



# Statewide Healthcare Facilities and Services Plan



2016 Supplement

# CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

## STATEWIDE HEALTHCARE FACILITIES AND SERVICES PLAN

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# STATEWIDE HEALTHCARE FACILITIES AND SERVICES PLAN

2016 SUPPLEMENT



**Connecticut Department of Public Health**  
410 Capitol Avenue  
Hartford, Connecticut 06134

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### ACKNOWLEDGEMENTS

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for assisting in developing and compiling this Plan in cooperation with DPH.

## LETTER FROM THE COMMISSIONER

Dear Friends of Public Health,

I am pleased to present to you the *Statewide Healthcare Facilities and Services Plan 2016 Supplement* which aims to align with *Healthy Connecticut 2020*, a roadmap for improving the state's health and bringing about health equity to at-risk and vulnerable residents. This document focuses on recent changes in the healthcare environment and assesses the impact on availability of and access to services for at-risk and vulnerable populations in particular.

The 2016 Supplemental plan builds upon the 2012 Plan and 2014 Supplement by updating previous information and discussing the Patient Protection and Affordable Care Act and Certificate of Need-related changes to the delivery of and access to health services. Changes to the current healthcare environment covered in this supplement include health insurance coverage expansion, Certificate of Need updates, increased care coordination, shifts in care settings, access improvements and cost containment efforts. This supplement provides updated analyses of future acute care inpatient bed need, healthcare services utilization trends and where geographic gaps in healthcare services in Connecticut may exist.

This Supplement integrates the results of multiple standards for assessing unmet healthcare needs, incorporating hospital community health needs assessments; federal health professional shortage and medically underserved areas and population designations; indices developed based on social determinants of health, health status and outcomes; and healthcare utilization data.

Finally, this 2016 Supplement identifies key issues and on-going statewide initiatives and community health improvement strategies to improve access to essential healthcare services for at-risk and vulnerable Connecticut residents.

I thank the many individuals and organizations that participated in the planning process. I encourage you to continue to integrate this document into your organization's or community's ongoing planning activities.

Sincerely,

A handwritten signature in blue ink, appearing to read "Raul Pino".

Raul Pino, MD, MPH  
Commissioner

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## ACRONYMS/ABBREVIATIONS

AAMR	Age-Adjusted Mortality Rate
ACO	Accountable Care Organizations
AHA	American Hospital Association
AN	Advanced Networks
APCD	Connecticut All Payers Claims Database
BRFSS	Behavioral Risk Factor Surveillance Survey
CBO	Community Based Organizations
CCI	Community and Clinical Integration
CDC	Centers for Disease Control and Prevention
CGS	Connecticut General Statutes
CHIP	Community Health Improvement Plans
CHNA	Community Health Needs Assessment
CMMI	Center for Medicare and Medicaid Innovation
CMS	Centers for Medicare and Medicaid
CON	Certificate of Need
CORE	Connecticut Opioid REsponse
DCF	Connecticut Department of Children and Families
DPH	Department of Public Health
DSS	Department of Social Services
ED	Emergency Department
FQHC	Federally Qualified Health Centers
Access Health CT	Connecticut Health Insurance Exchange
HIE	Health Information Exchange
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health
HITO	Health Information Technology Officer
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration
HSS	Department of Health and Human Services

LHD	Local Health Departments/Districts
MQISSP	Medicaid Quality Improvement and Shared Savings Program
MUA/P	Medically Underserved Areas and Populations
OHCA	Office of Health Care Access
OSD	Office of Shortage Designation
PA	Public Act
PCMH+	Patient-Centered Medical Homes
PCO	Primary Care Office
PHP	Population Health Plan
PPACA	Patient Protection and Affordable Care Act
PSA	Primary Service Area
SAMHSA	Substance Abuse and Mental Health Services Administration
SES	Socioeconomic Status
SHA	Healthy Connecticut 2020 State Health Assessment Plan
SHIP	Healthy Connecticut 2020 State Health Improvement Plan
SIM	Connecticut State Innovation Model
The Plan	Statewide Healthcare Facilities and Services Plan
US	United States
VCA	Value Care Alliance



# EXECUTIVE SUMMARY

## OVERVIEW

The goals of the Department of Public Health (DPH) Office of Health Care Access' (OHCA) planning and regulatory activities are to improve Connecticut residents' access to quality health services; minimize unnecessary duplication of services, provide financial stability and contain healthcare system costs. As part of this endeavor, Connecticut General Statutes (CGS) section 19a-634 authorizes OHCA to develop and maintain a Statewide Healthcare Facilities and Services Plan (the Plan), an inventory of all Connecticut healthcare facilities, equipment and services. Furthermore, OHCA is required to conduct a biennial healthcare facility utilization study.

The 2012 Plan and its 2014 and 2016 Supplements are intended to be a resource for policymakers and those involved in the Certificate of Need (CON) process. The 2016 Supplement presents information, policies and projections of need to guide planning for specific healthcare facilities and services. Its primary focus is to assess the impact of system changes on at-risk and vulnerable populations and to uncover areas of unmet healthcare need in the state. Therefore, this Supplement provides an updated analysis of acute care inpatient bed need, as well as the availability and utilization of select healthcare services.

The 2016 Supplement also incorporates current information on: health insurance coverage and system changes related to healthcare reform; health status and outcomes; community health needs assessments (CHNAs); and federal health professional shortage area (HPSA) and medically underserved areas and populations (MUA/P) designations. These data, together with updated information on geographic areas and populations with unmet health needs and gaps in healthcare services, serve as a foundation for projecting future healthcare needs.

## KEY ISSUES

The Plan identifies key issues surrounding the delivery of healthcare in Connecticut:

### **Healthcare Reform**

- Connecticut's healthcare system landscape continues to transform under the Patient Protection and Affordable Care Act (PPACA). The Act's transformative impact can be seen in the type of CON applications OHCA receives. As providers focus on creating new delivery models that improve continuity of quality care and lower costs, the number of applications for transfers of ownerships -- particularly for group practices -- increased dramatically.
- Connecticut's hospitals continue to apply for regulatory approval to become members of larger umbrella corporate healthcare systems. These affiliations and mergers may be attributed to factors such as healthcare market competition, shifting settings of care, outstanding debt, mounting pension liabilities, federal healthcare reform requirements, payment reforms as well as uncertainties associated with the new presidential administration and Congress. In addition, some hospitals that are not part of larger systems are opting to partner and/or participate in advanced networks to better coordinate patient care. Primary and specialty care group practices are also consolidating more frequently.

- The PPACA-facilitated increase in access to health insurance coverage, coupled with the state's aging population, suggest Connecticut will experience an increase in access to and demand for healthcare services. Disparities in access to and outcomes of care for at-risk and vulnerable populations, however, will remain. Consequently, the state is actively pursuing and implementing evidence-based strategies in a variety of settings to advance health equity.

### **Gaps in Services**

- Updated acute care bed need projections for 2020 indicate Connecticut still has an adequate supply of acute care inpatient beds but will require an additional number of staffed beds to meet future need.
- Medicaid beneficiaries continue to account for the largest proportion of all emergency department (ED) visits (50%) and nearly a quarter of hospitalizations.
- One in ten ED visits by adults is for psychiatric, drug or alcohol-related mental disorders.
- ED visits by children for behavioral health treatments are overwhelmingly for psychiatric disorders such as depression, episodic moods, anxiety, attention deficiency and disruptive behaviors.
- In the last three years, 13,000 ED visits for all ages were primarily due to opioid overdose/dependence.

### **Unmet Need**

- The self-reported poor health status rates of Connecticut's at-risk and vulnerable populations have declined for older adults, less educated, unemployed, racial/ethnic minorities, immigrants and uninsured groups but increased for persons with incomes below the federal poverty level or with a disability.
- In general, the state's at-risk and vulnerable populations continue to have higher chronic disease prevalence rates than the overall population and relatively higher rates of potentially preventable hospitalizations, avoidable ED visits or overuse.
- While all 169 Connecticut towns are covered by at least one hospital's community health needs assessment (CHNA), the Unmet Healthcare Need Index identified 21 Connecticut towns as possibly at-risk for unmet healthcare need or gaps in services.
- Twenty-six Connecticut towns have federally designated geographic areas or populations that have health professional shortages or are medically underserved with respect to primary, behavioral health or dental care.
- Four of the towns identified by the index as most likely to have unmet healthcare needs -- Bloomfield, Derby, West Haven and Putnam -- did not have any federal designations.
- Nearly all recent CHNAs still identify chronic disease, overweight, obesity, nutrition and physical activity as overlapping and major health issues in the state.
- Regardless of socioeconomic status, outpatient substance abuse and mental healthcare are the priority health needs in most Connecticut towns.

### **NEXT STEPS**

- Continue to analyze outpatient surgical data for planning purposes as healthcare resources continue to shift from inpatient to outpatient care;
- Delve further into ED use to identify the factors such as specific day of use and type, severity and number of co-morbidities, that drive utilization and readmissions to help determine the appropriate interventions;
- Analyze data from the All Payers Claims Database to identify any disparities in healthcare availability and delivery;

- Further study the 21 towns that have been identified as exceeding the state unmet need composite index; and
- Monitor current initiatives in the state that seek to improve care coordination and delivery, and link healthcare to community assistance, such as the Person-Centered Medical Homes-Plus (PCMH+) Initiative. Explore opportunities to scale up and spread success.

In future planning efforts, OHCA will continue its examination of available data to determine how best to address the unmet needs of residents and to assist providers in their transformations to meet those needs.

# INTRODUCTION

## LEGAL MANDATE AND PURPOSE

Section 19a-634 of the Connecticut General Statutes (see Appendix A) requires the Department of Public Health (DPH) Office of Health Care Access (OHCA) to conduct an annual statewide healthcare facility utilization study; establish and maintain an inventory of all Connecticut healthcare facilities, services and certain types of medical equipment; and to develop and maintain a Statewide Healthcare Facilities and Services Plan (the Plan). In addition, the statute requires DPH to encourage hospitals to incorporate the Plan into their long-term plans. The Plan and its Supplements are the blueprint for healthcare delivery in Connecticut and serves as a resource for providers of specific healthcare facilities and services.

In 2012, OHCA issued the [first Plan](#). The Plan focused on standards, guidelines and methodologies, which are currently being codified into regulation for use in the [Certificate of Need](#) (CON) review process. OHCA subsequently published an update to the Plan, the 2014 Supplement. This 2016 publication builds upon the [2014 Supplement](#) and discusses changes to the healthcare environment in Connecticut and their impact on socially or economically disadvantaged residents, as well as those who are vulnerable and at risk of being underserved. The ultimate goal of the Plan and its Supplements is to facilitate the alignment of public health resources and healthcare initiatives with identified areas of unmet health needs in Connecticut. The planning process also involves updating the inventory of existing healthcare facilities, services and equipment, available at <http://www.ct.gov/dph/cwp/view.asp?a=3902&q=557560&dphNav=1>

## RELATIONSHIP TO THE CONNECTICUT STATE HEALTH ASSESSMENT AND IMPROVEMENT PLAN

DPH is the lead agency for public health planning and assists communities in their development of collaborative health planning activities to address regional and statewide public health issues, (see Appendix B). DPH also prepares a multiyear state health plan which assesses the health of the state's population and availability of health facilities; makes policy recommendations on resource allocation; identifies public health priorities; provides quantitative goals and objectives for the appropriate supply, distribution and organization of public health resources; and identifies and evaluates community assets that can support health improvement. Additionally, as part of its statewide facilities and services planning, DPH evaluates the implications of new technology for the delivery and equitable distribution of services.

DPH's Healthy Connecticut 2020 is Connecticut's interpretation of the national initiative, Healthy People 2020. Connecticut's initiative was shaped by the national framework, particularly in its creation of targeted health-related outcomes for 2020 and its focus on evidence-based strategies to reach these targets. Its triple aim is of improving the individual experience of care, improving the health of populations and reducing the per capita costs of care for populations.

The 2013-2014 Healthy Connecticut 2020 assessment was composed of the State Health Assessment (SHA) and the State Health Improvement Plan (SHIP) and is available at <http://www.ct.gov/dph/hct2020>. Together the SHA and SHIP identify priority public health needs to facilitate public health planning in Connecticut.

Key findings from the SHA include:

- Chronic diseases and injuries are the leading causes of premature death and morbidity;
- Racial/ethnic minority groups suffer from many conditions at disproportionately higher rates;
- Specific age groups such as youth/young adults and older adults are disproportionately at risk for certain conditions;
- Unhealthy behaviors such as binge drinking and prescription drug misuse have increased over the last decade; and
- HIV, smoking and teen pregnancy rates have declined over the last decade.

The SHIP provides an integrating framework for agencies, coalitions, individuals and groups to use in leveraging resources, coordinating and aligning efforts at the community and state levels and sharing data and best practices to improve the health of the citizens of Connecticut in a focused and purposeful way.

The Plan and its Supplements aim to align with Healthy Connecticut 2020 by taking a population health approach to how access and services within the healthcare system affect a community's health, particularly among vulnerable and at-risk populations.

#### **GUIDING FRAMEWORKS: POPULATION HEALTH AND HEALTH EQUITY**

Health -- and opportunities to promote health -- are not equally distributed across populations or across the life course. Racial or ethnic minorities, low-income populations, residents of urban or rural regions, homeless persons, persons with disabilities, veterans, and gender/sexual minorities<sup>1</sup> may experience barriers to the opportunities to live a healthy life. The social, physical and economic environments in which Connecticut's residents live often influence access to resources such as money, knowledge, power, social relationships and health-promoting advancements.

This report updates health and healthcare patterns in Connecticut and for particular population groups, vis-à-vis a changing healthcare landscape, to facilitate formulation of public health policies and programs to advance health equity.

The Plans have identified the following key issues pertaining to the delivery of healthcare in Connecticut:

- Major changes to Connecticut's healthcare system to improve healthcare efficiency, integration and quality in response to the 2010 Patient Protection and Affordable Care Act (PPACA);
- A need to continue to assess whether health professional shortages and medically underserved areas or populations designations adequately identify the supply of medical, dental and mental health services needed to meet demand across the State following changes to Connecticut's healthcare system under the PPACA;
- A need to investigate whether there is unmet bed need in particular regions of the state and an adequate supply of inpatient beds in the aggregate;
- A need to determine whether care is coordinated effectively among levels and settings of care, especially between emergency departments (EDs) and community based behavioral health services as behavioral health needs are increasingly being treated in EDs due to limited access to these services; and
- A shift in behavioral healthcare to focus on treatment, recovery assistance and resilience enabling:  
a) the provision of some behavioral health services by primary care providers and some primary care services by behavioral health providers; and b) an assessment of the demand for primary care

services following changes from the PPACA, which are expected to increase demand for primary care.

The goal of the 2016 Supplement is to build on the 2012 Plan and 2014 Supplement by updating information on the healthcare environment, revisiting previous recommendations and developing next steps for the future. OHCA will continue to develop supplemental updates every two years.

#### **ADVISORY BODY AND ROLE**

The Advisory Body continues to provide invaluable insight about the evolving healthcare system, operations of healthcare facilities and providers, delivery of services and access to care in the state. The participants reviewed this Supplement and supplied additional material or provided suggestions on areas to include or clarify to aid better understanding of the delivery of and access to care environment. Advisory Body participants can be found in Appendix C.

## Chapter 1 CURRENT HEALTHCARE ENVIRONMENT

In the years since publication of the 2014 Supplement, the state of Connecticut has continued to advance prevention initiatives focused on sustaining and supporting enrollment in the state-run health insurance exchange, expanding the primary care and public health workforce, strengthening chronic disease management initiatives, and promoting healthy lifestyles through programs such as tobacco cessation and obesity prevention. The following provides an update regarding changes in the healthcare environment in Connecticut since the 2014 Supplement was published.

### **PATIENT PROTECTION AND AFFORDABLE CARE ACT: IMPLEMENTATION UPDATE**

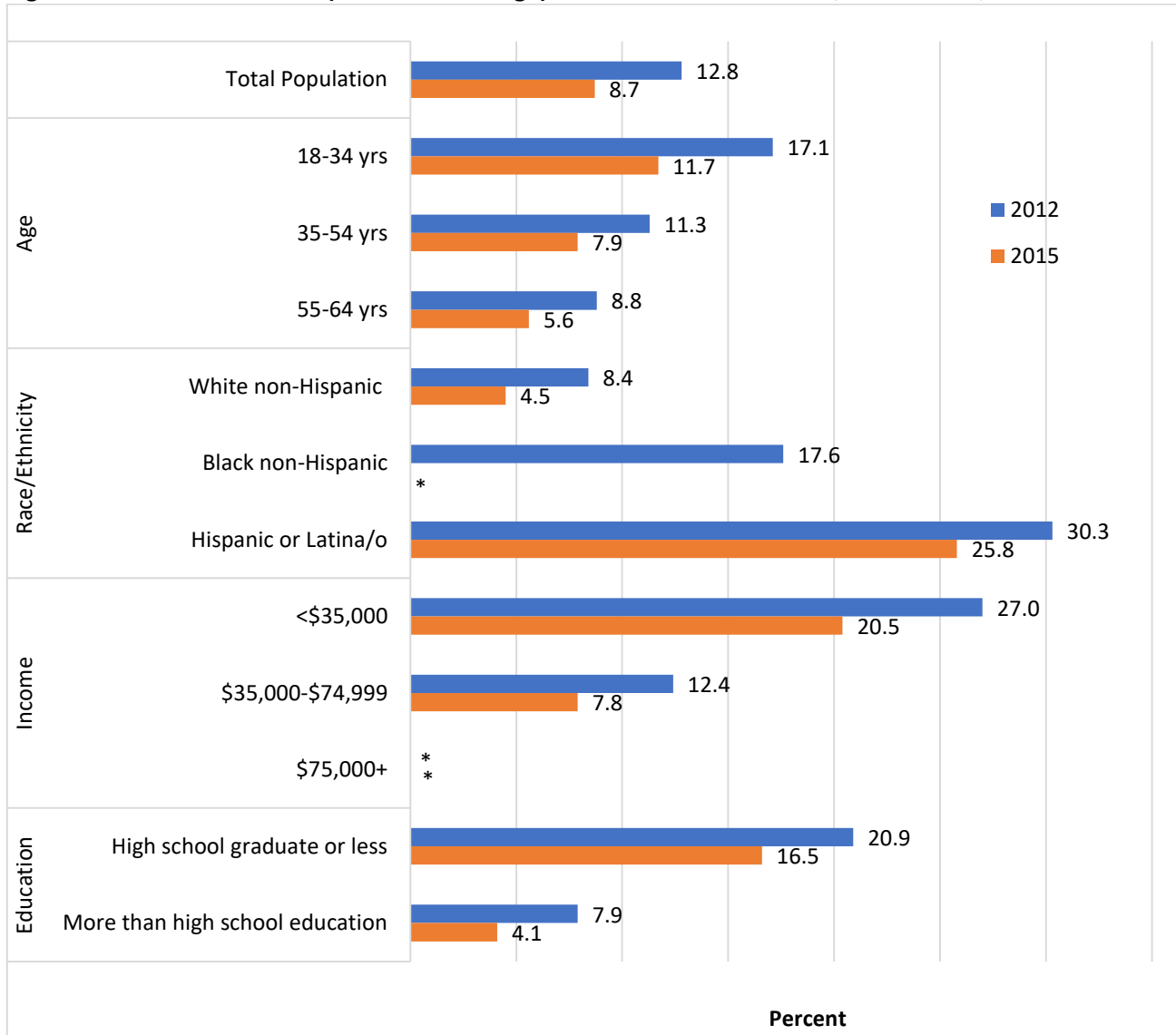
Since the United States (US) Congress passed the [PPACA](#) in 2010, the nation's healthcare system has undergone significant and ongoing transformation. These changes to the healthcare landscape have been shaped by several mandates that affect the healthcare regulatory environment, such as incentivizing healthcare cost containment strategies, promoting community-level prevention-oriented initiatives, expanding health insurance access and improving access to preventive services.

### **HEALTH INSURANCE COVERAGE AND VULNERABLE POPULATIONS**

#### **Health Insurance Coverage**

The PPACA's individual mandate required that most Americans obtain health insurance by 2014 or pay a tax penalty. According to estimates from the DPH-managed [Behavioral Risk Factor Surveillance Survey](#) (BRFSS), an ongoing statewide voluntary phone survey of Connecticut adults 18 years of age and over<sup>2</sup>, the proportion of uninsured Connecticut adults between 18 and 64 years of age declined between 2012 and 2015 (Figure 1.1), corresponding with expanded Medicaid coverage and the establishment of the Connecticut Health Insurance Exchange (Access Health CT). There were meaningful declines in the percentage of adults without health insurance across most age, racial/ethnic, income and educational status groups. These declines were greatest for young adults, Hispanics or Latinas/os, those with incomes less than \$35,000 or with a high school education or less. However, the at-risk groups that experienced the greatest declines in uninsured rates, such as Hispanic or Latinas/os, remain more likely to lack coverage than the less at-risk cohorts. As of May 2017, an estimated 103,000 Connecticut residents were enrolled in private health insurance plans through the state-run Access Health CT.<sup>3</sup>

**Figure 1.1. Percent of Adults (18-64 Years of Age) with No Health Insurance, Connecticut, 2012 vs. 2015**



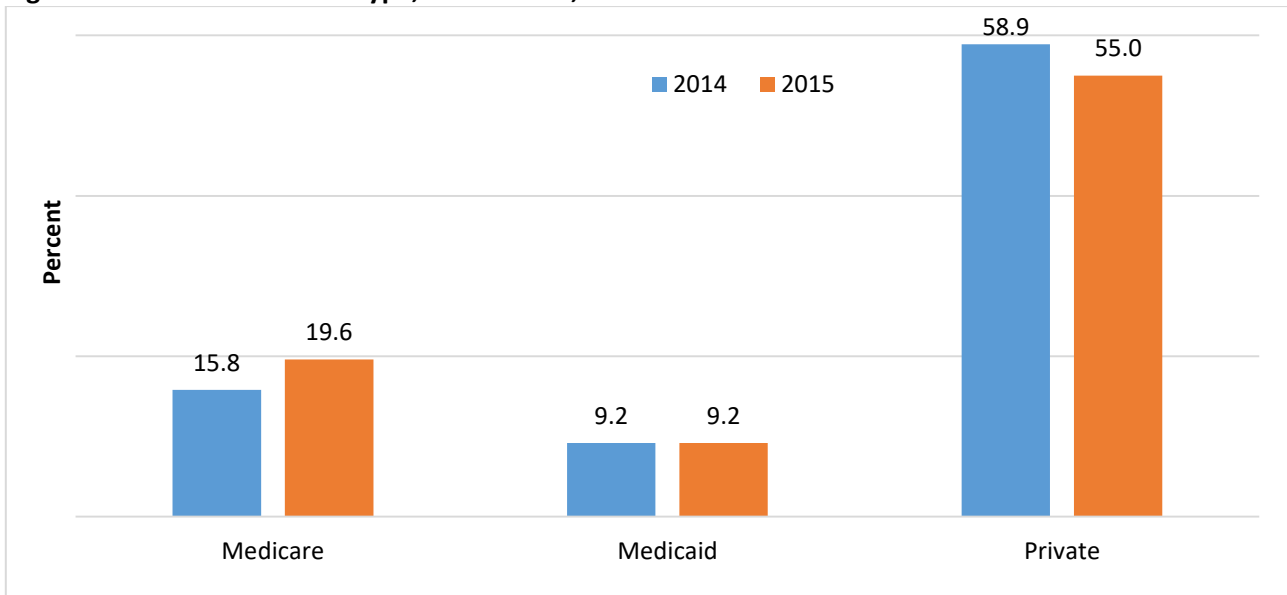
Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System 2012 and 2015.

Note: \*Estimate not reliable due to small cell count.



From 2014 to 2015, the proportion of adults 18 years of age and over in Connecticut covered by Medicare increased while the proportion covered by private health insurance declined. Those reporting Medicaid as their source of coverage remained unchanged (Figure 1.2).

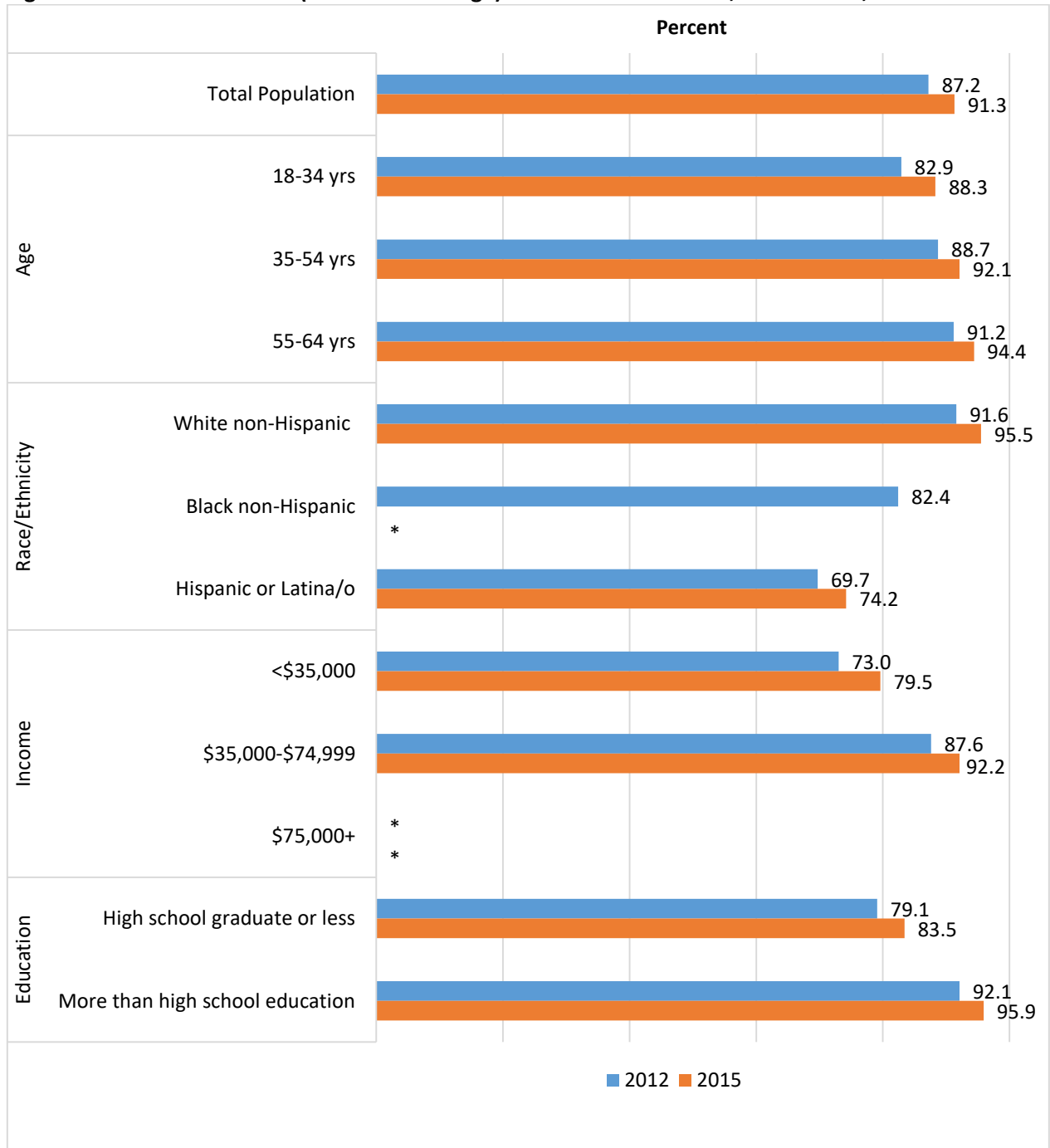
**Figure 1.2. Health Insurance Type, Connecticut, 2014 vs. 2015**



Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System 2014 and 2015.

Figure 1.3 shows that the percentage of adults between 18 and 64 years of age with health insurance coverage increased between 2012 and 2015. This increase was shown across most age, racial/ethnic, income levels and educational attainment groups. Adults with a high school education or less experienced the greatest increase over this three-year period. These health insurance coverage patterns as well as demographic changes, as discussed below, have implications for demand for and access to healthcare and unmet need for vulnerable populations, as discussed in other sections.

**Figure 1.3. Percent of Adults (18-64 Years of Age) with Health Insurance, Connecticut, 2012 vs. 2015**



Source: CT DPH Behavioral Risk Factor Surveillance Survey, 2012 and 2015.

Note: \*Estimate not reliable due to small cell count.

## Demographic Changes in Connecticut and Implications

Compared to the nation, Connecticut has relatively lower proportions of vulnerable populations, with the exception of adults 65 years of age and over. The age distribution and trend changes for vulnerable populations across Connecticut were similar to patterns for the US between 2012 and 2015, including substantial increases in the proportion of adults 65 years of age and over (Table 1.1). As increasing age is associated with adverse health outcomes, it is important that the aging of the state’s residents be incorporated into plans for and regulation of Connecticut’s healthcare system. Over this same period, the proportions of non-White Connecticut residents also increased at rates higher than the nation’s. In contrast, the proportion of Connecticut residents with household incomes below federal poverty level increased, but declined for the US. Also, by 2015, there were relatively fewer adult residents with less than a college education in Connecticut but more adults living with a disability.

**Table 1.1. Select Populations, US vs. Connecticut, 2010 and 2015**

Populations	US (%)			Connecticut (%)		
	2010	2015	Change	2010	2015	Change
Under 18 years	24.0	22.9	-5	22.8	21.3	-7
18-64 years	62.9	62.2	-1	63.0	63.0	0
65+ years	13.1	14.9	14	14.2	15.7	11
Hispanic or Latina/o	16.4	17.6	7	13.5	15.4	14
Black non-Hispanic	12.3	12.3	0	10.0	10.6	6
Asian non-Hispanic	4.7	5.3	13	3.8	4.4	16
American Indian non-Hispanic	0.7	0.6	-14	0.2	0.2	0
Other/2+ races	2.0	2.3	15	2.5	3.2	28
Below federal poverty level	15.3	14.7	-4	10.1	10.5	4
High School Graduate or Less (25+ years of age)	42.4	39.9	-6	39.6	37.2	-6
Disability	11.9	12.6	6	10.4	11.0	6

Source: US Census Bureau, American Community Survey 1-Year Estimates, Connecticut and US, 2010 and 2015, File S0101, C03002, S1703, S2820 and S0501.

While Connecticut has an overall favorable health and socioeconomic profile compared to most states, the proportions of healthy residents are not equally distributed across population groups or geographic regions within the state. Barriers to the opportunities to live a healthy life tend to concentrate disproportionately among certain populations, such as racial and ethnic minorities, low-income populations, those with lower educational attainment, those living with disabilities or older adults. The influences of socioeconomic factors on health patterns and outcomes are often intertwined and demonstrably result in health disparities. Table 4.1 in Chapter 4 provides additional information on Connecticut’s vulnerable populations and their self-reported health status. Healthcare system planning to meet future demand for healthcare and to achieve health equity must address any unmet healthcare needs of these vulnerable populations.

## Health Equity

Health equity entails achieving the highest level of health possible for all people and requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices. Achieving this goal entails the elimination of health and health care disparities, defined by Healthy People 2020, in part, as a type of health difference that is closely linked with social, economic, and/or environmental disadvantage.<sup>4</sup>

Not only do health disparities affect the quality of life enjoyed by residents, there are also additional medical costs generated as a result. For example, racial and ethnic groups use high cost acute care services differently. In 2012, Black non-Hispanics generated higher total charges due to more visits and with more severe conditions. The total excess hospital costs in Connecticut for Black non-Hispanics and Hispanics relative to Whites were \$218 million and \$39 million, respectively. The comparatively higher hospital costs generated suggest that substantial savings could be realized through disparity reduction.<sup>5</sup>

In response to persistent and, in some cases, growing disparities in health outcomes for multiple vulnerable populations, there have been several national mandates to improve healthcare access and delivery. In 2016, the Department of Health and Human Services (HHS) implemented the Nondiscrimination in Health Programs and Activities rule, which advances section 1557 of the PPACA.<sup>6</sup> The rule protects individuals from discrimination in healthcare, health insurance and healthcare-related marketing on the basis of race, color, national origin, age, disability or sex and strengthens language assistance for patients with limited English proficiency.<sup>7</sup>

There have also been several national initiatives to promote health equity through collaborations among communities, governmental and private sector entities and across agencies charged with promoting and protecting the public's health and access to healthcare. The *National Stakeholder Strategy for Achieving Health Equity*, a roadmap produced by the National Partnership to End Health Disparities, provides recommendations for strategic and cooperative initiatives to reduce health disparities.<sup>8</sup> These recommendations include:

- Improving awareness of the significance of health disparities affecting vulnerable populations and action needed to eliminate these disparities;
- Strengthening leadership capacity to address health disparities;
- Enhancing health and healthcare outcomes for racial/ethnic minority and other vulnerable populations and ensuring non-discrimination in healthcare access and delivery;
- Strengthening cultural and linguistic competency and the diversity of the public health and healthcare workforce; and
- Improving research and evaluation processes related to these efforts.

Central to these recommendations is community engagement in these processes and multi-sectoral partnerships that actively engage individuals and organizations representing the healthcare sector, as well as those whose mission and initiatives shape the healthcare system.

Additionally, HHS issued the first *HHS Plan to Reduce Racial and Ethnic Health Disparities*, which builds on national goals and mandates for reducing health disparities such as Healthy People 2020 and the PPACA, respectively.<sup>9</sup> This plan includes:

- Evaluating the impact of all HHS policies, programs, and processes on health disparities;
- Fostering integrated approaches across HHS agencies towards the goal of reducing health disparities;
- Supporting the implementation of evidence-based programs and best practices in each of these efforts;

- Transforming healthcare to improve healthcare quality for vulnerable populations;
- Increasing the availability, quality, and use of data to improve the health of vulnerable populations; and
- Monitoring and evaluating HHS’s success in implementing these activities to advance innovations in reducing health disparities.

Together, the initiatives outlined above provide a solid foundation for action to reduce health outcomes disparities and to provide a model for how states can move these national agendas forward. On that basis, [Healthy Connecticut 2020](#), provides a framework for strategic and coordinated initiatives to promote health and reduce disparities in access and outcomes across Connecticut through a focus on the social determinants of health and improved access to and the quality and coordination of preventive healthcare services.<sup>10</sup>

Currently, DPH provides a leadership role in convening partners to implement the [State Health Improvement Plan](#) (SHIP), the focus of which has transitioned from planning to strategic action.<sup>11</sup> The SHIP has seven main focus areas, each spearheaded by an “action team.” The focus areas are: maternal, infant, and child health; environmental health; chronic disease prevention; infectious disease prevention; injury and violence prevention; mental health and substance abuse; and health systems.<sup>12</sup> The action teams are guided by the expertise of the Connecticut Health Improvement Coalition, a group of local, regional, and statewide organizations and agencies. DPH has also established a web based dashboard to track progress as the action teams focus on the first three years of the SHIP implementation of priority objectives, also known as phase one.<sup>13</sup>

## **IMPROVING ACCESS TO CARE AND HEALTH OUTCOMES FOR VULNERABLE POPULATIONS**

There are several initiatives across Connecticut targeted at improving healthcare for vulnerable populations with respect to quality, affordability and care coordination among providers. The initiatives rely on the use of health information technology (HIT) and exchange (HIE). The trends and patterns in healthcare services availability and utilization outlined in Chapters 2 and 3 are informed by and reflect several of the healthcare initiatives described below.

### **State Innovation Model (SIM) Grant Status to Date**

The Connecticut [State Innovation Model](#) (SIM) is a program funded by the Center for Medicare and Medicaid Innovation (CMMI). SIM was created under the PPACA to promote innovations to increase healthcare quality, reduce costs and improve population health.<sup>14</sup> For example, in 2014, Connecticut received a four-year, \$45 million SIM grant to test healthcare payment and service delivery models funded by an earlier grant.<sup>15</sup>

SIM aims to improve population health by reducing statewide rates of chronic diseases such as asthma, diabetes and hypertension while addressing associated health disparities. The program also seeks to improve healthcare outcomes related to performance on several key quality measures including, but not limited to, at-risk populations’ rates of adults with a regular source of care, ambulatory care sensitive condition admissions and well-child visits. SIM’s ultimate goal is to reduce annual healthcare spending growth by two percentage points by 2020.

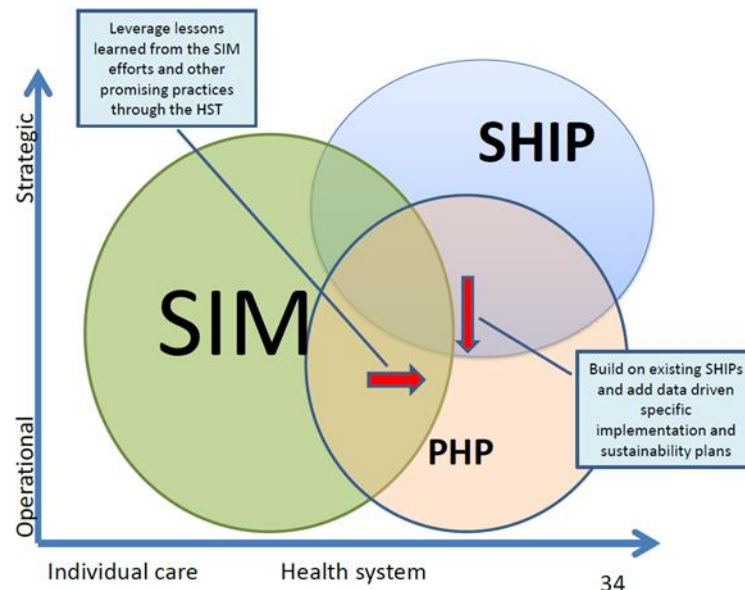
SIM aims will be achieved by integrating the following drivers: (1) promoting payment models that reward improved quality, care experience, health equity and lower cost; (2) strengthening capabilities of healthcare providers to deliver higher quality, better coordinated, community-integrated, and more efficient care; (3) engaging consumers in healthy lifestyles, preventive care and chronic disease self-management; and (4)

promoting policies, health provider systems, and environmental changes that address socioeconomic factors that impact health.<sup>16</sup> SIM implements the drivers through various initiatives or “work streams.” Although these initiatives are designed to target specific focus or populations, the initiatives are intended to have statewide impact.

For example, the Person Centered Medical Home Plus program (PCMH+) and other complementary initiatives strive to align the results of electronic patient data -- available through health information technology (HIT) -- with target quality measurements to promote payment models that reward improved quality, care experience, health equity and lower costs. Other initiatives, the Community and Clinical Integration (CCI), Advanced Home and Community Health Worker policy framework seek to strengthen capabilities of healthcare providers, in Advanced Networks (ANs) and federally qualified health centers (FQHCs), to deliver higher quality, better coordinated, community integrated and more efficient care. The CCI initiative complements the Department of Social Services’ (DSS) Medicaid Quality Improvement and Shared Savings Program (MQISSP) described below. SIM is recruiting 150 practices to participate in the CCI initiative. In November 2016, SIM requested applications from ANs lacking a federal advance medical home designation and from independent primary care practices. Final applications were due June 2017.

Another work stream, the DPH-led Population Health Initiative, promotes policy and system changes that establish formal links between community prevention providers and healthcare agencies within the context of the new payment reforms. To that end, the SIM program and its stakeholders propose an operational model to enhance connectivity between community-based organizations and the healthcare sector. The community Prevention Services Initiative, complemented by an inter-sectoral and financial infrastructure model (Health Enhancement Community), will build stronger community health capabilities. Finally, the SIM Population Health work stream develops a system of regional health indicators and community health improvement measures to assess the impact of community-oriented approaches for better care and prevention. The scope of the population health plan is depicted in Figure 1.4.

**Fig. 1.4 Scope of Population Health Plan under SIM**



Source: Source: SIM Population Health Council Meeting Slides and Presentations

## Advanced Networks

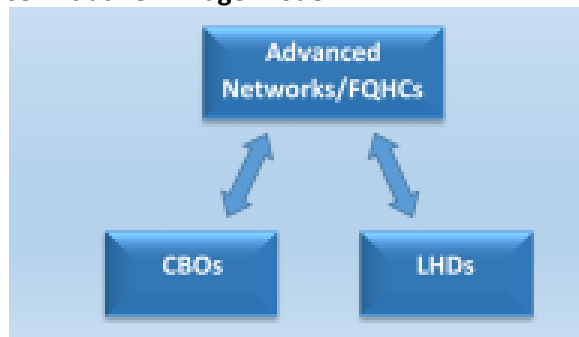
To encourage medical homes, the SIM initiative in Connecticut developed the Advanced Medical Home Program to help practices create the infrastructure required for transformation. In addition to transforming care at the practice level, SIM seeks to transform care at the “network” level. Many of the services and resources that need to be incorporated in a truly person-centered healthcare delivery system lie outside of the individual primary care office. Some of these services exist or could be built into large networks of primary care practices, which sometimes include healthcare facilities and other providers. Provider networks that are organizing to take financial responsibility for clinical quality, total cost of care, and patient health outcomes, are better positioned to adopt this broader approach to health services.

