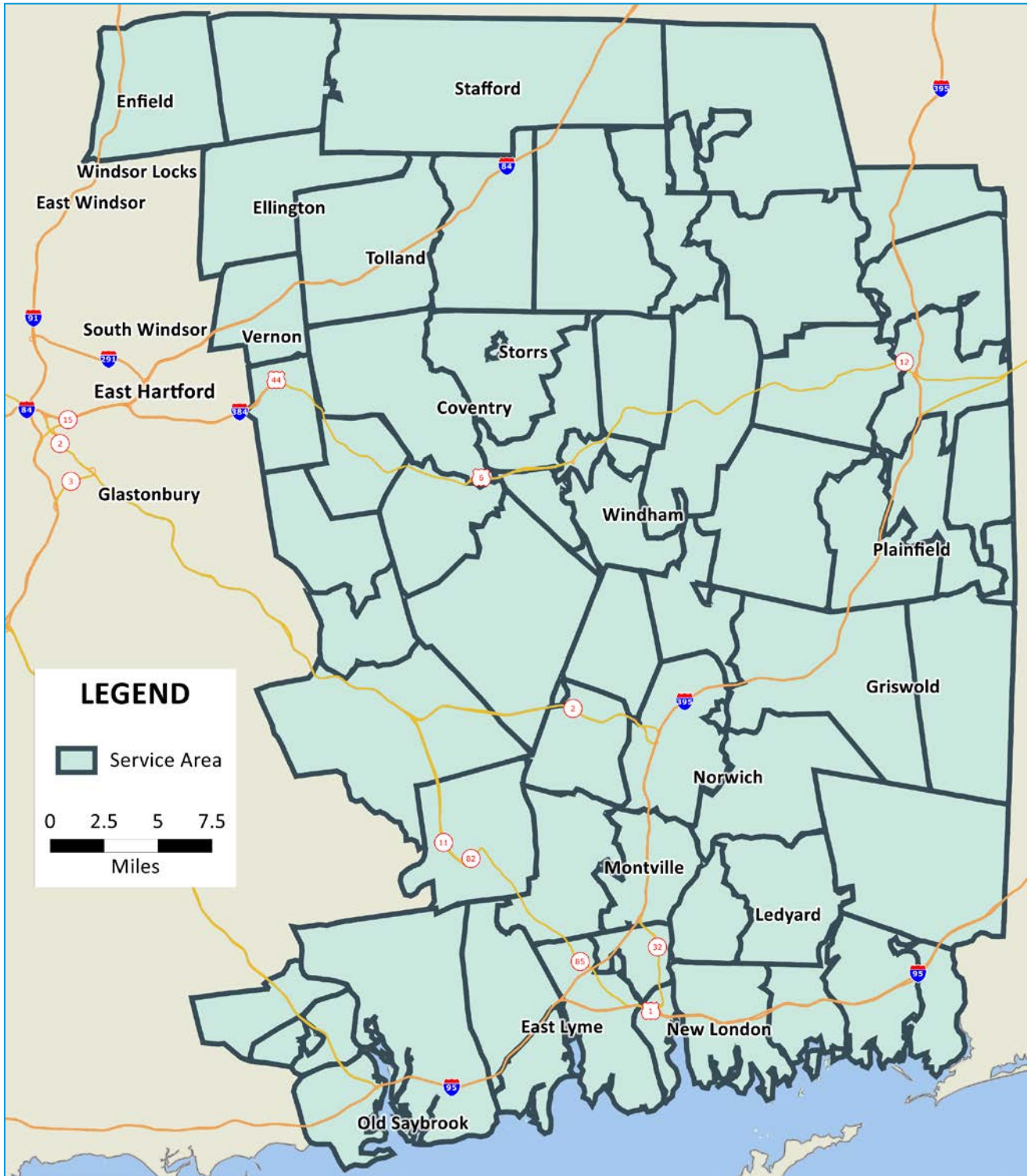| ZIP Code	City	State	ZIP Code	City	State
06029	Ellington	CT	06330	Baltic	CT
06043	Bolton	CT	06331	Canterbury	CT
06066	Vernon Rockville	CT	06332	Central Village	CT
06071	Somers	CT	06333	East Lyme	CT
06075	Stafford	CT	06334	Bozrah	CT
06076	Stafford Springs	CT	06335	Gales Ferry	CT
06082	Enfield	CT	06336	Gilman	CT
06083	Enfield	CT	06339	Ledyard	CT
06084	Tolland	CT	06340	Groton	CT
06226	Willimantic	CT	06349	Groton	CT
06231	Amston	CT	06350	Hanover	CT
06232	Andover	CT	06351	Jewett City	CT
06233	Killingly	CT	06353	Montville	CT
06234	Brooklyn	CT	06354	Moosup	CT
06235	Chaplin	CT	06355	Mystic	CT
06237	Columbia	CT	06357	Niantic	CT
06238	Coventry	CT	06359	North Stonington	CT
06239	Danielson	CT	06360	Norwich	CT
06241	Dayville	CT	06365	Preston	CT
06242	Eastford	CT	06370	Oakdale	CT
06243	East Killingly	CT	06371	Old Lyme	CT
06247	Hampton	CT	06373	Oneco	CT
06248	Hebron	CT	06374	Plainfield	CT
06249	Lebanon	CT	06375	Quaker Hill	CT
06250	Mansfield Center	CT	06377	Sterling	CT
06254	North Franklin	CT	06378	Stonington	CT
06256	North Windham	CT	06379	Pawcatuck	CT
06258	Pomfret	CT	06380	Taftville	CT
06259	Pomfret Center	CT	06382	Uncasville	CT
06260	Putnam	CT	06384	Voluntown	CT
06263	Rogers	CT	06385	Waterford	CT
06264	Scotland	CT	06386	Waterford	CT
06266	South Windham	CT	06387	Wauregan	CT
06268	Storrs Mansfield	CT	06409	Centerbrook	CT
06269	Storrs Mansfield	CT	06415	Colchester	CT
06278	Ashford	CT	06417	Deep River	CT
06279	Willington	CT	06420	Salem	CT
06280	Windham	CT	06426	Essex	CT
06281	Woodstock	CT	06439	Lyme	CT
06282	Woodstock Valley	CT	06442	Ivoryton	CT
06320	New London	CT	06475	Old Saybrook	CT

SELECTED COUNTIES

Due to limited data available at the ZIP Code level, when appropriate, key information and metrics were calculated and assessed for Tolland, Windham, and New London counties, which are highlighted in the map below.
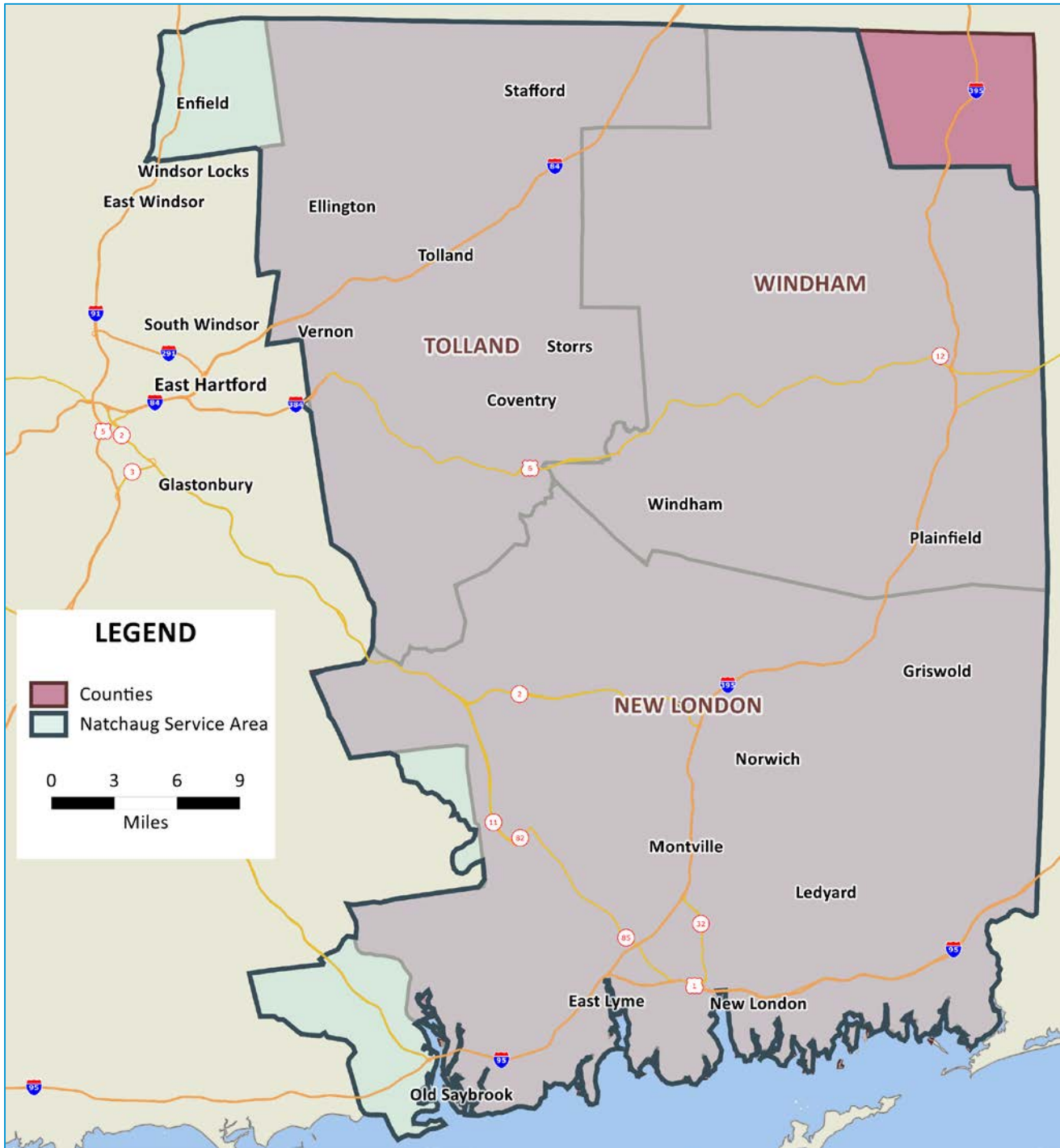
CONNECTICUT DEPARTMENT OF HEALTH LOCAL AREAS

In addition to county data, in order to understand population health behaviors and indicators at a more granular level, metrics were retrieved from the Connecticut Department of Health based on their 53 local area definitions based on county subdivisions. Health indicators for the local areas highlighted in blue in the map below were assessed in aggregate and are incorporated into this report.
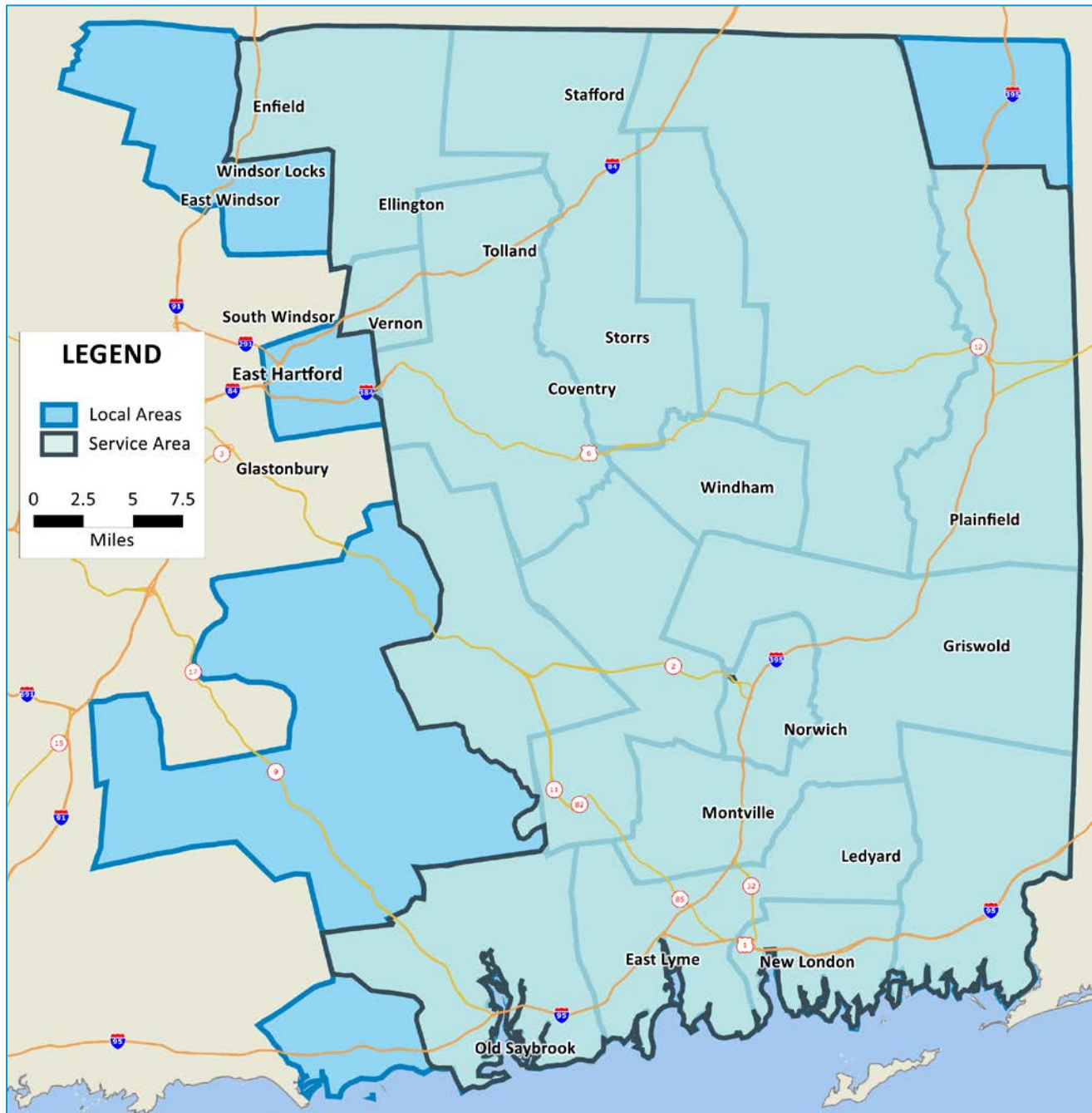
POPULATION GROWTH AND AGE DISTRIBUTION

Overall, the service area population is expected to decrease by 0.5% over the next five years, compared to a 0.4% increase in the State of Connecticut in total. However, similar to national trends, the population is projected to shift towards residents aged 65 and older.

Demographic Summary

Age Group	Population		Percent	Distribution (%)	
	2017	2022	Change	2017	2022
Service Area					
0 - 17	114,181	107,115	-6.2%	19.2%	18.1%
18 - 44	211,361	210,524	-0.4%	35.5%	35.6%
45 - 64	169,331	159,902	-5.6%	28.5%	27.0%
65+	99,703	113,771	14.1%	16.8%	19.2%
Total/Overall	**594,576**	**591,312**	**-0.5%**	**100.0%**	**100.0%**
State of Connecticut					
0 - 17	749,574	711,393	-5.1%	20.9%	19.7%
18 - 44	1,224,277	1,227,332	0.2%	34.1%	34.1%
45 - 64	1,024,279	985,413	-3.8%	28.5%	27.3%
65+	592,007	679,504	14.8%	16.5%	18.9%
Total/Overall	**3,590,137**	**3,603,642**	**0.4%**	**100.0%**	**100.0%**

Source: The Nielsen Company

ETHNICITY BREAKDOWN

While the total service area population is expected to decline, both the service area and the State of Connecticut are projected to see an increase in Hispanic, black, and other ethnicities, and a decrease in residents who identify as white.

Ethnic Summary

Ethnicity	Population		Percent	Distribution (%)	
	2017	2022	Change	2017	2022
Service Area					
White	472,797	456,268	-3.5%	79.5%	77.2%
Hispanic	53,059	61,221	15.4%	8.9%	10.4%
Black	29,198	31,229	7.0%	4.9%	5.3%
Other	39,522	42,594	7.8%	6.6%	7.2%
Total/Overall	**594,576**	**591,312**	**-0.5%**	**100.0%**	**100.0%**
State of Connecticut					
White	2,400,758	2,293,789	-4.5%	66.9%	63.7%
Hispanic	544,952	614,281	12.7%	15.2%	17.0%
Black	389,366	409,438	5.2%	10.8%	11.4%
Other	255,061	286,134	12.2%	7.1%	7.9%
Total/Overall	**3,590,137**	**3,603,642**	**0.4%**	**100.0%**	**100.0%**

Source: The Nielsen Company

SOCIAL DETERMINANTS OF HEALTH
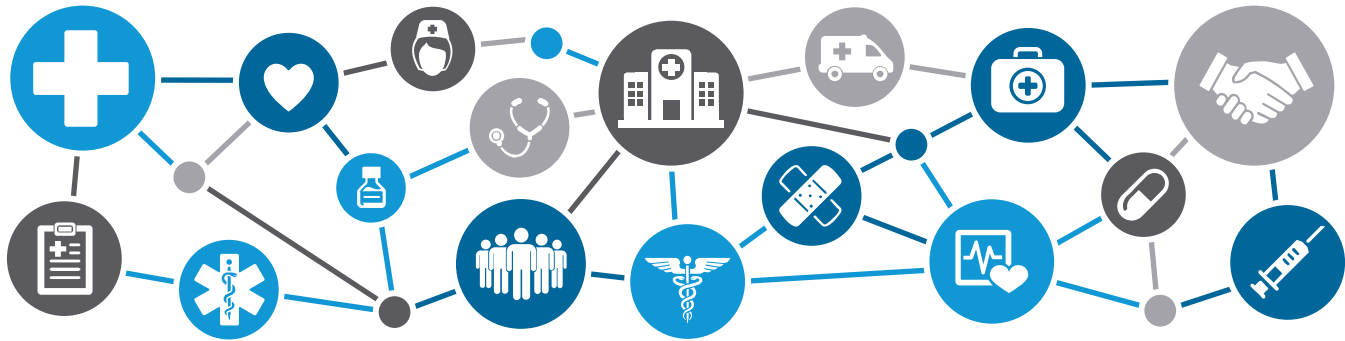
OVERVIEW

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as "place." In addition to the more material attributes of "place," the patterns of social engagement and sense of security and well-being are also affected by where people live. Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins. (HealthyPeople.gov)
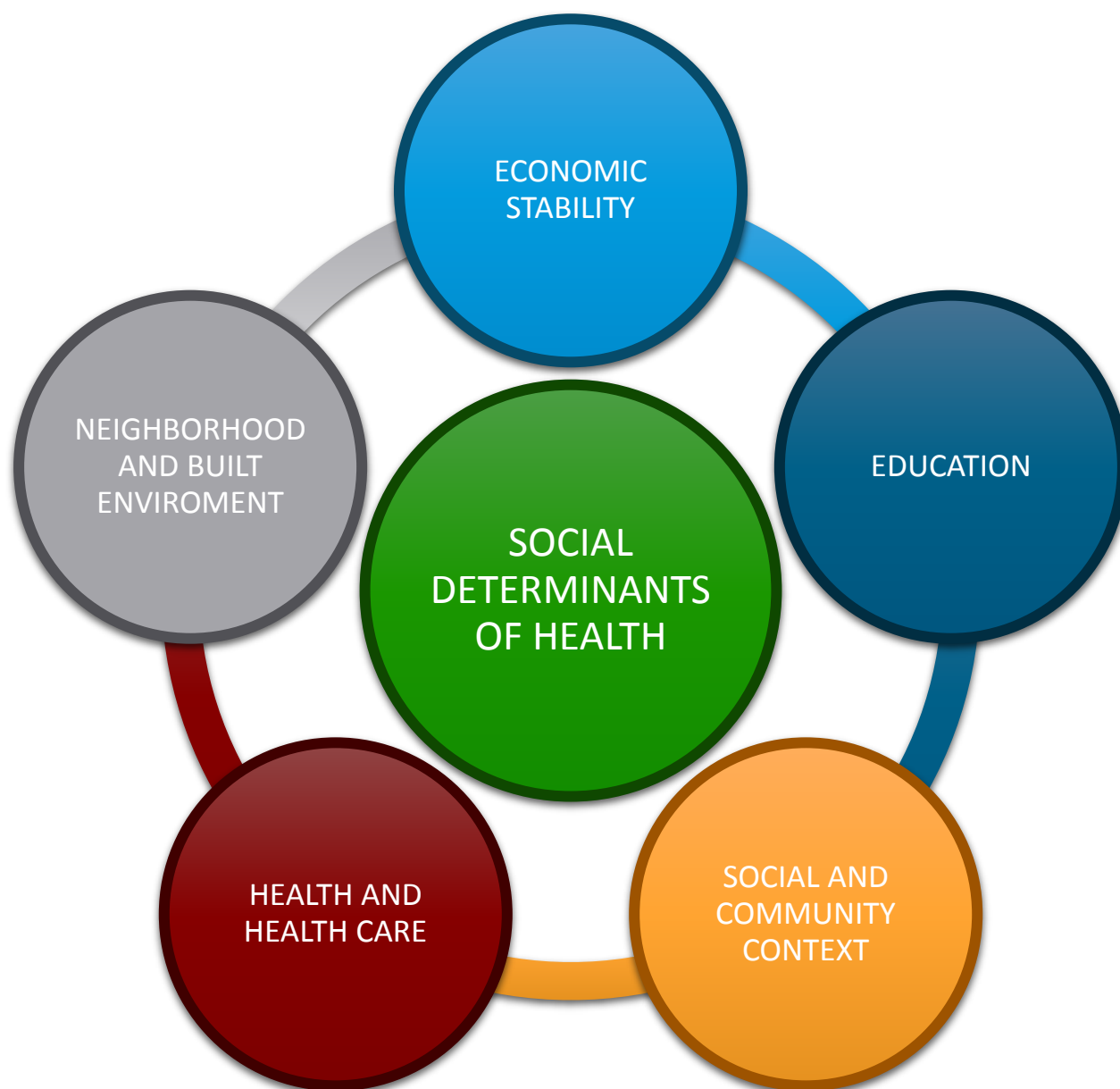
ECONOMIC STABILITY

MEDIAN HOUSEHOLD INCOME

While the service area has a lower median household income compared to the State of Connecticut, the western side has a large concentration of households with income greater than $80,000.