There are two provider networks, or ANs, participating in both PCMH+ and SIM/CCIP; St. Vincent’s Medical Center (acting as lead for Value Care Alliance) and Northeast Medical Group. VCA consists of Western Connecticut Health Network (Danbury and Norwalk Hospitals), Griffin and Middlesex Hospitals and St. Vincent’s Medical Center and six hospitals’ affiliated physician groups. The seven FQHCs also participating in PCMH+ are: Community Health Center, Inc., Cornell Scott-Hill Health Corporation, Fair Haven Community Health Clinic, Inc., Southwest Community Health Center, Generations Family Health Center, Inc., OPTIMUS Healthcare, Inc. and Charter Oak Health Center, Inc.

Local health departments/districts (LHDs) are linked to ANs and FQHCs and play a role that aligns with their mission of preventing communicable and chronic disease and injury, with a focus on community health. LHDs already offer a variety of services throughout the state, such as immunizations and health promotion programming. Others have clinics that address pressing medical needs of that community. Many provide interventions for asthma as well as smoking cessation programs.

Figure 1.5 depicts the linkage model between ANs/FQHCs, CBOs and LHDs. Healthcare providers in ANs/FQHCs will refer patients to CBOs and LHDs contracted to provide effective preventive services in the community. Multiple CBOs in three regions will receive SIM-funded technical assistance focusing on developing business strategies and formal contractual arrangements with ANs/FQHCs.<sup>17</sup>

**Fig. 1.5 SIM Prevention Service Initiative Linkage Model**



Source: SIM Population Health Council Meeting Slides and Presentations

## **Patient-Centered Medical Homes**

Medicaid serves an estimated 700,000 beneficiaries, or nearly 20% of Connecticut's residents, who are low-income, disabled or elderly.<sup>18</sup> As the program has broad reach, this provides opportunities to reduce healthcare disparities and costs for a significant portion of the state's population most at-risk to experience unfavorable access and outcomes. In January 2017, as part of the MQISSP, DSS launched the [PCMH+](#) initiative, in which participating providers must meet specified quality standards, including those described in the SIM section, to receive a portion of any related Medicaid savings. PCMH+ builds on existing intensive care management and medical home initiatives to enhance person-centered care coordination and reform provider reimbursement structures to promote prevention.<sup>19, 20</sup>

The PCMH+ Initiative's ANs and FQHCs will provide and coordinate care for patients and contract with community based organizations and local health departments/districts to provide preventive services. This will facilitate the integration of primary, oral and behavioral healthcare. PCMH+ prospective participants must demonstrate an ability to link Medicaid beneficiaries with community assistance services addressing issues such as housing instability, food insecurity, lack of personal safety, limited provider hours, chronic conditions and illiteracy. The initiative additionally includes measures to develop disability and cultural competence among providers and leverages claims data to prevent, identify and serve under-served beneficiaries.

## **Health Information Technology and Exchange**

The Health Information Technology for Economic and Clinical Health (HITECH) Act of the 2009 American Recovery and Reinvestment Act serves to advance the adoption of HIT to facilitate population and public health improvements while ensuring privacy and security of personal health information. HITECH and related Medicare and Medicaid electronic health records programs incentivize eligible providers and hospitals to adopt HIT management systems. HIT is important to improving primary care. Components of meaningful use of HIT include the submission of immunization data, lab results of notifiable diseases and conditions and syndromic data to public health agencies.<sup>21</sup> In addition to the sharing of these data, HIT can foster reductions in errors, improve access to records and data, and be leveraged for health and healthcare alerts, clinical decision support and prescription activities.<sup>22</sup> The ultimate goal is to create an enabling HIT infrastructure to improve clinical and population health outcomes, increase transparency and efficiency, empower individuals to make informed healthcare decisions and provide robust data on health systems.<sup>23</sup>

By 2018, each eligible provider or hospital must be certified. Centers for Medicare and Medicaid (CMS) provides incentive payments to eligible providers that effectively utilize electronic health records to meet the meaningful use guidelines.<sup>24</sup> CMS' current emphasis is on meaningful use modified stage 2, which involves eligible providers and hospitals effectively utilizing certified electronic health record technology for care coordination and patient information exchange to improve outcomes.<sup>25</sup>

In 2014, DSS became the lead agency for developing Connecticut's HIT. Responsibilities include developing the infrastructure to support the electronic submission of real time healthcare utilization, quality and cost data, implementing industry standards and promoting efficiency in the healthcare system. Passage of PA 16-77 in May 2016 enabled the Lieutenant Governor, lead on the state's health reform initiatives, to designate a HIT Officer (HITO).<sup>26</sup> The HITO coordinates all statewide HIT-related activities and leads efforts to establish a statewide Health Information Exchange (HIE) in addition to administering the program. A multi-stakeholder HIT Advisory Council advises on statewide HIT issues.<sup>27</sup>



In 2014, through the SIM grant, the SIM Program Management Office secured funds to accelerate investments to promote statewide HIE for patient information sharing among doctors, hospitals and other healthcare providers through a secure, electronic network. The information exchange consists of real time notifications for care coordination and quality improvement for admitted and discharged patients including a tool to measure and track quality of healthcare services provided. To date, with the input of stakeholders and an environment scan, the HITO and HIT Advisory Council have created a roadmap for developing a strategic and financially sustainable HIE Plan that includes governance and operational structure. In addition, the HIE infrastructure design leverages existing and/or new technology assets and service providers. Existing assets include provider registry, enterprise master person index, direct secure messaging health information service provider infrastructure and analytic capabilities.<sup>28</sup>

As of August 2016, Connecticut has received and disbursed approximately \$366 million to over 6,500 eligible professionals (physicians, dentists and other practitioners), hospitals and FQHCs to adopt certified electronic health records.<sup>29</sup> The primary goals are to engage the provider community and care managers to reduce preventable readmissions and improve care coordination for Medicaid patients.

### **ONGOING CHANGES IN AVAILABILITY AND DELIVERY OF HEALTHCARE SERVICES**

The healthcare landscape is rapidly changing due, in part, to federal incentives and mandates to implement prevention-oriented initiatives. The absorption of hospitals and medical groups across Connecticut into larger healthcare systems has additionally contributed to the reshaping of healthcare delivery in Connecticut. The following sections provide brief overviews of some of these changes.

The American Hospital Association (AHA) has identified ten services as essential for vulnerable populations: primary care; psychiatric and substance use treatment services; emergency department and observation care; prenatal care; medical and personal transportation; diagnostic services including laboratories and X-ray services; home care for illness and injury to allow patients to stay at home, regain their independence and become self-sufficient; preventive and basic dentistry services; and a robust referral structure that provides access to a full spectrum of healthcare services, including specialty care and medications for rural and urban communities.<sup>30</sup>

AHA also identified promising strategies for ensuring access to these essential services for vulnerable populations, including: addressing the social determinants of health; global budget payments rather than volume-based payments; shifting healthcare resources from inpatient to outpatient care; establishing emergency medical or outpatient urgent care centers in rural and urban communities characterized by unmet healthcare needs; delivering virtual healthcare to health professional shortage areas; extending healthcare to geographically isolated areas; integrating rural hospitals and health clinics; and improving access to healthcare and care coordination for Indian Health Services facilities and other healthcare providers delivering care to Native American communities.<sup>31</sup>

### **Transition of Healthcare toward Prevention and Early Intervention**

The PPACA emphasizes and incentivizes the reallocation of healthcare resources from tertiary inpatient care towards preventive healthcare in outpatient settings. Through an emphasis on and improving access to prevention-oriented public health and healthcare initiatives outlined in the PPACA, prevention and early intervention may contribute to reductions in avoidable emergency department use and hospitalizations.

## Hospital Acquisitions

In an era of healthcare reform and diminishing resources, the strength of the healthcare system is dependent upon the financial stability of its providers. Today, healthcare reform at both the national and state levels is requiring hospitals to integrate service delivery and assume responsibility for achieving specific quality, cost and service outcomes. Significant financial operating deficits resulting from shrinking reimbursement levels, outstanding debt, mounting pension liabilities, lower investment returns and the need to make substantial, ongoing investments in new medical and information technology and facility infrastructure has intensified the desire by some of the state's hospitals to partner with other healthcare institutions.

Hospitals that are not part of larger health systems may lack the clinical expertise and financial resources necessary to create and support a continuum approach to care delivery that is critical to improved population health, higher quality patient care and reduced per capita healthcare costs. Collaboration and affiliation between health systems and networks are intended to lower costs through shared resources as well as identify best practices -- outcomes needed to achieve financial strength and success in the current environment. By affiliating with a larger or stronger delivery system, hospitals may gain access to economies of scale, improved purchasing power and enhanced physician recruitment, among other benefits.

Although smaller community hospitals may face more significant financial challenges, even relatively large hospitals may find themselves severely affected by the rapid pace of change in the healthcare environment. In Connecticut, four transfers of ownership of hospitals have occurred since the publication of the 2014 Plan. Table 1.2 identifies the parent corporations and overarching systems for Connecticut hospitals that, at the time of publication, are affiliated with other hospitals. Table 1.3 identifies the parent corporations of those health systems that do not include more than one hospital.

According to CON applications received in the past two years, the motivation to partner with another healthcare institution has been driven by key factors related to the need to gain the resources and expertise necessary to meet current challenges and increase the chances of future success, including:

- Costs associated with aging infrastructure and quality improvements;
- Challenges in recruiting and retaining physicians;
- Desire to establish physician partnerships, share clinical expertise and best practices;
- Need to provide the health services the community requires and redesign clinical services;
- Necessity of economies of scale for information technology, finance, insurance, equipment, supplies and other administrative services; and
- Access to capital and resources necessary to reduce the cost of operations and to sustain and grow high quality medical services.

To ensure the continued provision of needed services and as a safeguard against increasing costs to consumers that may result from hospitals gaining a larger share of the market, OHCA places certain conditions on hospitals as part of the transfer of hospital ownership approval process. In general, hospitals agree, for a period of three years, to:

- Limit reduction or relocation of services that would result in reduced access to care;
- Submit a plan for any consolidation, reduction, elimination or expansion of existing services or introduction of new services;

- Conduct CHNAs, develop implementation plans and adopt evidence-based interventions identified in the Centers for Disease and Prevention's (CDC) [6|18 Initiative](#) if CHNA health priorities correlate;
- Submit capital investment plans and reports on financial measurements, cost savings achieved and their effect on quality of care;
- Adopt/maintain the most generous charity care policy between the transacting parties;
- Maintain community benefit programs and building activities; and
- Assure culturally and linguistically appropriate services are available and integrated throughout the organization.

Additionally, under certain circumstances, hospitals are also required to:

- Contract with an independent monitor to ensure compliance with conditions; and
- Initiate a Cost and Market Impact Review to determine the impact of healthcare costs and market performance and to establish a baseline cost structure.

Once these compliance and reporting requirements are fully complete, OHCA can better assess hospital acquisitions' impact on administration, clinical efficiencies, quality of care, care affordability and consumer costs. It remains unclear how impending changes at the federal level will affect Connecticut hospitals' ability to meet the healthcare need of those they serve, particularly vulnerable and at-risk populations. There will be a need to revisit these issues periodically as the healthcare system continues to evolve.

Some Connecticut hospitals are pursuing other strategies to remain financially viable and independent of large healthcare systems through the creation of alliances. The VCA providers (described above) are collaborating through clinical integration and investing in infrastructure: to enhance efficient, coordinated care; standardize care based on evidence-based protocols; and to ensure patient safety at each member organization, all to increase quality and reduce cost.<sup>32</sup>

**Table 1.2. Hospitals and Parent Companies for Affiliated Hospitals, Connecticut 2017**

CORPORATE AFFILIATIONS BETWEEN ACUTE CARE GENERAL HOSPITALS (ordered by higher level parent name)					
Hospital (Full Legal Name)	Town (Main Campus)	Parent Corporation (Full Legal Name)	Higher Level (System) Parent Corporation (Full Legal Name)	Affiliation Date	Other acute care hospitals currently under the same parent corporation
St. Vincent's Medical Center	Bridgeport	Ascension Health, Inc.	N/A	1999	Multiple hospitals across the US under larger parent, Ascension Health Alliance. No others within Connecticut
Prospect Manchester Memorial Hospital, Inc.	Manchester	Prospect ECHN, Inc.	Prospect CT, Inc. <sup>a</sup>	2016	Manchester Memorial Hospital Rockville General Hospital Waterbury Hospital
Prospect Rockville Hospital, Inc.	Vernon				
Prospect Waterbury Hospital, Inc.	Waterbury				
Vassar Health Connecticut, Inc. d/b/a Sharon Hospital	Sharon	Health Quest Systems, Inc. <sup>c</sup>		2017	Multiple hospitals across NY under parent No others within Connecticut
Hartford Hospital	Hartford	Hartford Healthcare Corporation	N/A	N/A	Hartford Hospital Hospital of Central Connecticut Midstate Medical Center William W. Backus Hospital Windham Community Memorial Hospital
Midstate Medical Center	Meriden			1996	
Hospital of Central Connecticut at New Britain General and Bradley Memorial	New Britain			2011	
Windham Community Memorial Hospital, Inc.	Windham			2009	
William W. Backus Hospital, The	Norwich			2013	
Johnson Memorial Hospital, Inc.	Stafford Springs	Trinity Health of New England, Inc.	Trinity Health Corporation	2016	Johnson Memorial Hospital, Inc. Saint Francis Hospital and Medical Center, Inc. Saint Mary's Hospital as well as a Massachusetts hospital system
Saint Francis Hospital and Medical Center, Inc.	Hartford			2015	
Saint Mary's Hospital	Waterbury			2016	
Danbury Hospital, The	Danbury	Western Connecticut Health Network, Inc.	N/A	2010	Danbury Hospital New Milford Hospital Campus Norwalk Hospital
Norwalk Hospital Association, The	Norwalk			2014	
Bridgeport Hospital	Bridgeport	Yale New Haven Health Services Corporation	N/A	1996	Bridgeport Hospital Greenwich Hospital Yale New Haven Hospital Lawrence + Memorial Hospital as well as a RI hospital system
Yale New Haven Hospital, Inc.	New Haven			N/A	
Greenwich Hospital	Greenwich	Greenwich Healthcare Services, Inc.	Yale New Haven Health Services Corporation	1998	
Lawrence + Memorial Hospital, Inc.	New London	Lawrence + Memorial Corporation	Yale New Haven Health Services Corporation	2016	

<sup>a</sup> On October 1, 2016, ECHN's subsidiaries Manchester Memorial Hospital and Rockville General Hospital became wholly owned subsidiaries of Prospect ECHN, Inc. and renamed Prospect Manchester Hospital, Inc. d/b/a The Manchester Memorial Hospital, Inc. and Prospect Rockville Hospital, Inc. d/b/a The Rockville General Hospital, Inc.; ECHN, Inc. became a wholly owned subsidiary of Prospect CT, Inc. and renamed Prospect ECHN, Inc. d/b/a as ECHN. Prospect Medical Holdings, Inc. is the highest level parent.

<sup>b</sup> On October 1, 2016, Waterbury Hospital became a wholly owned subsidiary of Prospect CT, Inc. a subsidiary of the Prospect Medical Holdings, Inc. system and was renamed Prospect Waterbury, Inc. d/b/a Waterbury Hospital.

<sup>c</sup> On August 1, 2017, Sharon Hospital became a wholly owned subsidiary of Health Quest Systems, Inc. and was renamed Vassar Health Connecticut, Inc. d/b/a Sharon Hospital.

*Information current through publication of FY 2016 Financial Stability Report*

**Table 1.3. Hospital and Parent Companies for Non-Affiliated Hospitals, Connecticut 2016**

HEALTH SYSTEMS THAT DO NOT INCLUDE MORE THAN ONE HOSPITAL (Non Affiliated Hospitals) (ordered by higher level parent name)				
Hospital (Full Legal Name)	Parent Corporation (Full Legal Name)	Higher Level Parent Corporation (Full Legal Name)	Other Acute Care Hospitals Currently Under the Same Parent Corporation	Town Hospital Service Area
Bristol Hospital, Inc.	Bristol Hospital & Healthcare Group	N/A	N/A	Bristol, Plymouth, Southington
Charlotte Hungerford Hospital <sup>a</sup>	N/A	N/A	N/A	Litchfield, Torrington, Winchester
Day Kimball Healthcare, Inc. d/b/a Day Kimball Hospital	Day Kimball Healthcare, Inc.	N/A	N/A	Brooklyn, Killingly, Plainfield, Putnam, Thompson
Connecticut Children's Medical Center	CCMC Corporation, Inc.	N/A	N/A	Avon, Bloomfield, Bristol, Colchester, Coventry, Danbury, East Hartford, Enfield, Farmington, Glastonbury, Griswold+Lisbon, Hartford, Manchester, Meriden, Middletown, Naugatuck, New Britain, Newington, Norwich, Rocky Hill, Simsbury, South Windsor, Southington, Tolland, Torrington, Vernon, Waterbury, Watertown, West Hartford, Wethersfield, Windham, Windsor
Griffin Hospital	Griffin Health Services Corporation	N/A	N/A	Ansonia, Derby, Naugatuck, Oxford, Seymour, Shelton
Middlesex Hospital	Middlesex Health System, Inc.	N/A	N/A	Chester, Clinton, Colchester, Cromwell, Durham, East Haddam, East Hampton, Essex, Haddam, Middletown, Old Lyme+Lyme Old Saybrook, Portland, Westbrook
Milford Hospital	Milford Health & Medical, Inc.	N/A	N/A	Milford, West Haven, Orange
Stamford Hospital	Stamford Health System	N/A	N/A	Stamford, Norwalk
John Dempsey Hospital	University of Connecticut Health Center	N/A	N/A	Avon, Bloomfield, Bristol, Canton, East Hartford, Farmington, Hartford, Manchester, New Britain, Newington, Plainville, Simsbury, Southington, Torrington, West Hartford

<sup>a</sup> On November 28, 2016, OHCA received Docket Number 16-32135, a Certificate of Need application to transfer ownership of Charlotte Hungerford Hospital to Hartford Healthcare Corporation. A decision on the application was pending as of publication of this Plan.

## **PAYING FOR HEALTHCARE SERVICES**

A provision of the PPACA guarantees access to health insurance coverage for the previously under- or uninsured and those with pre-existing condition(s) through a state or federally run health insurance exchange or Medicaid expansion. In 2015, nearly one-quarter (or 522,000) of non-elderly Connecticut residents had pre-existing conditions that would have made it difficult or prohibitively expensive to buy or obtain coverage pre-PPACA.<sup>33</sup>

Despite the coverage expansion, individuals, employers, and state and federal governments continue to struggle to pay for healthcare. The US and Connecticut primary payment model, the fee-for-service system, has been identified as the key barrier to healthcare delivery system improvement and cost reduction.<sup>34</sup> The PPACA provisions enable testing for new delivery models, and shifting to value based purchasing through accountable care organizations or bundled payments.

The US CDC [6|18 Initiative](#) also provides recommendations for six chronic and infections conditions, which it considers to be “high burden health care conditions”: tobacco use, high blood pressure, health-care associated infections, asthma, unintended pregnancy and diabetes.<sup>35</sup> It has identified those as conditions for which the treatment of would have the greatest health and cost impacts. The CDC has further provided evidence-based interventions to prevent or control them. The 6|18 Initiative recommendations are intended to inform discussions with purchasers, payers and providers regarding strategies to reform delivery models and payment structures towards improving healthcare coverage, access, utilization and quality.

### **Health Insurance Exchange**

Connecticut’s health insurance exchange, [Access Health CT](#), is recognized as one of the nation’s most successful state-run health insurance exchanges.<sup>36</sup> As Access Health CT closes its fourth enrollment period, there have been several notable changes. Exchange carriers now only include Anthem and ConnectiCare, with HealthyCT closing in 2016 and United Healthcare exiting in 2017 due to unsustainable costs.<sup>37</sup> As of early May 2017, about 100,000 Connecticut residents were enrolled in and continued to pay premiums for health insurance through Access Health CT.<sup>38</sup> This is lower than open enrollment numbers in May 2016 (103,000) and 2017 (111,542) because people either ceased paying premiums for, or dropped, coverage. According to a CMS exit survey, consumers canceled or terminated their 2017 enrollment because of high premium costs and lack of affordability.<sup>39</sup>

The state’s Department of Insurance estimates an average rate increase of 22.8% in health insurance premiums in 2018 for individual market plans in the exchange.<sup>40</sup> According to Kaiser Family Foundation estimates, if the federal government eliminates cost-sharing subsidy payments, the premiums could increase by an additional 19%.<sup>41</sup> These increases will further erode the number enrolled in the Access Health CT exchange.

### **Accountable Care Organizations**

Accountable Care Organizations (ACOs) are voluntary networks of physicians, hospitals and other healthcare providers who coordinate and deliver quality healthcare and receive payments linked to quality indicators and cost of care.<sup>42</sup> Many ACOs pertain to the coordination of care to Medicare patients.<sup>43</sup> Coordinated care is important for ensuring that patients, particularly those with chronic conditions, receive appropriate healthcare, while also reducing the potential for duplication of healthcare services and medical errors. Successful ACO models also achieve shared savings.

In Connecticut, there are about 10 physician- or physician/hospital-led Medicare ACOs each covering at least 5,000 residents and providing primary, behavioral health, hospital or multi-specialty care.<sup>44</sup> As 9.6% of Connecticut residents had Medicare coverage in 2015,<sup>45</sup> this indicates that a sizable proportion of Connecticut residents stand to be affected by the ACO models unfolding across Connecticut.

The Connecticut SIM Prevention Service Initiative involves utilizing ACOs that currently include two ANs and seven FQHCs that will contract with community based organizations and local health departments/districts to deliver effective prevention services in their communities. Additional details are provided in previous sections. The VCA, one of PCMH+'s two ANs, coordinates care for 16,000 Medicaid beneficiaries and also has an ACO agreement with Aetna to coordinate and deliver patient care to Aetna members in Connecticut.<sup>46</sup>

## **IDENTIFYING AND ADDRESSING GAPS IN SERVICES AND UNMET NEED**

### **Community Health Needs Assessments (CHNAs)**

As required by the PPACA to maintain their non-profit status, non-profit hospitals must conduct a CHNA every three years to identify unmet need and engage in a community health improvement planning process to develop strategies to address those identified needs.<sup>47</sup> OHCA also requires for-profit hospitals to conduct CHNAs through CON agreed settlements. Each of these processes involves input from local public health experts and community members, and the final assessment and health improvement plans must be publicly accessible. CHNAs conducted in Connecticut are discussed further in Chapter 4.

### **Chronic Disease Management**

To improve quality and promote patient-centered care for chronic conditions, CMS produces Hospital Performance Reports that evaluate hospital performance on publicly reported indicators of quality care for patients with myocardial infarction, heart failure, and pneumonia.<sup>48</sup> Indicators included in this report are 30-day risk-standardized mortality and complication and readmission measures. DPH hosts a MONAHRQ-generated website, which displays the CMS hospital performance reports and other evidence-based health reports for use by providers, policymakers and consumers in improving the quality and affordability of care, and patient safety and experience.<sup>49</sup>

In 2014, the DPH outlined the [\*Live Healthy Connecticut: Coordinated Chronic Disease Prevention and Health Promotion Plan\*](#),<sup>50</sup> which establishes goals for 12 priority areas: health equity, nutrition and physical activity, obesity, tobacco, heart health, cancer, diabetes, asthma, oral health, genomics, healthcare quality and healthcare access. Strategies to address these priority areas encompass three approaches: environmental approaches to promote, support and reinforce health-promoting behaviors; health systems interventions to strengthen the delivery of care and use of preventive services; and improving linkages between community resources and clinical settings.

With respect to chronic disease, the SHIP's health assessment identified reducing the prevalence of asthma-related emergency department visits, obesity, dental decay and tobacco use among students as areas of particular concern.<sup>51</sup> To address some of these concerns, the DPH SHIP chronic disease action team in 2016 supported successful legislation for new water fluoridation standards and published an Asthma Action Plan in conjunction with the Department Education.<sup>52</sup>



### **30-Day Hospital Readmissions**

The majority of all-cause 30-day hospital readmissions are preventable.<sup>53</sup> The PPACA includes provisions to reduce payments to hospitals with excess readmissions.<sup>54</sup> The leading conditions that are linked with 30-day readmissions often vary by payer and population. For example, in 2011 congestive heart failure, septicemia and pneumonia were the leading causes of 30-day readmissions for Medicare patients, while mood disorders, schizophrenia, and diabetes were the leading causes of readmissions for Medicaid patients. Maintenance chemotherapy, mood disorders and complications of surgical or medical care were the leading conditions for privately-insured patients across the US.<sup>55</sup> Thirty-day readmissions are often attributed to quality of care during hospitalization, the hospital discharge process and characteristics of follow-up care.<sup>56</sup> Coordination of care mechanisms that plan transitions from inpatient to outpatient care, follow-up care, medication management and end-of-life care are important for reducing preventable hospitalizations.<sup>57</sup>

Since October 2012, CMS has been reducing Medicare payments to hospitals with excessive 30-day readmissions for heart attack, heart failure, pneumonia, COPD, hip/knee replacements and coronary artery bypass graft surgery. CMS reduces payments if the predicted number of 30-day readmissions for a hospital for any of the listed conditions exceeded the expected number for an average hospital with similar patients.<sup>58</sup> In 2016, CMS reduced payments by 3% to affected hospitals. Connecticut-specific 30-day readmissions are discussed further in Chapter 4.

### **Preventable Hospitalizations and Emergency Department Use**

Preventable hospitalizations are classified as hospitalizations for conditions that could have been prevented through primary or preventive care (e.g., asthma, urinary tract infections and diabetes-related complications), but which culminated in increased emergency department visits or inpatient hospitalizations.<sup>59</sup> From 2005 to 2012, there was a 19% decline in preventable hospitalizations across the US, a decrease that was greater for acute conditions (25%) than chronic (14%) conditions.<sup>60</sup> However, this decrease in preventable hospitalizations was accompanied by an increase in emergency department visits from 2008 to 2012. Connecticut-specific information about preventable hospitalizations is discussed in Chapter 4.

### **Emergency Department Visits and Behavioral Health**

Persons with behavioral health issues often access needed care through hospital emergency departments and inpatient hospitalizations, straining the resources of hospitals that may not have appropriate behavioral health services and contributing to rising healthcare costs.<sup>61</sup> These patterns coincide with continued stigma around mental health and substance use issues; a substantial decline in funding for state behavioral healthcare services; insufficient financial support for community agencies to deliver behavioral healthcare; and continued fragmentation of mental health, substance abuse and primary care.<sup>62</sup> The AHA's Behavioral Health Task Force provides six recommendations for hospitals to address behavioral health need.<sup>63</sup> These recommendations include: incorporate behavioral health issues into hospital community health needs assessments; review the hospital's behavioral health plan to evaluate whether it meets the needs identified in the assessment; collaborate with community agencies and leaders to develop and implement a community behavioral health plan; educate payers on the healthcare and social costs of not treating patients with behavioral health needs to increase behavioral health reimbursements; implement employer practices to support behavioral health services; and engage in regional, state and national advocacy to support behavioral health.

Additionally, the Substance Abuse and Mental Health Services Administration (SAMHSA) has outlined strategic initiatives to reduce behavioral healthcare needs.<sup>64</sup> These include: increasing awareness and understanding of mental and substance use disorders, promoting mental wellbeing, preventing substance abuse and mental illness, improving access to effective treatment and supporting recovery.

CGS section 17a-22bb mandates the Connecticut Department of Children and Families (DCF) to implement strategies to prevent or mitigate the life course implications of childhood mental, emotional and behavioral health issues.<sup>65</sup> Some of the strategies are: implementing early identification and early intervention programs; providing access to developmentally appropriate services; engaging communities, evaluating behavioral healthcare services to monitor progress towards goals; and engaging a data-driven quality improvement strategy.

In 2010, DCF launched the Emergency Mobile Psychiatric Services Crisis Intervention Services program.<sup>66</sup> This program offers free, 24/7, community-based crisis stabilization and short-term intervention to children with behavioral health needs and their families statewide. Early intervention diverts children from emergency departments and the juvenile justice system. The program also entails quality data reporting and analysis for quality improvement and training. The distribution of behavioral health related ED visits in Connecticut is discussed further in Chapter 4.

### **Opioid Overdose Epidemic**

Across the US and in Connecticut, there has been an increase in deaths due to opioid overdoses. Opioids, or prescription pain medications, synthetic opioids and heroin, accounted for 28,648 deaths in 2014 across the nation.<sup>67</sup> Accidental drug overdose related deaths increased from 568 in 2014 to 917 in 2016 in Connecticut.<sup>68</sup> The state's residents are more likely to die from unintentional drug overdose, particularly prescription opioid painkillers, than a motor vehicle accident.<sup>69</sup> In 2013, the state's age-adjusted rate for drug induced mortality was 16.4 per 100,000 population compared to the national rate of 14.6. Also, the number of people entering the criminal justice system for opioid-related issues has increased, dramatically. More than one-half of the overdose related deaths in Connecticut (479) occurred among people incarcerated in the state's prisons. Prisoners account for 8% of the state's population.<sup>70</sup>

There are several state and federal level actions to reverse the accelerating substance dependency and accidental overdose-related hospital use and deaths. Since 2015, PA 15-198 and PA 15-5 Sec. 54 require prescribers of controlled substances to review a patient's chart before prescribing more than a 72-hour supply and also at least once every ninety days for patients needing continuous or prolonged use of such substances. In 2016, PA 16-43 required creation and maintenance of a centralized database, the Connecticut Prescription Monitoring Program, to collect controlled substances prescription data and also extended the mandate to every pharmacy, outpatient pharmacy in a hospital or institution and each dispenser.<sup>71</sup>

In September 2016, SAMHSA awarded the State two competitive grants worth nearly \$5 million to expand access to medication-assisted treatment for opioid addiction and to strengthen drug abuse prevention efforts statewide.<sup>72</sup> The Connecticut Opioid REsponse (CORE) Initiative is actively implementing six strategies to address opioid misuse and abuse,<sup>73</sup> many of which align with the CDC recommendations for preventing opioid overdose.<sup>74</sup> CORE strategies include: increasing access to medication-assisted treatment; reducing overdose risk among high risk populations; improving provider adherence to opioid prescribing guidelines; increasing access to and tracking of naloxone; enhancing data sharing across agencies to strengthen capacity to monitor and respond to opioid outbreaks; and strengthening community

understanding of opioid misuse and abuse and evidence-based strategies to promote treatment and reduce stigma.

Under the PPACA, treatment for substance use is covered by health insurance plans available through health insurance exchanges. To meet the growing need for opioid treatment and prevention, in the FY 2017 budget, funding was allocated to expand treatment of opioid misuse and abuse.<sup>75</sup> The budget also provided for the expansion of state-level prescription drug overdose prevention strategies such as medication-assisted treatment, access to the overdose-reversal drug naloxone, and support for strategic enforcement initiatives.<sup>76</sup> This effort builds on, and extends considerably, several public and private sector initiatives, including prescriber training programs, expanded access to prescription drug monitoring program data, drug take-back programs and dispensing naloxone to local law enforcement officers to prevent opioid overdose. The distribution of opioid related ED visits in Connecticut is discussed further in Chapter 3.

### **Health Professional Shortage Areas and Medically Underserved Areas or Populations**

The US Health Resources and Services Administration (HRSA), Office of Shortage Designation (OSD), provides guidelines for determining federally qualified health professional shortage areas (HPSAs).<sup>77</sup> OSD also provides guidelines for determining medically underserved areas or populations (MUA/Ps) as geographic areas or populations with limited access to primary care services.<sup>78</sup> A designation may help attract new primary care, mental health, and dental health workers and it may increase Medicare and Medicaid reimbursement to the professionals already providing care in a community.<sup>79</sup>

The three types of HPSA designations may be geographic, population group, facility or automatic based on a shortage of primary care, dental or mental health providers.<sup>80</sup> The designations provide both federal and state government benefits for communities, healthcare facilities and providers who participate in the federal loan repayment programs. A HPSA designation may be geographic which demonstrates a shortage of providers for the total population of an area or population group-based for a shortage of providers for at least one of the following populations:

- Low income populations (greater than 30% of population with incomes at or below 200% of the federal poverty level);
- Migrant and/or seasonal farmworkers and families;
- Medicaid – eligible;
- Native Americans or native Alaskan;
- Homeless; and
- Other populations isolated from access by means of a specified language, cultural barriers, or handicaps

A facility HPSA designation is only for facilities including community health centers, rural health clinics, and federal correctional institutions. Each HPSA is given a score by the OSD based on specific criteria for each type of HPSA.<sup>81</sup> This score indicates the degree of shortage. An automatic HPSA designation refers to the designations given to FQHCs as defined by Section 330 of the Public Health Service Act (42 USC. §254b).

An MUA can encompass an entire county, a group of counties or civil divisions or urban census tracts. An MUP includes groups of persons who face documented economic, cultural or linguistic barriers to healthcare. MUA/Ps are designated based upon four criteria: low ratio of population to providers, high percentage population with incomes below the federal poverty level, high percentage population over age 65 and high infant mortality rate. Unlike an HPSA, this type of designation does not expire.

In Connecticut, to obtain an HPSA or MUA/P designation, DPH's Primary Care Office (PCO) submits a web-based GIS application to HRSA for approval. The first step for the application is to develop a rational service area which entails locating a specific area where the majority of the population would expect to receive healthcare services. A rational service area could be the entire or part of a county, town, city or a census tract. The application must address the area's population as having similar socio-economic characteristics, such as the percent of population below 100% or 200% of the federal poverty level, the racial/ethnic distribution, physical access barriers (e.g., bordered by state forest/park, mountains, bodies of water or a river without bridge access, interstates, highways include mountains, railway yards, industrial areas, etc.), public transportation patterns, and the area having an established neighborhood and/or community which displays a strong self-identity. Rational service area boundaries are from the population center of the proposed service area (census tracts or minor civil division with the highest resident civilian population) to outer boundaries not exceeding a 40-minute travel time. Then availability of providers (primary care, mental/behavior health, and dental care) within up to a 40 minute radius of the area is assessed to determine if providers in these areas are over-utilized or inaccessible to the proposed service area population. If any area demonstrates significant socio-economic or racial/ethnic disparities from the rational service area, then the area is considered inaccessible. If there are significant physical barriers, then the population is considered isolated from nearby resources. Provider services in the surrounding areas exceeding 40 minutes from the population center are considered excessively distant and inaccessible.

In addition to the mapping component for all designation application requests, a written justification is submitted to explain the importance of obtaining a federal designation. Once the application is submitted to HRSA, the general public has thirty days to provide comments to the proposed designation. HRSA has established a timeline to review and make a final determination within three months upon submission. All HPSA designations are re-evaluated every three years.

Currently, the DPH PCO utilizes the State Department of Mental Health & Addiction Services' Catchment Area Council (CAC) as a way to further support HPSAs in mental health. The CAC is a citizen body and a grassroots level of citizen involvement in planning for needed services. This includes establishing catchment areas which are a defined geographic area, based on population that receives mental health services as a unit. The role of the CAC is to study and evaluate existing mental health services in the catchment area and to make recommendations about the types of services that are needed. The defined catchment areas are used in identifying and designating mental health HPSAs. The distribution of HPSAs and MUA/Ps in Connecticut is discussed further in Chapter 4.

## **OTHER FACTORS THAT MAY IMPACT THE HEALTHCARE ENVIRONMENT**

### **Parity Laws**

In 2000, Connecticut implemented a parity law requiring that individual and group health insurance policies delivered or issued in Connecticut that cover hospital, medical and surgical services provide mental health benefits as well.<sup>82</sup> These provisions prevent unreasonable healthcare costs associated with accessing mental health diagnostic and treatment services.<sup>83</sup> Connecticut's parity requirements were strengthened by similar federal provisions under the PPACA. As depressive disorder is disproportionately concentrated among lower income adults and persons with lower levels of educational attainment (as illustrated in Chapter 4), parity laws may improve access to needed mental healthcare for populations of lower socioeconomic status.

## **All Payers Claims Database and Price Transparency**

The Connecticut All Payers Claims Database (APCD), administered by Access Health CT, is designed to be a dynamic repository of historical healthcare claims data for 2012 and beyond reported by multiple payers for healthcare utilization in all settings. The APCD would provide valuable information about high risk patients, quality metrics, pharmacy utilization and healthcare costs. As this information is publicly available to healthcare consumers, state agencies, employers, healthcare providers, researchers and the Connecticut Health Insurance Exchange, the APCD may improve transparency of healthcare quality and costs. Recent precedent established in Vermont ruled that payers are not mandated to report data for consumers covered by employer self-insured plans.<sup>84</sup> Subsequently, Connecticut's APCD may only represent outcomes for about one-half of the state's residents covered by commercial insurance, but collection is ongoing. Efforts to include Medicaid and Medicare data continue. Access Health CT is coordinating with the SIM program to apply to CMS for Medicare data, a response was expected by the end of June 2017. A date for procuring Medicaid data is still unknown.<sup>85</sup>

The APCD website ([www.analyzehealthct.com](http://www.analyzehealthct.com)) recently launched in December 2016 and will be published in phases, with indicators such as disease prevalence and healthcare coverage, physician density, hospital readmissions, price transparency and healthcare utilization patterns being incorporated.<sup>86</sup> The data release infrastructure development is underway. The APCD may be leveraged to identify disparities in healthcare delivery and policy opportunities to improve healthcare access and outcomes for vulnerable populations. However, only approximately 5% of consumers report their racial/ethnic identification when enrolling in a health insurance plan and there is a lack of uniformity in whether payers collect that information at all.<sup>87</sup> However, availability of any such data will facilitate benchmarking healthcare and outcomes for at-risk and vulnerable populations.

## **Certificate of Need (CON) Review**

Under CGS section 19a-639, OHCA must consider the implications of CON applications for vulnerable populations. This law mandates that when reviewing CON applications, DPH's OHCA consider the current provision of or any change in access to services for Medicaid recipients and indigent populations.<sup>88</sup>

CGS section 19a-639(e) mandates additional review requirements when ownership of a hospital will be transferred to a for-profit purchaser or not-for-profit purchaser with net patient revenue surpassing a set threshold. In such instances, OHCA selects an independent consultant to act as a post-transfer compliance officer to monitor conformance with any conditions placed on the transaction, facilitate meetings with community members, and report on the hospital's provision of uncompensated care and community benefits.

PA 15-146 section 34 also required the Commissioner of Public Health to make recommendations to the General Assembly's Joint Standing Committee on Public Health regarding the potential impact of eliminating certain CON requirements and of introducing an expedited approval process for certain applications. In addition, the Governor convened a panel of industry experts to further review the role of the CON program.

The Governor's Executive Order 51 established the CON Taskforce to review and analyze the CON program and determine if program changes are necessary to ensure access to quality care for residents while preserving an open and competitive healthcare market in the state.<sup>89</sup> The Taskforce included representatives of the Connecticut Governor's Office, Office of Policy and Management, DPH and DSS; as well as at least one representative of each of the following groups: a physician group practice, a nursing

home, a free-standing outpatient provider, a health plan participating in the Connecticut Health Insurance Exchange, the healthcare industry, healthcare labor interests, consumer interests, health economists and entities regulated by CON. The Taskforce submitted its recommendations to the Governor on January 15, 2017.<sup>90</sup> The Taskforce's final report is available at:

<http://portal.ct.gov/en/Office-of-the-Governor/Working-Groups/Certificate-of-Need-Taskforce>

Table 1.4 below illustrates the types of CON applications submitted to OHCA in the last three years. In some instances, CON applications have been reflective of issues faced by the state's population. Between 2014 and 2016, the number of behavioral health CON applications OHCA received tripled, and were primarily focused on providing specialized services such as treating eating disorders and, even more so, substance abuse. The growth in applications for establishing services to treat substance abuse has been fueled by the opioid epidemic faced not only by Connecticut but also the nation as a whole.

In other instances, CON applications submitted reflect systemic changes in healthcare delivery. Changes to federal laws and regulations, reimbursement policies, state of the art technology standards, shifts in patient care settings and other factors have created a state of instability in the healthcare system. CONs related to hospital acquisitions by both not-for-profit and for-profit entities have represented a significant portion of CON activity since 2014, as Connecticut hospitals need to adjust and adapt to both federal and state mandates as well as economic pressures.