Household Income Summary
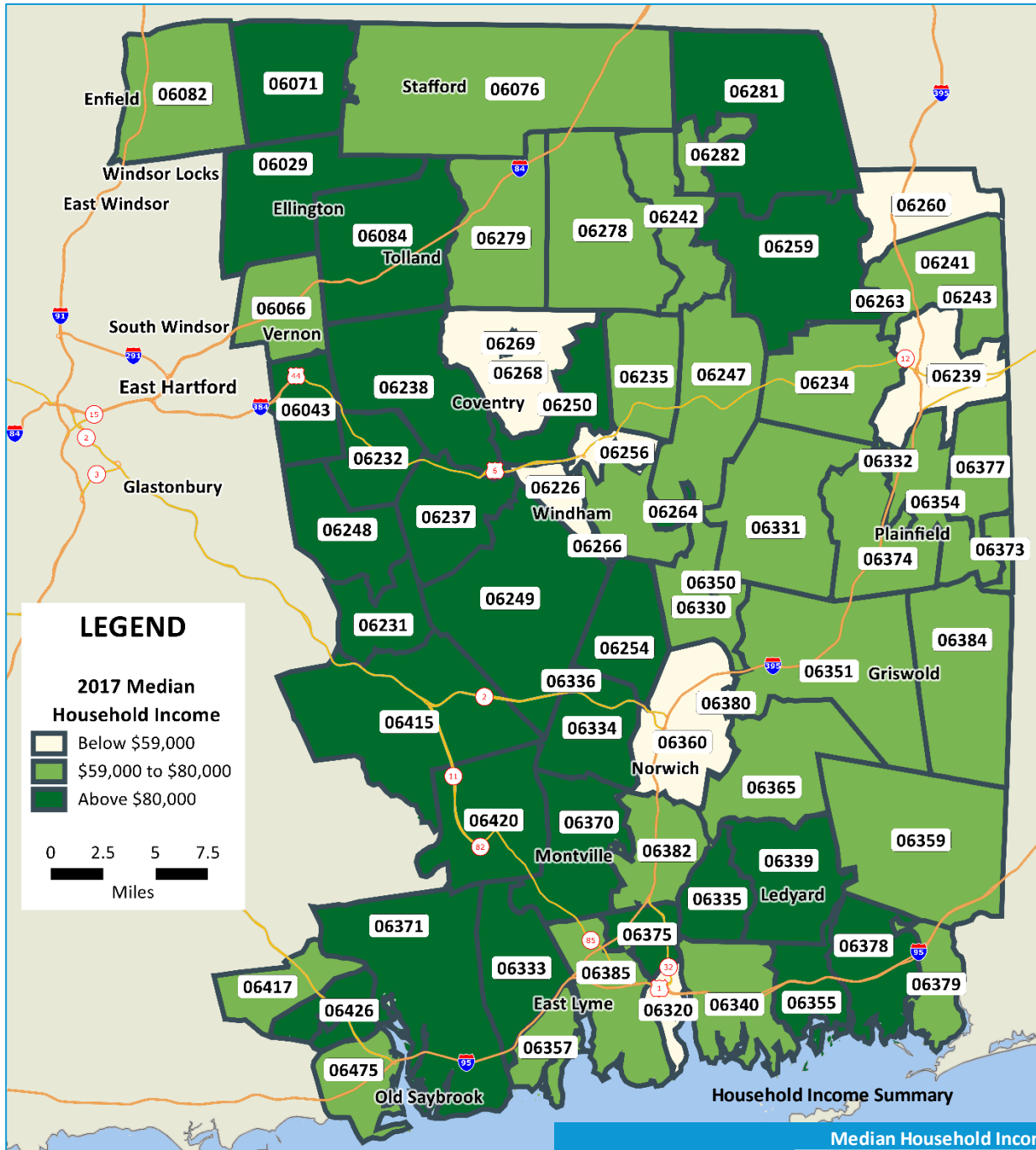
	Median Household Income		
Geographic Region	**2017**	**2022**	**Change (%)**
Service Area	$74,250	$78,563	5.8%
State of Connecticut	$82,202	$87,667	6.6%

Source: The Nielsen Company

POVERTY METRICS

The poverty rates in New London and Tolland counties are lower than the State of Connecticut, whereas the poverty rate in Windham County is higher across all ethnicities and genders.

Poverty Metrics

Percent Below Poverty Line	New London County	Tolland County	Windham County	State of Connecticut	United States
Ethnicity					
White	8.0%	5.9%	9.6%	7.8%	12.4%
Black	21.4%	20.3%	19.1%	20.3%	26.2%
Hispanic	25.8%	22.3%	35.2%	24.5%	23.4%
Total/Overall	**9.9%**	**6.8%**	**11.2%**	**10.4%**	**15.1%**
Male	8.8%	6.0%	9.5%	9.4%	13.8%
Female	10.9%	7.6%	12.9%	11.3%	16.3%

Source: American Community Survey

Key Informant Comments on Poverty

Poverty is the top social determinant of community health issues in our area

In this area, there are lots of poor people, and one needs to make $18/hr to afford to live, but many people don't, so poverty a huge issue

CHILDREN IN POVERTY AND SINGLE-PARENT HOUSEHOLDS

The percentage of children living in poverty and in single-parent households is significantly lower in Tolland County as compared to the State of Connecticut, and comparable in New London and Windham counties.

Children in Poverty and Single-Parent Households
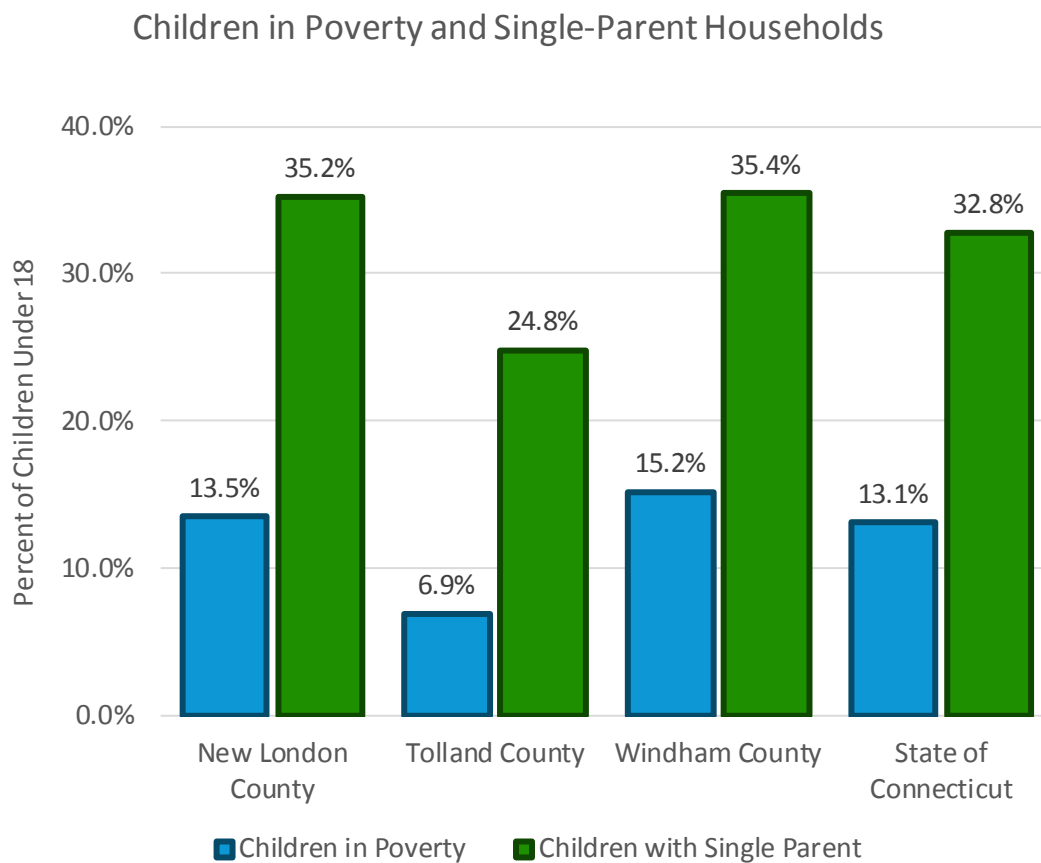
Source: County Health Rankings

HOMEOWNERSHIP RATES

The service area has a greater percentage of homeowners than the State of Connecticut, and it is projected to remain consistent through 2022.

Home Ownership Rates

Geographic Region	Percent of Households		
	2017	2022	Variance
Service Area			
Owner	70.7%	70.6%	-0.1%
Renter	29.3%	29.4%	0.1%
Total/Overall	**100.0%**	**100.0%**	**0.0%**
State of Connecticut			
Owner	67.3%	67.2%	-0.1%
Renter	32.7%	32.8%	0.1%
Total/Overall	**100.0%**	**100.0%**	**0.0%**

Source: The Nielsen Company

Key Informant Comments on Housing

Housing is substandard in this area as much of it is based on old mill housing from a past era

UNEMPLOYMENT RATES

Compared to the State of Connecticut, the overall unemployment rate in New London County is similar, with lower unemployment rates in Windham and Tolland counties.

Employment Summary

	Unemployment Rate				
Category	New London County	Windham County	Tolland County	State of Connecticut	United States
Ethnicity [1]					
White	7.0%	8.1%	5.9%	6.7%	6.3%
Black	14.0%	8.7%	10.1%	14.6%	13.3%
Hispanic	12.9%	13.6%	8.7%	11.9%	8.7%
Total/Overall	**7.7%**	**8.4%**	**6.3%**	**8.0%**	**7.4%**
Male [2]	7.5%	8.8%	5.5%	7.8%	7.0%
Female [2]	7.5%	6.6%	5.3%	6.9%	6.7%

Source: American Community Survey
[1] Population aged 16 or older
[2] Population aged 20 to 64

Key Informant Comments on Workforce

One of the biggest issues in the community is workforce — we don't have an adequate workforce, and we don't have the technology to help with distances involved with care sites

EDUCATION AND LANGUAGE

LINGUISTICALLY ISOLATED POPULATION

The service area has a significantly lower percentage of households that are considered linguistically isolated as compared to the State of Connecticut. These households are defined by all members 14 years old and over having some difficulty speaking English.

Lingustically Isolated Households
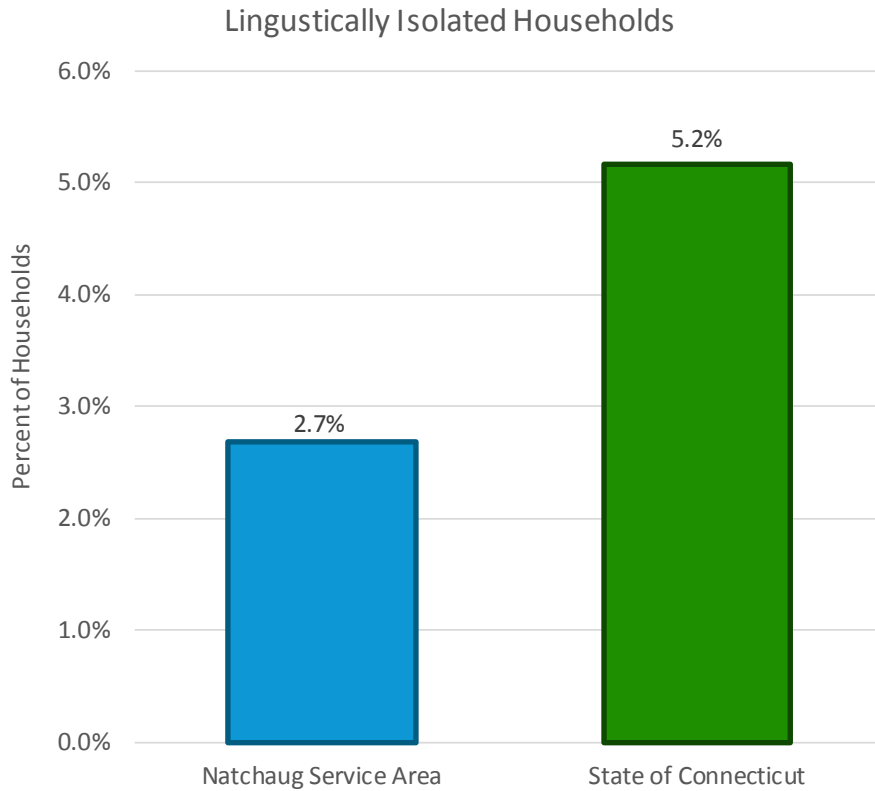
Source: County Health Rankings

Key Informant Comments on Language

When providers are counseling patients, patients comment that they don't understand why they got bills, and why can't someone explain to them in Spanish what is going on? Literacy is a serious issue in the community as well

EDUCATIONAL METRICS

Compared to the State of Connecticut, the average level of educational attainment is lower in the service area, with lower proportions of residents who have earned a bachelor's degree or higher.

Educational Attainment

Level of Attainment	Service Area	State of Connecticut
No High School Diploma	8.5%	9.9%
High School Graduate	30.6%	27.3%
Some College	19.9%	17.3%
Associate's Degree	8.7%	7.5%
Bachelor's Degree	18.4%	21.3%
Graduate Degree	13.9%	16.8%
Total/Overall	**100.0%**	**100.0%**

Source: American Community Survey

HEALTH AND HEALTH CARE

UNINSURED POPULATION

Compared to the State of Connecticut, all three counties have a lower percentage of residents without health insurance and are comparable or better than the top 10th percentile of counties in the United States.

Uninsured Population

Category	Percent
Tolland County	4.2%
New London County	5.5%
Windham County	6.0%
State of Connecticut	6.9%
United States	6.0%
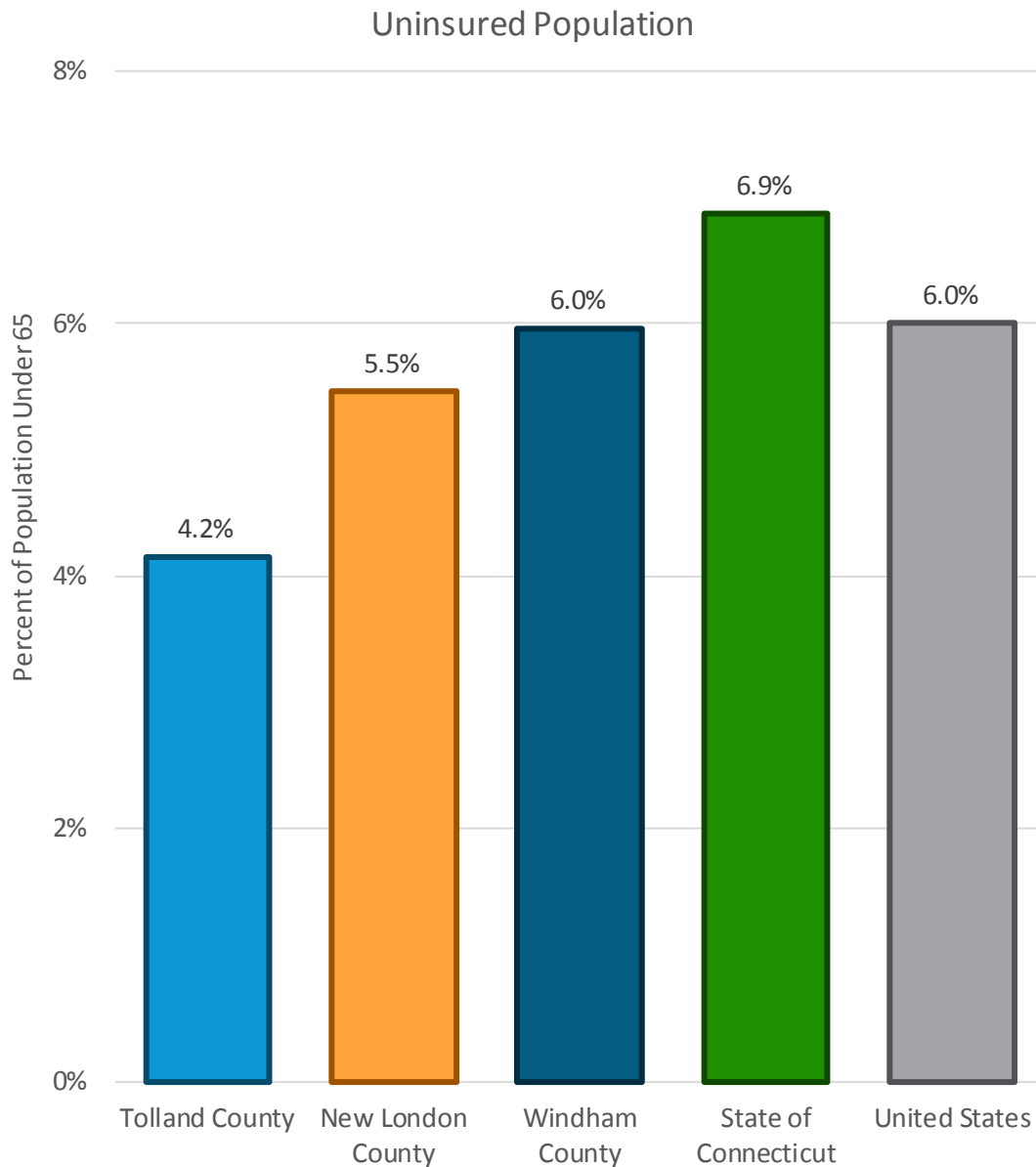
Source: County Health Rankings

INSURANCE COVERAGE

Of the service area's residents who received inpatient care in 2017, approximately 75% of the patient days were covered by governmental coverage (Medicaid/Medicare), which is comparable to the State of Connecticut. However, from an emergency room perspective, the percentage of Medicaid coverage is significantly higher for both the service area and the State of Connecticut, which is expected as these patients are often the highest users of emergency services.

Insurance Coverage Estimates

Payer Category	Service Area	State of Connecticut
Inpatient Days		
Private	23.2%	22.6%
Medicare	53.0%	50.4%
Medicaid	20.1%	24.2%
Other	2.0%	0.9%
Uninsured	1.7%	1.9%
Total/Overall	**100.0%**	**100.0%**
Emergency Room Visits (Non-Admission)		
Private	30.0%	27.6%
Medicare	20.9%	18.8%
Medicaid	38.7%	44.2%
Other	5.0%	2.3%
Uninsured	5.3%	7.1%
Total/Overall	**100.0%**	**100.0%**

Source: Connecticut Hospital Association

Key Informant Comments on Insurance

For patients on the margins, you have to get sick and lose money before eligibility kicks in to get care

The fiasco with Anthem and fiasco with United have caused major issues — large payers like that are having issues — it is not about patient care anymore

People undocumented have no insurance

ACCESS TO HEALTH CARE PROVIDERS

> Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans. This topic area focuses on 3 components of access to care: insurance coverage, health services, and timeliness of care. When considering access to health care, it is important to also include oral health care and obtaining necessary prescription drugs. (HealthyPeople.gov)

All three counties have less primary care physicians, dentists, and mental health providers per person than the State of Connecticut. New London County has better provider ratios than Windham or Tolland counties, which are significantly worse than the State of Connecticut and the top 10th percentile of counties across the United States.

Clinical Provider Ratios

Population Ratio [1]	New London County	Windham County	Tolland County	State of Connecticut	United States
Primary Care Physicians	1,486	1,976	1,966	1,180	1,030
Dentists	1,466	2,113	2,042	1,180	1,280
Mental Health Providers	309	360	477	290	330

Source: County Health Rankings
[1] Number of persons per provider

Key Informant Comments on Access to Providers

Impossible to hire psychiatrists, they don't get paid enough here

Due to funding cuts, visiting nurse service will only go out once a day (used to be twice per day); mental health waiver is only for 8 hours per day

Primary care is less of an access issue, but not the right kind of primary care (patients don't understand the instructions, a quick 10-minute PCP visit doesn't work)

Access to dental care a big issue, FQHC has some but just cleaning and must transfer to Farmington, but dentists don't take Medicaid (oral infections)

Primary care docs a revolving door — PCP's are retiring and not a good hand-off because of large aging population

PCP's having 55-60 percent of panels which are seniors — starting to not take Medicare or Medicaid patients

People are accessing services but not coordinated care

Rural areas are tough to navigate

In North East region, we need surgical specialists, pulmonology, and diabetes care (have to transfer to Backus, Norwich)

MEDICALLY UNDERSERVED AREAS

Medically Underserved Areas and Populations ("MUAs") are geographic regions designated by the Health Resources & Services Administration under the U. S. Department of Health & Human Services as having too few primary care providers, high infant mortality, high poverty or a high elderly population. As shown in the map below, there are six MUAs in the service area.
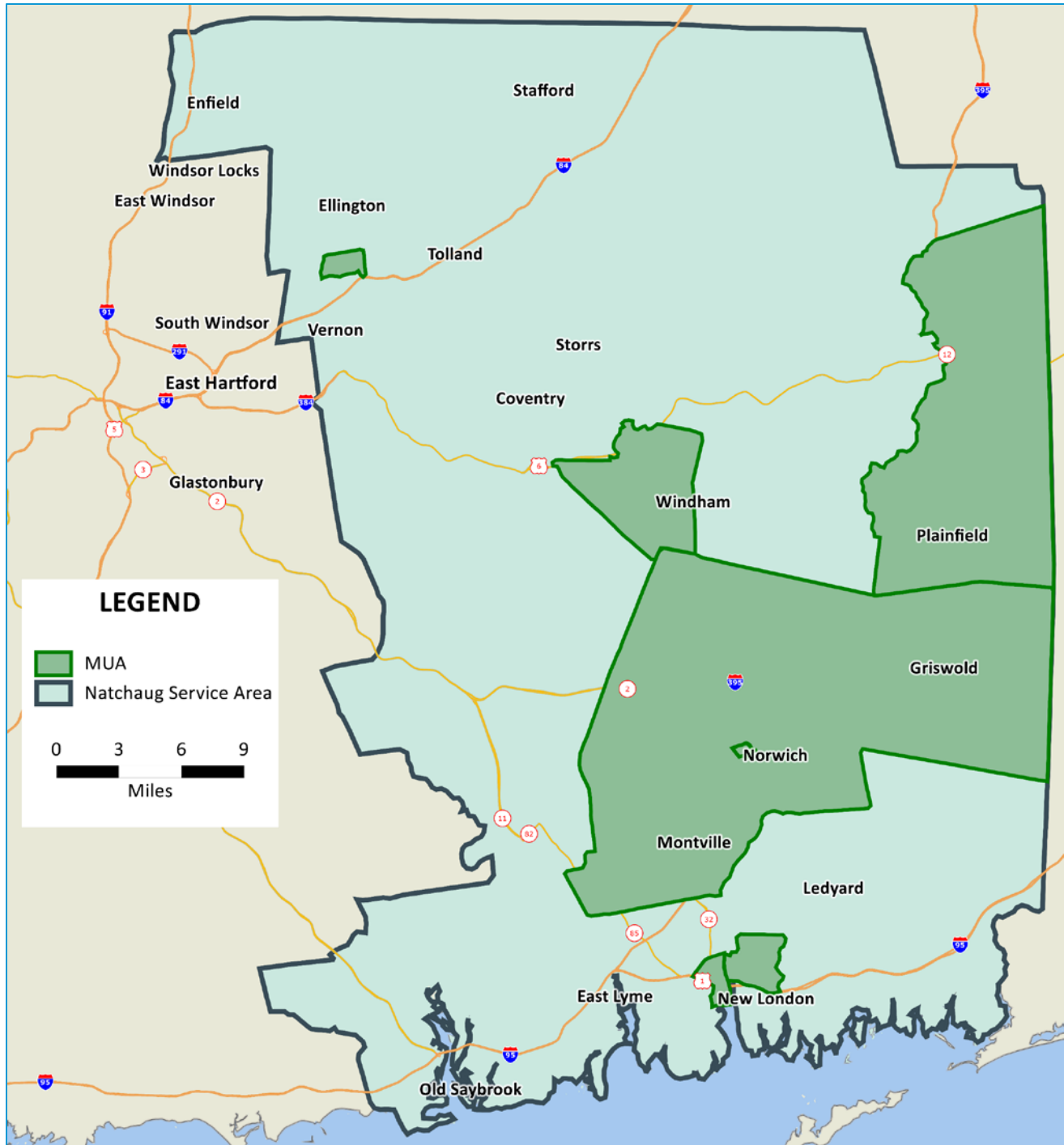
HEALTH PROFESSIONAL SHORTAGE AREAS

Health Professional Shortage Areas (HPSAs) are designated by the Health Resources & Services Administration under the U. S. Department of Health & Human Services as having shortages of primary medical care, dental or mental health providers. As shown in the map below, there are eight primary care HPSAs within the service area.