Remaining independent has become more challenging for some of the state's hospitals. Installing expensive mandated electronic health record systems, acquiring costly state-of-the-art equipment and upgrading older physical plants can be prohibitively expensive, especially if operating margins are thin. For some hospitals, consolidating with another hospital or hospital system provided a solution to dealing with both economic and policy pressures that necessitate new strategies in order to remain viable.

CON applications for transfers of ownership related to outpatient surgical facilities and group practices also showed substantial growth during the same period. There were also increases in the number of transfers of ownership related to hospital acquisitions or conversions as well as hospitals or management companies seeking to become majority owners of outpatient surgical facilities.

OHCA has also seen significant CON activity related to termination of services since 2014. Some of this activity was attributable to hospitals attempting to balance declining or low utilization of certain services with the cost to provide those services. The availability of physicians to provide those services and patients' ability to access those services at another location within a hospital system or with another provider in the area also influenced hospitals' choosing to terminate certain services.

Some terminations were actually related to regionalization of services, such as the development of a regional inpatient rehabilitation center of excellence in Milford. Although services were terminated in New Haven and Bridgeport, a regional inpatient rehabilitation center was established that allowed for improved quality and delivery of care in a more efficient and cost effective manner.

Between 2014 and 2016, OHCA also saw an overall increase in agreed settlements, which contain conditions that an Applicant must agree to abide by as a condition of approval of the CON. In general, conditions required by OHCA with respect to hospital acquisitions and conversions were related to maintaining access to services, prohibiting price increases and meeting the health needs of the community. Behavioral health and Imaging CON agreed settlements were focused on requiring Applicants to participate in the Medicaid program and serve Medicaid clients.

**Table 1.4. Certificate of Need Applications, Connecticut, 2014-2016**

CON Type	CY 2014	CY 2015	CY 2016
Behavioral Health	2	3	6
Change of Ownership			
Outpatient Surgical Facility, Clinic	2		
Outpatient Surgical Facility, Group Practice		6	12
Hospital Acquisition		4	
Hospital Conversion to For-Profit	3	2	
Establishment of New Facility/Service			
Healthcare Facility	2	1	1
New Service (Cardiac)		1	
Increase in Operating Rooms			1
Medical Equipment (e.g. MRI, CT, PET-CT, LiNac)	4	7	5
Terminations	5	9	5
<b>Applications</b>	<b>18</b>	<b>33</b>	<b>30</b>
<b>Approvals/Agreed Settlements</b>	<b>7</b>	<b>17</b>	<b>12</b>
<b>Determinations</b>	<b>58</b>	<b>46</b>	<b>54</b>

Source: CT DPH Office of Health Care Access Certificate of Need Database

### Potential Changes Following New Presidential Administration

Mandates and incentives embedded in or catalyzed by the PPACA have shaped several of the achievements in improving the healthcare environment and access to health insurance described in this Plan, as well as institutional changes that are continuing to unfold (e.g., hospital mergers). However, in recent months, the President and Congress have taken preliminary steps to dismantle the PPACA and provide a replacement. The long-term consequences of the changes in healthcare at both the federal and state level may be profound and are still uncertain, as at the time of publication of this Plan, Congress is continuing to debate what will take the place of the PPACA.

The two federal bills (US House and Senate) recently released propose significant Medicaid and subsidy cuts, may allow states to opt out of pre-existing conditions coverage, allow states to define essential health benefits, change how premium subsidies are determined and eliminate the individual and large employer insurance mandates. Although the exact consequences of these bills are unknown, it is likely that individuals, healthcare systems and providers will be adversely affected. A decline in Medicaid and health exchange market enrollment and an increase in the number of uninsured are highly likely. Anticipated reductions in utilization of hospital services and increases in uncompensated care are expected to impact hospitals' operating margins. Thus, there remains uncertainty regarding future institutional and political support for sustaining and advancing several of the changes to the healthcare environment outlined in this section.

## Chapter 2 HEALTHCARE FACILITIES AND SERVICES IN CONNECTICUT

As noted in Chapter 1, the Connecticut healthcare system continues to transform in response to the PPACA. With the implementation of the PPACA, the number of people in Connecticut with access to health insurance coverage increased, which, combined with the state's aging population is projected to raise demand for healthcare services. The PPACA is structured to incentivize use of cost effective care, such as outpatient services over inpatient care. Furthermore, it is intended to encourage health providers to identify and address gaps in services and to assess unmet healthcare needs of at-risk and vulnerable populations. Such aspects of the PPACA were included with the ultimate goal of reducing health disparities and improving overall community health.

While federal action has taken steps to assess the current state of health care nationally, a full set of comprehensive data is necessary to effectively evaluate the availability and accessibility of services in Connecticut. Although the Connecticut General Assembly authorized implementation of the APCD to collect and provide data on residents' healthcare encounters, as noted in Chapter 1, the APCD is currently incomplete and unavailable to DPH and other state agencies. Due to the unavailability of the APCD this review is based on acute care inpatient data and proxies for healthcare service availability and utilization. Additionally, it should be noted this review utilizes charge data rather than price or cost data, which are also unavailable. These data are not as comprehensive as a fully executed APCD.

### **SHIFTING CARE FROM INPATIENT TO OUTPATIENT SETTINGS**

In recent years, US acute care hospitals have experienced steady declines in inpatient care's share of total revenue. Among the contributing factors are decreasing overall hospital admissions, births and average daily census. Perhaps the greatest impact on inpatient revenue is the increasing trend of providing care in outpatient settings rather than traditional inpatient treatment, driven in part, by PPACA incentives and technological advancements in healthcare. In 2012, outpatient care in the US accounted for nearly 60% of hospital total revenue, compared with only 10% to 15% in the early 1990s. The ongoing shift toward outpatient care may also be attributed to changes in the competitive landscape, consumer preference and the desire to contain costs. These factors have forced hospitals to reallocate resources to align with this current trend to meet patient needs and to stay competitive.

Hospitals face increasing competition in the outpatient market as new providers enter the marketplace offering the same services but in non-traditional settings. Among these settings are urgent care centers and retail pharmacies, which offer extended hours and walk-in medical clinics capable of providing immunizations, health and wellness screenings and treatment for minor injuries. Hospitals must also increasingly compete with ambulatory surgical centers, which provide surgical treatments that do not require an overnight stay, resulting in lower costs. In order to remain competitive in terms of cost and convenience, hospitals are investing in their healthcare systems, either by partnering with these low-cost providers or making direct acquisitions to provide the same level of outpatient services.

The availability of outpatient care that was previously provided strictly in an inpatient setting is in part attributable to technological innovations. Such advancements allow for less invasive procedures, allowing for faster recovery and reduced post-treatment pain. Furthermore, patients' avoidance of an inpatient stay minimizes opportunities for their exposure to infection. Treatment in the outpatient setting requires patients to spend less time in a medical facility, allowing them to quickly return to their regular daily routines. This is especially appealing to younger, healthier patients who do not require any rehabilitation or intense post-operative treatment.



Providing treatment in outpatient settings enables cost savings. The PPACA payment and delivery models motivates hospitals to achieve cost savings. The Comprehensive Care for Joint Replacement Model, for example, mandates that 750 US hospitals are reimbursed a pre-set amount to provide the full spectrum of care -- from surgery through 90 day rehabilitation and recovery -- for hip and knee replacements.<sup>91</sup> This incentivizes hospitals to keep patients out of the inpatient setting and to take preventative measures to ensure a favorable procedure outcome, avoiding incurring additional costs. As a result, hospitals implement population management programs and initiatives, which allow staff and community-based providers to follow up with patients to ensure compliance with treatment regimens and to connect them with necessary resources. This allows for a healthier community while lowering the chance of readmission and improving patient satisfaction.

Nationwide, outpatient surgical treatments are becoming increasingly popular for certain service lines, including cardiovascular, spine/back, urology and orthopedic surgery.<sup>92</sup> Research data also indicates decreasing use-rates of inpatient utilization for Medicare covered patients, suggesting that structural changes, including increased use of outpatient settings for care delivery, may be boosting the rate of decline. As hospitals focus on maintaining competitiveness and generating revenue, the shift towards outpatient services will remain a priority.

The majority of Connecticut hospitals, based on gross revenues, experienced gains in outpatient share from 2012 to 2015 similar to that of hospitals nationwide. Overall, the share of statewide outpatient gross revenue increased three percentage points in 2015 above 2012, reducing the inpatient share to 49% (Table 2.1). It is anticipated that this trend of increasing share of outpatient gross revenue will continue to represent a greater portion of the care provided to Connecticut's patients in future years. This shifting trend highlights the importance of obtaining and analyzing outpatient data for effective health care planning.

**Table 2.1. Hospital Gross Revenue Distribution, Connecticut, 2012 vs. 2015**

Staffed Beds <sup>1</sup>	Hospital	FY 2012		FY 2015	
		Inpatient	Outpatient	Inpatient	Outpatient
<100	Charlotte Hungerford Hospital	38%	62%	37%	63%
	Day Kimball Hospital	28%	72%	30%	70%
	Essent-Sharon Hospital	40%	60%	37%	63%
	Griffin Hospital	44%	56%	42%	58%
	Johnson Memorial Hospital	43%	57%	35%	65%
	Milford Hospital	51%	49%	53%	47%
	New Milford Hospital <sup>2</sup>	28%	72%	N/A	N/A
	Rockville General Hospital	37%	63%	33%	67%
	Windham Community Memorial Hospital	33%	67%	26%	74%
	<b>Sub-Total</b>	<b>38%</b>	<b>62%</b>	<b>37%</b>	<b>63%</b>
101-200	Bristol Hospital	37%	63%	35%	65%
	CT Children's Medical Center	59%	41%	58%	42%
	Greenwich Hospital	43%	57%	41%	59%
	John Dempsey Hospital	43%	57%	39%	61%
	Manchester Memorial Hospital	38%	62%	37%	63%
	Middlesex Hospital	45%	55%	44%	56%
	Midstate Medical Center	44%	56%	41%	59%
	Norwalk Hospital	52%	48%	49%	51%
	Saint Mary's Hospital	43%	57%	41%	59%
	Waterbury Hospital	59%	41%	55%	45%
	William W. Backus Hospital	39%	61%	34%	66%
	<b>Sub-Total</b>	<b>47%</b>	<b>53%</b>	<b>44%</b>	<b>56%</b>
201-350	Bridgeport Hospital	55%	45%	50%	50%
	Danbury Hospital	46%	54%	45%	55%
	Hospital of Saint Raphael <sup>3</sup>	65%	35%	N/A	N/A
	Lawrence and Memorial Hospital	42%	58%	37%	63%
	Stamford Hospital	37%	63%	35%	65%
	The Hospital of Central Connecticut	48%	52%	44%	56%
	<b>Sub-Total</b>	<b>49%</b>	<b>51%</b>	<b>42%</b>	<b>58%</b>
>350	Hartford Hospital	66%	34%	62%	38%
	Saint Francis Hospital and Medical Center	56%	44%	59%	41%
	Saint Vincent's Medical Center	65%	35%	63%	37%
	Yale New Haven Hospital	60%	40%	53%	47%
		<b>Sub-Total</b>	<b>61%</b>	<b>39%</b>	<b>56%</b>
	<b>Statewide</b>	<b>52%</b>	<b>48%</b>	<b>49%</b>	<b>51%</b>

Source: CT DPH Office of Health Care Access Twelve Months Actual Filing, Report 550, Fiscal Year 2012 & 2015.

<sup>1</sup> Staffed beds based on Fiscal Year 2015 (FY 2012 for Saint Raphael) HRS Report 400, excluding bassinets

<sup>2</sup> Now a Danbury Hospital campus.

<sup>3</sup> Now a Yale New Haven Hospital campus.

## **CENTERS OF EXCELLENCE**

Amid declining revenues, operational challenges and new reimbursement models resulting from the PPACA, hospitals are incorporating regionalization of core services as part of their planning and strategic goals. Hospitals regionalize through centers of excellence which standardize best practices, align physicians and staff to improve quality and to differentiate their service(s) from that of other providers.<sup>93</sup> Centers of excellence enable hospitals to contain costs by improving overall efficiency and eliminating duplicated efforts. The focus on core services also enhances quality, facilitates the coordination of care and allows hospitals to meet patients' needs while improving their satisfaction and overall experience.

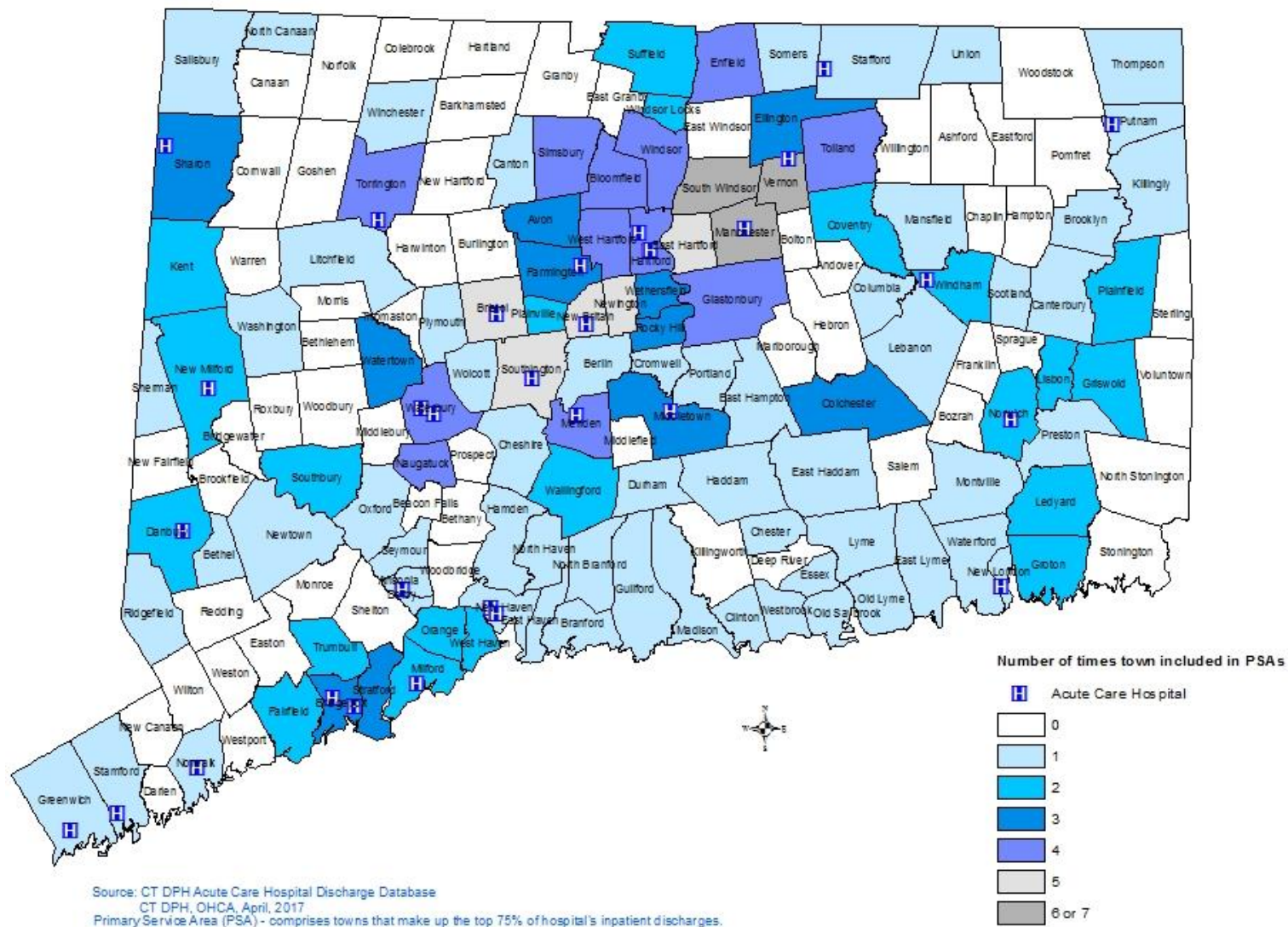
The decision to regionalize should be based on demand for services. For example, a center of excellence focused on spinal care: Despite being located in a remote area, the center was successful due to the extensive number of individuals seeking care, as spinal pain can originate from multiple health conditions including genetics, tumors, work-related injuries, personal injuries, sports injuries, and car accidents. The array of people seeking care at the center enabled it to become a noted destination. Furthermore, the hospital system benefitted from an influx of patients who continued their care with the system for conditions unrelated to spinal treatment. Centers of excellence for other specialty fields and chronic diseases have also achieved superior results as the centers focus on all the various stages of treatment and provide the opportunity to collect data helpful in making informative decisions and improving outcomes. Other fields of care that are the focus of centers of excellence include orthopedics, diabetes, cardiovascular and cancer treatment.<sup>94</sup>

The CON program's emphasis on sharing resources and maintaining quality of care has facilitated Connecticut hospitals' efforts in keeping with this nationwide efforts to develop centers of excellence and to regionalize core services. With CON approval, the state's two largest hospital systems, Yale New Haven Health Services Corporation and Hartford Healthcare Corporation, each established a center of excellence: The Smilow Cancer Center in New Haven<sup>95</sup> and the Bone & Joint Institute for musculoskeletal disorders and orthopedic injuries in Hartford.<sup>96</sup> Other examples of centers of excellence in Connecticut include: Connecticut Children's Pain and Palliative Medicine division, recognized by the American Pain Society<sup>97</sup>; and Fairfield County Bariatrics, which performs bariatric surgery at Norwalk Hospital, St. Vincent's Medical Center in Bridgeport and Griffin Hospital in Derby, each of which is an accredited comprehensive center.<sup>98</sup>

## **AVAILABILITY OF ACUTE CARE HOSPITAL SERVICES**

The below review of the availability and utilization of acute care hospital services in Connecticut is based on acute care inpatient data. Figure 2.1 below depicts the location of acute care hospitals and their reach, defined as the number of times a Connecticut town is included in a hospital primary service area (PSA). The majority of Connecticut towns are included in at least one hospital's PSA. Fifty-eight towns (shaded in white), predominantly rural, are not included in any Connecticut hospital's PSA. While residents of these towns are served by a hospital of their choice, it may also mean they have to travel relatively longer distances to access hospital care or have unmet healthcare needs that may not be covered or addressed by a hospital CHNA and implementation plan.

**Figure 2.1. Map of Connecticut Towns included in a Hospital Primary Service Area**



## Chapter 3 ACUTE CARE, OUTPATIENT SURGERY AND MEDICAL IMAGING, UTILIZATION AND TRENDS

Connecticut's hospitals provide inpatient acute care and outpatient services that include emergency care, ambulatory surgery and imaging services. This section focuses on hospital inpatient acute care, emergency department services, outpatient surgery encounters and medical imaging, as this data is currently available to OHCA.

### ACUTE CARE UTILIZATION PATTERNS

#### Leading Cause of Hospitalizations

The leading cause of hospitalization continues to vary by age and gender (Table 3.1). The leading causes of hospitalizations for all ages are heart-related for males and digestive system-related (i.e., hernia/intestinal obstruction, colitis/enteritis, diverticula of intestine) for females. Mental health is the leading cause of hospitalization for persons 5 to 44 years of age for both genders.

**Table 3.1. Leading Cause of Hospitalization and Rate per 100,000 Population, Connecticut, 2014**

Gender	Age Group <sup>1,2,3</sup>						
	0-4	5-14	15-24	25-44	45-64	65+	All ages
Males	Respiratory (1,265.9)	Mental (346.8)	Mental (966.0)	Mental (1,262.3)	Mental (1,392.3)	Heart (4,989.1)	Heart (973.2)
Females	Respiratory (834.2)	Mental (363.1)	Mental (1,062.9)	Mental (952.7)	Digestive (1,127.2)	Heart (3,914.0)	Digestive (859.7)

Source: Connecticut Department of Public Health, Hospital Discharge Tables, 2014, Table H-1 and H-1-All Ages.

<sup>1</sup> Diagnostic categories are based on International Classification of Diseases, 9th Revision, Clinical Modification, except for conditions related to pregnancy and childbirth, which are based on diagnosis related groups (MS-DRGs 765-782).

<sup>2</sup> First-listed diagnosis codes, except for "amputation with diabetes." First-listed procedure code 84.1 (amputation of lower limb), together with first-listed diagnosis code 249-250 (diabetes mellitus).

<sup>3</sup> Connecticut population groupings were based on estimates for the July 1, 2014 US resident population from the Vintage 2014 postcensal series by year, county, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the US Census Bureau, [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm). Backus, K, Mueller, LM (2015) State-level Bridged Race Estimates for Connecticut, 2014, Connecticut Department of Public Health, Office of Healthcare Quality, Statistics, Analysis & Reporting, Hartford, CT. Rates are per 100,000 population.

Denominators were for total population (males plus females), except for female breast cancer (female population only) and prostate cancer and hyperplasia of prostate (male only). Bridged estimates were used to assign individuals to a single race even if they reported more than one.

As in prior years, the leading cause of hospitalization continues to vary by race and ethnicity (Table 3.2). Heart disease is leading cause of hospitalizations for White non-Hispanics, mental disorders for Black non-Hispanics and for Hispanics as well.

**Table 3.2. Leading Cause of Hospitalization and Rate per 100,000 Population, by Race/Ethnicity, Connecticut, 2014**

Diagnostic Group (ICD-9 CM Code) <sup>2,3</sup>	White non-Hispanic <sup>1</sup>			Black non-Hispanic <sup>1</sup>			Hispanic <sup>1</sup>		
	Rank	No. <sup>4</sup>	Rate <sup>5</sup>	Rank	No. <sup>1</sup>	Rate <sup>5</sup>	Rank	No. <sup>4</sup>	Rate <sup>5</sup>
Disease of the heart (391-392.0, 393-398, 402, 404, 410-416, 420-429)	1	27,914	730.6	4	3,413	1046.5	5	2,437	828.2
Mental disorders (290-319)	5	21,216	831.6	1	4,413	1143.8	1	4,489	864.1
Diseases of the digestive system (520-579)	2	25,945	809.5	2	4,044	1158.2	2	4,125	1046.6
Diseases of the respiratory system (460-519)	3	22,700	656.5	3	3,992	1152.6	3	3,484	932.7

Source: Connecticut Department of Public Health, Hospital Discharge Tables, 2014, Table H-2.

<sup>1</sup>The three racial and ethnic categories used here are mutually exclusive. Discharge records of persons of Asian, American Indian, Alaska Native, Hawaiian, or other Pacific Islander race when reported along with non-Hispanic ethnicity are not included due to small numbers.

<sup>2</sup> Diagnostic categories are based on International Classification of Diseases, 9th Revision, Clinical Modification, except for conditions related to pregnancy and childbirth, which are based on diagnosis related groups (MS-DRGs 765-782).

<sup>3</sup> First-listed diagnosis codes, except for "amputation with diabetes". First-listed procedure code 84.1 (amputation of lower limb), together with first-listed diagnosis code 249-250 (diabetes mellitus).

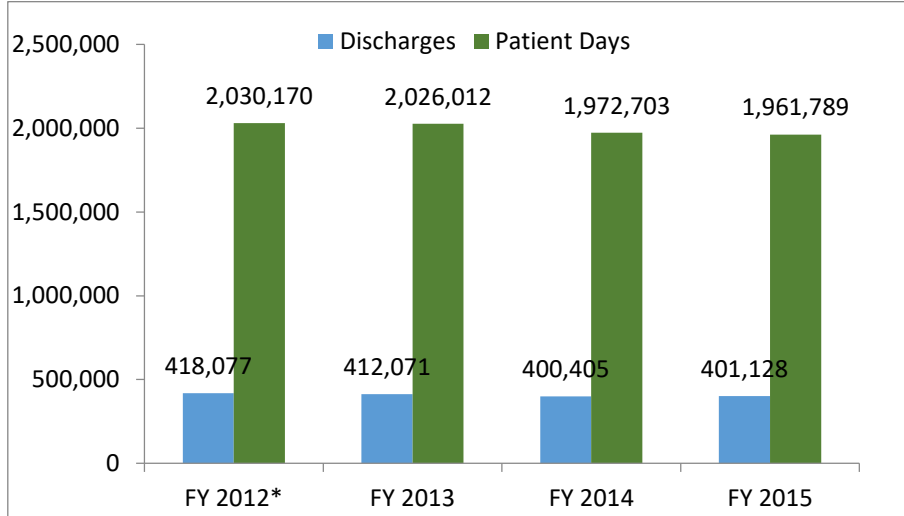
<sup>4</sup> Numbers of discharges represent events, not unique persons hospitalized

<sup>5</sup> Connecticut population groupings were based on estimates for the July 1, 2014 US resident population from the Vintage 2014 postcensal series by year, county, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the US Census Bureau, [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm). Backus, K, Mueller, LM (2015) State-level Bridged Race Estimates for Connecticut, 2014, Connecticut Department of Public Health, Office of Healthcare Quality, Statistics, Analysis & Reporting, Hartford, CT. Rates are per 100,000 population. Denominators were for total population (males plus females), except for female breast cancer (female population only) and prostate cancer and hyperplasia of prostate (male only). Bridged estimates were used to assign individuals to a single race even if they reported more than one

### Acute Care Discharges and Patient Days

Acute care inpatient utilization has declined slightly (Figure 3.3). Between FY 2012 and 2015, acute care discharges and patient days decreased 4% and 3%, respectively. The average hospital stay remains 4.9 days.

**Figure 3.1. Acute Care Discharges and Patient Days, FY 2012-FY 2015**



Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database.

\*Revised from 2014 Supplement

### Acute Care Discharges by Primary Coverage

Declining acute care utilization is attributable to declines in discharges covered by commercial insurance and the uninsured (Table 2.4). Due to PPACA health insurance coverage expansion, there were fewer uninsured discharges and there was a corresponding increase in utilization by those with Medicaid coverage. Also, declining utilization may be partially attributable to other factors, such as measures related to reducing unscheduled 30-day readmissions and increased care coordination. Regardless, more than two-thirds of patients discharged from acute care hospitals have government-based insurance for primary coverage.

**Table 3.3. Acute Care Discharges by Primary Coverage, Connecticut, FY 2013-FY 2015**

Payer	FY 2013	FY 2014	FY 2015	FY 2015 Share	Change FY 13-15	Change FY 14-15
Medicare	173,037	166,499	168,519	42%	-3%	1%
Commercial	132,077	126,682	124,335	31%	-6%	-2%
Medicaid	95,548	95,798	98,059	24%	3%	2%
Uninsured*	8,510	8,455	7,030	2%	-17%	-17%
Other Public	2,899	2,971	3,185	1%	10%	7%
<b>Total</b>	<b>412,071</b>	<b>400,405</b>	<b>401,128</b>	<b>100%</b>	<b>-3%</b>	<b>0%</b>

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database.

\*Includes self-pay, no charge and other.

### Hospital Utilization by Service Line

Declining acute care utilization occurred among nine of 14 inpatient service lines (Table 3.4). Behavioral health, respiratory and medical/surgical cardiac care inpatient service lines experienced the largest declines. Medicine remains the service line with the largest number of discharges and patient days, and continues to grow. The continual decline in general/other surgery may be an indication of the shifting of inpatient surgery to outpatient settings.

**Table 3.4. Hospital Utilization by Service Line, Discharges and Patient Days, Connecticut, FY 2013-FY 2015**

Service	FY 2013		FY 2014		FY 2015		FY 2013-2015 % chg	
	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days	D-chrgs	P-Days
Cardiac Med/Surg	52,016	233,453	46,952	217,550	45,494	212,370	-12.54%	-9.03%
Cancer Care Med/Surg	10,406	64,518	10,069	61,728	9,894	62,077	-4.92%	-3.78%
Neurology Med/Surg	26,837	151,793	26,076	146,061	26,357	142,880	-1.79%	-5.87%
Renal Med/Surg	20,486	95,665	20,042	91,857	19,947	92,169	-2.63%	-3.65%
Women's Health	44,374	128,453	43,922	126,176	43,378	125,482	-2.24%	-2.31%
Orthopedic Med/Surg	25,656	102,558	26,667	104,981	26,828	100,697	4.57%	-1.81%
Respiratory	35,753	179,376	32,760	161,070	32,707	157,099	-8.52%	-12.42%
Medicine	89,241	427,867	88,480	427,817	91,077	439,463	2.06%	2.71%
General/Other Surgery	30,965	205,068	28,950	197,957	28,562	193,350	-7.76%	-5.71%
Newborn	37,864	147,126	38,652	148,398	38,715	148,525	2.25%	0.95%
Trauma Med/Surg	32,234	259,951	32,139	260,633	32,303	258,466	0.21%	-0.57%
Behavioral Health	570	1,772	463	1,673	410	1,548	-28.07%	-12.64%
Ophthalmology	5329	27,180	4890	25,532	5100	26,478	-4.30%	-2.58%
Dental	326	1,190	330	1,233	344	1,128	5.52%	-5.21%
Other <sup>1</sup>	14	42	13	37	12	57	NA	NA
<b>Total<sup>1</sup></b>	<b>412,071</b>	<b>2,026,012</b>	<b>400,401</b>	<b>1,972,685</b>	<b>401,128</b>	<b>1,961,789</b>	<b>-2.66%</b>	<b>-3.17%</b>

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database.

<sup>1</sup> Uncategorized or system missing.

### Utilization by Service Line and Hospital System

Despite declining inpatient volumes and hospital mergers and acquisitions, there were no significant volume shifts among hospitals and/or systems within inpatient service lines between 2013 and 2015 (Table 3.5). Consequently, market shares of inpatient services within systems, individual hospitals, and statewide remained constant. Overall, Yale New Haven Health Services Corporation (32%) and Hartford Healthcare (20%) accounted for more than one-half of utilization for 14 inpatient acute care service lines in 2015.



**Table 3.5. Hospital Systems Percent of Inpatient Discharges and Patient Days by Service Line, FY 2013 vs. FY 2015**

Service Line	Hospital System	Inpatient Discharges					Patient Days				
		FY 2013	FY 2015	% Change	% Share of Service Line		FY 2013	FY 2015	% Change	% Share of Service Line	
					FY 2013	FY 2015				FY 2013	FY 2015
All	Eastern Connecticut Health Network Inc	11,861	10,747	-9	3	3	58,864	50,009	-15	3	3
	Western Connecticut Health Network Inc	33,357	33,354	0	8	8	158,169	161,926	2	8	8
	Hartford Healthcare Corporation	85,046	81,258	-4	21	20	418,617	396,167	-5	21	20
	Yale New Haven Health Services Corporation	126,088	126,566	0	31	32	637,830	636,722	0	31	32
	Trinity Health New England Inc	47,333	46,609	-2	11	12	228,060	218,602	-4	11	11
	Ascension Health	20,454	18,247	-11	5	5	121,263	110,807	-9	6	6
	Essent Healthcare Inc	2,877	2,464	-14	1	1	12,331	11,028	-11	1	1
	Individual hospitals	85,041	81,871	-4	21	20	390,836	376,471	-4	19	19
	<b>Total</b>	<b>412,057</b>	<b>401,116</b>	<b>-3</b>	<b>100</b>	<b>100</b>	<b>2,025,970</b>	<b>1,961,732</b>	<b>-3</b>	<b>100</b>	<b>100</b>
Cardiac Med/Surg	Eastern Connecticut Health Network Inc	998	756	-24	2	2	4,254	3,159	-26	2	1
	Western Connecticut Health Network Inc	3,997	3,865	-3	8	8	16,351	16,946	4	7	8
	Hartford Healthcare Corporation	11,770	9,708	-18	23	21	56,627	48,574	-14	24	23
	Yale New Haven Health Services Corporation	15,564	13,803	-11	30	30	71,787	66,931	-7	31	32
	Trinity Health New England Inc.	6,893	6,212	-10	13	14	33,335	30,604	-8	14	14
	Ascension Health	3,004	2,453	-18	6	5	14,541	11,793	-19	6	6
	Essent Healthcare Inc.	295	283	-4	1	1	848	901	6	0	0
	Individual hospitals	9,495	8,414	-11	18	18	35,710	33,462	-6	15	16
	<b>Total</b>	<b>52,016</b>	<b>45,494</b>	<b>-13</b>	<b>100</b>	<b>100</b>	<b>233,453</b>	<b>212,370</b>	<b>-9</b>	<b>100</b>	<b>100</b>
Cancer Med/Surg	Eastern Connecticut Health Network Inc.	218	146	-33	2	1	1,238	778	-37	2	1
	Western Connecticut Health Network Inc.	729	752	3	7	8	4,131	4,792	16	6	8
	Hartford Healthcare Corporation	2,136	1,946	-9	21	20	13,544	12,534	-7	21	20
	Yale New Haven Health Services Corporation	4,106	3,902	-5	39	39	27,266	25,812	-5	42	42
	Trinity Health New England Inc.	1,028	946	-8	10	10	6,272	5,762	-8	10	9
	Ascension Health	542	477	-12	5	5	3,481	3,142	-10	5	5
	Essent Healthcare Inc.	32	28	-13	0	0	168	114	-32	0	0
	Individual hospitals	1,615	1,697	5	16	17	8,418	9,143	9	13	15
	<b>Total</b>	<b>10,406</b>	<b>9,894</b>	<b>-5</b>	<b>100</b>	<b>100</b>	<b>64,518</b>	<b>62,077</b>	<b>-4</b>	<b>100</b>	<b>100</b>

Service Line	Hospital System	Inpatient Discharges					Patient Days				
		FY 2013	FY 2015	% Change	% Share of Service Line		FY 2013	FY 2015	% Change	% Share of Service Line	
					FY 2013	FY 2015				FY 2013	FY 2015
Neurology Med/Surg	Eastern Connecticut Health Network Inc.	579	444	-23	2	2	2,484	1,490	-40	2	1
	Western Connecticut Health Network Inc.	2,215	2,363	7	8	9	11,456	13,150	15	8	9
	Hartford Healthcare Corporation	5,438	5,242	-4	20	20	32,502	30,054	-8	21	21
	Yale New Haven Health Services Corporation	8,498	8,717	3	32	33	52,412	51,791	-1	35	36
	Trinity Health New England Inc.	3,221	3,245	1	12	12	15,804	15,339	-3	10	11
	Ascension Health	1,322	1,225	-7	5	5	7,568	7,386	-2	5	5
	Essent Healthcare Inc.	306	203	-34	1	1	2,233	1,615	-28	1	1
	Individual hospitals	5,258	4,918	-6	20	19	27,334	22,055	-19	18	15
	<b>Total</b>	<b>26,837</b>	<b>26,357</b>	<b>-2</b>	<b>100</b>	<b>100</b>	<b>151,793</b>	<b>142,880</b>	<b>-6</b>	<b>100</b>	<b>100</b>
Renal Med/Surg	Eastern Connecticut Health Network Inc.	654	551	-16	3	3	2,850	2,295	-19	3	2
	Western Connecticut Health Network Inc.	1,419	1,487	5	7	7	6,566	7,865	20	7	9
	Hartford Healthcare Corporation	4,873	4,491	-8	24	23	21,036	20,313	-3	22	22
	Yale New Haven Health Services Corporation	6,094	6,206	2	30	31	30,560	29,298	-4	32	32
	Trinity Health New England Inc.	2,236	2,237	0	11	11	11,325	10,600	-6	12	12
	Ascension Health	1,093	890	-19	5	4	5,662	4,982	-12	6	5
	Essent Healthcare Inc.	136	105	-23	1	1	525	402	-23	1	0
	Individual hospitals	3,981	3,980	0	19	20	17,141	16,414	-4	18	18
	<b>Total</b>	<b>20,486</b>	<b>19,947</b>	<b>-3</b>	<b>100</b>	<b>100</b>	<b>95,665</b>	<b>92,169</b>	<b>-4</b>	<b>100</b>	<b>100</b>
Women's Health	Eastern Connecticut Health Network Inc.	1,286	1,463	14	3	3	3,515	3,913	11	3	3
	Western Connecticut Health Network Inc.	3,913	3,796	-3	9	9	11,173	10,954	-2	9	9
	Hartford Healthcare Corporation	9,094	8,742	-4	20	20	25,162	24,171	-4	20	19
	Yale New Haven Health Services Corporation	14,534	14,770	2	33	34	43,767	44,477	2	34	35
	Trinity Health New England Inc.	5,070	4,709	-7	11	11	14,541	13,604	-6	11	11
	Ascension Health	1,327	1,271	-4	3	3	3,426	3,351	-2	3	3
	Essent Healthcare Inc.	304	283	-7	1	1	750	722	-4	1	1
	Individual hospitals	8,846	8,344	-6	20	19	26,119	24,290	-7	20	19
	<b>Total</b>	<b>44,374</b>	<b>43,378</b>	<b>-2</b>	<b>100</b>	<b>100</b>	<b>128,453</b>	<b>125,482</b>	<b>-2</b>	<b>100</b>	<b>100</b>

Service Line	Hospital System	Inpatient Discharges					Patient Days				
		FY 2013	FY 2015	% Change	% Share of Service Line		FY 2013	FY 2015	% Change	% Share of Service Line	
					FY 2013	FY 2015				FY 2013	FY 2015
Orthopedic Med/Surg	Eastern Connecticut Health Network Inc.	620	557	-10	2	2	2,729	2,099	-23	3	2
	Western Connecticut Health Network Inc.	2,388	2,488	4	9	9	10,161	10,476	3	10	10
	Hartford Healthcare Corporation	5,174	5,334	3	20	20	21,303	20,077	-6	21	20
	Yale New Haven Health Services Corporation	7,186	7,625	6	28	28	29,108	30,470	5	28	30
	Trinity Health New England Inc.	3,833	4,155	8	15	15	13,781	12,474	-9	13	12
	Ascension Health	1,071	922	-14	4	3	4,998	4,516	-10	5	4
	Essent Healthcare Inc.	120	144	20	0	1	514	614	19	1	1
	Individual hospitals	5,264	5,603	6	21	21	19,964	19,971	0	19	20
	<b>Total</b>	<b>25,656</b>	<b>26,828</b>	<b>5</b>	<b>100</b>	<b>100</b>	<b>102,558</b>	<b>100,697</b>	<b>-2</b>	<b>100</b>	<b>100</b>
Respiratory	Eastern Connecticut Health Network Inc.	1,177	927	-21	3	3	6,792	4,320	-36	4	3
	Western Connecticut Health Network Inc.	3,173	2,707	-15	9	8	17,168	13,933	-19	10	9
	Hartford Healthcare Corporation	6,686	6,075	-9	19	19	34,278	31,265	-9	19	20
	Yale New Haven Health Services Corporation	10,093	9,571	-5	28	29	48,262	43,943	-9	27	28
	Trinity Health New England Inc.	3,974	3,873	-3	11	12	22,485	19,858	-12	13	13
	Ascension Health	1,688	1,102	-35	5	3	9,301	5,846	-37	5	4
	Essent Healthcare Inc.	305	266	-13	1	1	1,247	1,115	-11	1	1
	Individual hospitals	8,657	8,186	-5	24	25	39,843	36,819	-8	22	23
	<b>Total</b>	<b>35,753</b>	<b>32,707</b>	<b>-9</b>	<b>100</b>	<b>100</b>	<b>179,376</b>	<b>157,099</b>	<b>-12</b>	<b>100</b>	<b>100</b>
Medicine	Eastern Connecticut Health Network Inc.	2,774	2,518	-9	3	3	14,692	11,889	-19	3	3
	Western Connecticut Health Network Inc.	7,552	8,062	7	8	9	38,334	42,029	10	9	10
	Hartford Healthcare Corporation	18,043	18,053	0	20	20	85,466	83,719	-2	20	19
	Yale New Haven Health Services Corporation	27,538	28,976	5	31	32	135,237	145,174	7	32	33
	Trinity Health New England Inc.	8,836	9,170	4	10	10	43,543	43,855	1	10	10
	Ascension Health	4,500	4,238	-6	5	5	24,081	24,619	2	6	6
	Essent Healthcare Inc.	675	527	-22	1	1	2,618	1,948	-26	1	0
	Individual hospitals	19,323	19,533	1	22	21	83,896	86,230	3	20	20
	<b>Total</b>	<b>89,241</b>	<b>91,077</b>	<b>2</b>	<b>100</b>	<b>100</b>	<b>427,867</b>	<b>439,463</b>	<b>3</b>	<b>100</b>	<b>100</b>