NEIGHBORHOOD AND BUILT ENVIRONMENT

CRIME AND SAFETY

All three counties have lower crime indices than the State of Connecticut and the United States. Specifically, Windham and Tolland counties have significantly lower crime rates. New London County has comparable burglary and larceny rates to the State of Connecticut, but lower murder, robbery, and motor vehicle theft rates.

Crime Rates

Crime Rate	New London County	Windham County	Tolland County	State of Connecticut	United States
Rate per 100,000 Persons					
Murder	1.1	3.5	0.7	2.2	5.3
Rape	24.2	25.3	14.7	21.7	40.4
Robbery	29.4	23.5	6.3	75.7	102.8
Aggravated Assault	140.3	41.9	32.8	128.1	248.5
Burglary	284.9	150.9	140.2	281.8	468.9
Larceny	1,108.5	524.1	556.0	1,333.5	1,745.0
Motor Vehicle Theft	95.1	75.0	72.6	198.5	236.9
Crime Index Total	**1,683.5**	**844.2**	**823.3**	**2,041.4**	**2,847.8**

Source: 2016 Annual Report of the Uniform Crime Reporting Program - State of Connecticut

PHYSICAL ENVIRONMENT

Compared to the State of Connecticut, New London and Windham counties have slightly better air pollution, whereas Tolland County has slightly worse air pollution. Additionally, all three counties have less severe housing problems, but word food environment indices than the State of Connecticut.

Physical Environment

| Indicator	New London County	Windham County	Tolland County	State of Connecticut	United States
Air Pollution [1]	7.8	8.0	8.4	8.2	6.7
Severe Housing Problems [2]	15.4%	17.0%	12.0%	19.0%	9.0%
Food Environment Index [3]	7.9	8.2	8.1	8.5	8.6

Source: County Health Rankings

[1] Average daily density of fine particulate matter in micrograms per cubic meter

[2] Percent of households with overcrowding, high housing costs, or lack kitchen/plumbing facilities

[3] Score (0 - 10) representing limited access to healthy foods

HEALTH STATUS
AND BEHAVIORS
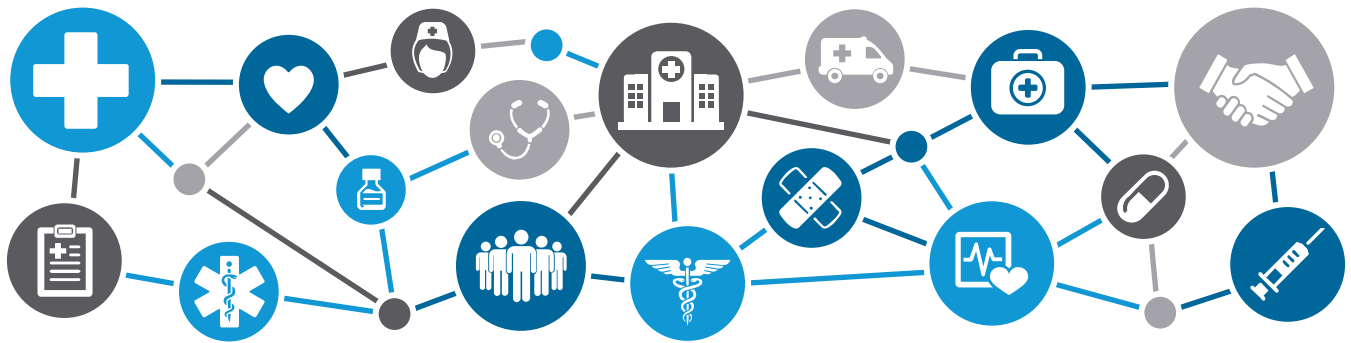
OVERALL HEALTH STATUS

The service area has comparable physical and mental health metrics than the State of Connecticut but has a larger percentage of adults who have been diagnosed with a depressive disorder.

General Health Status Indicators

Health Indicator	Natchaug Service Area	State of Connecticut
General Health		
Natchaug Local Area Region [1]		
Good or Better General Health (% of Adults)	87.2%	85.6%
Good Physical Health (% of Adults)	84.2%	84.6%
New London County [2]		
Poor or Fair Health (% of Adults)	12.1%	14.0%
Poor Physical Health Days (Last 30 Days)	3.2	3.4
Windham County [2]		
Poor or Fair Health (% of Adults)	12.9%	14.0%
Poor Physical Health Days (Last 30 Days)	3.3	3.4
Tolland County [2]		
Poor or Fair Health (% of Adults)	9.8%	14.0%
Poor Physical Health Days (Last 30 Days)	2.8	3.4
Mental Health		
Natchaug Local Area Region [1]		
Good Mental Health (% of Adults)	83.6%	84.0%
Depression (% of Adults)	18.9%	17.2%
New London County [2]		
Poor Mental Health Days (Last 30 Days)	3.7	3.8
Windham County [2]		
Poor Mental Health Days (Last 30 Days)	4.0	3.8
Tolland County [2]		
Poor Mental Health Days (Last 30 Days)	3.6	3.8

Sources:

[1] Connecticut Department of Health - Local Analysis of Selected Health Indicators - 2017

[2] Centers for Disease Control - 2016 Behavioral Risk Factor Surveillance System

Key Informant Comments on Mental Health

Behavioral health patients treated in ER but "doped up" — an accident waiting to happen

Finding a psychiatrist is impossible — when people go to short-term rehab, ask to stay on their caseload if they have an office because so hard to find someone.   Primary care docs end up having to prescribe the medications.

Hartford HealthCare Medical Group and Natchaug doing a good job as a funnel — set up that model in other places

CHARACTERISTICS AND CAUSES OF DEATH

Similar to national and regional trends, cardiovascular disease and cancer are the largest causes of death in all three counties, followed by respiratory disease. Additionally, the distribution of cause of death is similar across all geographies.

Leading Causes of Death

	Cancer	Cardiovascular Disease	Other	Respiratory Disease
New London County	24.1%	30.8%	35.3%	9.8%
Windham County	22.8%	35.6%	32.2%	9.4%
Tolland County	24.2%	32.7%	32.4%	10.6%
Connecticut	22.7%	30.6%	38.8%	7.9%
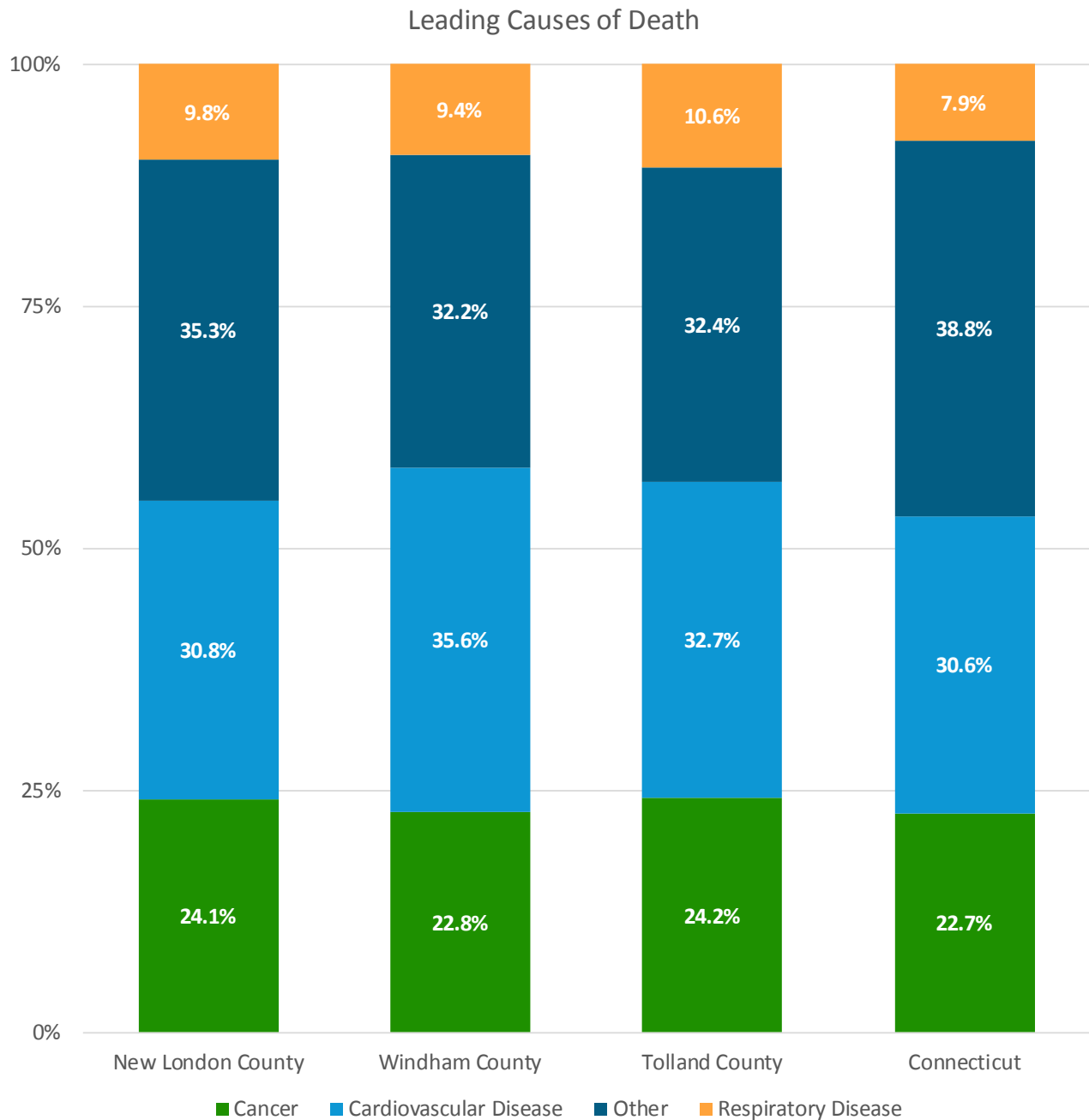
Source: CDC Wonder Online Query System

CANCER PREVALENCE AND SCREENING

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in 5 years, yet cancer remains a leading cause of death in the United States, second only to heart disease. Many cancers are preventable by reducing risk factors such as the use of tobacco products, physical inactivity, poor nutrition, obesity, and ultraviolet light exposure. Screening is effective in identifying some types of cancers in early, often highly treatable stages. For cancers with evidence-based screening tools, early detection must address the continuum of care from screening to appropriate follow-up of abnormal test results and referral to cancer treatment. (HealthyPeople.gov)

All three counties and the State of Connecticut have similar prevalence rates for cervical, colon and rectum, and lung cancer, however, all three counties have lower rates of prostate cancer. Windham and Tolland counties have the highest rates of mammograms, and New London County has the highest rate of pap tests.

Cancer Prevalence and Screening

Type of Cancer	New London County	Windham County	Tolland County	State of Connecticut	United States
Disease Prevalence (Per 100,000)					
Breast	142.2	131.3	146.7	139.2	123.5
Cervical	8.5	6.2	5.2	6.7	7.6
Colon and Rectum	37.5	41.6	37.0	38.8	39.8
Lung	67.3	65.7	60.9	62.1	61.2
Prostate	104.4	86.9	109.5	118.8	114.8
Screening Prevalence (Age-Adjusted %)					
Mammogram	68.6%	70.5%	71.2%	67.8%	63.1%
Pap Test	82.6%	80.2%	78.1%	82.1%	78.5%
Sigmoidoscopy/Colonoscopy	72.1%	73.8%	66.5%	69.6%	61.3%

Source: Community Commons Health Indicators Report

CARDIOVASCULAR DISEASE

> Heart disease is the leading cause of death in the United States. Stroke is the fifth leading cause of death in the United States. Together, heart disease and stroke, along with other cardiovascular disease, are among the most widespread and costly health problems facing the Nation today, accounting for approximately $320 billion in health care expenditures and related expenses annually. Fortunately, they are also among the most preventable. The leading modifiable (controllable) risk factors for heart disease and stroke are high blood pressure, high cholesterol, cigarette smoking, diabetes, unhealthy diet and physical inactivity, and obesity. (HealthyPeople.gov)

Overall, the prevalence of cardiovascular disease, high blood pressure, and high cholesterol are similar to the State of Connecticut. However, the mortality rate for heart disease is significantly higher in all three counties.

Cardiovascular Disease

Health Indicator	Service Area	State of Connecticut
Natchaug Local Area Region [1]		
Cardiovascular Disease	7.6%	7.3%
New London County [2]		
High Blood Pressure	26.9%	25.0%
High Cholesterol	35.6%	36.3%
High Blood Pressure Management [3]	20.9%	20.6%
Health Disease Mortality [4]	151.3	101.6
Stroke Mortality [4]	31.1	27.3
Windham County [2]		
High Blood Pressure	25.2%	25.0%
High Cholesterol	38.8%	36.3%
High Blood Pressure Management [3]	15.0%	20.6%
Health Disease Mortality [4]	176.3	101.6
Stroke Mortality [4]	31.1	27.3
Tolland County [2]		
High Blood Pressure	22.9%	25.0%
High Cholesterol	38.6%	36.3%
High Blood Pressure Management [3]	17.0%	20.6%
Health Disease Mortality [4]	143.9	101.6
Stroke Mortality [4]	25.9	27.3

Sources:

[1] Connecticut Department of Health

[2] Community Commons

[3] Percent of adults needing, but not taking blood pressure medication

[4] Age-Adjusted rate per 100,000 persons

RESPIRATORY DISEASE

> Asthma and chronic obstructive pulmonary disease ("COPD") are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health.
>
> Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives.
>
> COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.
>
> Currently more than 25 million people in the United States have asthma. Approximately 14.8 million adults have been diagnosed with COPD, and approximately 12 million people have not yet been diagnosed. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the health care system, the burden of respiratory diseases also falls on society; it is paid for with tax dollars, higher health insurance rates, and lost productivity. Annual health care expenditures for asthma alone are estimated at $20.7 billion. (HealthyPeople.gov)

The prevalence of asthma is higher in the service area compared to the State of Connecticut. Additionally, the mortality rate for chronic lower respiratory disease is significantly higher in all three counties.

Respiratory Disease

Prevalence (% of Adults)	Service Area	State of Connecticut
Natchaug Local Area Region [1]		
Asthma	11.0%	9.8%
Chronic Obstructive Pulmonary Disease	6.7%	5.5%
Lung Disease - Mortality [2]		
New London County	40.1	15.9
Windham County	43.5	15.9
Tolland County	33.6	15.9

Sources:
[1] Connecticut Department of Health
[2] Community Commons - Age-adjusted rate per 100,000

DIABETES

Diabetes mellitus ("Diabetes) occurs when the body cannot produce enough insulin or cannot respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose as fuel for the body's cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications.

Effective therapy can prevent or delay diabetic complications. However, about 28 percent of Americans with diabetes are undiagnosed, and another 86 million American adults have blood glucose levels that greatly increase their risk of developing type 2 diabetes in the next several years. Diabetes complications tend to be more common and more severe among people whose diabetes is poorly controlled, which makes this disease an immense and complex public health challenge. Preventive care practices are essential to better health outcomes for people with diabetes. (HealthyPeople.gov)

Overall, the diabetes health indicators in the service area and surrounding counties are similar to the State of Connecticut. However, New London and Tolland counties have significantly lower rates of diabetes mortality than the State of Connecticut.

Diabetes

Indicator	Service Area	State of Connecticut
Natchaug Local Area Region		
Diabetes [1]	8.9%	9.1%
New London County		
Diabetes Monitoring [2]	83.6%	86.6%
Diabetes - Mortality [3]	7.7	14.3
Windham County		
Diabetes Monitoring [2]	88.0%	86.6%
Diabetes - Mortality [3]	N/A	14.3
Tolland County		
Diabetes Monitoring [2]	91.8%	86.6%
Diabetes - Mortality [3]	9.7	14.3

Sources:

[1] Connecticut Department of Health - Percent of adults

[2] County Health Rankings - Percent of diabetic Medicare enrollees that receive HbA1c monitoring

[3] Centers for Disease Control - Age-Adjusted rate per 100,000 persons

INFECTIOUS DISEASES

The increase in life expectancy during the 20th century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations in the United States currently target 17 vaccine-preventable diseases across the lifespan.

Acute respiratory infections, including pneumonia and influenza, are the 8th leading cause of death in the United States, accounting for 56,000 deaths annually. Pneumonia mortality in children fell by 97 percent in the last century, but respiratory infectious diseases continue to be leading causes of pediatric hospitalization and outpatient visits in the United States. On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. The 2009 H1N1 influenza pandemic caused an estimated 270,000 hospitalizations and 12,270 deaths (1,270 of which were of people younger than age 18) between April 2009 and March 2010.

Viral hepatitis and tuberculosis can be prevented, yet health care systems often do not make the best use of their available resources to support prevention efforts. Because the U.S. health care system focuses on treatment of illnesses, rather than health promotion, patients do not always receive information about prevention and healthy lifestyles. This includes advancing effective and evidence-based viral hepatitis and tuberculosis prevention priorities and interventions. (HealthyPeople.gov)

The service area has comparable rates of influenza and pneumococcal vaccinations, but lower rates of influenza and pneumonia mortality than the State of Connecticut. New London County has a significantly higher incidence rate of tuberculosis, and Windham County has a significantly higher incidence rate of hepatitis C.

Infectious Diseases

Health Indicator	Service Area	State of Connecticut
Natchaug Local Area Region [1]		
Influenza Vaccination	43.2%	41.9%
Pneumococcal Vaccination	72.0%	70.1%
New London County		
Influenza and Pneumonia - Mortality [2]	10.2	11.7
Hepatitis C [3]	43.4	39.5
Tuberculosis [3]	3.7	1.4
Windham County		
Influenza and Pneumonia - Mortality [2]	11.6	11.7
Hepatitis C [3]	86.9	39.5
Tuberculosis [3]	1.7	1.4
Tolland County		
Influenza and Pneumonia - Mortality [2]	11.1	11.7
Hepatitis C [3]	23.8	39.5
Tuberculosis [3]	0.7	1.4

Sources:

[1] Connecticut Department of Health - Percent of adults

[2] Centers for Disease Control - Age-Adjusted rate per 100,000 persons

[3] Connecticut Department of Health - Rate per 100,000 persons

SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases ("STDs") refer to more than 35 infectious organisms that are transmitted primarily through sexual activity. STD prevention is an essential primary care strategy for improving reproductive health. Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as:

- Reproductive health problems

- Fetal and perinatal health problems

- Cancer

- Facilitation of the sexual transmission of HIV infection

The Centers for Disease Control and Prevention (CDC) estimates that there are approximately 20 million new STD infections each year—almost half of them among young people ages 15 to 24.3 The cost of STDs to the U.S. health care system is estimated to be as much as $16 billion annually. Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the United States.

Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. CDC estimates that undiagnosed and untreated STDs cause at least 24,000 women in the United States each year to become infertile. (HealthyPeople.gov)

Compared to the State of Connecticut, all three counties have significantly lower rates of STIs, but also lower rates of HIV screenings.

Sexually Transmitted Diseases

Health Indicator	New London County	Windham County	Tolland County	State of Connecticut
Prevalence per 100,000 [1]				
HIV	215.0	193.3	90.1	338.7
Chlamydia	310.1	281.4	212.0	387.4
Gonorrhea	51.9	26.6	23.8	76.1
Syphilis	1.1	1.7	0.0	3.1
HIV Screenings [2]	29.5%	29.2%	31.7%	35.4%

Sources:
[1] Centers for Disease Control and Prevention
[2] Community Commons

BIRTHS AND PRENATAL CARE

Improving the well-being of mothers, infants, and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. Infant and child health are similarly influenced by sociodemographic and behavioral factors, such as education, family income, and breastfeeding, but are also linked to the physical and mental health of parents and caregivers.

Conditions in the places where people live, learn, work, and play affect a wide range of health risks and outcomes. Environmental and social factors such as access to health care and early intervention services, educational, employment, and economic opportunities, social support, and availability of resources to meet daily needs influence maternal health behaviors and health status. (HealthyPeople.gov)

Compared to the State of Connecticut, all three counties have lower rates of low-birth-weight births and births that have no initial prenatal care. Across ethnicities, rates of low-birth weights and no initial prenatal care are similar between mothers who are white, Hispanic, or black.

Birth Statistics and Metrics

Ethnicity	Low Birth Weight [1]	No Initial Prenatal Care [2]	Percent of Live Births
New London County			
White	6.6%	8.3%	19%
Hispanic	4.1%	10.0%	5%
Black	6.1%	7.7%	2%
Other	0.0%	4.5%	3%
Total/Overall	**5.5%**	**8.2%**	**100%**
Windham County [3]			
Total/Overall	**5.1%**	**11.0%**	**100%**
Tolland County [3]			
Total/Overall	**4.6%**	**8.9%**	**100%**
State of Connecticut			
White	6.5%	11.5%	54%
Hispanic	8.1%	20.9%	24%
Black	11.9%	23.2%	12%
Other	8.1%	16.4%	9%
Total/Overall	**7.7%**	**15.6%**	**100%**

Source: CDC Wonder Online Query System
[1] Percent of live births
[2] Lack of prenatal care in the first trimester
[3] Ethnicity breakdown was not available due to a small sample size

Births resulting from unintended pregnancies can have negative consequences including birth defects and low birth weight. Children from unintended pregnancies are more likely to experience poor mental and physical health during childhood, and have lower educational attainment and more behavioral issues in their teen years.

The negative consequences associated with unintended pregnancies are greater for teen parents and their children. Eighty-two percent of pregnancies to mothers ages 15 to 19 are unintended. Twenty percent of all unintended pregnancies occur among teens.

Similarly, early fatherhood is associated with lower educational attainment and lower income. The average annual cost of teen childbearing to U.S. taxpayers is estimated at $9.1 billion, or $1,430 for each teen mother per year. Moreover, children of teen parents are more likely to have lower cognitive attainment and exhibit more behavior problems. Sons of teen mothers are more likely to be incarcerated, and daughters are more likely to become adolescent mothers. (HealthPeople.gov)

Compared to the State of Connecticut, New London County has a lower proportion of teenage mothers, and Windham County has a slightly higher proportion of teenage mothers. Data was not available for Tolland county due to limited sample size.