Service Line	Hospital System	Inpatient Discharges					Patient Days				
		FY 2013	FY 2015	% Change	% Share of Service Line		FY 2013	FY 2015	% Change	% Share of Service Line	
					FY 2013	FY 2015				FY 2013	FY 2015
General/Other Surgery	Eastern Connecticut Health Network Inc.	722	599	-17	2	2	5,672	4,493	-21	3	2
	Western Connecticut Health Network Inc.	2,322	2,157	-7	7	8	15,697	14,982	-5	8	8
	Hartford Healthcare Corporation	6,839	6,399	-6	22	22	45,369	43,736	-4	22	23
	Yale New Haven Health Services Corporation	9,871	9,569	-3	32	34	66,014	64,141	-3	32	33
	Trinity Health New England Inc.	3,485	3,276	-6	11	11	22,172	21,705	-2	11	11
	Ascension Health	1,546	1,255	-19	5	4	11,121	10,587	-5	5	5
	Essent Healthcare Inc.	134	87	-35	0	0	650	444	-32	0	0
	Individual hospitals	6,046	5,220	-14	20	18	38,373	33,262	-13	19	17
	<b>Total</b>	<b>30,965</b>	<b>28,562</b>	<b>-8</b>	<b>100</b>	<b>100</b>	<b>205,068</b>	<b>193,350</b>	<b>-6</b>	<b>100</b>	<b>100</b>
Newborn & Neonates	Eastern Connecticut Health Network Inc.	1,206	1,340	11	3	3	3,537	3,892	10	2	3
	Western Connecticut Health Network Inc.	3,562	3,462	-3	9	9	13,285	12,034	-9	9	8
	Hartford Healthcare Corporation	7,335	7,426	1	19	19	19,314	19,866	3	13	13
	Yale New Haven Health Services Corporation	12,065	12,954	7	32	33	49,251	51,154	4	33	34
	Trinity Health New England Inc.	4,125	4,065	-1	11	10	15,660	15,167	-3	11	10
	Ascension Health	1,023	1,005	-2	3	3	3,280	2,982	-9	2	2
	Essent Healthcare Inc.	249	259	4	1	1	588	595	1	0	0
	Individual hospitals	8,299	8,204	-1	22	21	42,211	42,835	1	29	29
	<b>Total</b>	<b>37,864</b>	<b>38,715</b>	<b>2</b>	<b>100</b>	<b>100</b>	<b>147,126</b>	<b>148,525</b>	<b>1</b>	<b>100</b>	<b>100</b>
Behavioral Health	Eastern Connecticut Health Network Inc.	1,568	1,411	-10	5	4	10,829	11,499	6	4	4
	Western Connecticut Health Network Inc.	1,590	1,712	8	5	5	11,625	12,321	6	4	5
	Hartford Healthcare Corporation	6,489	6,705	3	20	21	57,820	55,289	-4	22	21
	Yale New Haven Health Services Corporation	8,087	8,138	1	25	25	71,541	71,761	0	28	28
	Trinity Health New England Inc.	3,868	3,986	3	12	12	26,038	26,611	2	10	10
	Ascension Health	3,035	3,109	2	9	10	32,193	30,014	-7	12	12
	Essent Healthcare Inc.	295	268	-9	1	1	2,100	2,515	20	1	1
	Individual hospitals	7,302	6,974	-4	23	22	47,805	48,456	1	18	19
	<b>Total</b>	<b>32,234</b>	<b>32,303</b>	<b>0</b>	<b>100</b>	<b>100</b>	<b>259,951</b>	<b>258,466</b>	<b>-1</b>	<b>100</b>	<b>100</b>

Service Line	Hospital System	Inpatient Discharges					Patient Days				
		FY 2013	FY 2015	% Change	% Share of Service Line		FY 2013	FY 2015	% Change	% Share of Service Line	
					FY 2013	FY 2015				FY 2013	FY 2015
Ophthalmology	Eastern Connecticut Health Network Inc.	7	0	-100	1	0	24	0	-100	1	0
	Western Connecticut Health Network Inc.	44	24	-45	8	6	147	86	-41	8	6
	Hartford Healthcare Corporation	79	48	-39	14	12	266	161	-39	15	10
	Yale New Haven Health Services Corporation	272	228	-16	48	56	867	905	4	49	58
	Trinity Health New England Inc.	48	38	-21	8	9	152	114	-25	9	7
	Ascension Health	18	15	-17	3	4	65	55	-15	4	4
	Essent Healthcare Inc.										
	Individual hospitals	102	55	-46	18	13	251	217	-14	14	14
	<b>Total</b>	<b>570</b>	<b>410</b>	<b>-28</b>	<b>100</b>	<b>100</b>	<b>1,772</b>	<b>1,548</b>	<b>-13</b>	<b>100</b>	<b>100</b>
Trauma Med/Surg	Eastern Connecticut Health Network Inc.	49	33	-33	1	1	228	178	-22	1	1
	Western Connecticut Health Network Inc.	431	455	6	8	9	1,976	2,250	14	7	8
	Hartford Healthcare Corporation	1,039	1,026	-1	19	20	5,686	6,103	7	21	23
	Yale New Haven Health Services Corporation	2,034	1,953	-4	38	38	11,265	10,455	-7	41	39
	Trinity Health New England Inc.	692	666	-4	13	13	2,893	2,799	-3	11	11
	Ascension Health	266	275	3	5	5	1,485	1,507	1	5	6
	Essent Healthcare Inc.	23	8	-65	0	0	79	32	-59	0	0
	Individual hospitals	795	684	-14	15	13	3,568	3,154	-12	13	12
	<b>Total</b>	<b>5,329</b>	<b>5,100</b>	<b>-4</b>	<b>100</b>	<b>100</b>	<b>27,180</b>	<b>26,478</b>	<b>-3</b>	<b>100</b>	<b>100</b>
Dental	Eastern Connecticut Health Network Inc.										
	Western Connecticut Health Network Inc.	22	24	9	7	7	99	108	9	8	10
	Hartford Healthcare Corporation	51	63	24	16	18	244	305	25	21	27
	Yale New Haven Health Services Corporation	146	154	5	45	45	493	410	-17	41	36
	Trinity Health New England Inc.	24	31	29	7	9	59	110	86	5	10
	Ascension Health	19	10	-47	6	3	61	27	-56	5	2
	Essent Healthcare Inc.										
	Individual hospitals	58	59	2	18	17	203	163	-20	17	14
	<b>Total</b>	<b>326</b>	<b>344</b>	<b>6</b>	<b>100</b>	<b>100</b>	<b>1,190</b>	<b>1,128</b>	<b>-5</b>	<b>100</b>	<b>100</b>

## Acute Care Bed Need Projections by County and Hospital

OHCA, with the Acute Care and Ambulatory Surgery Subcommittee, developed a standard methodology for calculating bed need. The purpose of this analysis was to assist in evaluating the availability of acute care services, help identify areas with unmet need and provide an equitable measure to determine how acute care beds are distributed throughout the state.

Based on updated acute care bed need projections for 2020, Connecticut has a statewide surplus of 1,652 inpatient beds, 293 more than reported in the 2014 Supplement (Table 3.6). Each county has a projected excess bed capacity which range from a low of 48 surplus beds in Litchfield County (compared to 60 in the 2014 Supplement) to a high of 489 surplus beds in Hartford County (compared to 416 in the 2014 Supplement). Between 2013 and 2015, New Milford Hospital in Litchfield County and Milford Hospital in New Haven County relinquished, with CON authorization, licenses for 20 beds and 22 bassinets, in aggregate, due to low and declining volumes and/or inability to recruit physician specialist to support the services.<sup>99</sup>

**Table 3.6. Acute Care Hospital 2020 Bed Need, Connecticut**

County	FY 2013 Patient Days <sup>1</sup>	FY 2014 Patient Days <sup>1</sup>	FY 2015 Patient Days <sup>1</sup>	Weighted Average Daily Census	Projected Average Daily Census 2020	Beds Needed	Licensed Beds <sup>2</sup>	Excess (-) or Deficit (+)
Fairfield	464,566	457,100	465,720	1,268	1,351	1,766	2,083	-317
Hartford	580,516	557,288	547,187	1,524	1,608	2,083	2,572	-489
Litchfield	37,142	35,698	35,333	98	108	139	187	-48
Middlesex	57,199	54,066	52,974	148	163	210	275	-65
New Haven	571,628	558,314	557,874	1,535	1,625	2,094	2,521	-427
New London	107,227	106,941	102,668	287	311	403	493	-90
Tolland	27,840	26,927	24,455	71	78	99	194	-95
Windham	32,768	27,971	27,053	78	87	113	234	-121
<b>Statewide</b>	<b>1,878,886</b>	<b>1,824,305</b>	<b>1,813,264</b>	<b>5,008</b>	<b>5,332</b>	<b>6,907</b>	<b>8,559</b>	<b>-1,652</b>

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database

<sup>1</sup> Excludes Newborn service category

<sup>2</sup> Excludes bassinets (776)

## Acute Care Bed Need Projections Compared to Staffed Beds

While there is a statewide excess licensed bed capacity projected for 2020 in Connecticut, estimates indicate hospitals need to increase the number of staffed beds<sup>100</sup> to meet projected demand (Table 3.7). Overall, additional staffed beds will be needed for the projected utilization as follows: medical/surgical (164), maternity (192), psychiatry (42) and rehabilitation (5). Seventy-eight fewer staffed beds, however, will be needed for pediatric care. The distribution of projected staffed beds by hospital and county are indicated in Table 3.7.

**Table 3.7. Number of Staffed Beds Needed in 2020 versus 2015 Actuals**

Hospitals by County	ACTUAL							PROJECTED					
	FY 2015 # of Staffed Beds (HRS Report 400)							# of Staffed Beds Needed by 2020 (2016 Bed Need Methodology)					
	Med/ Surg <sup>1</sup>	Mater nity	Psych	Rehab	Ped	Newborn Bassinets	Total <sup>2</sup>	Med/ Surg	Mater nity	Psych	Rehab	Ped	Total
<b>Fairfield County</b>													
Bridgeport	219	24	29	15	0	15	287	274	44	37	19	1	374
Danbury <sup>3</sup>	236	17	18	11	2	12	284	284	34	23	14	2	356
Greenwich	149	25	0	0	10	22	184	130	47	1	0	1	179
Norwalk	145	15	10	6	4	10	180	164	23	10	6	3	207
St. Vincent's	273	22	92	10	0	27	397	289	16	89	11	0	405
Stamford	153	23	15	15	3	17	209	164	45	17	17	3	245
<b>Fairfield County</b>	<b>1,175</b>	<b>126</b>	<b>164</b>	<b>57</b>	<b>19</b>	<b>103</b>	<b>1,541</b>	<b>1,304</b>	<b>208</b>	<b>177</b>	<b>68</b>	<b>10</b>	<b>1,766</b>
<b>NEED<sup>3</sup></b>								<b>129</b>	<b>82</b>	<b>13</b>	<b>11</b>	<b>-9</b>	<b>225</b>
<b>Hartford County</b>													
Bristol	88	15	14	0	3	8	120	77	9	13	0	0	98
CCMC	90	0	0	0	92	0	182	5	0	1	0	74	80
Hartford	505	31	111	0	0	26	647	629	70	134	0	0	833
HOCC	221	25	22	0	14	20	282	192	26	25	0	1	244
Dempsey	125	20	20	0	0	10	165	108	16	18	0	0	142
Manchester	104	20	31	0	0	26	155	91	20	37	0	0	148
St. Francis	468	30	83	0	0	26	581	438	53	46	0	1	538
<b>Hartford County</b>	<b>1,601</b>	<b>141</b>	<b>281</b>	<b>0</b>	<b>109</b>	<b>116</b>	<b>2,132</b>	<b>1,539</b>	<b>194</b>	<b>273</b>	<b>0</b>	<b>76</b>	<b>2,083</b>
<b>NEED<sup>3</sup></b>								<b>-62</b>	<b>53</b>	<b>-8</b>	<b>0</b>	<b>-33</b>	<b>-49</b>
<b>Litchfield County</b>													
Hungerford	58	3	10	0	1	4	72	79	6	10	0	0	96
Sharon	29	4	12	0	0	4	45	32	4	8	0	0	44
<b>Litchfield County</b>	<b>87</b>	<b>7</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>117</b>	<b>111</b>	<b>10</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>139</b>
<b>NEED<sup>3</sup></b>								<b>24</b>	<b>3</b>	<b>-4</b>	<b>0</b>	<b>-1</b>	<b>22</b>
<b>Middlesex County</b>													
Middlesex	156	9	17	0	0	10	182	173	16	21	0	0	210
<b>Middlesex County</b>	<b>156</b>	<b>9</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>182</b>	<b>173</b>	<b>16</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>210</b>
<b>NEED<sup>3</sup></b>								<b>17</b>	<b>7</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>28</b>
<b>New Haven County</b>													
Griffin	65	4	13	0	0	4	82	87	9	14	0	0	109
Midstate	109	10	6	0	0	10	125	120	13	6	0	0	140
Milford <sup>4</sup>	33	4	0	0	0	4	37	45	2	0	0	0	46
St. Mary's	129	15	12	0	0	5	156	151	16	13	0	0	180
Waterbury	133	10	27	0	0	10	170	149	18	32	0	0	198
Yale	1,061	67	134	18	92	53	1,372	1,067	111	168	11	62	1,419
<b>New Haven County</b>	<b>1,530</b>	<b>110</b>	<b>192</b>	<b>18</b>	<b>92</b>	<b>86</b>	<b>1,942</b>	<b>1,619</b>	<b>168</b>	<b>233</b>	<b>11</b>	<b>63</b>	<b>2,094</b>
<b>NEED<sup>3</sup></b>								<b>89</b>	<b>58</b>	<b>41</b>	<b>-7</b>	<b>-29</b>	<b>152</b>
<b>New London County</b>													
Backus	150	15	18	0	0	18	183	147	11	16	0	0	175
L&M	170	24	18	16	6	14	234	167	24	19	17	0	228
<b>New London County</b>	<b>320</b>	<b>39</b>	<b>36</b>	<b>16</b>	<b>6</b>	<b>32</b>	<b>417</b>	<b>314</b>	<b>36</b>	<b>35</b>	<b>17</b>	<b>1</b>	<b>403</b>
<b>NEED<sup>3</sup></b>								<b>-6</b>	<b>-3</b>	<b>-1</b>	<b>1</b>	<b>-5</b>	<b>-14</b>
<b>Tolland County</b>													
Johnson	45	4	17	0	0	4	66	44	3	11	0	0	58
Rockville	47	0	0	0	0	0	47	41	0	0	0	0	41
<b>Tolland County</b>	<b>92</b>	<b>4</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>113</b>	<b>85</b>	<b>3</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>99</b>
<b>NEED<sup>3</sup></b>								<b>-7</b>	<b>-1</b>	<b>-6</b>	<b>0</b>	<b>0</b>	<b>-14</b>

Hospitals by County	ACTUAL							PROJECTED					
	FY 2015 # of Staffed Beds (HRS Report 400)							# of Staffed Beds Needed by 2020 (2016 Bed Need Methodology)					
	Med/ Surg <sup>1</sup>	Mate rnity	Psyc h	Rehab	Ped	Newborn Bassinets	Total <sup>2</sup>	Med/ Surg	Mate rnity	Psyc h	Rehab	Ped	Total
<b>Windham County</b>													
Day Kimball	43	5	12	0	0	5	60	41	8	14	0	0	62
Windham	65	14	0	0	0	8	79	46	4	0	0	0	51
<b>Windham County</b>	<b>108</b>	<b>19</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>139</b>	<b>87</b>	<b>12</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>113</b>
<b>NEED<sup>3</sup></b>								<b>-21</b>	<b>-7</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>-26</b>
<b>STATEWIDE</b>													
<b>Total</b>	<b>5,069</b>	<b>455</b>	<b>741</b>	<b>91</b>	<b>227</b>	<b>372</b>	<b>6,583</b>	<b>5,233</b>	<b>647</b>	<b>783</b>	<b>96</b>	<b>149</b>	<b>6,907</b>
<b>NEED<sup>3</sup></b>								<b>164</b>	<b>192</b>	<b>42</b>	<b>5</b>	<b>-78</b>	<b>324</b>

Source: CT DPH Office of Health Care Access Hospital Reporting System Report 400

<sup>1</sup> Includes Adult Medical/Surgical, ICU/CCU, Neonatal ICU and Other beds.

<sup>2</sup> Excludes newborn beds/bassinets.

<sup>3</sup> On February 28, 2013, a CON was issued under Docket Number 12-31781 authorizing New Milford Hospital (now a Danbury Hospital campus) to terminate inpatient obstetrics services and relinquish related licenses (8 beds and 12 bassinets) due to historical and continued declining volumes.

<sup>3</sup> On September 23, 2013 a CON was issued under Docket Number 15-31998 authorizing Milford Hospital to terminate inpatient obstetrics services and relinquish related licenses (12 beds and 12 bassinets) due to historical and continued declining volumes and inability to recruiting a physician specialist.

Updated projected county and individual hospital bed needs are presented in Appendices D and E, respectively. Data are provided by service lines of medical/surgical, maternity, psychiatric, rehabilitation and pediatric as well as by age group of discharges.



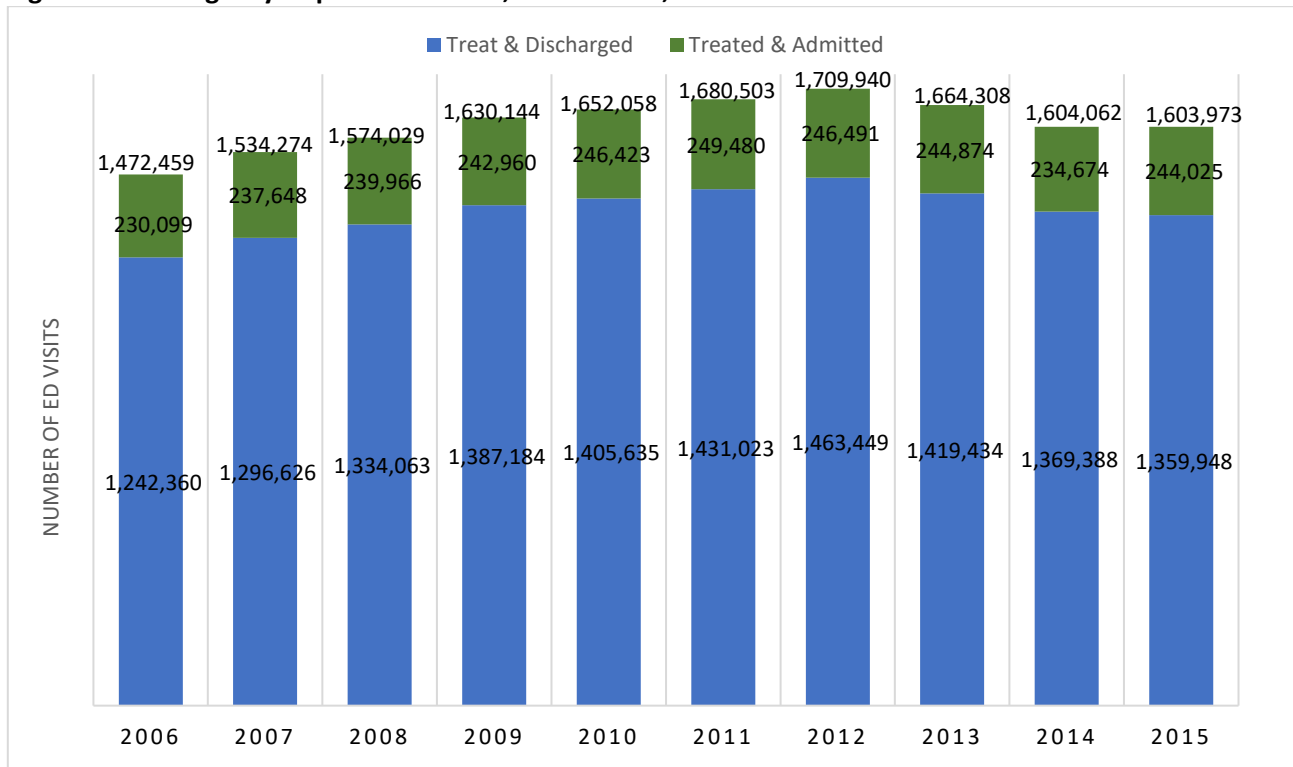
## Emergency Departments

Connecticut has an emergency department (ED) in each of its acute care hospitals as well as five hospital owned freestanding EDs. The ED provides initial treatment and assessment to patients with a broad range of illnesses and injuries, some of which may be life threatening.

As shown in Figure 3.2, Connecticut hospital ED visits increased from 2006 until peaking 2012 with a 14% increase from 2011. ED visits subsequently declined at an annual average rate of 2%. Residents of the state accounted for 96% of ED visits. On average, 15% of ED patients were treated and admitted to inpatient care and the remainder were treated and discharged.

The annual rate for Connecticut residents visiting the ED dropped from 459 visits per 1,000 residents in 2013 to 429 visits in 2015. Females represent 51.2% of the state’s population and comprised 54.1% of ED visits in 2015 (453 visits per 1,000 females); males visited the ED at the rate of 403 per 1,000, 10% less than females.

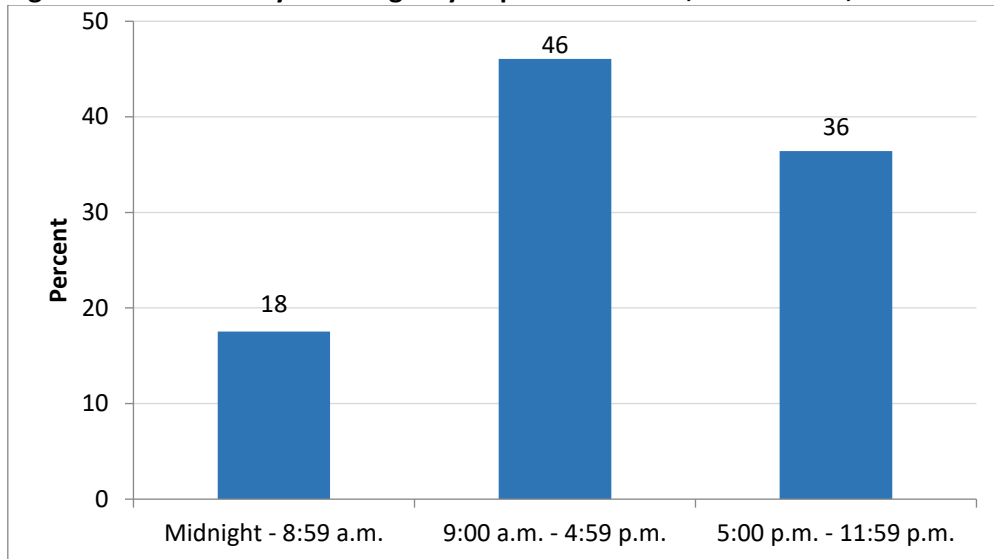
**Figure 3.2. Emergency Department Visits, Connecticut, 2006-2015**



Prepared by: Connecticut Department of Public Health, Office of Health Care Access.  
 Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

From 2006 to 2015, the time of day patients visited the ED has changed little (Figure 3.3). The largest percentage of persons who visited the ED did so between 9:00 am and 5:00 pm.

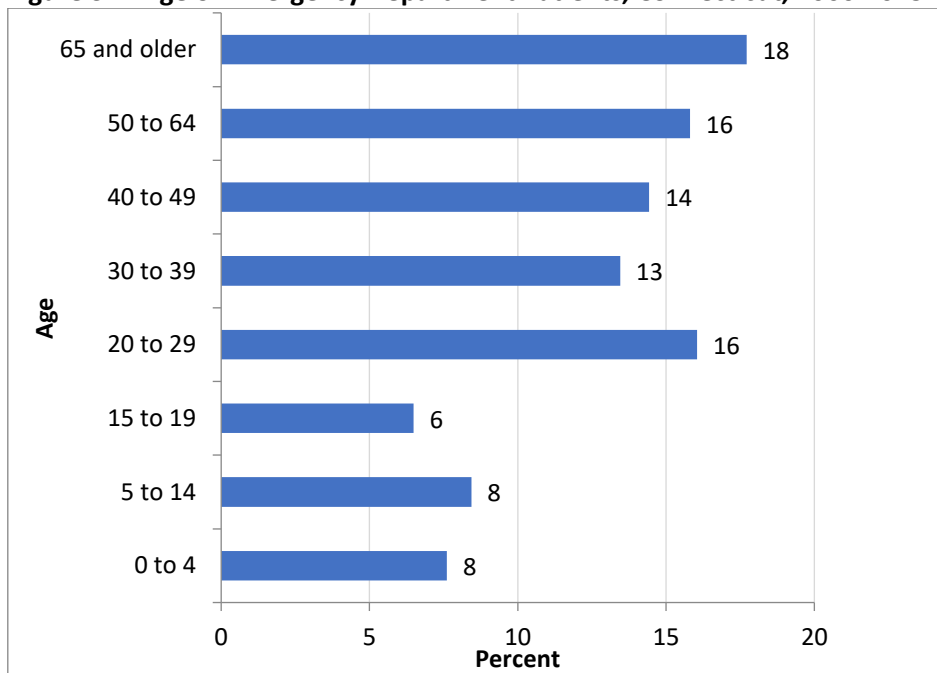
**Figure 3.3. Time of Day of Emergency Department Visits, Connecticut, 2006-2015**



Prepared by: Connecticut Department of Public Health, Office of Health Care Access.  
Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

The largest proportion of ED visits was among persons 65 years of age and older, followed by those 50-64 and 20-29 years of age (Figure 3.4).

**Figure 3.4. Age of Emergency Department Patients, Connecticut, 2006-2015**

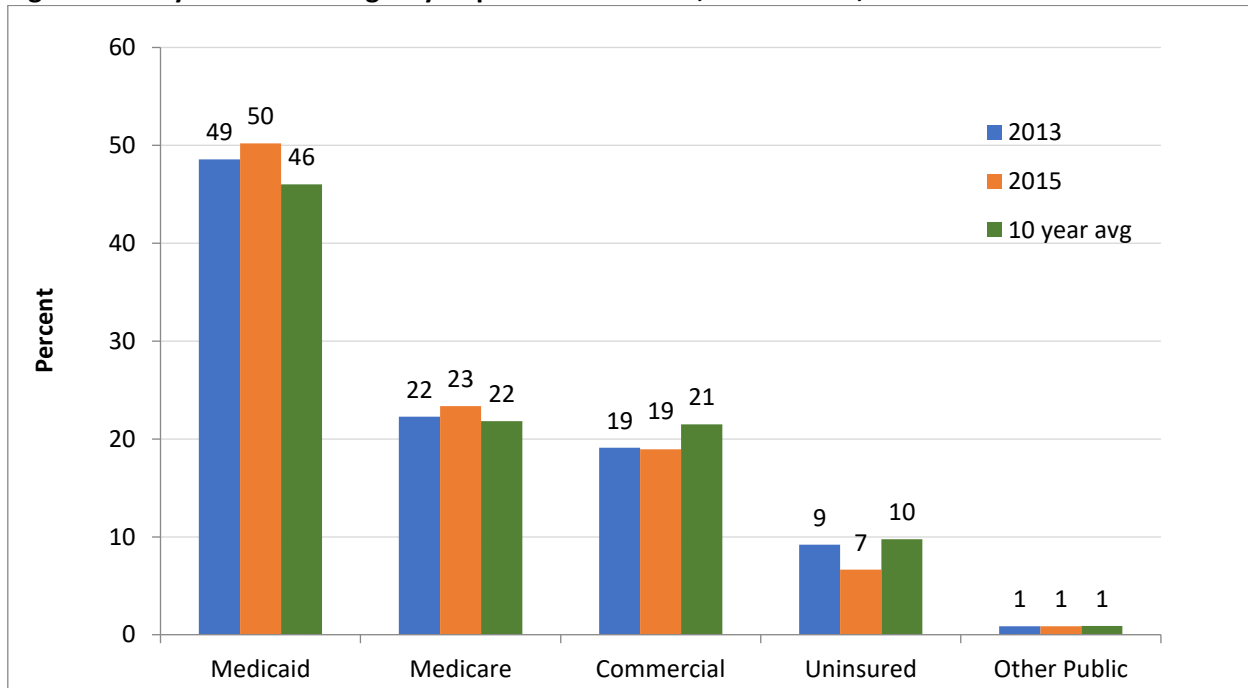


Prepared by: Connecticut Department of Public Health, Office of Health Care Access.  
Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

In 2013, the largest proportion of ED visits was among patients with Medicaid coverage, followed by patients with Medicare coverage, and commercial insurance (Figure 3.5). The proportion of ED visits by Medicaid patients increased and uninsured ED visits decreased.

A central goal of the PPACA is to reduce the number of uninsured by providing a continuum of affordable coverage options through Medicaid and the health insurance marketplaces. Connecticut is one of 28 states that implemented expansion of Medicaid.

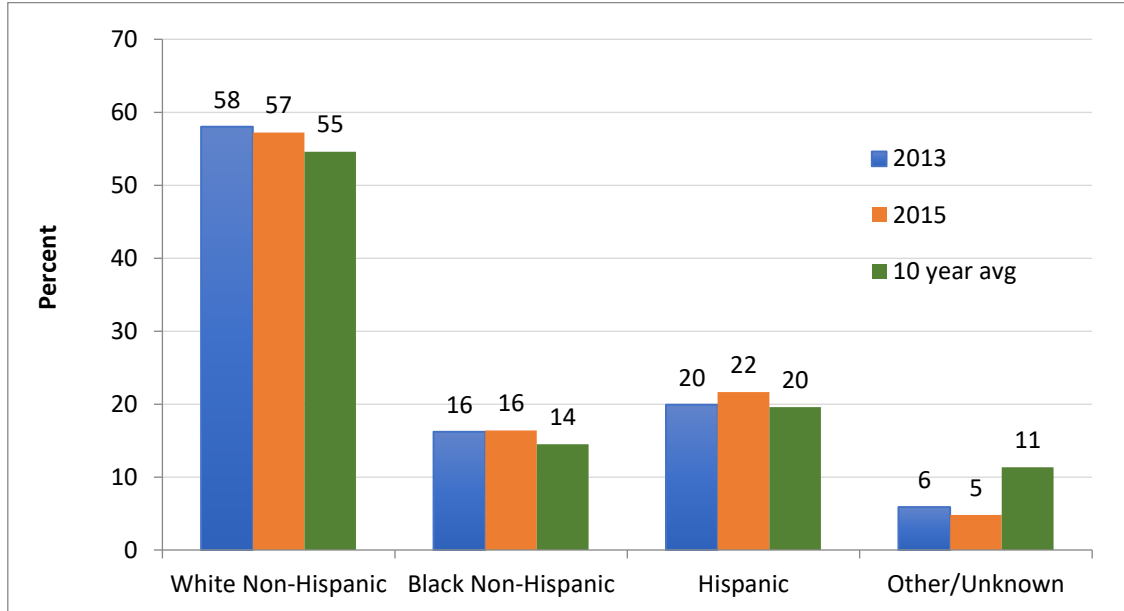
**Figure 3.5. Payer Mix of Emergency Department Patients, Connecticut, 2013 and 2015**



Prepared by: Connecticut Department of Public Health, Office of Health Care Access.  
 Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

Federal law requires that providers collect information concerning a patient's race and ethnicity (Figure 3.6). Reported race and ethnicity of ED patients continues to be collected more thoroughly and accurately than in previous years. The number of persons reported as "Unknown" decreased further from 6% in 2013 to 5% in 2015. Future reporting will make rate information based on populations of the various races and ethnicities meaningful and useful for healthcare planning. Collecting accurate demographic data is important, as health disparities have been identified among racial and ethnic minorities (see Chapter 4 for additional detail).

**Figure 3.6. ED Use by Race and Ethnicity, Connecticut, 2013 and 2015**



Prepared by: Connecticut Department of Public Health, Office of Health Care Access.

Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

ED use can also be examined by county (Table 3.6). Connecticut's largest cities are within one of the following counties: Fairfield, New Haven or Hartford. Windham County, however, had the highest rate of ED visits. ED use rates remained unchanged or declined for all counties except Windham which experienced a 19% increase due to an uptick in utilization by residents covered by Medicaid (13%), Medicare (7%) and the uninsured (9%).

**Table 3.6. Number of ED Visits per 1,000 Persons, Connecticut, 2013 and 2015**

Number of ED Visits per 1,000 Persons			
County	FY 2013	FY 2015	% Change
Fairfield	360	321	-11
Hartford	483	475	-2
Litchfield	441	437	-1
Middlesex	424	414	-2
New Haven	481	468	-3
New London	541	543	0
Tolland	345	316	-8
Windham	459	546	19

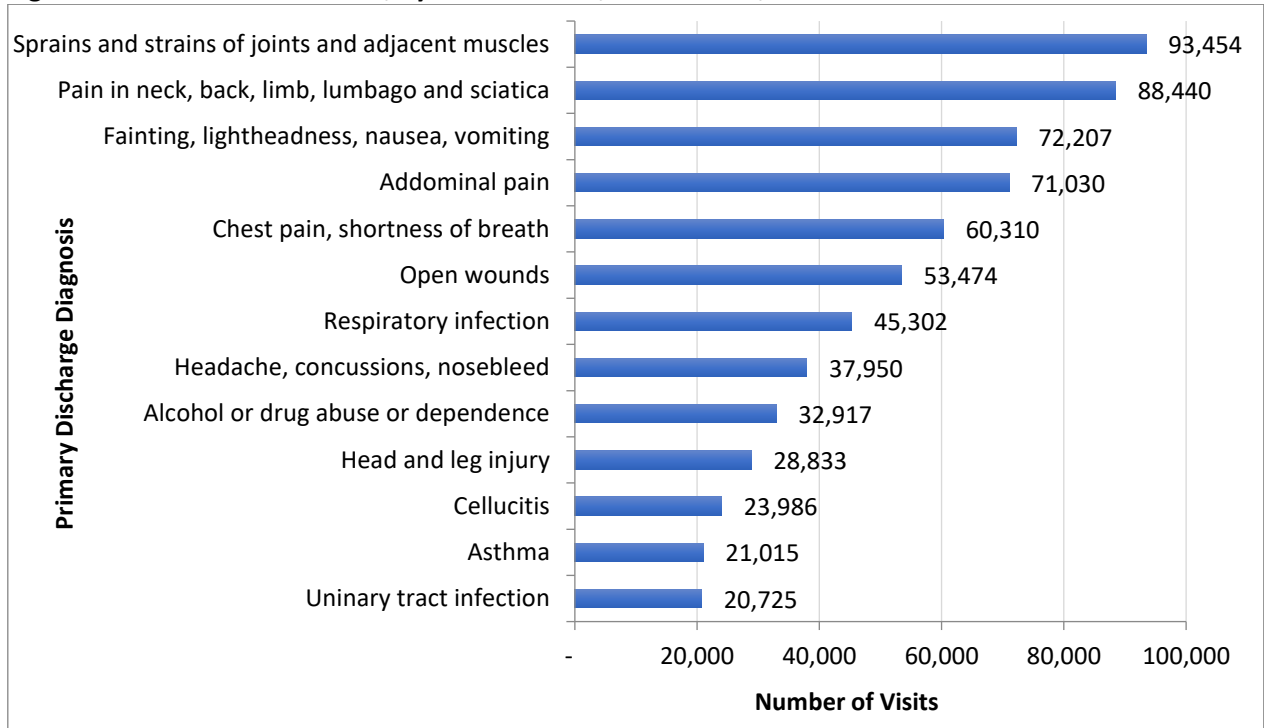
Prepared by: Connecticut Department of Public Health, Office of Health Care Access.

Source: Connecticut Hospital Association’s ChimeData and Sharon Hospital.

### Leading causes of ED Use

In FY 2015, 41% of all ED visits were for one of 13 reasons (Figure 3.7). Joint and muscle sprains and strains were the primary reasons for going to the ED, accounting for over 93,000 visits. Pain in neck, back, limb, lumbago and sciatica, and fainting, lightheadedness, nausea and vomiting were the second and third top reasons for ED visits.

**Figure 3.7. Number of ED Visits, by Cause of Visit, Connecticut, 2015**



Prepared by: Connecticut Department of Public Health, Office of Health Care Access.  
Source: Connecticut Hospital Association’s ChimeData.

## ED Use for Psychiatric/Drug or Alcohol Related Disorders

Since 2009, approximately one in ten ED visits in Connecticut by state residents has been primarily for a behavioral health-related diagnosis. In 2015, over 103,000 visits were drug, alcohol or mental health disorder-related; representing a 5% increase in drug/alcohol related visits since 2013. Table 3.7 reports selected demographic information for these visits. The populations most at risk are those who are White Non-Hispanic males, between 40 to 64 years old, living in urban towns and/or having Medicaid coverage. Overwhelmingly, they are discharged to their home after treatment. Majority of drug or alcohol related ED visits occurred after hours.

**Table 3.7. Connecticut Residents ED Visits for Psychiatric and Drug/Alcohol-Related Mental Health Disorders, 2013 and 2015**

Category	Group	Drug or Alcohol Related ED Visits <sup>1</sup>		Psychiatric Related ED Visits <sup>2</sup>	
		2015	% Change from 2013	2015	% Change from 2013
Number	All visits	43,379	5%	60,554	0%
Sex	Male	73%	6%	49%	1%
	Female	27%	4%	51%	1%
Race/Ethnicity	White Non-Hispanic	64%	3%	62%	-3%
	Black Non-Hispanic	17%	8%	16%	5%
	Hispanic	16%	17%	19%	11%
	Other/Unknown	3%	-2%	4%	-17%
Age Group	Under 18	2%	-17%	18%	14%
	18 to 39	39%	10%	39%	-3%
	40 to 64	55%	3%	33%	-5%
	65 and Over	5%	12%	10%	5%
Town Grouping <sup>3</sup>	Urban Core	49%	5%	43%	0%
	Urban Periphery	33%	8%	34%	1%
	Rural	6%	5%	9%	0%
	Suburban	6%	1%	7%	5%
	Wealthy	5%	2%	5%	-8%
Primary Payer	Medicaid	63%	13%	56%	8%
	Uninsured	12%	-19%	4%	-37%
	Commercial	11%	6%	15%	-8%
	Medicare	13%	-1%	24%	-1%
Disposition	Discharged Home	84%	5%	69%	-2%
	Admitted as Inpatient	16%	5%	31%	4%
Admission Time	9 a.m. to 5 p.m.	34%	3%	50%	3%
	5 p.m. to Midnight	43%	7%	36%	-3%
	Midnight to 9 a.m.	23%	6%	14%	-2%

Prepared by: Connecticut Department of Public Health, Office of Health Care Access

Source: Connecticut Hospital Association's ChimeData

<sup>1</sup> Patient encounters assigned an ICD-9 code 291, 292, 303, 304 or 305 as a primary diagnosis.

<sup>2</sup> Patient encounters assigned an ICD-9 code 290, 293-302 or 306-316 as a primary diagnosis.

<sup>3</sup> In 2009, the Connecticut State Data Center analyzed socioeconomic data for Connecticut's 169 towns and organized them into five distinct groups based on population density, median family income and percentage of the population living below the federal poverty line.

## **Adults**

### Psychiatric-Related ED Visits

- The leading primary diagnoses for all age groups visiting the ED are for non-psychotic disorders (e.g., anxiety or depression) or affective psychoses (e.g., bipolar disorder)
- An additional leading primary diagnosis for persons 65 and older visiting the ED is dementia. Over one-quarter of persons in this age cohort were admitted for inpatient care.

### Drug or Alcohol-Related ED Visits

- Two in five behavioral health-related ED visits are for drug or alcohol dependence or abuse conditions.
- White males and females, ages 40 to 64 and living in an urban core or urban periphery town make up 30% of these visits.
- Men continue to make three times more drug and alcohol-related ED visits than women.
- Almost six out of ten visits involve alcohol, including drunkenness, physical complications or long-term alcohol use.

## **Children**

As in prior years, nine out of ten children visiting the ED for a behavioral health disorder were treated for a psychiatric-related disorder. Common diagnoses were depression, episodic mood disorder, anxiety, and depression. Disorders considered specific to childhood, such as oppositional defiant disorder, attention deficit disorder and disruptive behaviors, are also common. Medicaid as the primary payer increased to 75% in 2015 for children.

For ED visits by Connecticut state residents overall, Medicaid is the primary payer for drug and alcohol related disorders (63%) and for psychiatric disorders (51%). It is also the primary payer for those patients that reside in an urban core or urban periphery town.