Births to Teen Mothers [1]

New London County	2.3%
Windham County	3.8%
Connecticut	3.2%
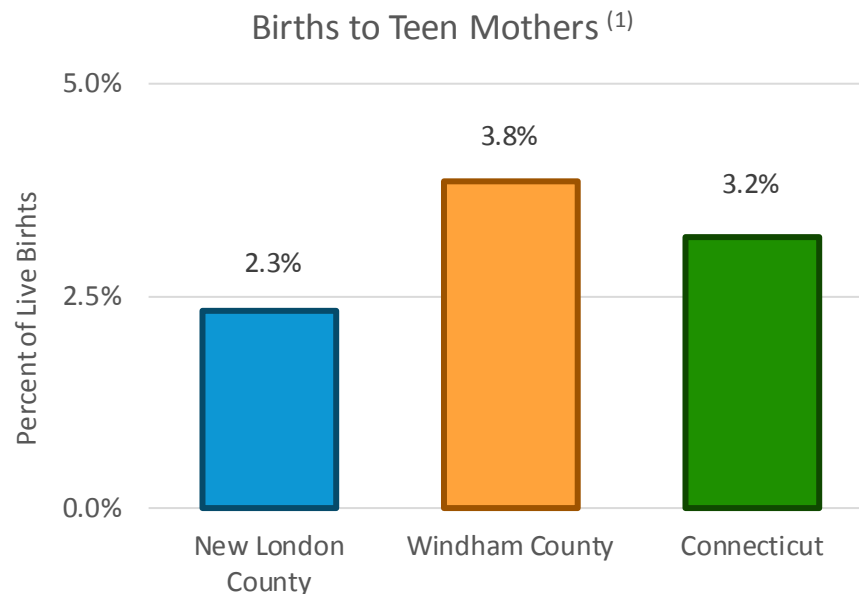
[1] Mother's age <20 years

Source: Centers for Disease Control and Prevention

Key Informant Comments on Child Healthcare

The region has highest % of childhood abuse in the state, a lot of trauma, highest percentage of teen births

Northeast has woefully fewer family services, and parenting services lacking

HEALTH BEHAVIORS

Obesity - Diet and body weight are related to health status. A healthful diet also helps Americans reduce their risks for many health conditions. Obesity is a problem throughout the population. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. Among children and adolescents, the prevalence of obesity is highest among older and Mexican American children and non-Hispanic black girls. The association of income with obesity varies by age, gender, and race/ethnicity.

Physical Activity - Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Regular physical activity includes participation in moderate- and vigorous-intensity physical activities and muscle-strengthening activities. More than 80% of adults do not meet the guidelines for both aerobic and muscle-strengthening activities. Similarly, more than 80% of adolescents do not do enough aerobic physical activity to meet the guidelines for youth.

Tobacco Use - Tobacco use is the largest preventable cause of death and disease in the United States. Each year, approximately 480,000 Americans die from tobacco-related illnesses. Further, more than 16 million Americans suffer from at least one disease caused by smoking. Smoking-related illness in the United States costs more than $300 billion each year, including nearly $170 billion for direct medical care for adults.

Substance Abuse - Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. In 2005, an estimated 22 million Americans struggled with a drug or alcohol problem. Almost 95 percent of people with substance use problems are considered unaware of their problem. These estimates highlight the importance of increasing prevention efforts and improving access to treatment for substance abuse and co-occurring disorders. (HealthyPeople.gov)

Compared to the State of Connecticut, the service area has similar health behaviors, with slightly lower percentages of adults at a healthy weight and adults who have no leisure time or physical activity, and a higher percentage of adults who currently smoke and excessively consume alcohol.

Health Behaviors

Indicator	Service Area	State of Connecticut
Healthy Weight	35.9%	38.6%
No Leisure Time or Physical Activity	22.5%	23.2%
Current Cigarette Smoking	16.8%	15.3%
Excessive Alcohol Consumption	19.1%	18.9%

Source: Connecticut Department of Health

Key Informant Comments on Healthy Behaviors

One major issue is substance abuse — for example, 28-year-old in hospital requesting heroin de-tox but cleared medically — a small number of places that are residential to take them (call 20 times to get a bed) — often discharged out of the hospital because no medical issues but will have serious de-tox issues and go back to heroin

Detox facility in this area would be huge

Access to healthy food a top issue

Healthy eating is a challenge for our patient population. Last health needs assessment provided UCONN dieticians (4 yrs. ago), but funding was only for a limited time

Education — resources, even do a train the trainer if you have a dietician teach and roll it out to at-risk population

A lot of readmissions based on diet

Very expensive to eat healthily, need to address this. Need more funding for better eating habits.

LOCAL AREA RESOURCES
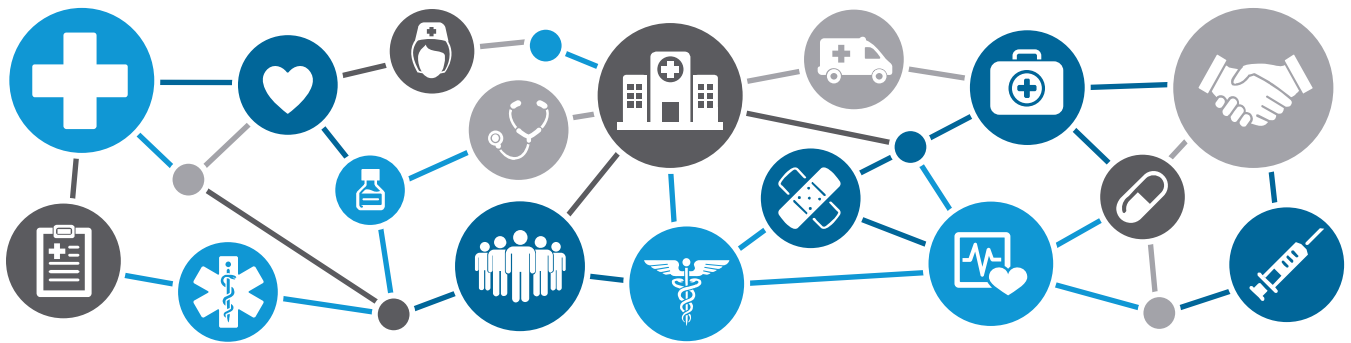
LOCAL AREA RESOURCES

The following represent potential measures and resources (such as programs, organizations, and facilities in the community) available to address the significant health needs identified in this report. This list is not exhaustive, but rather outlines those resources identified conducting this Community Health Needs Assessment.

Natchaug Hospital
Local Area Resources

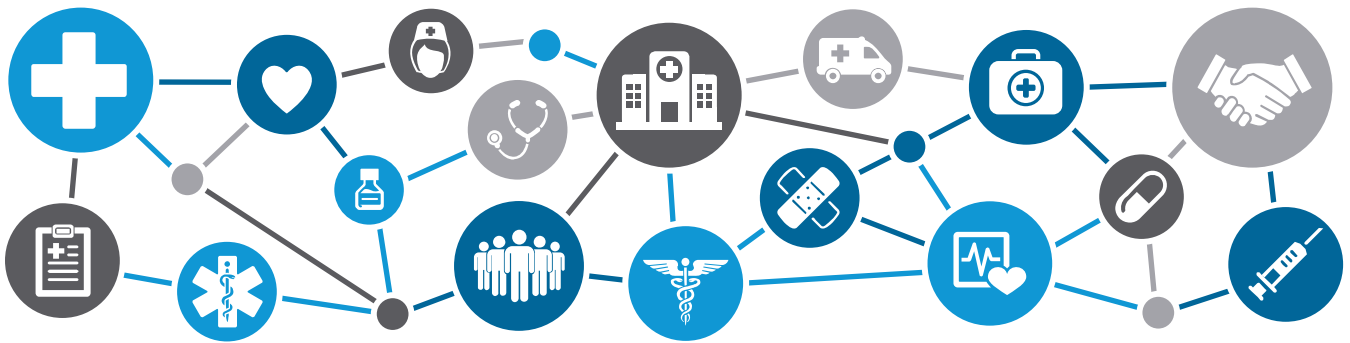| Name	Type	Address	City	State	ZIP Code
Ambulatory Surgery Centers					
Coastal Digestive Care Center	Ambulatory Surgical Center	234 Bank Street	New London	CT	06320
Constitution Surgery Center East	Ambulatory Surgical Center	174 Cross Road	Waterford	CT	06385
Eastern Connecticut Endoscopy Center	Ambulatory Surgical Center	79 Wawecus Street	Norwich	CT	06360
Johnson Memorial Hospital - Surgery Center	Ambulatory Surgical Center	148 Hazard Avenue	Enfield	CT	06082
River Valley Ambulatory Surgery Center	Ambulatory Surgical Center	45 Salem Turnpike	Norwich	CT	06360
Shoreline Colonoscopy Suites	Ambulatory Surgical Center	929 Boston Post Road	Old Saybrook	CT	06475
Community Health and Welfare					
Connecticut River Area Health District	Public Health and Welfare	455 Boston Post Road	Old Saybrook	CT	06475
Eastern Highlands Health District	Public Health and Welfare	4 South Eagleville Road	Mansfield	CT	06268
Echn Johnson Home And Community Health Services, Inc.	Public Health and Welfare	101 Phoenix Avenue	Enfield	CT	06082
Gateway Behavioral Health	Public Health and Welfare	165 Lawler Lane	Norwich	CT	06360
Ledge Light Health District	Public Health and Welfare	216 Broad Street	New London	CT	06320
Mohegan Tribal Health	Public Health and Welfare	13 Crow Hill Road	Uncasville	CT	06382
North Central District Health Department	Public Health and Welfare	31 North Main Street	Enfield	CT	06082
Northeast District Department of Health	Public Health and Welfare	69 South Main Street	Brooklyn	CT	06234
Town of Essex	Public Health and Welfare	29 West Avenue	Essex	CT	06426
Town of Preston	Public Health and Welfare	389 Route 2	Preston	CT	06365
UNCAS Health District	Public Health and Welfare	401 West Thames Street	Norwich	CT	06360
Federally Qualified Health Centers					
Community Health Center Of Groton	Federally Qualified Health Center	333 Long Hill Road	Groton	CT	06340
Community Health Center Of Enfield	Federally Qualified Health Center	5 North Main Street	Enfield	CT	06082
Community Health Center Of New London	Federally Qualified Health Center	1 Shaws Cove	New London	CT	06320
Community Health Services	Federally Qualified Health Center	263 Main Street	Old Saybrook	CT	06475
First Choice Health Centers	Federally Qualified Health Center	20 Maple Street	Vernon	CT	06066
First Choice Health Centers	Federally Qualified Health Center	3 Prospect Street	Vernon	CT	06066
First Choice Health Centers	Federally Qualified Health Center	70 Loveland Hill Road	Vernon	CT	06066
First Choice Health Centers	Federally Qualified Health Center	94 Union Street	Vernon	CT	06066
Generations Family Health Center, Inc	Federally Qualified Health Center	330 Washington Street	Norwich	CT	06360
Generations Family Health Center, Inc	Federally Qualified Health Center	37 Kennedy Drive	Putnam	CT	06260
Generations Family Health Center, Inc	Federally Qualified Health Center	40 Mansfield Avenue	Willimantic	CT	06226
Generations Family Health Center, Inc	Federally Qualified Health Center	42 Reynolds Street	Danielson	CT	06239
United Community And Family Services, Inc	Federally Qualified Health Center	120 Plainfield Road	Moosup	CT	06354
United Community And Family Services, Inc	Federally Qualified Health Center	212 Upton Road	Colchester	CT	06415
United Community And Family Services, Inc	Federally Qualified Health Center	400 Bayonet Street	New London	CT	06320
United Community And Family Services, Inc	Federally Qualified Health Center	47 Town Street	Norwich	CT	06360
United Community And Family Services, Inc	Federally Qualified Health Center	70 Main Street	Jewett City	CT	06351
Waterford Country School	Federally Qualified Health Center	78 Hunts Brook Road	Quaker Hill	CT	06375
Hospitals					
Backus Hospital	Short Term Acute Care	326 Washington Street	Norwich	CT	06360
Day Kimball Hospital	Short Term Acute Care	320 Pomfret Street	Putnam	CT	06260
Johnson Memorial Hospital	Short Term Acute Care	201 Chestnut Hill Road	Stafford Springs	CT	06076
Lawrence + Memorial Hospital	Short Term Acute Care	365 Montauk Avenue	New London	CT	06320
Natchaug Hospital	Psychiatric	189 Storrs Road	Mansfield Center	CT	06250
Rockville General Hospital	Short Term Acute Care	31 Union Street	Vernon	CT	06066
Windham Hospital	Short Term Acute Care	112 Mansfield Avenue	Willimantic	CT	06226