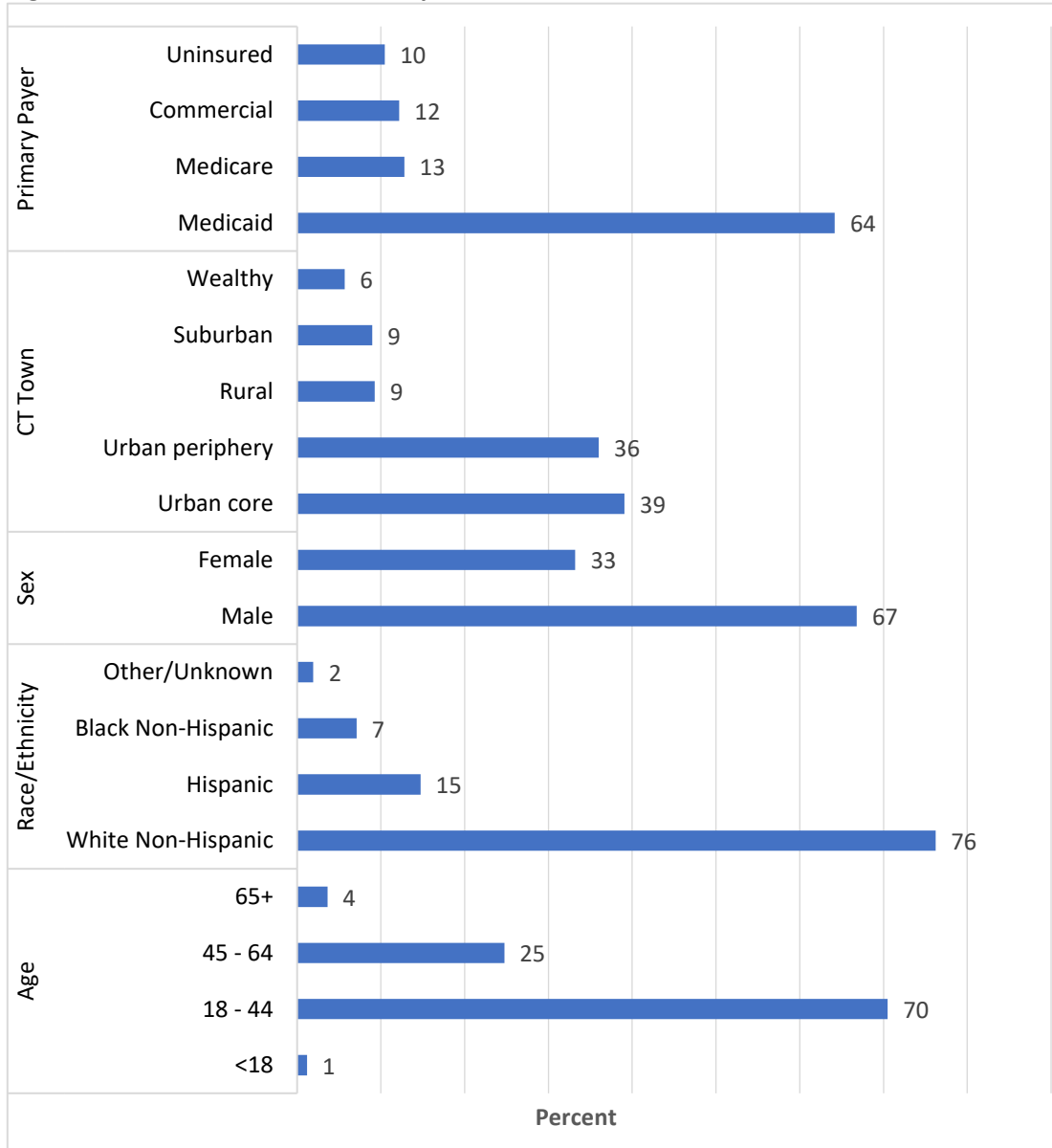
The State's Medicaid program covers services provided by licensed behavioral health clinicians, psychologists, clinical social workers, drug and alcohol counselors, professional counselors and marriage and family therapists, to Medicaid recipients age 21 or older.

### ***Opioid-related ED visits***

In 2013, prescription opioid overdoses contributed to 4.7 and 2.4 unintentional deaths per 100,000 Connecticut residents for men and women, respectively. This represents an increase of at least 1.0 death per 100,000 population for each gender, from 2008.<sup>101</sup> The age-adjusted rate of unintentional deaths due to prescription opioid overdose is highest among White non-Hispanics. For example, in 2013 in Connecticut there were 5.7 unintentional deaths due to prescription opioid overdoses per 100,000 population for White non-Hispanics, followed by 3.8 per 100,000 population for Hispanics, and 3.6 per 100,000 population for Black non-Hispanics.<sup>102</sup> These patterns are similar for deaths attributed to heroin overdoses.

From 2013 through 2015, Connecticut residents made over 13,000 ED visits with a primary diagnosis of opioid overdose/dependence and nearly one in five of those visits resulted in an inpatient admission. The majority of the visits were by residents who were between 18 and 64 years of age, White non-Hispanics, male, living in an urban core or periphery town, or Medicaid beneficiaries, Figure 3.8.

**Figure 3.8. Connecticut Residents Opioid Related ED Visits, 2013-2015**

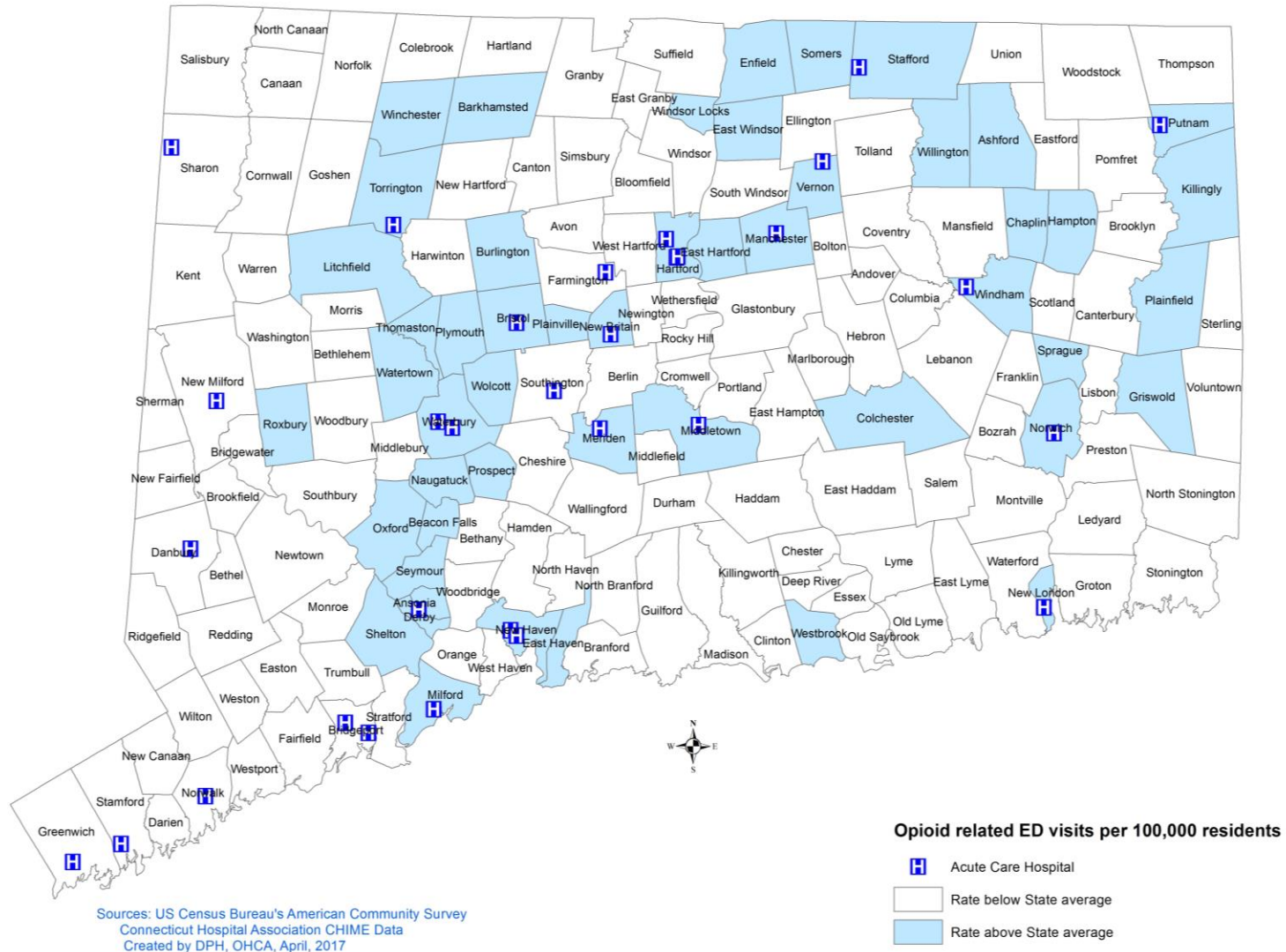


Prepared by: Connecticut Department of Public Health, Office of Health Care Access  
 Source: Connecticut Hospital Association’s ChimeData

Figure 3.9 shows ED visits per 100,000 Connecticut residents 18 to 64 years of age, for which opioid overdose/dependence was the primary diagnosis. The statewide rate is 183 per 100,000 residents. The issue is widespread across the state and as many 50 towns had rates exceeding the state rate, including urban towns such as Ansonia, Hartford and New Haven; rural towns such as Stafford, Winchester and Chaplin; and suburban towns such as Somers, Colchester and Prospect.



**Figure 3.9. Map of Opioid-Related ED Visits per 100,000 Residents 18-64 Years of Age, by Town, 2013-2015**



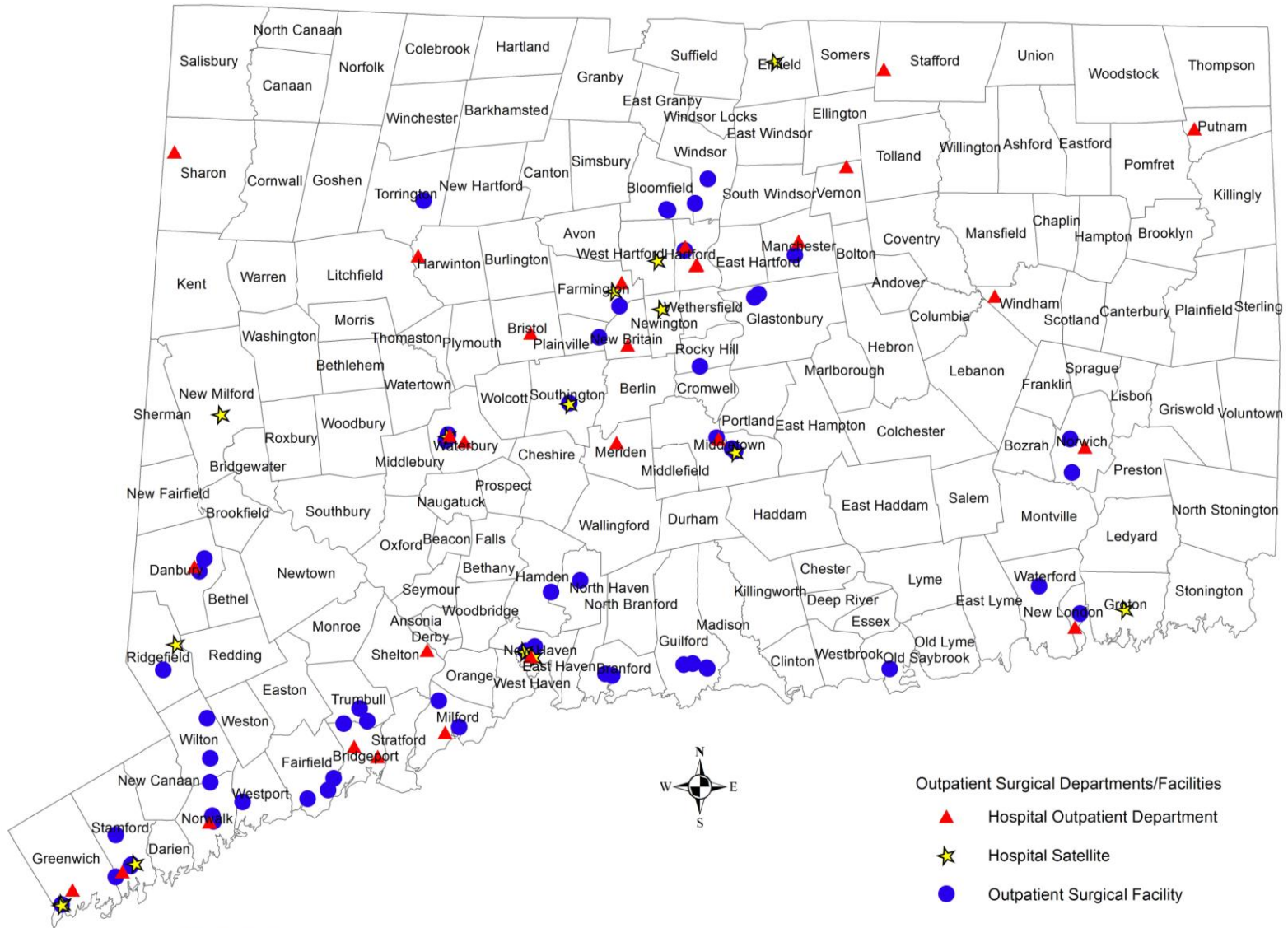
## **ALTERNATIVE SOURCES FOR URGENT OR IMMEDIATE CARE**

For non-emergency care, people are increasingly opting to use urgent care, retail-based healthcare providers and licensed outpatient clinics operated by municipalities, to bridge the gap between care provided by physician offices and EDs.<sup>103, 104</sup> While these alternate models appear to be experiencing continued growth, their effects on Connecticut's healthcare system remain unclear. DPH only has information on the location of entities it licenses as outpatient clinics or satellites of hospitals; the agency is limited in its ability to assess the Connecticut-specific impact of this level of care. Therefore, questions remain, including how the population should use these settings and whether or not their continued growth has or will alleviate inappropriate use of the hospital emergency department for non-emergent care. When the APCD is available, the agency may then be able to assess the impact of these alternative sources of care.

## **OUTPATIENT SURGERY UTILIZATION**

Outpatient or ambulatory surgery is a planned operation for which the patient is not expected to be admitted to a hospital for an overnight stay.<sup>105</sup> In Connecticut, outpatient surgeries are provided at an acute care hospital's main campus outpatient department or a satellite location or at a licensed freestanding outpatient surgical facility. There are 28 hospital outpatient surgical departments, 18 hospital satellites and 59 licensed outpatient surgical facilities in the state, as shown in Figure. 3.10.

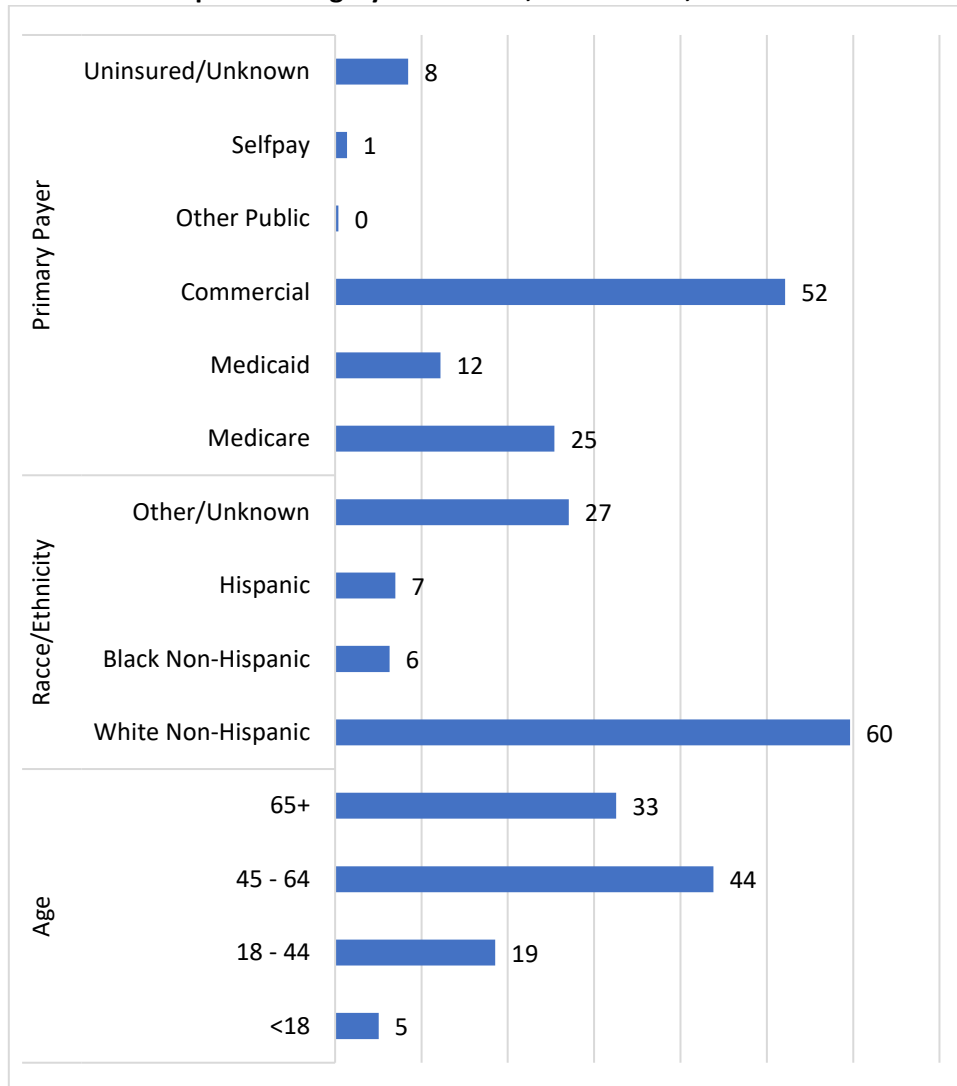
**Figure 3.10. Map of Outpatient Surgical Departments and Facilities, Connecticut, 2017**



Sources: CT DPH OHCA  
 Created by: CT DPH OHCA, April, 2017

Outpatient surgery may be an invasive procedure to treat a disease or injury or a diagnostic or exploratory noninvasive procedure. In 2015 there were approximately 471,000 outpatient surgery encounters in the state. Over three-quarters of the outpatient encounters were by adults 45 years and older (77%), White non-Hispanics (60%), commercially insured (52%), or covered by Medicare (25%), see Figure 3.11.

**Table 3.11. Outpatient Surgery Encounters, Connecticut, 2015**



Source: CT DPH Office of Health Care Access Outpatient Surgery Database

The ten most frequent outpatient invasive procedures performed are shown in Table 3.16. Overall, the surgeries were equally likely to be performed at a hospital outpatient department/satellite or at a freestanding facility.

**Table 3.16. 10 Most Frequent Invasive Outpatient Surgical Procedures Performed, Connecticut, 2015**

No.	CPT Code	CPT Code Description	Place of Service			Statewide Total
			Hospital Outpatient Department	Hospital Satellite	Freestanding Surgery Center	
1	66984	Cataract Surgical insertion of intraocular lens prosthesis, 1 Stage	16,222	211	14,905	<b>31,338</b>
2	29881	Knee Arthroscopy/Surgery	2,330	497	4,696	<b>7,523</b>
3	69436	Create Eardrum Opening	2,474	31	2,446	<b>4,951</b>
4	64721	Carpal Tunnel Surgery	1,895	216	2,700	<b>4,811</b>
5	66982	Cataract Surgery, Complex	1,670	16	2,708	<b>4,394</b>
6	29826	Shoulder Arthroscopy/Surgery	1,359	198	2,604	<b>4,161</b>
7	47562	Laparoscopic Cholecystectomy (gall bladder)	3,667	191	14	<b>3,872</b>
8	29827	Arthroscopic Rotator Cuff Repair	1,176	121	2,227	<b>3,524</b>
9	41899	Dental Surgery Procedure	2,779	47	93	<b>2,919</b>
10	66821	After Cataract Laser Surgery	812	--	2,100	<b>2,912</b>
<b>Total</b>			<b>34,384</b>	<b>1,528</b>	<b>34,493</b>	<b>70,405</b>

Source: CT DPH Office of Health Care Access Outpatient Surgery Database

The most frequent noninvasive diagnostic or exploratory procedures are in Table 3.17. Eight of the ten noninvasive procedures were more likely to be provided at a freestanding center.

**Table 3.17. 10 Most Frequent Noninvasive Outpatient Surgical Procedures Performed, Connecticut, 2015**

No.	CPT Code	CPT Code Description	Place of Service			Statewide Total
			Hospital Outpatient Department	Hospital Satellite	Freestanding Surgery Center	
1	43239	EGD (or upper gastrointestinal) biopsy single/multiple	28,724	907	34,937	<b>64,568</b>
2	45380	Colonoscopy and biopsy	24,696	947	33,601	<b>59,244</b>
3	45385	Colonoscopy with lesion removal	14,489	674	23,964	<b>39,127</b>
4	45378	Diagnostic colonoscopy	12,529	499	25,132	<b>38,160</b>
5	36415	Routine venipuncture	22,577	797	306	<b>23,680</b>
6	62311	Injection in spine lumbar/sacral	3,872	183	5,027	<b>9,082</b>
7	58558	Hysteroscopy, biopsy	4,827	72	806	<b>5,705</b>
8	64483	Injection foramen epidural L/S	2,095	154	3,043	<b>5,292</b>
9	43235	EGD (or upper gastrointestinal) diagnostic brush wash	1,995	160	1,584	<b>3,739</b>
10	64493	Paravertebral facet joint injection	1,063	114	2,119	<b>3,296</b>
<b>Total</b>			<b>116,867</b>	<b>4,507</b>	<b>130,519</b>	<b>251,893</b>

Source: CT DPH Office of Health Care Access Outpatient Surgery Database

## MEDICAL IMAGING SERVICES UTILIZATION

Medical imaging provides visual representations of the body interior, organs and tissues for clinical diagnosis and medical intervention. In Connecticut, imaging providers use x-ray, magnetic resonance (MRI), positron emission tomography (PET), computed tomography (CT) and positron emission tomography-computed tomography (PET-CT) scanners to create these images.

The top ten most frequent imaging services provided to Connecticut residents in fully-insured plans include mammography, chest x-rays, ultrasounds, CAT scans and bone density scans, Table 3.18.

**Table 3.18. 10 Most Frequent Imaging Services, Connecticut, 2015**

No.	CPT Code	CPT Code Description	Count
1	G0202	Digital Mammography Screening	<b>87,390</b>
2	77052	Computer Screen Mammography Add-On	<b>85,471</b>
3	71020	Chest X-Ray with 2 Views, Front and Lateral	<b>49,270</b>
4	76641	Breast Ultrasound, Complete	<b>31,878</b>
5	76830	Transvaginal Ultrasound, Non-obstetric	<b>21,781</b>
6	73630	Foot X-Ray, Complete	<b>18,019</b>
7	74177	CAT Scan of Abdomen and Pelvis with Contrast	<b>14,350</b>
8	77051	Computer-Aided Diagnostic Mammography Add-On	<b>13,520</b>
9	77080	Bone Density Scan, Axial	<b>13,300</b>
10	76700	Abdomen Ultrasound, Complete	<b>12,421</b>
<b>Total</b>			<b>347,400</b>

Source: CT Department of Insurance; data is on Connecticut residents in fully-insured plans only

The preceding section provides utilization data for just a fraction of the healthcare services available as well as who accessed those services, and for what reasons. The following Chapter attempts to evaluate outcomes of care and identify unmet healthcare needs and gaps in services. This effort is to facilitate policymaking regarding adequate availability and access to timely appropriate quality care for community and population health status improvements in the state.

## Chapter 4 IDENTIFYING UNMET NEED FOR AT-RISK AND VULNERABLE POPULATIONS

Unmet healthcare need is disproportionately experienced among specific population groups and geographic areas across Connecticut. As described in Chapter 1, in 2014, the DPH developed the SHIP,<sup>106</sup> which was informed by health issues and patterns identified in the SHA.<sup>107</sup> Through a partnership process, the SHIP identified measurable objectives and evidence-based strategies to improve the health of and health equity among Connecticut residents. Several of the SHIP recommendations included improvements in healthcare access and quality, with particular consideration of specific population groups. As described in a Chapter 1, in subsequent years there have been several healthcare-oriented initiatives to address the unmet healthcare need of specific population groups in Connecticut. The health status and healthcare need described in this section align with the SHA and SHIP processes.

This chapter provides an overview of the health status and unmet healthcare need of specific population groups in Connecticut and compares current patterns with those at the time the 2014 supplement was published. These comparisons over time facilitate an examination of trends in healthcare need across at-risk and vulnerable populations. This section also attempts to identify towns and cities most likely to have unmet healthcare need that may have benefited from healthcare reforms over the past two years, in addition to those identified by hospitals in their CHNAs and implementation strategies.

### **Population and Health Status for the At-Risk and Vulnerable**

While Connecticut has a favorable health and socioeconomic profile overall compared to most other states, deep disparities exist among specific populations and/or geographic locations in Connecticut. As previously stated, barriers to opportunities to live a healthy life may be disproportionately concentrated among certain population groups, including but not limited to racial and ethnic minorities, low-income populations, those with lower educational attainment and older adults. The influences of socioeconomic factors on health patterns and outcomes are often intertwined and demonstrably result in health disparities.

Based on DPH's working definition of health disparities and related priority population groups,<sup>108</sup> Table 4.1 provides estimates of Connecticut's at-risk or vulnerable residents and the percentage self-reporting poor health in 2015 compared with 2012. These population groups are not mutually exclusive, and health and healthcare disparities may be compounded for residents who identify with multiple groups. Additionally, the health-related concerns may vary across groups as well as the rates of people self-reporting poor health. For example, compared to the state, in 2015 Connecticut residents who were elderly, low-income, had a high school education or less, Hispanic, or disabled were more likely to report poor health.

While Connecticut's population has not grown substantially from 2012 to 2015, the elderly, racial/ethnic minority, immigrant, linguistic minority, and disabled populations have increased. Over this same period, the proportions of individuals who were unemployed, had less than a college education or were uninsured declined. A smaller ratio of Connecticut's residents self-reported poor health in 2015 compared to 2012. During the same period, although the prevalence of self-reported poor health among priority populations remains relatively higher than the statewide rate, the rates declined for older, less educated, unemployed, racial/ethnic minority, immigrant, and uninsured groups and increased for persons with incomes below the federal poverty level or with a disability. Subsequent sections illustrate the rates at which some population groups are disproportionately burdened with chronic conditions such as high blood pressure, asthma and diabetes.



**Table 4.1. Connecticut At-Risk or Vulnerable Populations by Health Status (Self-Reported), 2012 vs. 2015**

Priority Population Group	Description of Connecticut Priority Population Group	2012			2015				
		Number of CT Population	% of CT Population	% in Poor Health <sup>8</sup>	Number of CT Population	% of CT Population	Direction of Change	% in Poor Health <sup>10</sup>	Direction of Change
Total population	CT	3,590,347	100.0%	2.9%	3,590,886	100.0%	↑	2.3%	↓
Elderly <sup>1</sup>	65 years of age or older	532,024	14.8%	5.1%	567,360	15.8%	↑	3.9%	↓
Low income <sup>2</sup>	Income below the federal poverty level	384,167	10.7%	4.5% <sup>9</sup>	377,043	10.5%	↓	5.8%	↑
Less than college education <sup>3</sup>	≥25 years of age with less than a college education	1,546,841	62.9%	5.8%	1,526,674	61.7%	↓	4.2%	↓
	-Less than high school	249,186		9.9%	242,268		↓	9.2%	
	-Graduated high school/GED	682,207		4.3%	678,916		↓	4.1%	
	-Some college	615,448		6.3%	605,490		↓	2.1%	
Unemployed	≥16 years of age in the civilian labor force and are unemployed	189,561	6.6%	3.9% <sup>9</sup>	134,494	4.6%	↓	1.5%	↓
Racial or ethnic minority <sup>1</sup>	Non-Whites	1,077,574	21.9%	4.3%	1,279,603	35.6%	↑	2.5%	↓
	-Black or African American only	339,063		5.0%	355,469		↑	1.4%	
	-Asian only	146,701		2.9%	155,610		↑	N/A	
	-American Indian only	6,099		N/A	4,235		↓	N/A	
	-Other/2+races	72,831		11.3%	81,525		↑	N/A	
	-Hispanic, any race	510,647		3.9%	553,783		↑	4.0%	
Immigrants <sup>3</sup>	Speak language other than English at home (5+ years old <sup>4</sup> )	755,297	22.2%	N/A	762,388	22.4%	↑	N/A	↓
	Born outside of US	495,421	13.8%	4.1%	519,648	14.5%	↑	0.9%	
	Speak English less than "very well"	288,142	8.5%	N/A	278,739	8.2%	↓	N/A	

<sup>1</sup> The population who speak a language other than English at home includes, but is not limited to immigrants.

Priority Population Group	Description of Connecticut Priority Population Group	2012			2015				
		Number of CT Population	% of CT Population	% in Poor Health <sup>8</sup>	Number of CT Population	% of CT Population	Direction of Change	% in Poor Health <sup>10</sup>	Direction of Change
LGBT <sup>4</sup>	<i>Self-identifies as lesbian, gay, bisexual, or transgender</i>	95,091 (2013)	2.6%	N/A	N/A	N/A	N/A		
Uninsured <sup>2</sup>	<i>&lt;65 years old that is uninsured</i>	321,972	9.0%	1.7%	206,912	6.9%	↓	0.6%	↓
	<i>&lt;18 years old</i>	29,928			25,100		↓		
	<i>-18-64 years old</i>	287,077		1.9%	181,812		↓		
Homeless <sup>5</sup>	<i>Spending the night in emergency shelter, transitional housing or unsheltered situation</i>	4,506 (2013)	0.1%	N/A	3,911 (2016)	0.1%	↓	N/A	
Persons with a disability <sup>6</sup>	All ages	376,618	10.7%	15.4%	389,690	11.0%	↑	17.0%	↑
	<5 years old	1,406		N/A	1,958		↑	N/A	
	-5 to 17 years old	29,839		N/A	28,628		↓	N/A	
	-18 to 64 years old	183,789		18.6%	190,691		↑	30.6%	
	-65+ years old	161,584		12.9%	168,413		↑	6.0%	
Transportation <sup>7</sup>	<i>No vehicle available among occupied housing units</i>	123,561	9.1%	N/A	123,621	9.2%	↑	N/A	

Note: N/A indicates data not available.

Sources:

<sup>1</sup> US Census Bureau, American Community Survey, 2012 and 2015, 1-Year Estimates, DP05 File.

<sup>2</sup> US Census Bureau, American Community Survey, 2012 and 2015, 1-Year Estimates, DP03 File.

<sup>3</sup> US Census Bureau, American Community Survey, 2012 and 2015, 1-Year Estimates, DP02 File.

<sup>4</sup> Movement Advancement Project, *Connecticut's Equality Profile*, based on 2013 analysis by the Williams Institute and Gallup and US Census, American Community Survey 2013 1-Year Estimates.

<sup>5</sup> Connecticut Coalition to End Homelessness, *2013 Homeless Point in Time Count, 2013 and 2016 Report on Homelessness in Connecticut, 2016*. Note: Estimate of the size of the homeless population in 2013 and 2016 are based upon the 2013 and 2016 reports and US Census, American Community Survey 2013 and 2015 1-Year Estimates, B01003, respectively.

<sup>6</sup> US Census, American Community Survey, 2012 and 2015, 1-Year Estimates, S1810 File.

<sup>7</sup> US Census Bureau, American Community Survey, 2012 and 2015, 1-Year Estimates, CP04 File.

<sup>8</sup> US Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2013.

<sup>9</sup> US Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2012.

<sup>10</sup> US Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2015.

## HEALTH OUTCOMES IN CONNECTICUT

Even though many more Connecticut residents have gained health insurance coverage since 2014, as discussed in Chapter 1, some population groups continue to experience chronic conditions which are also the leading causes of morbidity and mortality in the state. Numerous studies establish strong relationships among socioeconomic status, geographic location, health outcomes, access to healthcare services, and unmet healthcare need. CT BRFSS is the only available source in the state that monitors health risk and proactive behaviors relating to the leading causes of mortality and morbidity among demographic subgroups of age, race/ethnicity, incomes, and education level. The following sections utilizes BRFSS data to illustrate where there are disparities in morbidity and mortality across Connecticut for selected chronic conditions.

### Leading Causes of Morbidity and Mortality in Connecticut

At-risk and vulnerable populations generally have a greater prevalence of chronic diseases than the overall population, a factor that is compounded by unequal access to healthcare services. Table 4.2 provides an overview of selected leading chronic conditions and why Connecticut residents often seek healthcare. For the total population, patterns indicate declines in hospitalizations due to heart disease and stroke from 2011 to 2015. During the same period, there were increases in the proportion of adults with high cholesterol, high blood pressure, depressive disorder, diabetes and asthma in both adults and children with asthma. The incidence and prevalence of these conditions vary among population groups.

**Table 4.2. Selected Leading Causes of Morbidity and Mortality, Connecticut, 2011-2015**

Health Condition	Incidence per 100/000 Population / % Population				
	2011	2012	2013	2014	2015
Cancer (Incidence) <sup>1</sup>		489.3			
Heart disease (Hospitalizations) <sup>2</sup>		850.9		779.4	
Stroke (Hospitalizations) <sup>2</sup>		213.5		196.5	
High cholesterol <sup>3</sup>	36.2%		37.8%		37.4%
High blood pressure <sup>3</sup>	29.7%		31.3%		30.4%
Depressive disorder <sup>3</sup>		16.7%	17.4%		17.6%
Asthma <sup>3</sup>					
Children (<18 years)	10.1%	11.0%	10.1%	10.1%	10.6%
Adults (18+ years)	9.9%	9.9%	9.8%	9.2%	10.5%
Diabetes <sup>3</sup>		9.1%	8.3%	9.2%	9.3%

Sources:

<sup>1</sup> Connecticut Department of Public Health, Connecticut Tumor Registry, 2008-2012.

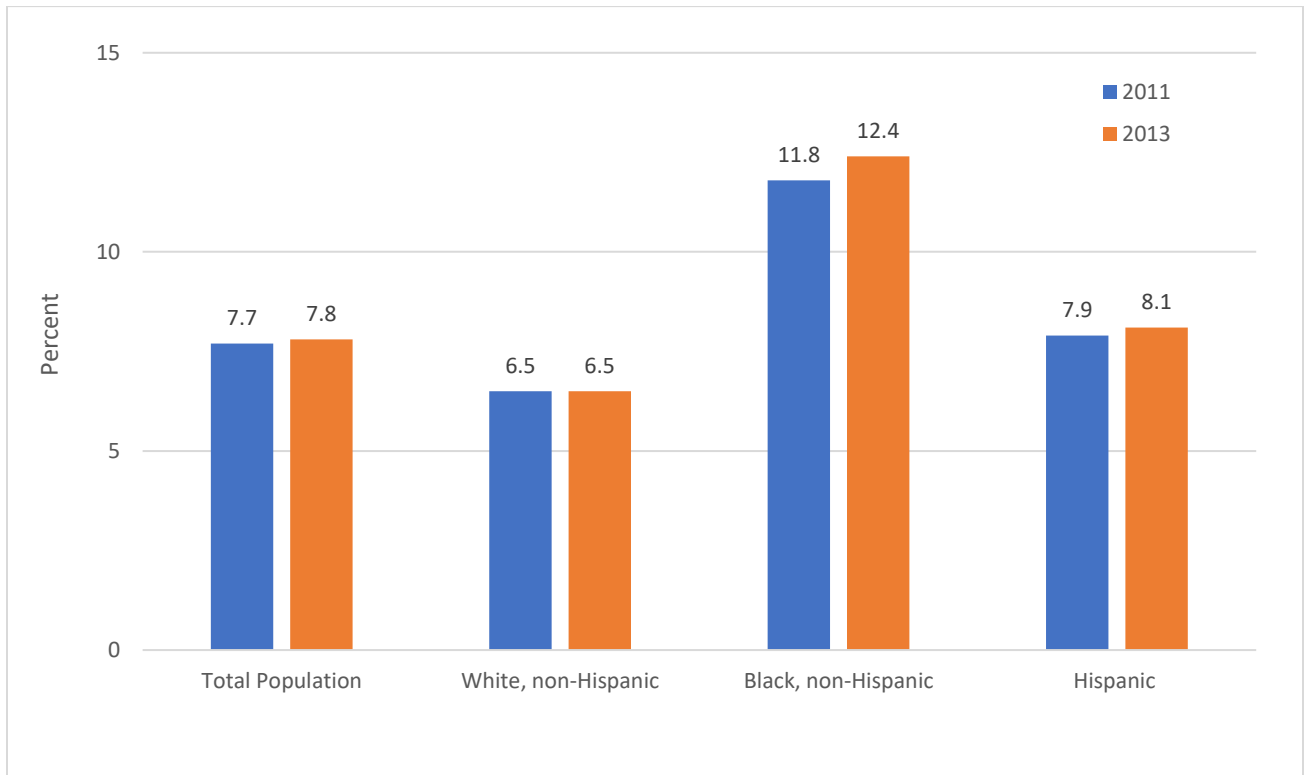
<sup>2</sup> Connecticut Department of Public Health, Hospitalization Tables, 2014, Table H-1.

<sup>3</sup> Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System 2011-2015. Data are available annually for depression, asthma and diabetes and biennially for high cholesterol and blood pressure.

## Morbidity

As shown in Figure 4.1, in 2011 and 2013 there remained racial/ethnic disparities in the prevalence of low birthweight newborns. In 2013, the percentage of Black non-Hispanic women's newborns with low birthweight, increased. Newborns of Hispanic women continue to have the second highest prevalence of low birthweight, followed by those of White non-Hispanic women.

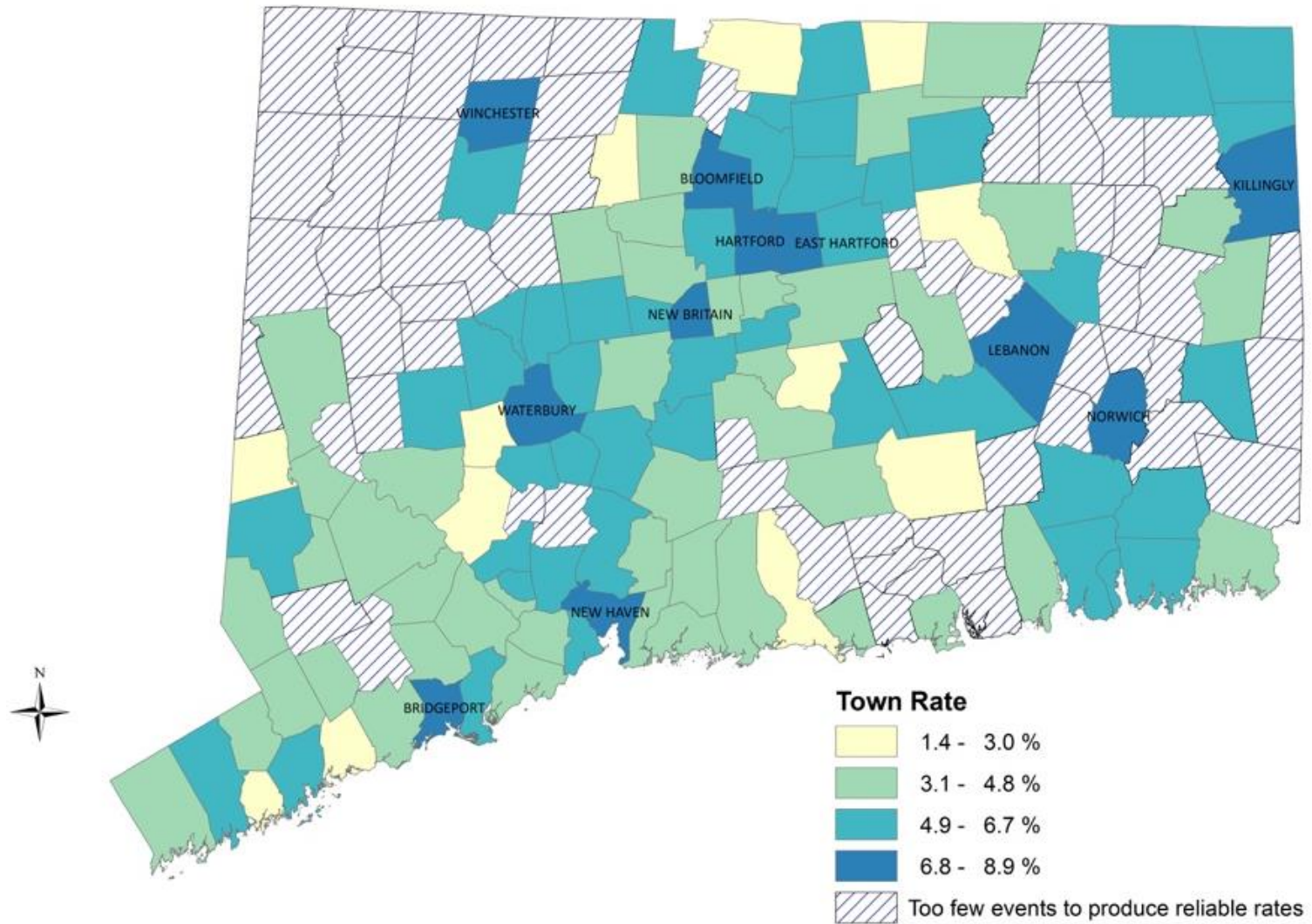
**Figure 4.1 Percent of Low Birthweight Newborns, by Race/Ethnicity, Connecticut, 2011 vs. 2013**



Source: Connecticut Department of Public Health, Births 2011 and 2013.

In 2010-2014, combined, the prevalence of low birthweight newborns was greatest in Connecticut's largest towns, including Bridgeport, New Haven, Waterbury, New Britain, Hartford, East Hartford and Norwich, as well as several towns in northern Connecticut: Winchester, Bloomfield and Killingly (Figure 4.2).

Figure 4.2. Map of Singleton Low Birthweight Newborns, by Town, Connecticut, 2010-2014

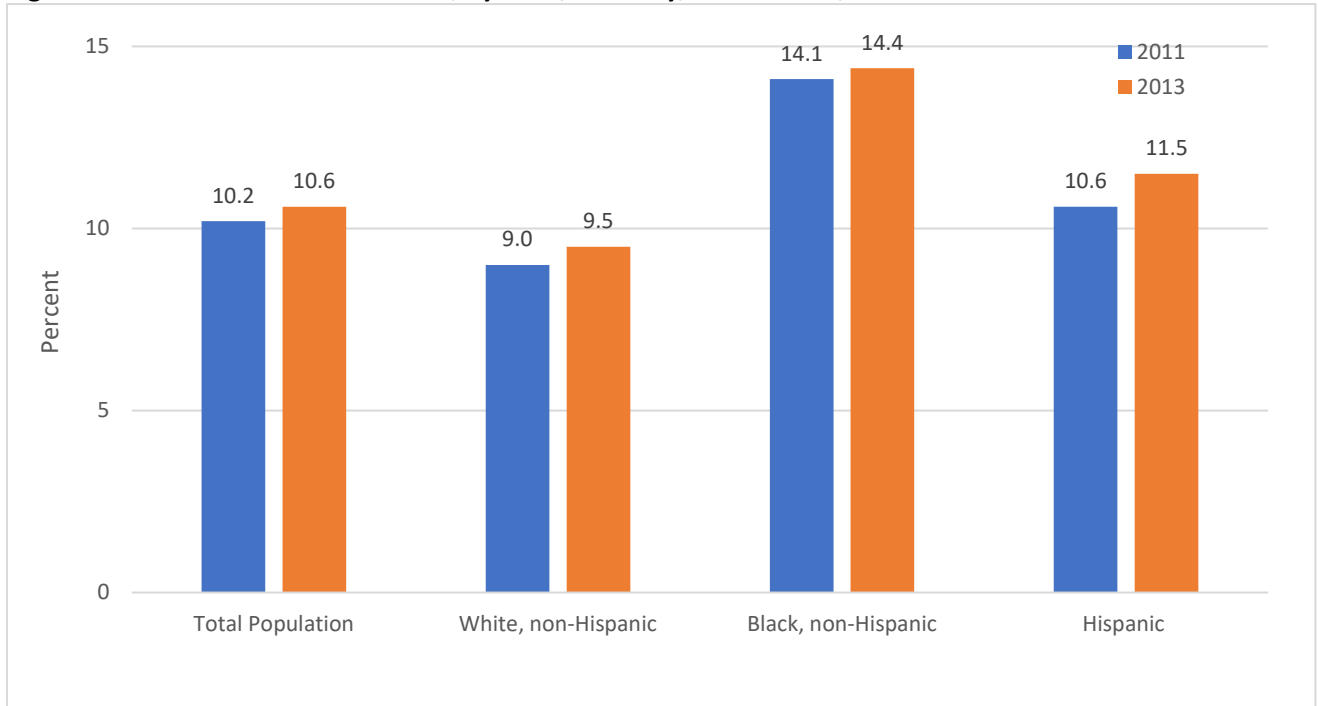


Note: Low birthweight classified as newborns weighing <2,500 grams.

Source: Connecticut Department of Public Health, Health Statistics and Surveillance, Statistics Analysis and Reporting.

Racial/ethnic disparities were also observed in the prevalence of preterm births in both 2011 and 2013 (Figure 4.3). For example, in 2013 a greater proportion of newborns of Black non-Hispanic women were preterm compared to those of Hispanic or White non-Hispanic women.

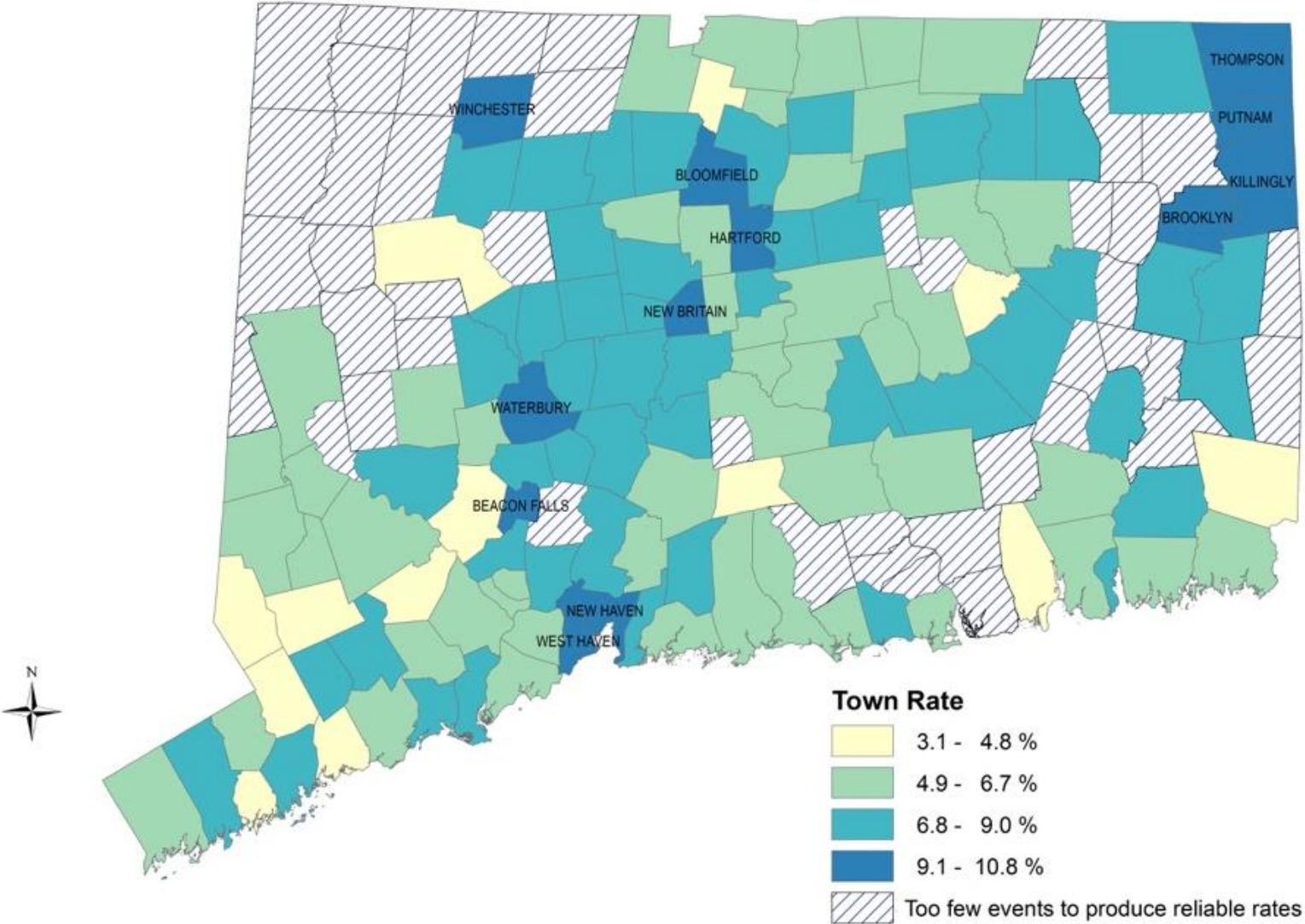
**Figure 4.3. Percent of Preterm Births, by Race/Ethnicity, Connecticut, 2011 vs. 2013**



Source: Connecticut Department of Public Health, Births 2011 and 2013.

From 2010-2014, the prevalence of preterm births was also relatively higher in some of Connecticut's largest towns, as well as several rural towns in northeastern and in central Connecticut (Figure 4.4).

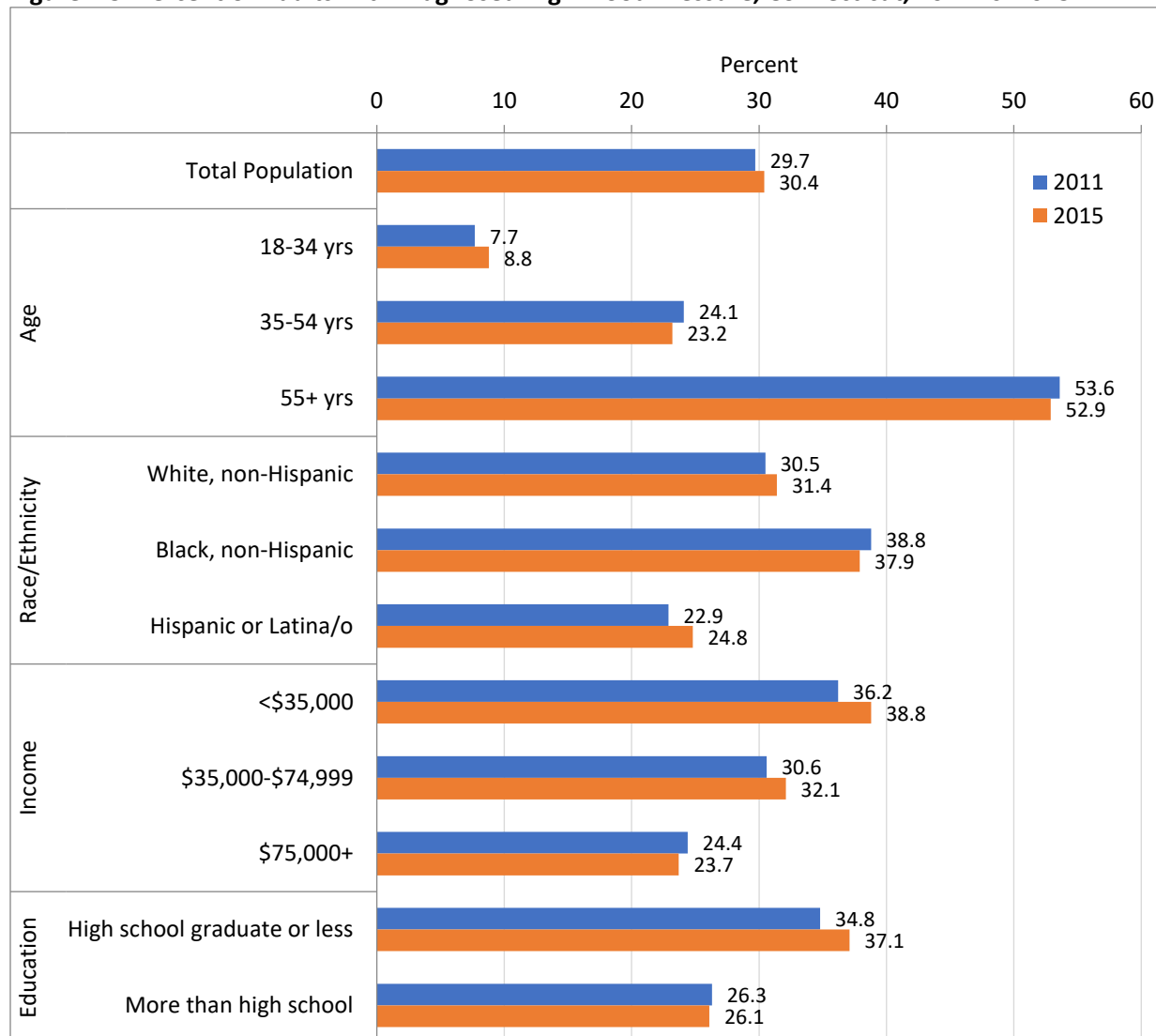
Figure 4.4. Map of Singleton Preterm Births, by Town, Connecticut, 2010-2014



Note: Preterm births classified as births before 37 weeks gestation.  
 Source: Connecticut Department of Public Health, Health Statistics and Surveillance, Statistics Analysis and Reporting.

The percentage of individuals diagnosed with high blood pressure varies by age, race/ethnicity, income and educational attainment (Figure 4.5). Prevalence rates remained highest among persons 55 years of age or older, Black non-Hispanic, people with incomes less than \$35,000 or with a high school education or less. In 2015, the prevalence rate increased among adults 18-34 years of age, Hispanic or Latina/o, adults with incomes below \$75,000 or with high school education or less.

**Figure 4.5. Percent of Adults with Diagnosed High Blood Pressure, Connecticut, 2011 vs. 2015**

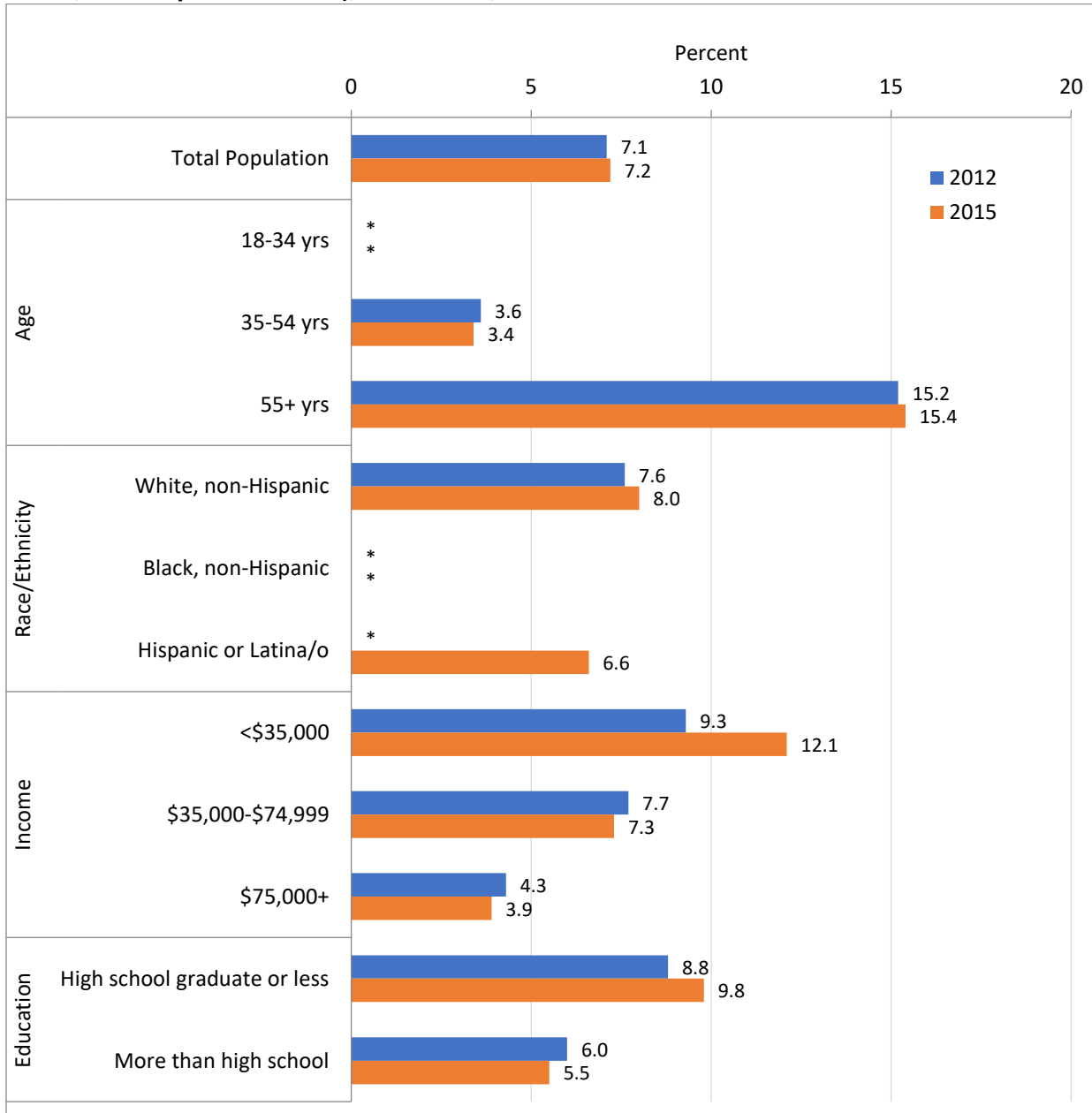


Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2011 and 2015.



As with high blood pressure, the prevalence of a heart disease experience varies among socio-economic cohorts (Figure 4.6). In both 2012 and 2015, a greater proportion of those who were 55 years and older, had lower incomes, a high school education or less were more likely than their counterparts to have had at least one heart disease experience. In 2015, the prevalence of heart disease experience increased most among adults with incomes less than \$35,000 and for persons with a high school education or less.

**Figure 4.6. Percent of Adults Who Have Had At Least One Heart Disease Experience (Heart Attack, Stroke, Coronary Heart Disease), Connecticut, 2012 vs. 2015**

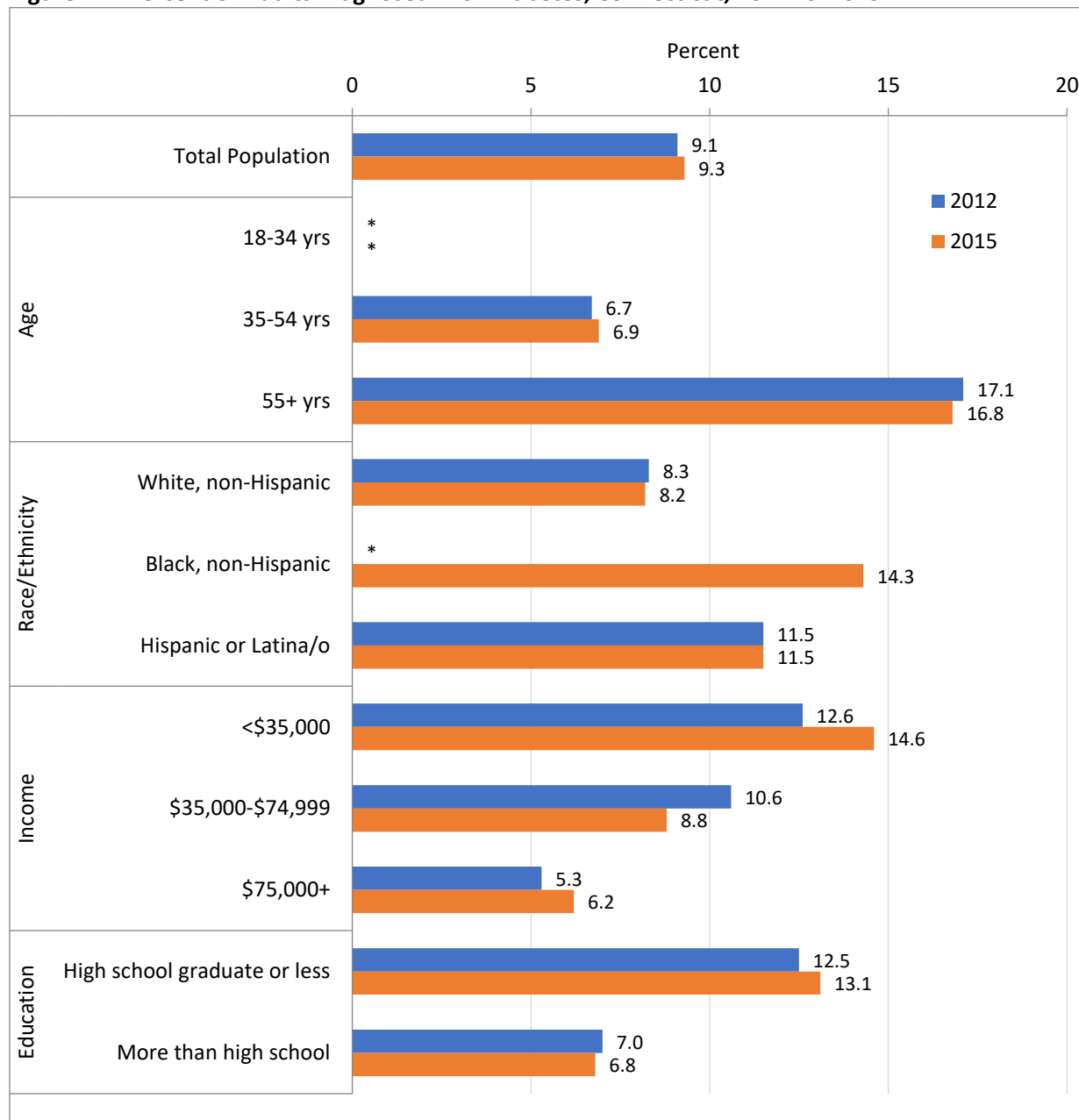


Note: \*Estimate not reliable.

Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

Figure 4.7 shows that in both 2012 and 2015, older adults, Black non-Hispanics, Hispanics or Latinas/os, persons with lower incomes or with a high school education or less were more likely to have diabetes than their counterparts. Over the three year period, the prevalence of diagnosed diabetes increased only for persons with incomes less than \$35,000 and for those with a high school degree or less. The prevalence of diagnosed diabetes only declined for adults with incomes between \$35,000 and \$74,999.

**Figure 4.7. Percent of Adults Diagnosed with Diabetes, Connecticut, 2012 vs. 2015**

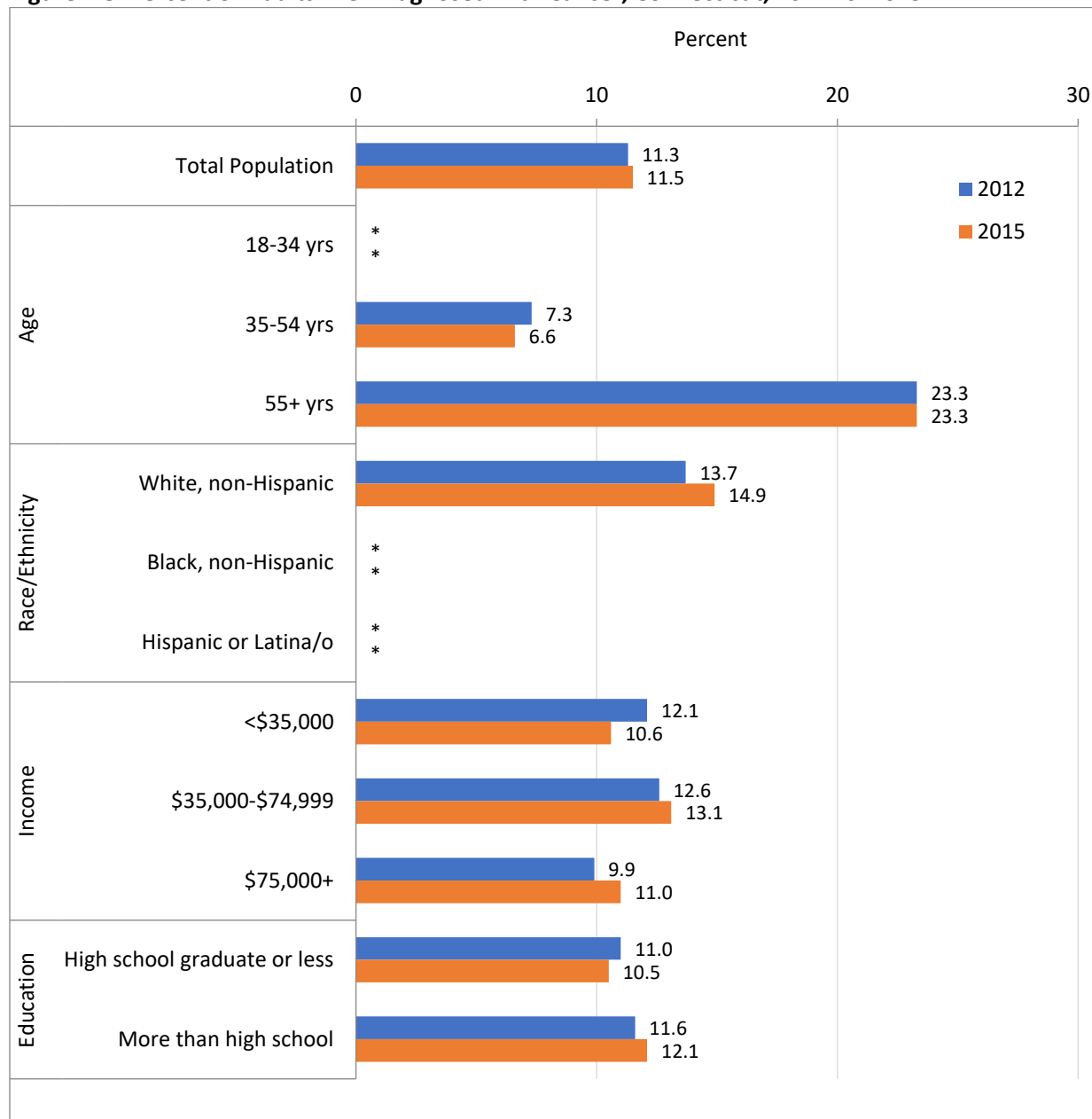


Note: \*Estimate not reliable.

Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

Over the same period, the prevalence of any diagnosis of cancer also varied by age, income and educational attainment (Figure 4.8). In both years, the prevalence of diagnosed cancer was highest among adults 55 years of age or older, with incomes between \$35,000 and \$74,999, and among those with more than a high school education. Between 2012 and 2015, the prevalence of diagnosed cancer declined for adults with income less than \$35,000 but increased for White non-Hispanics, persons with incomes over \$35,000 or attained more than high school education.

**Figure 4.8. Percent of Adults Ever Diagnosed with Cancer, Connecticut, 2012 vs. 2015**

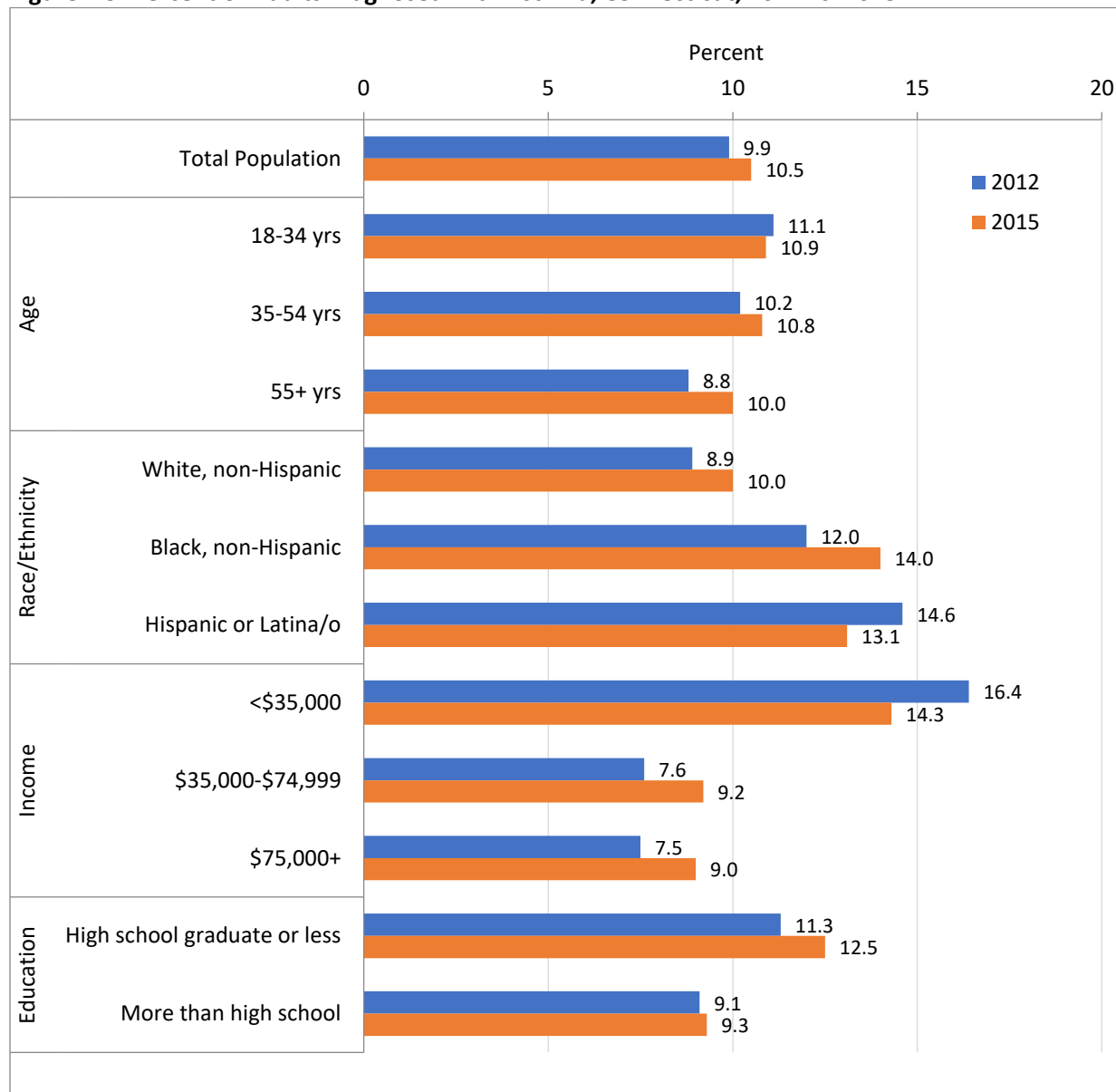


Note: \*Estimate not reliable.

Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

Disparities also exist in the prevalence of asthma, with the highest rates occurring among adult Black non-Hispanic, Hispanic or Latina/o, those with incomes less than \$35,000 or those with a high school education or less, relative to their counterparts (Figure 4.9). In 2015, asthma prevalence rates increased among adults 55 years of age or older, White non-Hispanic, Black non-Hispanic; those with incomes greater than \$35,000, or those with a high school education or less. It decreased for Hispanics or Latinos/as and persons with incomes less than \$35,000.

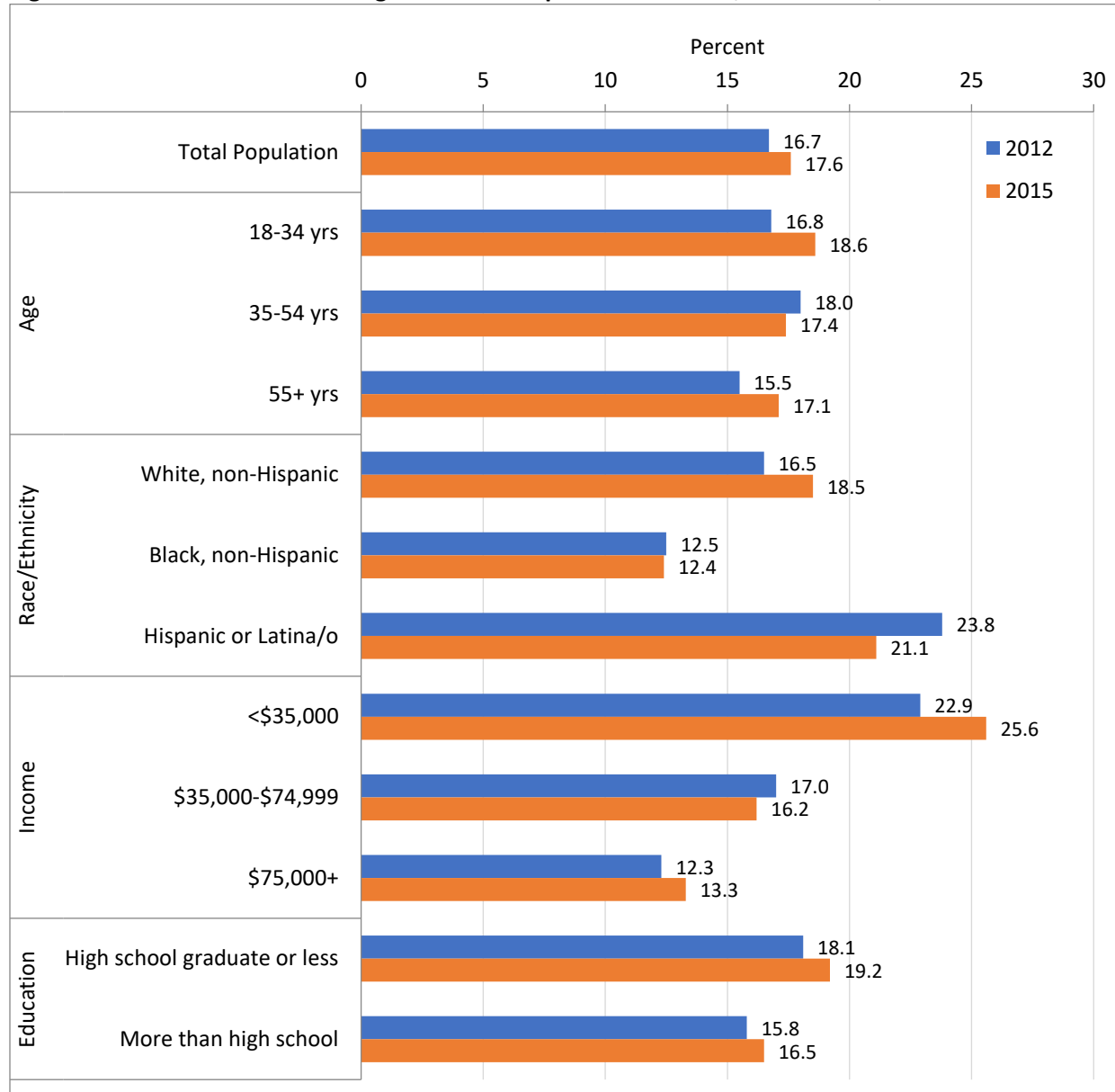
**Figure 4.9. Percent of Adults Diagnosed with Asthma, Connecticut, 2012 vs. 2015**



Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

In 2015, the proportion of adults with depressive disorder was greatest among adults with incomes less than \$35,000, between 18 and 34 years of age, who were Hispanic or Latino/a, or had less than a high school education, compared to their counterparts (Figure 4.10). Between 2012 and 2015, depressive disorder prevalence increased the most for adults with incomes less than \$35,000 and those between 18 and 34 years of age. It declined the most among Hispanic or Latina/o adults.

**Figure 4.10. Percent of Adults Diagnosed with Depressive Disorder, Connecticut, 2012 vs. 2015**

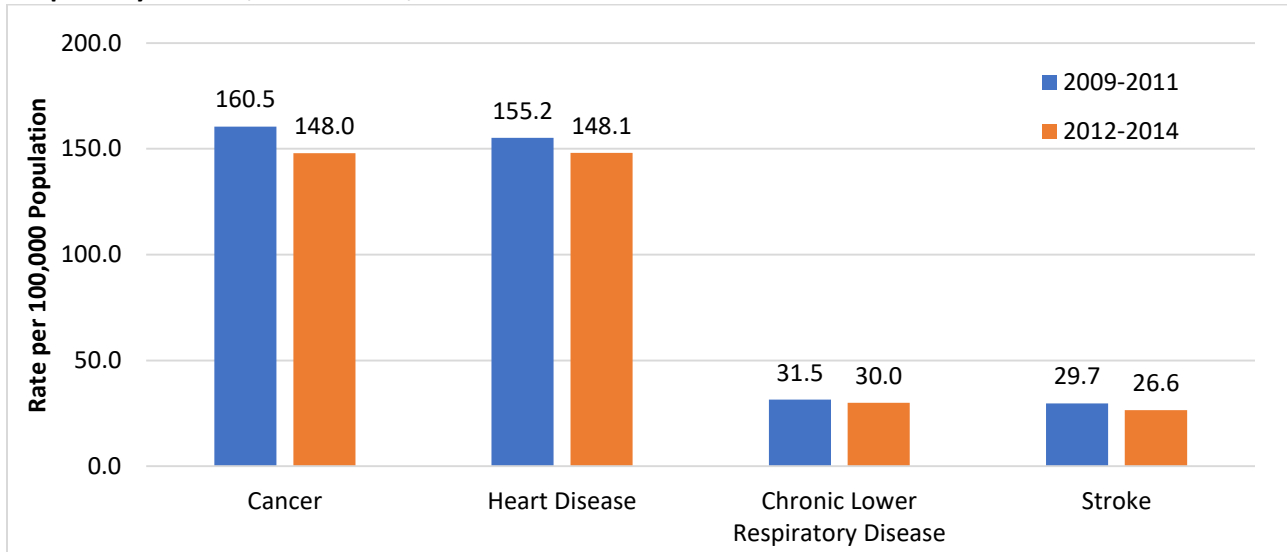


Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

## Mortality

Cancer, heart disease, chronic lower respiratory disease and stroke remain among the leading causes of death in Connecticut. From the period of 2009 through 2011 and 2012 through 2014, the age-adjusted mortality rate (AAMR) due to cancer, heart disease and stroke all declined (Figure 4.11).

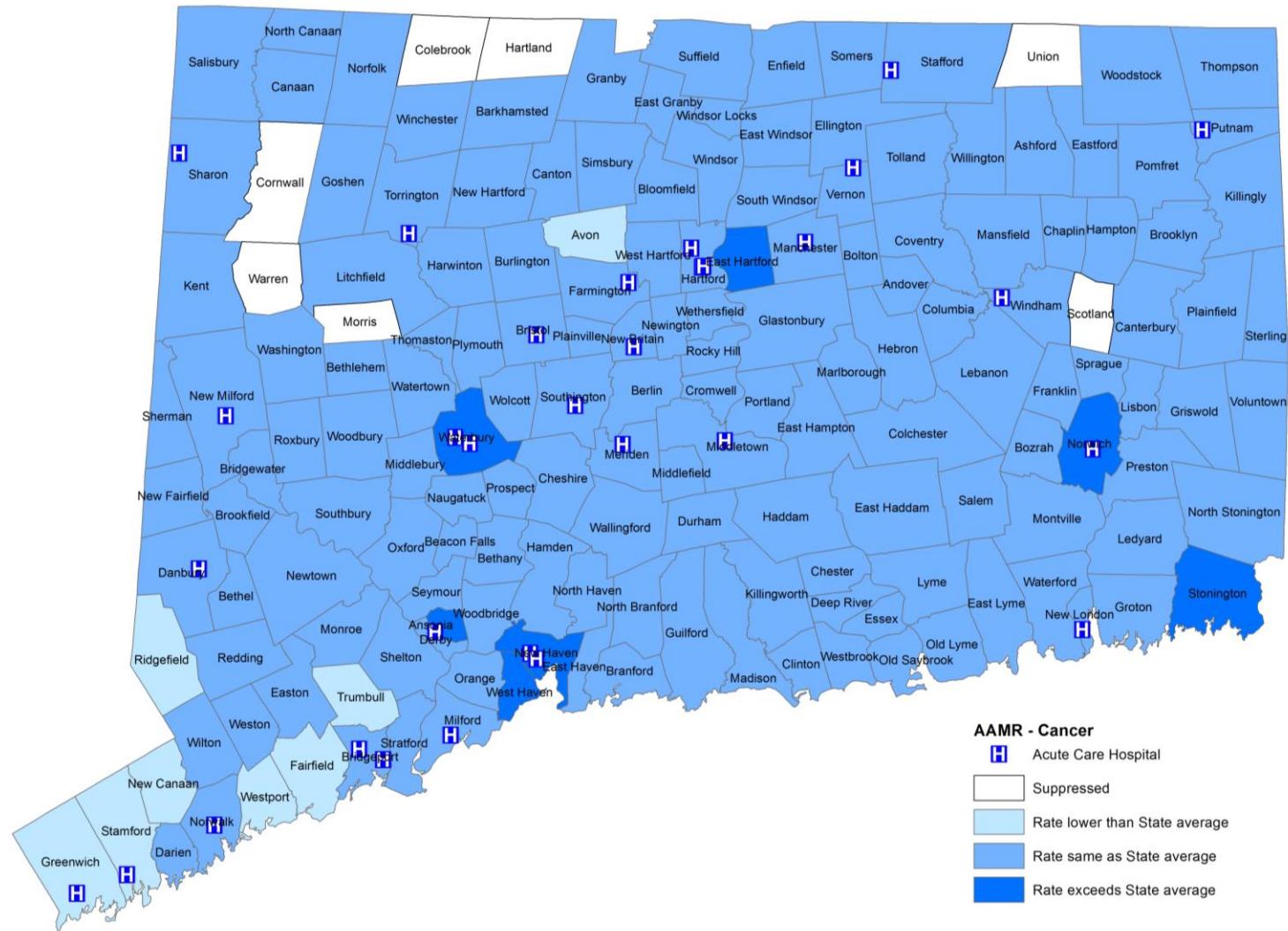
**Figure 4.11. Age-Adjusted Mortality Rate Due to Cancer, Heart Disease, Stroke, and Chronic Lower Respiratory Disease, Connecticut, 2009-2011 vs. 2012-2014**



Source: Connecticut Department of Public Health, Age-Adjusted Mortality Rates, 3-Year Estimates, 2012-2014.