LOCAL AREA RESOURCES

Natchaug Hospital
Local Area Resources

Name	Type	Address	City	State	ZIP Code
Mental And Behavioral Health Facilities And Programs					
Central Connecticut Psychotherapy	Adult Mental Health	23 Liberty Drive	Hebron	CT	06248
Child And Family Agency	Behavioral Health	190 Westbrook Road	Essex	CT	06426
Child And Family Agency	Mental Health	591 Poquonnock Road	Groton	CT	06340
Child And Family Agency	Mental Health	7 Vauxhall Street	New London	CT	06320
Child And Family Agency	Mental Health	75 Granite Street	New London	CT	06320
Community Health Resources, Inc	Mental Health and Illness	153 Hazard Avenue	Enfield	CT	06082
Community Health Resources, Inc.	Mental Health and Illness	1491 West Main Street	Willimantic	CT	06226
Community Health Resources, Inc.	Mental Health and Illness	391 Pomfret Street	Putnam	CT	06260
Community Health Resources, Inc.	Mental Health and Illness	433 Valley Street	Willimantic	CT	06226
Community Health Resources, Inc.	Mental Health and Illness	55 Main Street	Norwich	CT	06360
Community Health Resources, Inc.	Mental Health and Illness	71 Westcott Street	Danielson	CT	06239
Community Health Resources, Inc.	Mental Health and Illness	7B Ledgebrook Drive	Mansfield	CT	06250
Connected Counseling, LLC	Behavioral Health	14 Pinegrove Drive	Tolland	CT	06084
Connecticut Behavioral Health Associates	Mental Health	41 Fair Harbour Place	New London	CT	06320
Dunn Hill Road Group Home	Intermediate Care Facility	59 Dunn Hill Road	Tolland	CT	06084
Eastern Connecticut Psychological Associates	Adult Mental Health	12 Case Street	Norwich	CT	06360
Exchange Club Center For The Prevention Of Child Abuse	Behavioral Health	19 Elm Street	Vernon Rockville	CT	06066
Family Affirmation Center For Treatment	Behavioral Health	281 Hartford Turnpike	Vernon	CT	06066
Familywise Behavioral Solutions	Behavioral Health	4 Broadway Avenue Ext	Mystic	CT	06355
Generations Family Health Center	Mental Health	322 Main Street	Willimantic	CT	06226
Horizon Counseling Services	Behavioral Health	175 West Road	Ellington	CT	06029
Interlocking Connections	Behavioral Health	326 Peter Green Road	Tolland	CT	06084
Interlocking Connections	Behavioral Health	707 Enfield Street	Enfield	CT	06082
Lotus Behavioral Consultation	Behavioral Health	3 Raymond Street	Vernon	CT	06066
New England Center For Natural Behavioral Health	Mental Health	44 Washington Street	Mystic	CT	06355
Old Lyme Counseling	Behavioral Health	4 Davis Road W	Old Lyme	CT	06371
Optimized Autism Interventions	Behavioral Health	97 Derek Drive	Tolland	CT	06084
Pathway To Peace	Behavioral Health	201 Regan Road	Vernon	CT	06066
Perception Programs	Substance Abuse Rehabilitation Facility	54 North Street	Willimantic	CT	06226
Psychotherapy Associates Of Connecticut	Behavioral Health	244 South Main Street	Colchester	CT	06415
Regeneration Therapy And Counseling	Behavioral Health	8 Church Road	Eastford	CT	06242
Reliance Health	Mental Health	40 Broadway	Norwich	CT	06360
Shoreline Counseling Group	Mental Health	616 Gold Streetar Highway	Groton	CT	06340
Sound Community Services	Mental Health	21 Montauk Avenue	New London	CT	06320
Sound Counseling Center	Behavioral Health	158 Westbrook Road	Essex	CT	06426
Sound View Behavioral HealtH	Behavioral Health	263 Main Street	Old Saybrook	CT	06475
Southeast Counseling Associates	Mental Health	185 South Broad Street	Pawcatuck	CT	06379
Southeastern Mental Health Authority	Adult Mental Health	401 West Thames Street	Norwich	CT	06360
Spiritual Compass Therareutic Services	Behavioral Health	124 Fort Hill Road	Groton	CT	06340
Stafford Family Services	Behavioral Health	21 Hyde Park Road	Stafford Springs	CT	06076
Stonington Institute	Substance Abuse Rehabilitation Facility	75 Swantown Hill Road	North Stonington	CT	06359
Summit Counseling	Behavioral Health	43 Swantown Road	Preston	CT	06365
Sunrise Counseling Center	Behavioral Health	436 Turnpike Road	Ashford	CT	06278
Sunshine Psychiatric Services	Mental Health	105 West Road	Ellington	CT	06029
The Connection, Inc.	Adult Mental Health	263 Main Street	Old Saybrook	CT	06475
The Connection, Inc.	Adult Mental Health	39 Bristol Street	New London	CT	06320
The Connection, Inc.	Adult Mental Health	542 Long Hill Road	Groton	CT	06340
The Healing Tree	Adult Mental Health	20 Pendleton Drive	Hebron	CT	06248
Town Of Stafford Family Services	Behavioral Health	21 Hyde Park Road	Stafford Springs	CT	06076
Transcendere, LLC	Mental Health	19 Halls Road	Old Lyme	CT	06371
Transitions Therapy, LLC	Behavioral Health	36B Church Street	Putnam	CT	06260
United Community And Family Services, Inc	Behavioral Health	21 Chicago Avenue	Groton	CT	06340
United Community And Family Services, Inc	Behavioral Health	77 East Town Street	Norwich	CT	06360
United Services	Behavioral Health	132 Mansfield Avenue	Willimantic	CT	06226
United Services	Mental Health	1007 North Main Street	Dayville	CT	06241

LOCAL AREA RESOURCES

Natchaug Hospital
Local Area Resources

Name	Type	Address	City	State	ZIP Code
Other Health Agencies and Programs					
Hockanum Valley Community Council	Family Services	27 Naek Road	Vernon	CT	06066
Specialty Health Locations and Programs					
Planned Parenthood of Connecticut	Family Planning	12 Case Street	Norwich	CT	06360
Planned Parenthood of Connecticut	Family Planning	1548 Main Street	Willimantic	CT	06226
Planned Parenthood of Connecticut	Family Planning	263 Main Street	Old Saybrook	CT	06475
Planned Parenthood of Connecticut	Family Planning	45 Franklin Street	New London	CT	06320
Planned Parenthood of Connecticut	Family Planning	87 Westcott Road	Danielson	CT	06239
Urgent Care Facilities					
American Family Care	Urgent Care	179 Talcottville Road	Vernon	CT	06066
Concentra	Urgent Care	10 Connecticut Avenue	Norwich	CT	06360
GoHealth Urgent Care	Urgent Care	35 Talcottville Road	Vernon	CT	06066
GoHealth Urgent Care	Urgent Care	351 North Frontage Road	New London	CT	06320
GoHealth Urgent Care	Urgent Care	54 Hazard Avenue	Enfield	CT	06082
GoHealth Urgent Care	Urgent Care	624 West Main Street	Norwich	CT	06360
MHS Primary Care	Urgent Care	1687 Boston Post Road	Old Saybrook	CT	06475
New England Urgent Care	Urgent Care	55 Hazard Avenue	Enfield	CT	06082
PhysicianOne Urgent Care	Urgent Care	220 Route 12	Groton	CT	06340
PhysicianOne Urgent Care	Urgent Care	607 W Main Street	Norwich	CT	06360
Priority Urgent Care	Urgent Care	105 West Road	Ellington	CT	06029
Vernon Walk-In Medical Care Center	Urgent Care	224 Hartford Turnpike	Vernon	CT	06066
Veterans Health Administration					
John J. McGuirk VA Outpatient Clinic	Veterans Health Administration	Shaw's Cove Four	New London	CT	06320
Norwich Veteran's Center	Veterans Health Administration	2 Cliff Street	Norwich	CT	06360
Willimantic Outpatient Clinic	Veterans Health Administration	1320 Main Street	Willimantic	CT	06226

PROGRAMS DESIGNED TO ADDRESS 2015 HEALTH NEEDS

PERCIVAL
HEALTH ADVISORS

The following table outlines the tactics, strategies, and outcomes of identified health needs from the previously conducted Community Health Needs Assessment in 2015.

INCREASE AWARENESS OF MENTAL HEALTH ISSUES AND IDENTIFICATION OF INDIVIDUALS IN NEED OF MENTAL HEALTH TREATMENT AND OFFERING SUCH TREATMENT.

Strategies & Scope

1) Offering Depression Screening in expanded locations, specifically to college campuses, to target wider populations (i.e., Young Adults).
2) Offering Mental Health First Aid in our communities to assist individuals in recognizing the signs and symptoms of mental health issues in order to connect individuals with treatment.
3) Expand team of Natchaug staff prepared to respond to community crises (i.e., suicides, violence, other trauma).
4) Continue to present National Dialogue events

Results & Outcomes

1) Depression Screenings were held at multiple health fairs, local town fairs, and during other gatherings where large numbers of local people attended (Total Life Expo, for example)
2) Mental Health First Aid Classes and Youth Mental Health First Aid offered continually throughout each year
3) Natchaug staff has offered their services during times of needs to schools and community organization.
4) Several National Dialogue events have been hosted focusing on mental health and addictions topics (opioid epidemic, depression, for example – had Glenn Close's sister speak at one event)

PROVIDE INTERVENTION TO INDIVIDUALS USING SUBSTANCES AND PREVENTING LIFE THREATENING OVERDOSES

Strategies & Scope

1) Provide training on use and administration of Narcan to all staff in every ambulatory program where clients could present with opioid overdose. Train those identified clients with potential for an opioid overdose on use of Narcan.
2) Offer facilities and utilities for substance abuse support groups such as Alcoholics Anonymous, and Nar-ano

Results & Outcomes

1) Training has been provided within and outside the hospital in regards to Narcan and identification of persons who may be experiencing opioid related overdose
2) Our meeting space is used by many community support groups

IMPROVE ACCESS TO BEHAVIORAL HEALTHCARE SERVICES TO PROVIDE INTERVENTION AND TREATMENT

Strategies & Scope

1) Provide psychiatric coverage and consultation in the Windham Emergency Department.
2) Offer comprehensive pharmacy services to ease access for clients to their medications.
3) Provide transportation to and from treatment for clients
4) Work with Windham Region Transit District to locate a bus stop on the street at the front entrance to the hospital.

Results & Outcomes

1) We continue to provide psychiatric coverage to Windham Hospital ED
2) We work with our pharmacy to provide home delivery of medication to clients to help on their road to recovery
3) Transportation is provided for many clients – to and from treatment
4) We met with and discussed the possibility of adding a bus stop in front of the hospital for ease of access for our clients. Unfortunately, the WRTD said that at this point it isn't possible.