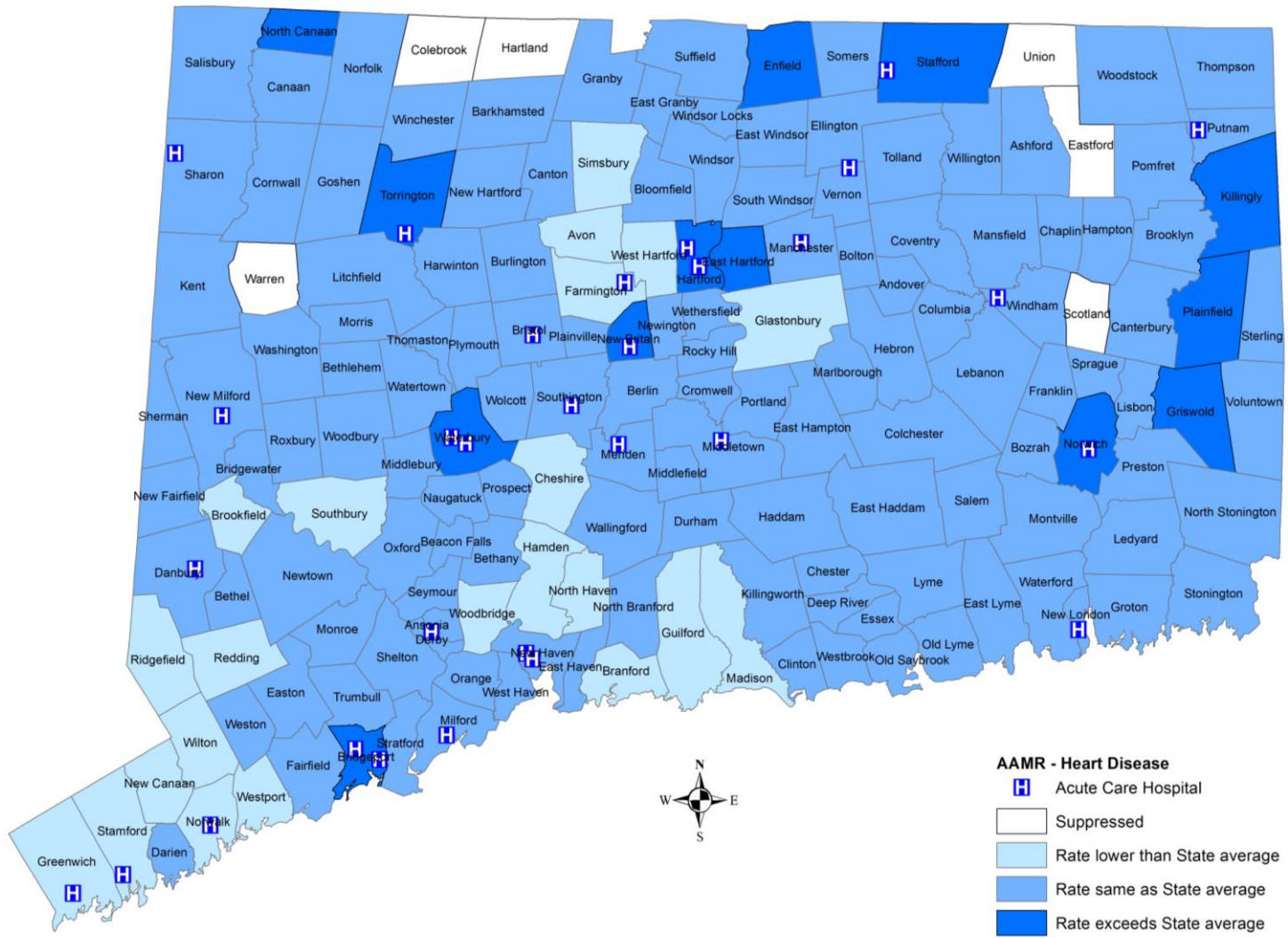
Although AAMR declined in Connecticut overall, health disparities exist among geographic areas of Connecticut. As shown in Figure 4.12, in 2008-2012 the AAMR due to cancer exceeded the state average in Hartford, Waterbury, Ansonia, New Haven, West Haven, Norwich and Stonington. Over this same period, the AAMR due to heart disease exceeded the state average in several of Connecticut's largest towns -- e.g., Torrington and East Hartford -- and the northern -- e.g., Enfield and Stafford -- and eastern -- e.g., Plainfield and Griswold -- parts of the state (Figure 4.13). Meriden was the only town that had a chronic lower respiratory disease mortality rate that exceeded the state average (Figure 4.14). The towns of Bristol, Windham, and Stonington had age-adjusted stroke mortality rates that exceeded the state average (Figure 4.15). Four towns in southwest Connecticut -- Greenwich, Stamford, New Canaan and Westport -- consistently had mortality rates due to heart disease, cancer, and stroke that were below the state average.

Figure 4.12. Map of Age-Adjusted Mortality (AAMR) due to Cancer, by Town, Connecticut, 2008-2012



Source: CT DPH Instant Atlas, 2008-2012  
 Created by DPH OHCA January 2017

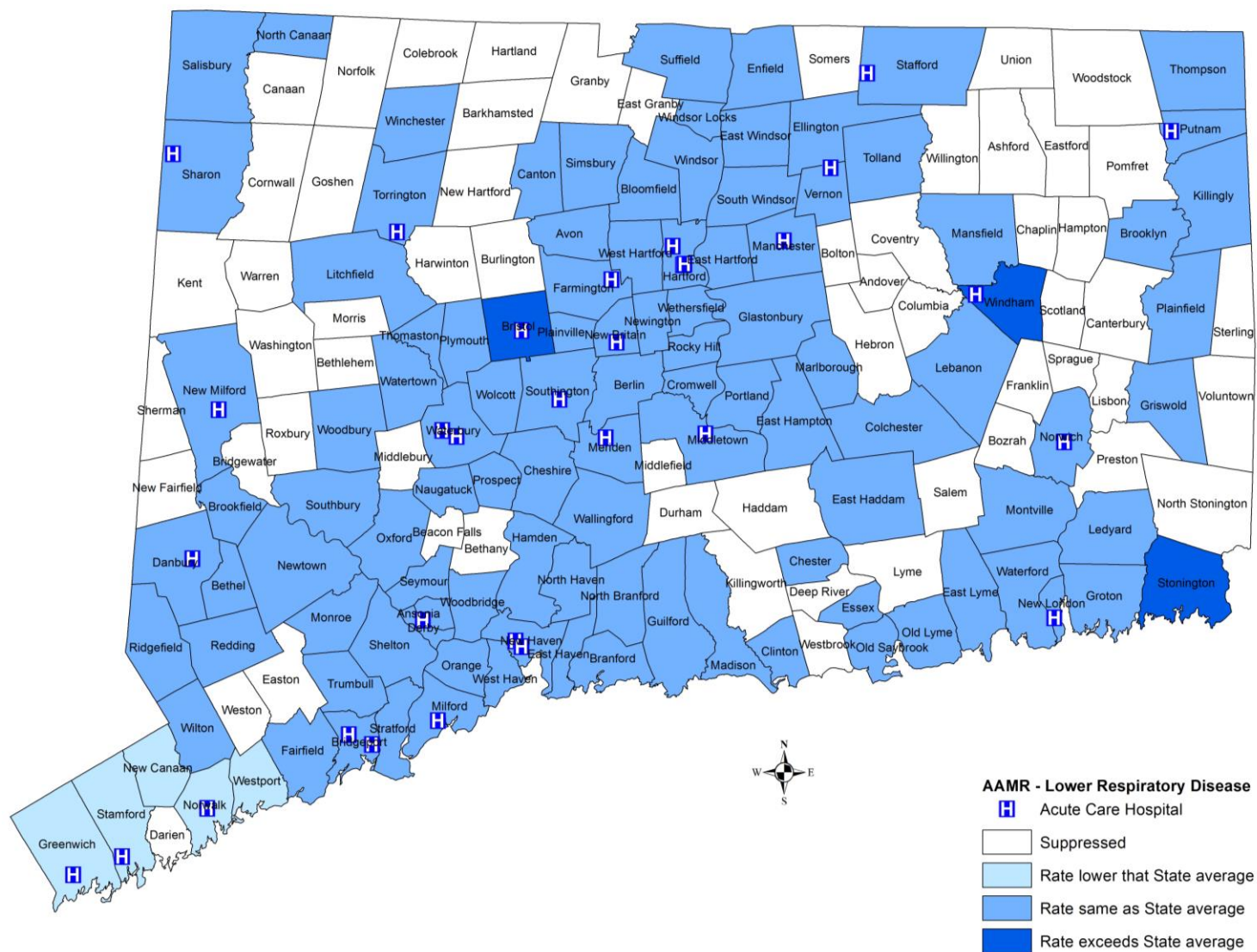
**Figure 4.13. Map of Age-Adjusted Mortality Rate (AAMR) due to Heart Disease, by Town, Connecticut, 2008-2012**



Source: CT DPH Instant Atlas, 2008-2012  
 Created by DPH OHCA April, 2017

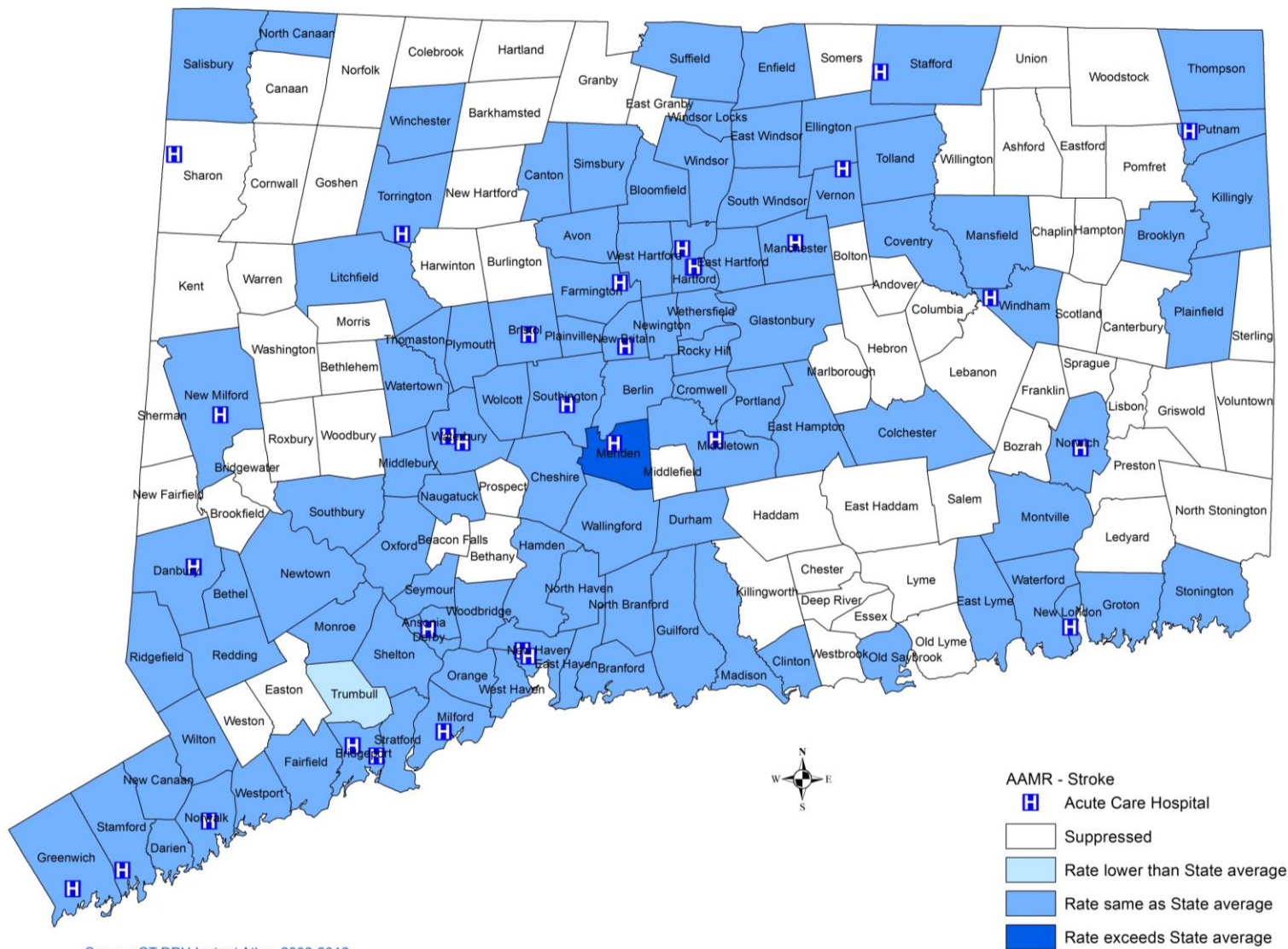


Figure 4.14. Map of Age-Adjusted Mortality Rate (AAMR) due to Chronic Lower Respiratory Disease, by Town, Connecticut, 2008-2012



Source: CT DPH Instant Atlas, 2008-2012  
Created by DPH OHCA April, 2017

Figure 4.15. Map of Age-Adjusted Mortality Rate (AAMR) due to Stroke, by Town, Connecticut, 2008-2012



## HEALTHCARE ACCESS AND UNMET NEED

### Medically Underserved Areas/Populations and Health Professional Shortage Areas

It is also important to identify geographic areas, population groups and small hospitals<sup>109</sup> that experience the greatest need for healthcare professionals. Chapter 1 describes the two indicators of health professional shortages that inform these efforts -- federal MUA/Ps and HPSAs designations -- and the process for obtaining them in Connecticut.

As shown in Table 4.3, in 2016, there are 29 MUA/Ps across Connecticut, with New Haven (n=8), Hartford (n=7), and Fairfield (n=6) Counties having the greatest number. Additionally, there were 39 designations of primary care, 30 of mental health and 36 of dental health HPSAs in Connecticut. While county level reports about HPSAs and MUAs are useful, it is important to examine these patterns at the more detailed census tract or town level to better understand the geographic and population-level disparities in healthcare access, (see Appendix E for individual towns with at least one HPSA or MUA/P designation). The HRSA OSD continuously updates HPSA and MUA/P designations as applications are on-going.

**Table 4.3. Medically Underserved Areas or Populations (MUA/P) Health Professional Shortage Areas, by County, Connecticut, 2016**

Area/County	# MUA/P Designations <sup>1</sup>	# HPSA Designations <sup>2</sup>		
		Primary Care	Mental Health	Dental Health
<b>Connecticut</b>	<b>29</b>	<b>39</b>	<b>30</b>	<b>36</b>
Fairfield	6	9	8	7
Hartford	7	8	5	8
Litchfield	1	2	2	2
Middlesex	1	2	2	3
New Haven	8	7	6	7
New London	3	4	3	4
Tolland	1	1	1	1
Windham	2	4	2	3
Tribal Nations	*	2	1	1

Sources:

<sup>1</sup> Health Resources and Services Administration, Data Warehouse: MUA Find. Accessed December 27, 2016.

<sup>2</sup> Health Resources and Services Administration, Data Warehouse: HPSA Find, July 2016.

Designations are updated continuously at <https://datawarehouse.hrsa.gov/tools/analyzers/geo/ShortageArea.aspx> including mapping services provided for

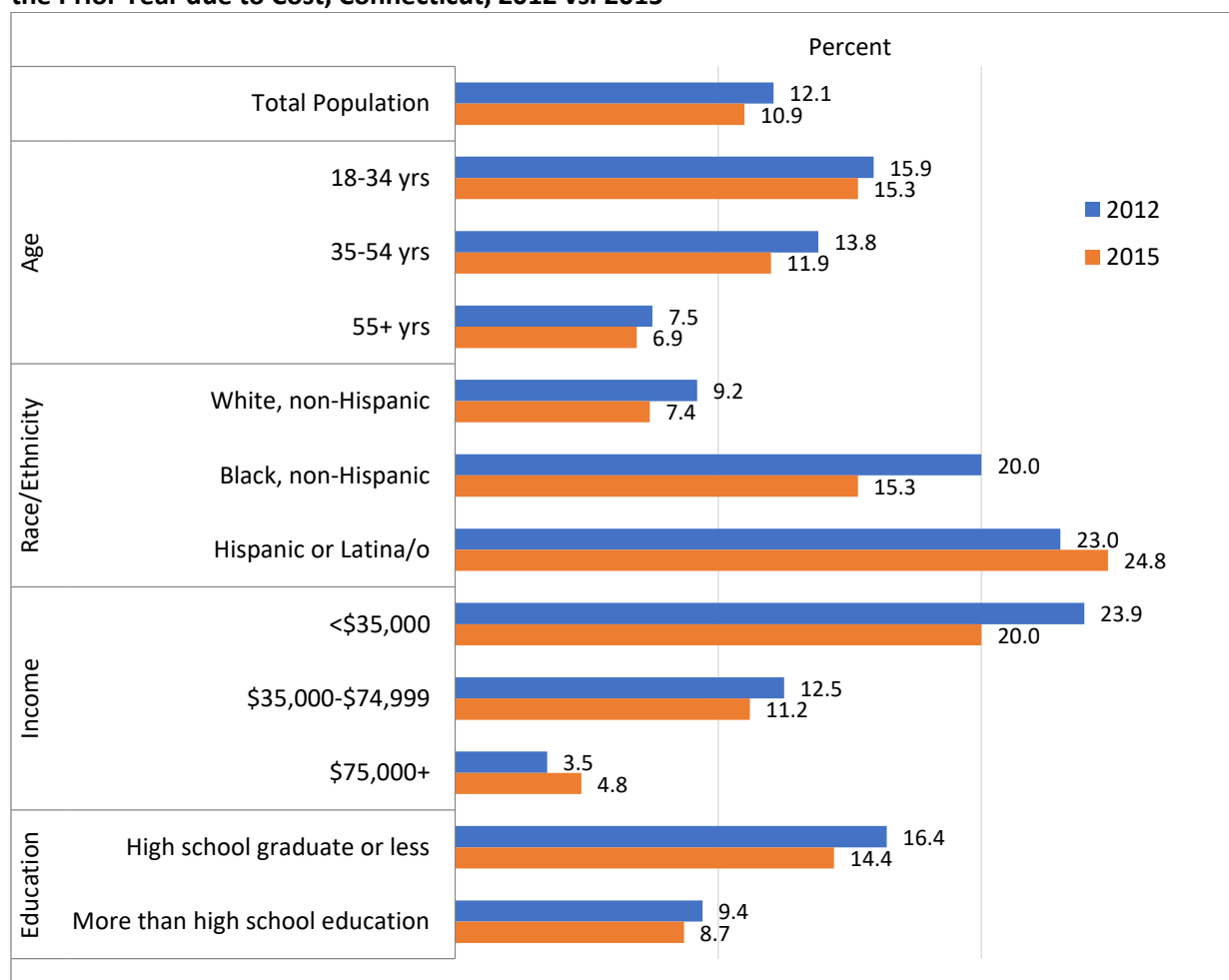
HPSA: [https://gis.hrsa.gov/arcgis/rest/services/Shortage/HealthProfessionalShortageAreas\\_FS/FeatureServer](https://gis.hrsa.gov/arcgis/rest/services/Shortage/HealthProfessionalShortageAreas_FS/FeatureServer) and MUA/P: [https://gis.hrsa.gov/arcgis/rest/services/Shortage/MedicallyUnderservedAreas\\_FS/FeatureServer](https://gis.hrsa.gov/arcgis/rest/services/Shortage/MedicallyUnderservedAreas_FS/FeatureServer)

<sup>3</sup>. Connecticut Department of Mental Health & Addiction Services: Catchment Area Councils, Accessed July 21, 2017. <http://www.ct.gov/dmhas/cwp/view.asp?q=334678>

## Healthcare Access among Connecticut's At-Risk or Vulnerable Populations

Healthcare access continues to be a challenge for many Connecticut residents. Figure 4.16 illustrates that there remained an income- and education-based correlation in healthcare access, with residents of lower income and a high school education or less more likely to report not being able to access needed medical care than their counterparts. The specific population groups with the highest prevalence of adults who could not get or delayed needed medical care due to costs were those between 18 and 34 years of age, Hispanic or Latina/o, had incomes less than \$35,000 or a high school or less education. The prevalence rate declined the most for adults that were Black non-Hispanic, with incomes less than \$35,000, had a high school education or less or were between 35 and 54 years of age. Only the prevalence rate for adults with incomes greater than \$75,000, increased.

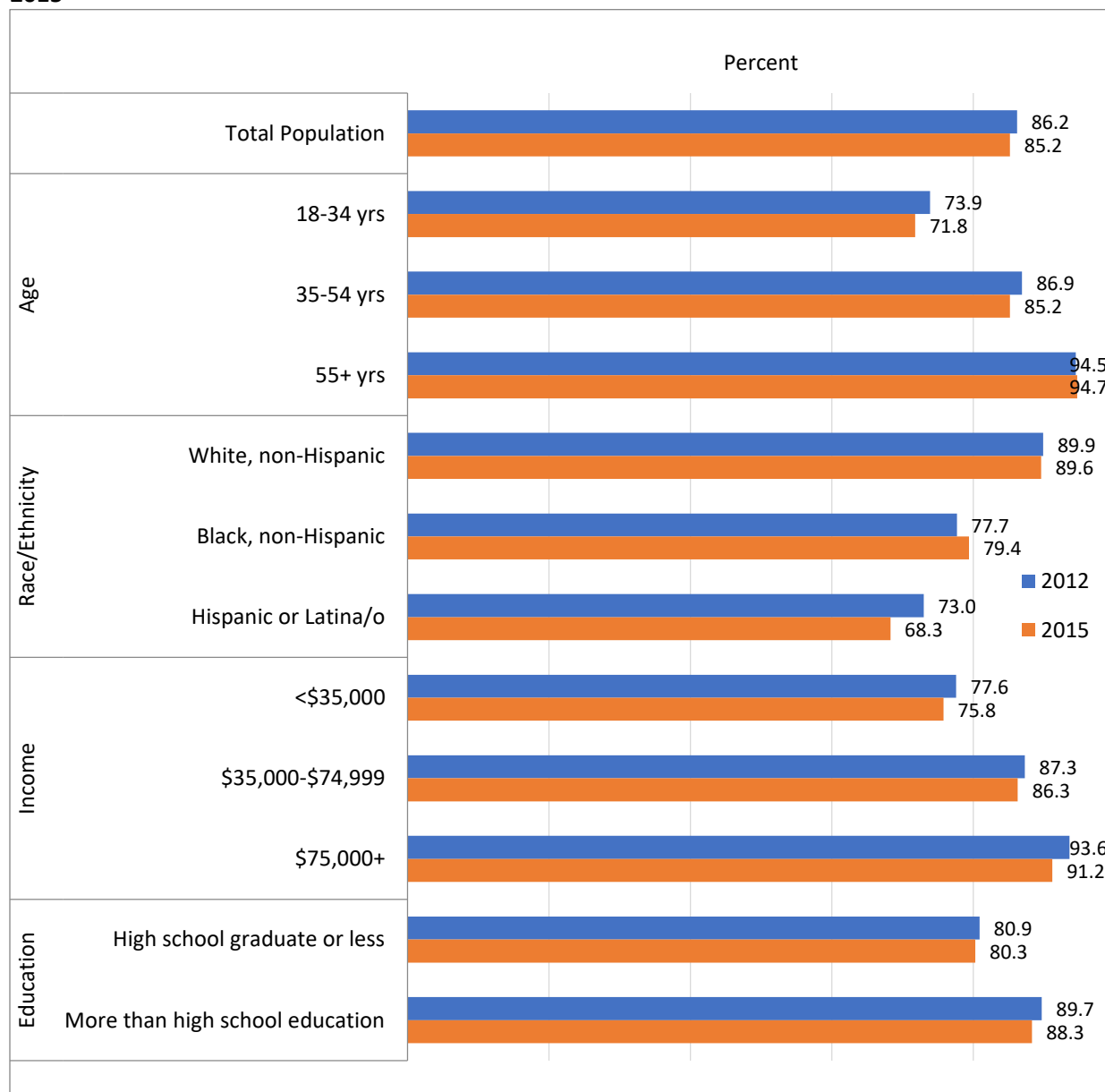
**Figure 4.16. Percent of Adults Who Did Not Get Needed Medical Care or Postponed Medical Care in the Prior Year due to Cost, Connecticut, 2012 vs. 2015**



Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

At the same time, the percentage of adults reporting that they have a personal doctor or healthcare provider declined (Figure 4.17). It remained relatively higher among adults 55 years of age and older, White non-Hispanic, with higher incomes and with greater educational attainment. Only the proportion of Black non-Hispanic adults with a personal doctor or healthcare provider increased.

**Figure 4.17. Percent of Adults with a Personal Doctor or Healthcare Provider, Connecticut, 2012 vs. 2015**



Source: Connecticut Department of Public Health, Connecticut Behavioral Risk Factor Surveillance System, 2012 and 2015.

Studies show that continuity of care improves the quality of care, reduces emergency visits by nearly half and results in shorter hospital stays.<sup>110</sup> The following section identifies population groups and/or geographic areas that continue to be more likely to have or make a potentially preventable hospital visit or stay.

## **Preventable Hospitalizations and Emergency Department Visits**

Lack of access to a usual source of care and care coordination lead to avoidable emergency department use and hospitalizations and readmissions. The rates of occurrence in a community are an indicator of the quality of its primary healthcare system and transitions between care settings. At-risk persons are disproportionately represented among Connecticut residents whose hospitalizations or ED visits may have been avoided with timely and effective primary care. Connecticut residents 65 years of age and older are about 14% of the population but account for 58% of preventable hospitalizations and 42% of readmissions (Table 4.4). Black non-Hispanics were more likely than White non-Hispanics to have a potentially preventable hospitalization, an avoidable ED visit or to visit the ED more than ten times within a year. Connecticut communities with relatively higher concentrations of White non-Hispanic adults ages 65 years and older, Black non-Hispanics, Hispanics, residents suffering from a chronic condition or in proximity of an acute care hospital were at greater risk for such hospitalizations or ED visits.

**Table 4.4. Acute Care Preventable Hospitalizations, Readmissions and ED Use, Connecticut, 2013-2015**

	Preventable Hospitalizations FY 2013-2015 <sup>1</sup>	Readmissions within 30 Days of Discharge FY 2013-2015 <sup>2</sup>	Avoidable ED Visits FY 2013-2015 <sup>3</sup>	ED Frequent Users' FY 2013-2015 <sup>4</sup>
Hospitalizations/visits	45,552	50,588	489,805	67,291
% of all	12	13	37	5
Patient Days	226,174	248,937	n/a	n/a
% of all	12	14	n/a	n/a
Total Charges	\$1,628,769,137	\$2,259,400,949	n/a	\$140,283,414
% of all	11	15	n/a	5
<b>Age in years (%)</b>				
<18	8	11	21	3
18 - 44	10	21	43	55
45 - 64	24	27	24	37
65+	58	42	12	5
<b>Race/Ethnicity (per 100,000)</b>				
CT	1,268	1,408	13,631	1,873
White, non-Hispanic	1,286	1,425	9,751	1,399
Black, Non-Hispanic	1,952	1,917	26,116	3,964
Hispanic	966	1,094	23,992	3,245
Other	737	1,174	13,093	724
<b>Primary Payer (%)</b>				
Medicare	62	46	17	24
Medicaid	19	24	49	65
Private	16	28	26	6
Uninsured	2	3	9	5
<b>UConn Five Town Grouping</b>				
Urban core	25	37	49	59
Urban periphery	38	38	30	30
Rural	11	7	9	5
Suburban	22	9	6	3
Wealthy	3	9	5	3

Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database, Connecticut Hospital Association Chime Inc., Emergency Department Database and US Census Bureau 2011-2015 American Community Survey 5-year estimates, Table DP05.

<sup>1</sup> Instances of inpatient care for health conditions or illness typically treated or managed in an outpatient setting. Instances determined with Agency for Healthcare Research and Quality WinQI 5.0.3 tool.

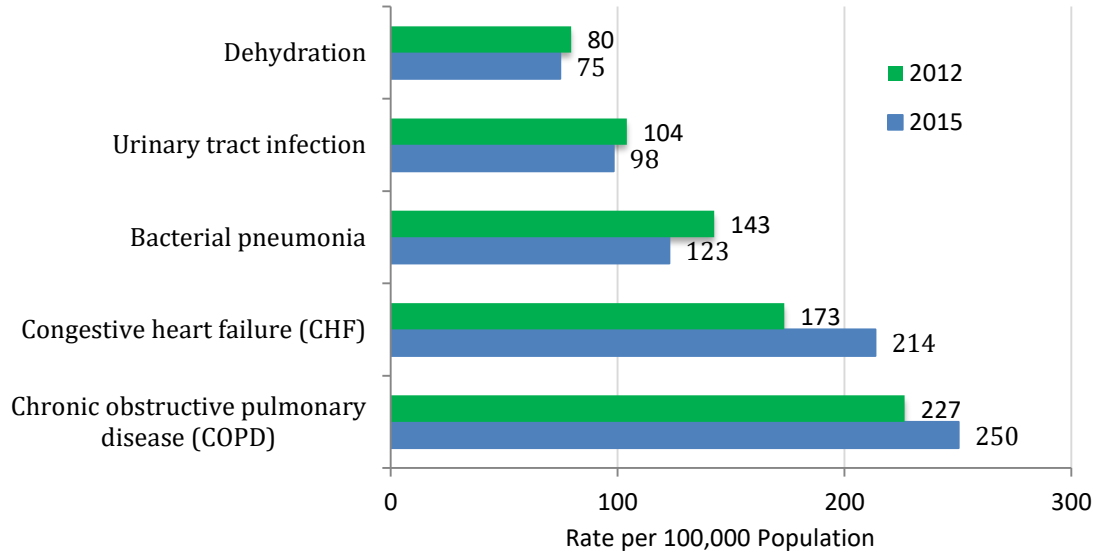
<sup>2</sup> Scheduled and unscheduled readmissions to the same hospital.

<sup>3</sup> ED non-admit visits that may have been avoided. New York University algorithm applied. Excludes Sharon Hospital data.

<sup>4</sup> ED non-admits with ten or more ED visits per year.

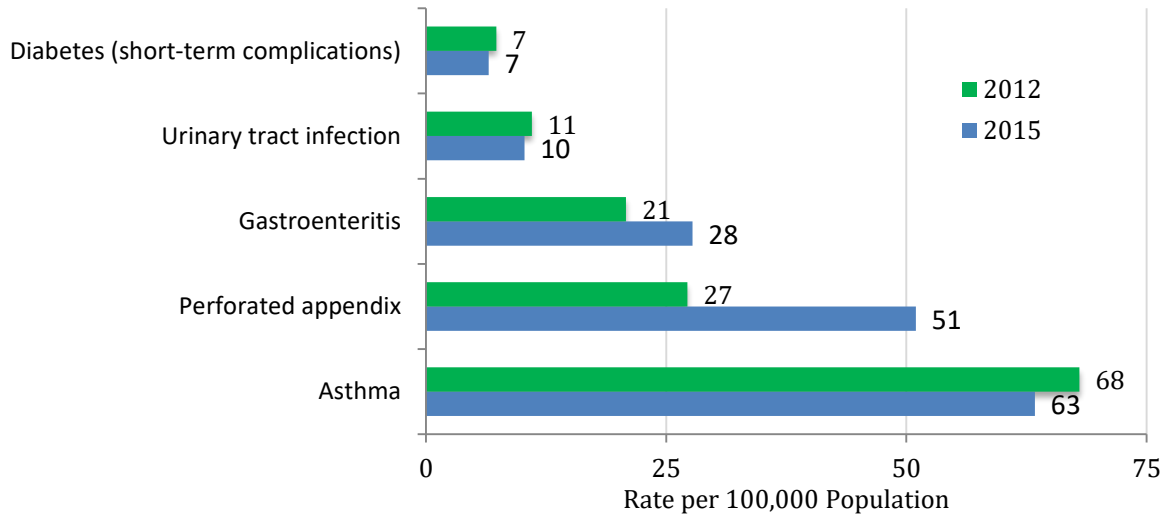
The leading causes of preventable hospitalizations among adults (Figure 4.18) and children (Figure 4.19) were chronic conditions. In 2015, chronic obstructive pulmonary disease and asthma were the leading causes of preventable hospitalizations among Connecticut adults and children, respectively.

**Figure 4.18. Leading Causes of Preventable Hospitalizations among Adults, Connecticut, 2012 vs. 2015**



Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database

**Figure 4.19. Leading Causes of Preventable Hospitalizations among Children, Connecticut, 2012 vs. 2015**



Source: CT DPH Office of Health Care Access Acute Care Hospital Discharge Database

The following section provides a review of health status, outcomes and unmet healthcare needs of at-risk or vulnerable populations in Connecticut and attempts to identify communities most likely to have unmet health needs in addition to those identified by hospital CHNAs.



## **UNMET NEED**

### **Unmet Healthcare Need Definition**

As in the 2012 Plan and 2014 Supplement, the 2016 Supplement uses two definitions of unmet healthcare need.<sup>111</sup>

First, unmet need is defined as the inadequate availability of healthcare services deemed necessary to address a particular health problem.<sup>112,113</sup> Using this definition, the barriers to accessing care may be one or more of the following:

- Physical unavailability of service or professional shortage;
- Mismatched services for the needs of the people – that is, the healthcare system is unresponsive;
- Inferior available services as compared to the norm;
- Lack of knowledge regarding what services are available locally or how to access them;
- Lack of enabling services such as translation services to non-English speaking immigrants or transportation to facilitate access, especially in rural areas;
- Insufficient coordination between different providers of different levels and types of services;
- Complex health insurance payer rules such as eligibility for Medicare and/or Medicaid and for accessing services; and
- Inadequate collaboration among governmental agencies and/or community providers.

Second, unmet need is defined as when individuals of a distinct socio-demographic group, such as those lacking health insurance or people with low income, forgo or delay accessing needed available healthcare services because the associated costs are unaffordable. The Institute of Medicine (IOM) has identified lack of insurance as a significant driver of health disparities.<sup>114</sup>

These definitions aim to take into account the complex factors that have an adverse impact on health status as a result of limited or disproportionate access to care. Whichever definition is used, unmet need has to be quantified to determine the appropriate intervention(s) or policy change(s). The expected result is a more integrated healthcare delivery system in which resources are allocated efficiently based on agreed priorities to improve health status and eliminate inequalities.

As previously discussed in Chapter 1, the following sections utilize the unmet need composite index, developed in the 2014 Supplement, HPSA and MUP/A designations and CHNAs to assess unmet need in Connecticut towns and cities.

### **Unmet Need Composite Index<sup>115</sup>**

The unmet need composite index measures community health and the quality and level of coordination in the overall health system in Connecticut. The index is the sum of the socioeconomic status (SES) and health outcomes indices and an indicator of which towns or cities may have an unmet healthcare need. These assessments are not measures of exact need. The state-level index has a value of 15, which is the sum of the health status index (10) and the healthcare services access index (5). Thus, a value greater than 15 implies that the health or healthcare profile of the town or city is worse than the profile for the state and therefore has a higher probability of an unmet healthcare need. A value that is lower than 15

implies that the town or city has a better profile than the state and is less likely to have an unmet healthcare need.

### **Socioeconomic Status (SES) Index**

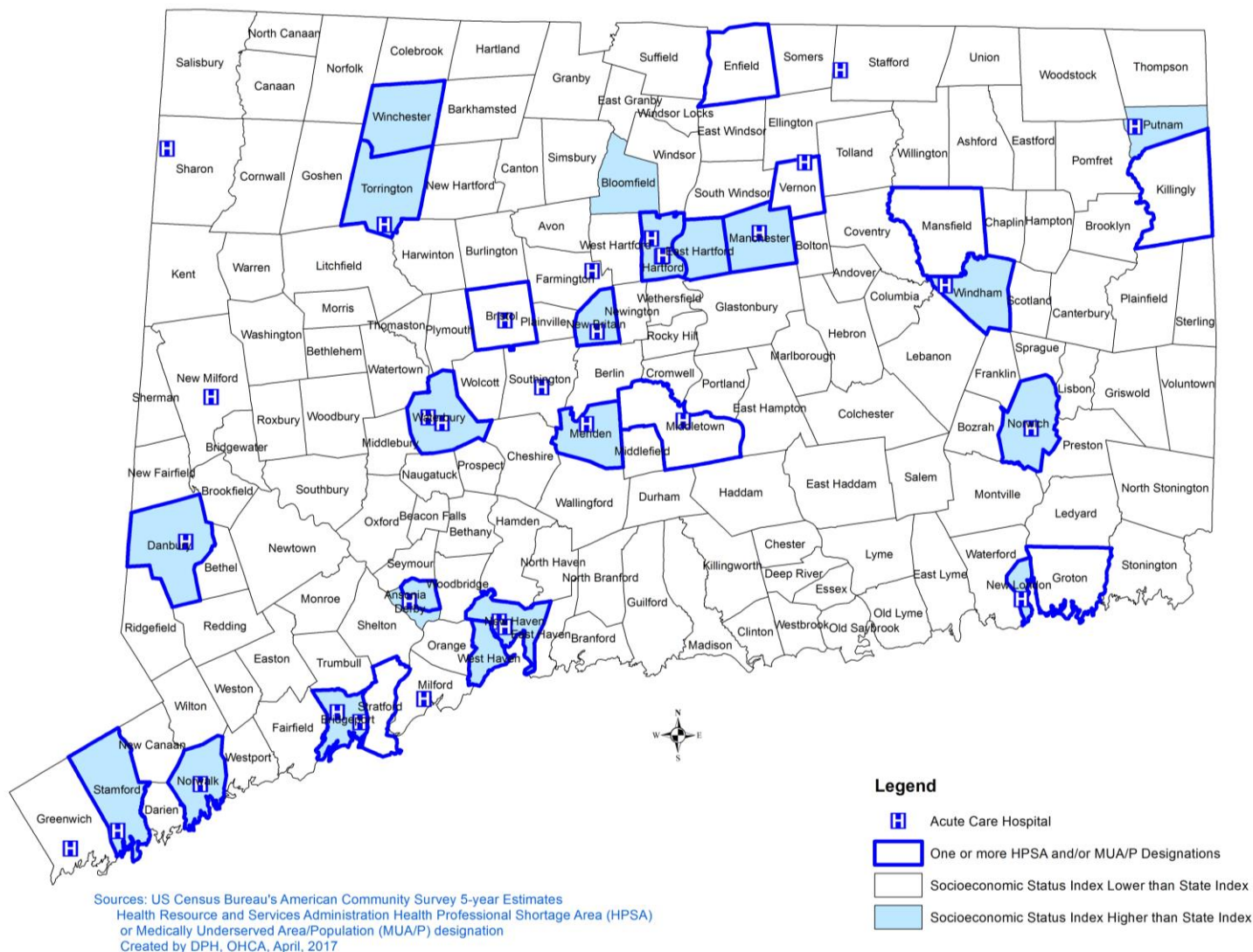
Several social and economic factors shape health and the distribution of adverse health outcomes. Too many individuals and populations experience barriers to the opportunity to be healthy and to engage in health-promoting behaviors. Examples of barriers facing individuals, families, and communities include living in neighborhoods characterized by adverse physical environments (e.g., air pollution, lack of walkability, unaffordable or unhealthy housing); having limited access to nutritious, affordable food or safe places to exercise; or experiencing violent relationships in the home, in their neighborhoods, or at school).<sup>116</sup> At-risk populations, such as low-income households, racial and ethnic minorities, homeless persons, persons with disabilities and gender/sexual minorities, among others, are more likely to experience these barriers to the opportunity to live a healthy life. Understanding factors that contribute to health disparities, as well as the distribution of health disparities, can inform data-driven and evidence-based strategies to promote well-being and health equity.

The SES index consists of social, demographic and economic factors established in the literature as having a significant impact on population health. This index includes US Census five-year average (2011 to 2015) estimates of the following measures:

- Poverty status: percentage of the population below the federal poverty level
- Educational attainment: percentage of the population age 25 and older with less than a high school education or without a high school diploma
- Employment status: percentage of the population age 16 and older that is unemployed
- Transportation: percentage of the population age 16 or older that do not own a car
- Language proficiency: percentage of the population that speaks English “less than very well”
- Health insurance status: percentage of the population age 18 to 64 that is uninsured
- Disability status: percentage of the population that is disabled
- Age: percentage of the population that is age 65 or older
- Racial or ethnic minority status: percentage of the population that is non-white, non-Hispanic
- Medicaid coverage: percentage of the population with Medicaid coverage

The SES index is an indication of towns with the propensity to have poor health status and thus increased predisposition to having unmet healthcare need. For most towns and cities in Connecticut, the SES index was lower than the state, with the exception of the 21 towns shaded in blue (Figure 4.20 and Appendix F). The 21 towns include the state’s largest towns and cities (e.g. Hartford, Bridgeport, New Haven); towns in northeastern (e.g. Putnam and Windham) and western (e.g. Winchester and Torrington) Connecticut. Residents in these towns had higher proportions of unfavorable socioeconomic conditions, which make them more likely to have poorer health and unmet healthcare need. While only these 21 towns and cities, as a whole, had a disproportionately greater share of vulnerable populations, several other towns and cities had at least one of their vulnerable populations with an index above the state’s and therefore remain at risk for an unmet healthcare need. Except for Bloomfield, Derby and Putnam, all these towns have sub-geographic areas or populations with at least one HPSA or MUA/P underserved designations (indicated by the blue border). As previously noted, the HPSA and MUA/P designations imply the communities are eligible to receive certain federal resources to obtain primary care, dental and mental health providers and services.

Figure 4.20. Map of Socioeconomic Status Index, by Town, Connecticut, 2011-2015



## Health Outcomes Index

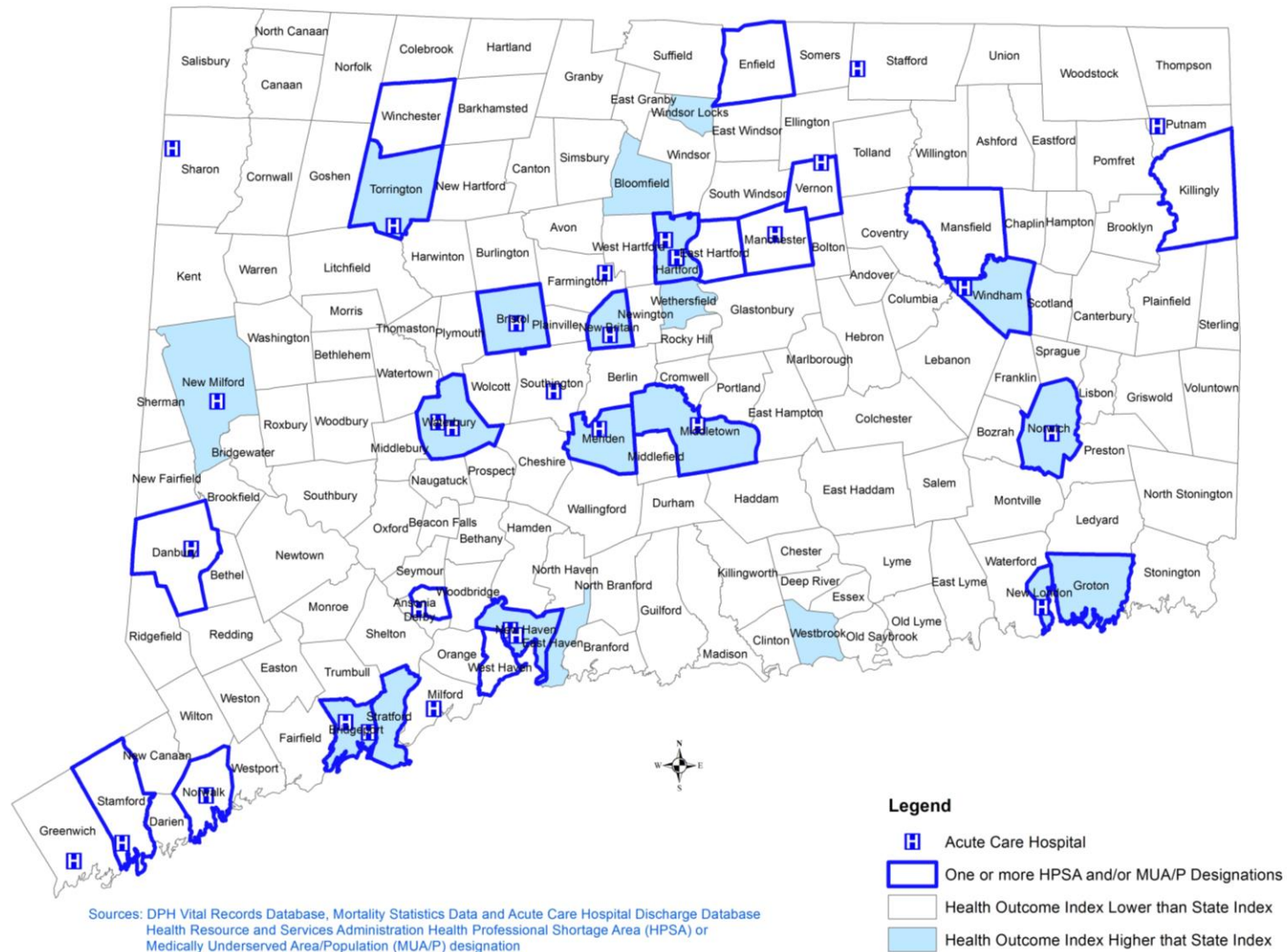
The health outcomes index is a measure of the community's health and includes five indicators of population health, access to healthcare services and the quality and coordination of care:

- Infant mortality rate: rate of infant deaths within the first year per 1,000 live births (2011-2013)
- Crude mortality rate per 100,000 population (2008-2012)
- Hospitalization rate for ambulatory care sensitive conditions per 100,000 population (2013-2015)
- Avoidable emergency department use rate per 100,000 populations (2013-2015)
- All-cause 30-day readmissions rate per 100 discharges (2013-2015)

The five indicators serve as proxies for the health of a community. Looking at these by town and standardizing the scores allows for identification of towns that are significantly higher or lower than the state overall in their health outcomes.

Figure 4.21 (and Appendix F) shows that although the vast majority of towns compared favorably to the state, 20 towns (e.g., New Milford, Bridgeport, Groton and Windsor Locks) had scores higher than the Connecticut index, indicating poorer health outcomes. Most of these 20 towns, contained at least one HPSA and/or MUA/P designations (indicated by the blue border); six towns (New Milford, Windsor Locks, Bloomfield, Wethersfield, East Haven and Westbrook) did not.

Figure 4.21. Map of Health Outcome Index, by Town, Connecticut, 2012-2015



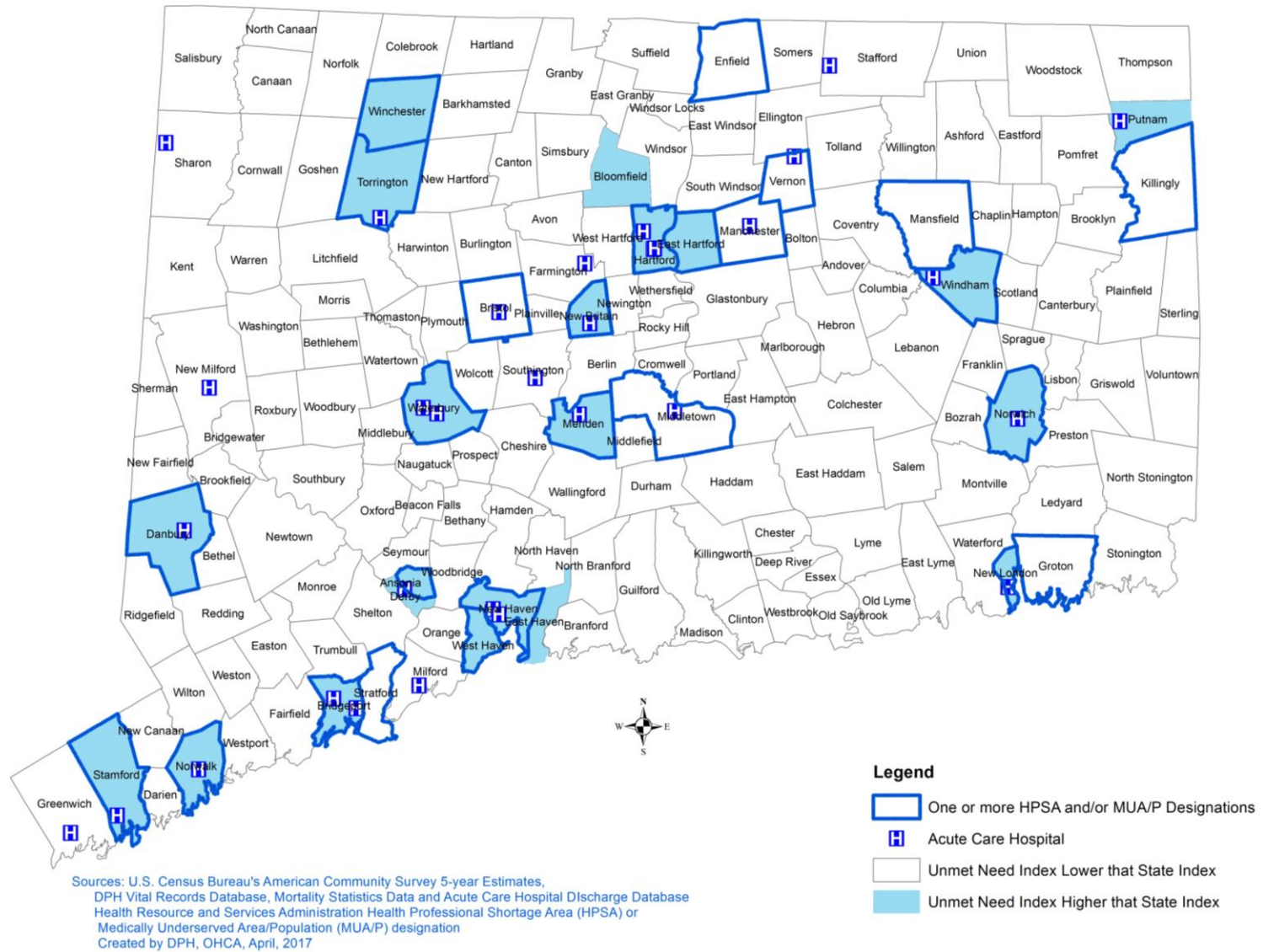
## **Unmet Healthcare Need**

Like the nation as a whole, populations in Connecticut with lower socioeconomic status are disproportionately affected by negative health outcomes. Additionally, health outcome indicators do not only show the different rates of disease, but are potential proxies for unequal access to services.

The unmet need composite index examines a range of SES characteristics and health outcomes compared to state rates and provide an overall indicator of unmet healthcare need. The unmet need composite index is the sum of the SES and health outcome indices described in previous sections, which sum to 15 for the overall state.

The index is an indicator of which towns and cities are most likely to have unmet healthcare need compared to the state. Most towns and cities had an index score lower than 15, except 21 towns (Figure 4.22 and Appendix E). All of these 21 towns, with the exception of East Haven, also had a higher SES index compared to the state. Seventeen of these 21 towns contained at least one HPSA and/or MUA/P designations (indicated by the blue border). However, four of the 21 towns identified as most likely to have unmet healthcare needs -- Bloomfield, Derby, East Haven and Putnam -- did not contain HPSA and/or MUA/P designations.

Figure 4.22. Map of Unmet Healthcare Need Index, by Town, Connecticut, 2011-2015



## HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENT AND IMPLEMENTATION

To assess healthcare service availability, the most recent [CHNAs](#) and implementation strategies in [Community Health Improvement Plans](#) (CHIPs) completed by Connecticut's hospitals were reviewed and the findings compared to those included in the 2014 Supplement. This review was designed to enhance the understanding of communities included in CHNAs, identify towns not covered in CHNAs but potentially have unmet healthcare need, examine decisions that influenced which towns were included in CHNAs, uncover any identified need and to develop strategies to meet the needs.

The PPACA mandates that non-profit hospitals conduct a triennial CHNA and develop an implementation strategy to meet the community needs identified as a requirement to maintain their tax-exempt status. This mandate offers an opportunity for hospitals and other entities to work collaboratively across sectors to identify and address health needs in their communities. A complete listing of Connecticut hospital CHNAs is available at <http://www.chime.org/advocacy/community-health/>.

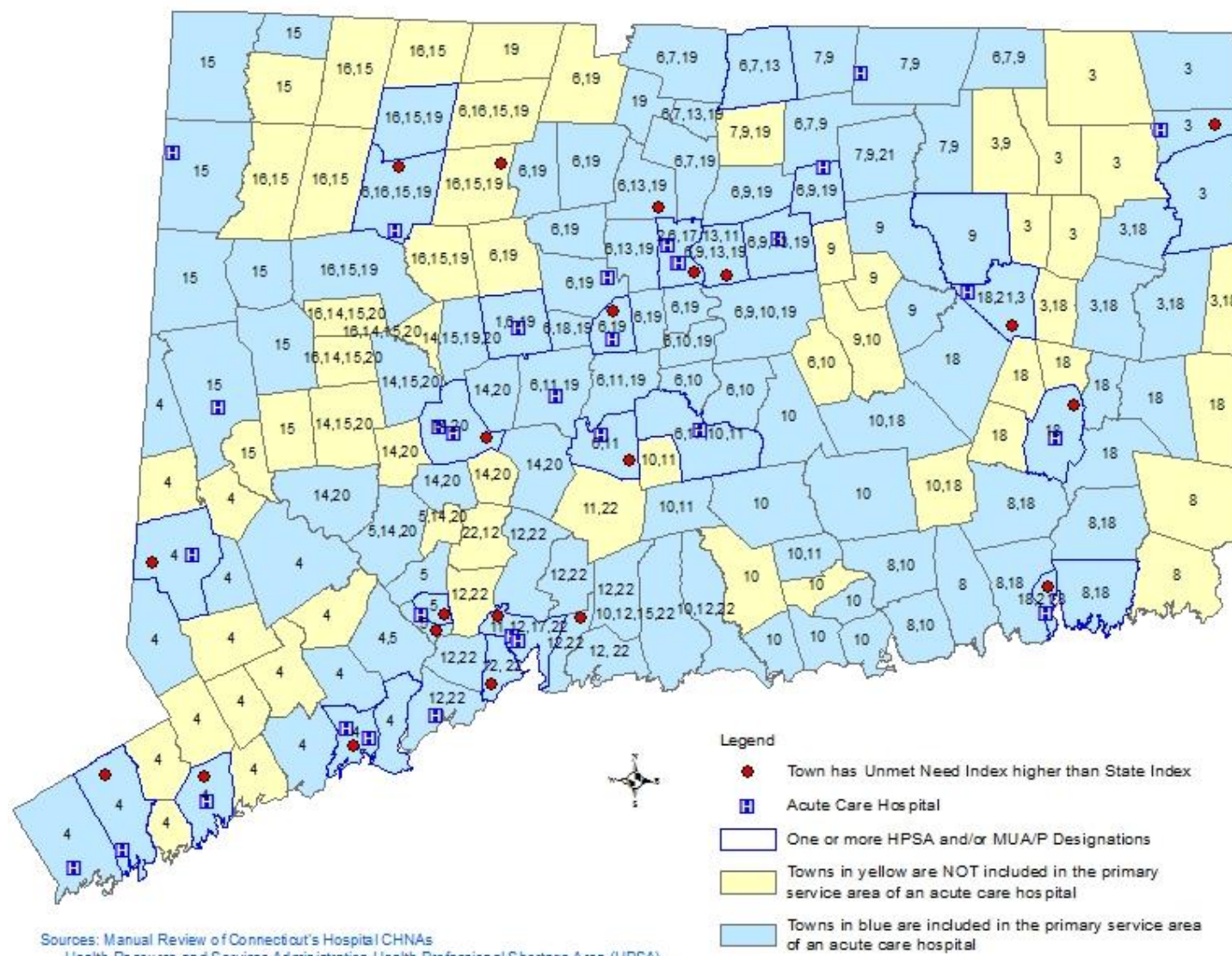
Of the 26 unique CHNAs published between 2012 and 2016, nine CHNAs were collaborations among multiple hospitals and/or with their local health department and local nonprofit organizations. The remaining 17 CHNAs were by individual hospitals.

The majority of towns included in each CHNA were towns within the hospital's primary or secondary service area. However, only nine of the 26 CHNAs in this review included the hospital's entire primary service area in the assessment. Generally, primary service area towns that were not included in the CHNA were smaller towns, or towns that were included in other CHNAs. Relative to the CHNAs reviewed in the 2014 Supplement, more CHNAs classified their primary service areas at a more granular geographic unit (i.e., zip code).

Numbers shown in Figure 4.23 indicate the geographic area covered by a CHNA and the conducting entity or entities listed on the right hand side of the map. The numbers indicate that all Connecticut towns were covered by a CHNA in comparison to Figure 30 in the 2014 Plan which showed that 14 were not covered in the 2008-2014 CHNAs. Additionally, the four towns identified to have Unmet Need Index scores higher than the state -- Bloomfield, Derby, East Haven and Putnam -- were also covered.



**Figure 4.23. Map of Hospital Community Health Needs Assessment Geographic Coverage, Primary Service Area and Unmet Need, Connecticut 2012-2016**



CHNA#	Conducting Hospital(s)
1	Bristol Hospital
2	Connecticut Children's Medical Center
3	Day Kimball
4	Fairfield County Community Wellbeing Index: Bridgport Hospital Danbury Hospital Danbury Hospital - New Milford Campus Greenwich Hospital Norwalk Hospital Stamford Hospital Saint Vincent's Medical Center
5	Griffin Hospital
6	Hartford Hospital
7	Johnson Memorial Hospital
8	Lawrence + Memorial Hospital
9	Eastern Connecticut Health Network, Inc.: Manchester Memorial Hospital Rockville General Hospital
10	Middlesex Hospital
11	MidState Medical Center
12	Milford Hospital
13	Saint Francis Hospital and Medical Center
14	Saint Mary's Hospital
15	Sharon Hospital
16	The Charlotte Hungerford Hospital
17	The Hospital of Central Connecticut
18	The William W. Backus Hospital
19	UConn John Dempsey Hospital
20	Waterbury Hospital
21	Windham Hospital
22	Yale New Haven Hospital

Sources: Manual Review of Connecticut's Hospital CHNAs  
Health Resource and Services Administration Health Professional Shortage Area (HPSA)  
or Medically Underserved Area/Population (MUA/P) designation  
Created by DPH, OHCA, April, 2017

Collaborative CHNAs often provided a more comprehensive snapshot of community health (e.g., across multiple indicators and for multiple groups) for a broader geographic area (e.g., county, multiple towns). In addition to hospitals collaborating among themselves, some collaborate with health directors who serve as active and regular partners with hospitals, provide key informant interviews or fill out survey questionnaires to help hospitals as they conduct their CHNAs. In some areas of the state, some local health directors are not only engaged in the CHNA process but also in the creation and implementation of the CHIP. CHNAs conducted by individual hospitals tended to include a review of fewer indicators of community health. Most CHNAs focused on community wellbeing and health broadly, whereas one hospital (UConn John Dempsey) centered its CHNA on cancer care specifically.

As outlined in Chapter 1, the AHA has identified 10 services deemed essential for vulnerable populations. Many of the essential services align with priority health needs identified in CHNAs including improving primary care; mental health and substance use treatment services; diagnostic services; oral healthcare; referral systems; and home care.<sup>117</sup>

Table 4.5 presents the priority health areas identified in the review of the CHNAs completed by Connecticut hospitals in 2008-2014 (2014 Supplement) and 2012-2016 (current Supplement). Over the 2012-2016 period, there was a consistent pattern in prioritization of health needs (see Appendix F for a list of top health needs by hospital). An increasing number of CHNAs now identify the following as the top health concerns of the communities that they serve: overweight, obesity, nutrition and physical activity (16 to 23); substance abuse (from 12 to 21); mental health (from 12 to 20); and chronic disease (from 18 to 19). These needs emerged as leading health priorities and were consistent with those identified in the 2014 Supplement, with some exceptions. Addressing gaps in primary care was a specific priority identified in the 2008-2014 CHNAs, whereas in the 2012-2016 CHNAs, improving access to care more generally was identified as a consistent priority, perhaps reflecting statewide initiatives to enhance the coordination of care and integrate primary and mental healthcare. Concern about opioid-use factored into several CHNA's prioritization of mental health and substance abuse priorities. In the 2012-2016 CHNAs, reducing tobacco use, improving family and community safety, reducing STIs, improving respiratory health (particularly asthma), and reducing and treating HIV/AIDS were additional areas of priority that did not emerge as leading areas of intervention across the 2008-2014 CHNAs. Some health assessments also identified the social determinants of health, including community socioeconomic disadvantage, housing conditions (e.g., lead exposure) and social cohesion and integration as priority health concerns.

**Table 4.5. Top Health Needs Identified through CHNA Process, Connecticut, 2008-2014 vs. 2012-2016**

Health Needs	Number of Assessments Identifying this Health Need	
	2014 Review (2008-2014 CHNAs) <sup>1</sup>	2016 Review (2012-2016 CHNAs) <sup>2</sup>
Overweight, Obesity, Nutrition, Physical Activity	16	23
Substance Abuse <sup>3</sup>	12	21
Mental Health <sup>3</sup>	12	20
Chronic Disease	18	19
Respiratory Health	5	13
Access to Care (general)		12
Safety		9
Maternal and Child Health	5	9
Tobacco Use		8
Gaps in Primary Care	13	7
Healthy Aging	4	7
HIV/AIDS		5
Sexually Transmitted Infections (STIs) (excluding HIV/AIDS)		5
Gaps in Mental Healthcare	7	4
Housing	4	

<sup>1</sup> The 2014 review includes 21 CHNAs completed between 2008 and 2014.

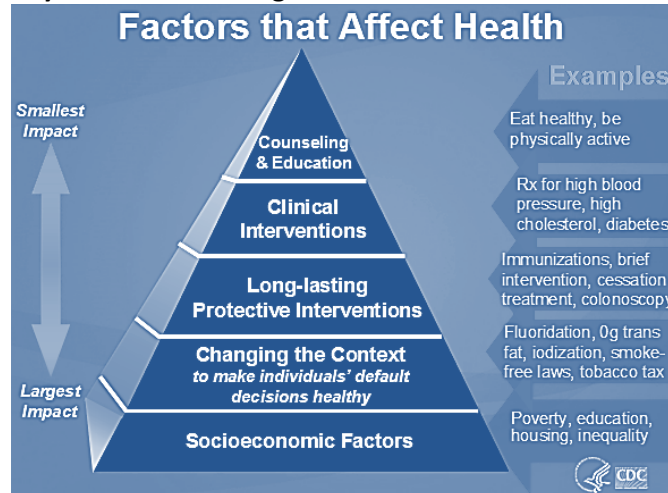
<sup>2</sup> The 2016 review includes 26 CHNAs completed between 2012 and 2016. One CHNA identified in this review pertained specifically to cancer care, rather than community health more generally. One hospital did not identify priority health areas in the CHNA; their priority health areas will be included in their CHIP which is currently under development. Some CHNAs were conducted as a collaboration among multiple hospitals. Priority health needs from these collaborative CHNAs are counted once

<sup>3</sup> 19 CHNAs identified substance abuse and mental health together as health priorities.

As part of the IRS mandate for non-profit hospitals, a hospital must also develop an implementation strategy every three years that discusses how it will address the identified needs from the CHNA or whether these needs are being addressed by other community providers. While there were 24 new CHNAs completed since the 2014 Facilities Supplement there were 18 new CHIPs.

CHIPs differed in the level of focus of proposed strategies to address the health needs identified in CHNAs. Approaches include improving the health and healthcare of individuals and populations. These approaches have implications for the anticipated health impact of the intervention strategies on population health. As shown in Figure 4.23, Strategies that address factors at the base of the pyramid, or the social determinants of health, such as socioeconomic factors and improving the conditions in which people live, work and play to promote health and reduce health inequities, may yield larger improvements in population health as these strategies may reach and promote the health of a larger population.<sup>118</sup> Individually-focused strategies focused on the top of the pyramid, such as counseling, health education and clinical interventions may produce a smaller impact on the health of the population, as these interventions are often more intensive and reach a smaller subset of the population.<sup>119</sup>

**Figure 4.23. Health Impact Pyramid: Considering the Social Determinants of Health**



Source: Frieden, Thomas R. A Framework for Public Health Action: The Health Impact Pyramid. American Journal of Public Health. April 2010, 100(4), 590-595.

These different approaches to mitigating health needs have implications for non-profit hospitals and their interpretation of community benefit categorization. For example, systems change initiatives such as strategies to improve access to quality mental healthcare (e.g., hiring more mental health clinicians) have the potential to sustainably address the healthcare need of the identified community. However, many hospital community benefits officers are not clear on how to “count” these systems change initiatives as a community benefit. Instead, community benefits programs tend to focus on charity care as well as more individual and interpersonal-focused initiatives such as community health education and health fairs because they are easier to classify for tax purposes. However, such programmatic strategies may have a limited health impact for a small proportion of the population under the hospital service area and may not provide sustainable solutions to improving the health of the community. OHCA, in its agreed settlements relating to hospital transfers of ownership or conversions, requires hospitals to align community benefit/building activities/funding with needs identified in their CHNAs for a minimum of three years. By guiding hospitals in these long-term planning efforts, OHCA hopes to positively influence population health and health equity.

Generally, collaborative CHIPs tended to focus their health improvement strategies at a systems level, focusing on hospital-, school-, and community-based interventions. The SIM program is facilitating formal partnerships among hospitals and community based providers for disease prevention and care coordination CHNAs completed by individual hospitals generally focused on hospital-based implementation strategies.

CHIPs that proposed systems level changes to address the health needs that emerged from the CHNAs proposed strategies including:

- Improve access to primary, mental, dental, urgent and specialty care;
- Address unmet mental health and substance abuse needs; and
- Reduce overweight, obesity and chronic disease rates.

Some CHIPs identified opportunities to improve access to quality healthcare include:

- Consideration of opportunities to improve access to primary, mental, dental, and urgent care;
- Increase access to specialty care for vulnerable populations;

- Advocate for expanded oral healthcare coverage;
- Advocate for greater coordination of care among primary and mental healthcare;
- Ensure that residents who are eligible for health insurance enroll in the exchange;
- Create a supply of community health workers to prevent and control chronic diseases;
- Mobilize stakeholders to address transportation needs related to healthcare access; and
- Provide culturally and linguistically appropriate care.

CHIPs that prioritize mental health care and reducing substance abuse rates proposed strategies such as:

- Building capacity for community-based organizations and schools to respond to mental health emergencies;
- Integrating social, emotional, and mental health of students and families into schools;
- Advocating for improved health insurance reimbursement for mental health services;
- Developing a mental health referral system between primary care and secondary mental health and substance abuse facilities;
- Implementing a screening tool for mental health and substance abuse needs;
- Educating communities about opioid misuse;
- Increasing and implementing safe opioid disposal programs;
- Training first responders in opioid overdose reversal strategies; and
- Training providers in trauma-informed practices.

Proposed systems-level approaches to reducing overweight, obesity and chronic disease rates include strategies to:

- Improve access to healthy and affordable foods, such as considering opportunities to collaborate with other organizations such as food banks, to support a community farmer's market, or community garden;
- Decrease portion sizes in public service venues;
- Increase the use of supplemental nutrition assistance (SNAP) and women, infants and children (WIC) programs at farmers' markets;
- Increase the availability of fruits and vegetables at local convenience stores;
- Increase the number of schools engaging farm-to-school food programs;
- Increase the number of before- and after-school physical activity programs;
- Institutionalize support for increased physical activity among students in child care settings and schools and among adults;
- Implement worksite wellness programs;
- Implement restaurant menu labeling programs; and
- Collaborate to create town walking maps.

CHIPs that identified respiratory health, including asthma, chronic lower respiratory disease and chronic obstructive pulmonary disease, as priority areas focused on home- and clinical-based interventions to improve asthma management. These strategies included, for example, educating households about asthma and asthma triggers and in-home assessments of asthma triggers. One CHIP identified a community-based program to inform physician practices as an important initiative to improving asthma management.

All CHIPs focused some or most of their strategies on health education and prevention-related health promotion activities such as holding community education programs (e.g., awareness of nutritional food choices, cooking class, promotion of healthy lifestyle messages, weight loss discussions or classes, chronic

disease management training). Additional strategies represented in these CHIPs include a focus on chronic disease and mental health screening, investing in smoking cessation programs or support groups, and raising awareness of existing social and healthcare services.

## Chapter 5 CONCLUSIONS AND NEXT STEPS

This 2016 Supplemental Plan focuses on the health and healthcare outcomes of vulnerable populations. It also describes initiatives in Connecticut that are identifying and addressing gaps in services and unmet need. This Supplement also examines statewide changes in health status and care delivery over a period in which there have been considerable systems-level changes in healthcare access and quality. As in prior Plans, this Supplement continues to assess availability of appropriate, timely access to services.

Based on US Census data, overall, Connecticut residents' perception of their health status appears to be improving.<sup>120</sup> The proportion of the total population self-reporting poor health status has declined. The PPACA's individual mandate reduced Connecticut's uninsured rate to 8.7% in 2015, lower than the rate for the US overall (10.8%).<sup>121</sup> This decline was notable among many vulnerable populations in the state, particularly young adults, Hispanics or Latinas/os, those with incomes less than \$35,000 and those with a high school education or less.

Demographically, compared to the nation overall, with the exception of the elderly, Connecticut has relatively lower proportions of vulnerable populations. While all vulnerable populations have been growing since 2010, racial/ethnic minorities and those living below the federal poverty level have increased at a faster rate in Connecticut than observed nationally. These demographic shifts within Connecticut suggest vulnerable populations may be increasing as a proportion of the total population and thus healthcare access and health equity will continue to be an important focus.

### CURRENT HEALTHCARE ENVIRONMENT

Connecticut residents are served in various settings and by numerous types of healthcare providers. Among its diverse resources available for treating healthcare needs, Connecticut has 28 acute care hospitals with 8,644 licensed beds for inpatient care. There is also an ED at each acute care hospital and five hospital-owned freestanding satellites to treat patients 24/7. Additionally, there are over 100 outpatient surgical departments/facilities providing ambulatory surgical care.

There are many initiatives at the Connecticut DPH, in collaboration with hospitals, local leadership, and other sectors, which aim to reduce health inequities, improve access to preventive care, and strengthen the coordination of healthcare. Moreover, as part of its mandate, OHCA considers implications of CON applications on vulnerable populations' access to healthcare services.

The healthcare landscape continues to change as the focus of care shifts toward prevention and early intervention. Hospital acquisitions, mergers, and the consolidation of services within and between delivery systems are common as the landscape evolves and operational and economic challenges arise. Hospitals are shifting delivery models in favor of outpatient settings to remain competitive. Mirroring national trends, they are regionalizing or specializing in core services in response to declining revenues, operational challenges, and new reimbursement models under the PPACA. It is important to note that the long-term consequences of potential changes in healthcare at both the federal and state level may be profound, but are still uncertain.

#### *Utilization and Trends*

Increases in acute care discharges covered by Medicaid and other public coverage reflect the effect of the PPACA coverage expansion in Connecticut. White non-Hispanics, women, adults 50 years of age and older and those with Medicaid coverage continue to be higher users of emergency services than other groups. With respect to ED visits, one in ten are behavioral-health related and most likely to be made by vulnerable

populations. The majority of opioid overdose/dependence related ED visits were made by White non-Hispanic males with Medicaid coverage and residing in an urban core or periphery town.

Some towns are not included in a Connecticut hospital's primary service area, but residents may still receive services from a Connecticut hospital. All Connecticut towns though are covered by a CHNA. Mental health and substance abuse care continue to be the leading healthcare needs of most Connecticut communities, according to most recent CHNAs. Although Connecticut has a statewide surplus of inpatient beds, some hospitals may have to increase the number of beds staffed for certain services to meet the healthcare demands.

## **GAPS AND UNMET NEED**

While aggregate data suggest that for the total population, Connecticut residents have experienced improvements in chronic conditions since publication of the 2014 Supplement, health outcomes, CHNAs, and unmet healthcare need indices indicate that certain health conditions and outcomes remain disproportionately concentrated among at-risk and vulnerable populations. Health disparity and barriers to opportunities to live a healthy life remain critical areas of focus for certain populations in Connecticut. As healthcare systems changes continue to unfold, it is important to remain attentive to health and healthcare patterns over time for vulnerable populations.

### ***Access to Care and Availability of Services***

Healthcare costs and availability of services remain barriers to care for certain populations, particularly lower income and rural populations in Connecticut. Access to care was identified as a priority need in nearly half of all CHNAs. Counties that are home to Connecticut's largest towns are characterized by having the greatest number of medically underserved areas or health professional shortages. Additionally, there are 21 towns that have an unmet need composite index higher than the state index.

### ***Chronic Disease***

Vulnerable populations are disproportionately burdened by certain chronic health conditions including high blood pressure, diabetes, and asthma. Chronic disease was identified as a priority need in most CHNAs. Despite the expansion of healthcare insurance coverage, access to care continues to be a challenge for some Connecticut residents, with 11% of adults reporting postponing or not receiving needed medical care because of cost.

### ***Behavioral Health***

Behavioral health issues are a growing concern for Connecticut residents and the leading cause of hospitalizations for residents between 5 and 44 years of age. Mirroring a national trend, there has been an increase in deaths due to opioid overdoses in Connecticut. Most CHNAs identified substance abuse and mental health as priority needs. In 2016, there were 30 designations of mental health HPSAs in Connecticut.

## **LIMITATIONS**

As with all assessments, there are limitations and this Supplement should be considered in the same context. Lack of comprehensive data limits OHCA's ability to fully assess population needs. The utilization and outcomes data currently available is insufficient. Therefore evaluations of availability of and access to healthcare services are limited.

## **NEXT STEPS**

- Continue to analyze outpatient surgical data for planning purposes as healthcare resources continue to shift from inpatient to outpatient care;



- Delve further into ED use to identify the factors such as specific day of use and type, severity and number of co-morbidities, that drive utilization and readmissions to help determine the appropriate interventions;
- Analyze data from the All Payers Claims Database to identify any disparities in healthcare availability and delivery;
- Further study the 21 towns that have been identified as exceeding the state unmet need composite index; and
- Monitor current initiatives in the state that seek to improve care coordination and delivery, and link healthcare to community assistance, such as the Person-Centered Medical Homes-Plus (PCMH+) Initiative. Explore opportunities to scale up and spread success.

In future planning efforts, OHCA will continue its examination of available data to determine how best to address the unmet needs of residents and to assist providers in their transformations to meet those needs.

## Appendices

### APPENDIX A. CONNECTICUT GENERAL STATUTE SECTION 19A-634

Sec. 19a-634. (Formerly Sec. 19a-150). State-wide healthcare facility utilization study. State-wide healthcare facilities and services plan. Inventory of healthcare facilities, equipment and services.

(a) The Office of Health Care Access shall conduct, on a biennial basis, a state-wide healthcare facility utilization study. Such study may include an assessment of: (1) Current availability and utilization of acute hospital care, hospital emergency care, specialty hospital care, outpatient surgical care, primary care and clinic care; (2) geographic areas and subpopulations that may be underserved or have reduced access to specific types of healthcare services; and (3) other factors that the office deems pertinent to healthcare facility utilization. Not later than June thirtieth of the year in which the biennial study is conducted, the Commissioner of Public Health shall report, in accordance with section 11-4a, to the Governor and the joint standing committees of the General Assembly having cognizance of matters relating to public health and human services on the findings of the study. Such report may also include the office's recommendations for addressing identified gaps in the provision of healthcare services and recommendations concerning a lack of access to healthcare services.

(b) The office, in consultation with such other state agencies as the Commissioner of Public Health deems appropriate, shall establish and maintain a state-wide healthcare facilities and services plan. Such plan may include, but not be limited to: (1) An assessment of the availability of acute hospital care, hospital emergency care, specialty hospital care, outpatient surgical care, primary care and clinic care; (2) an evaluation of the unmet needs of persons at risk and vulnerable populations as determined by the commissioner; (3) a projection of future demand for healthcare services and the impact that technology may have on the demand, capacity or need for such services; and (4) recommendations for the expansion, reduction or modification of healthcare facilities or services. In the development of the plan, the office shall consider the recommendations of any advisory bodies which may be established by the commissioner. The commissioner may also incorporate the recommendations of authoritative organizations whose mission is to promote policies based on best practices or evidence-based research. The commissioner, in consultation with hospital representatives, shall develop a process that encourages hospitals to incorporate the state-wide healthcare facilities and services plan into hospital long-range planning and shall facilitate communication between appropriate state agencies concerning innovations or changes that may affect future health planning. The office shall update the state-wide healthcare facilities and services plan not less than once every two years.

(c) For purposes of conducting the state-wide healthcare facility utilization study and preparing the state-wide healthcare facilities and services plan, the office shall establish and maintain an inventory of all healthcare facilities, the equipment identified in subdivisions (9) and (10) of subsection (a) of section 19a-638, and services in the state, including healthcare facilities that are exempt from certificate of need requirements under subsection (b) of section 19a-638. The office shall develop an inventory questionnaire to obtain the following information: (1) The name and location of the facility; (2) the type of facility; (3) the hours of operation; (4) the type of services provided at that location; and (5) the total number of clients, treatments, patient visits, procedures performed or scans performed in a calendar year. The inventory shall be completed biennially by healthcare facilities and providers and such healthcare facilities and providers shall not be required to provide patient specific or financial data.

## **APPENDIX B. CONNECTICUT GENERAL STATUTE SECTION 19A-7**

Sec. 19a-7. (Formerly Sec. 19-3a). Public health planning. State health plan. Access to certain healthcare data. Regulations.

(a) The Department of Public Health shall be the lead agency for public health planning and shall assist communities in the development of collaborative health planning activities which address public health issues on a regional basis or which respond to public health needs having state-wide significance. The department shall prepare a multiyear state health plan which will provide an assessment of the health of Connecticut's population and the availability of health facilities. The plan shall include: (1) Policy recommendations regarding allocation of resources; (2) public health priorities; (3) quantitative goals and objectives with respect to the appropriate supply, distribution and organization of public health resources; and (4) evaluation of the implications of new technology for the organization, delivery and equitable distribution of services. In the development of the plan the department shall consider the recommendations of any advisory bodies which may be established by the commissioner.

(b) For the purposes of establishing a state health plan as required by subsection (a) of this section and consistent with state and federal law on patient records, the department is entitled to access hospital discharge data, emergency room and ambulatory surgery encounter data, data on home healthcare agency client encounters and services, data from community health centers on client encounters and services and all data collected or compiled by the Office of Health Care Access division of the Department of Public Health pursuant to section 19a-613.

(c) The Commissioner of Public Health shall adopt regulations in accordance with the provisions of chapter 54 to assure the confidentiality of personal data and patient-identifiable data collected or compiled pursuant to this section.

## APPENDIX C. ADVISORY BODY

Paula Chenail  
Vice President of Operations  
Constitution Surgery Centers, LLC (CSC)  
CT Outpatient Ambulatory Surgical Centers

Ken Ferrucci, MPA  
Vice President, Public Policy and Government  
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Wendy Furniss  
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Karen Goyette  
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Hartford Hospital

Yvette Highsmith Francis  
Director, Community Healthcare, Inc.  
Hartford County Sites

Kennedy Hudner  
Partner  
Murtha Cullina

Jim Iacobellis  
Senior Vice President  
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Matthew Katz  
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Linda Kowalski  
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Radiology Society of Connecticut

Stuart Markowitz, MD, FACR  
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Lori Anne Russo  
Community Health Center Assoc. of CT

Lauren Siembab  
Director  
Community Services Division  
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Stan Soby  
Vice President  
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Lisa Winkler Executive Director  
CT Assoc. of Ambulatory Surgery Centers and  
Ambulatory Surgery Center PSO, LLC  
Connecticut Ambulatory Association of  
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**APPENDIX D. ACUTE CARE BED NEED BY COUNTY**

**Table D.1. Acute Care Hospital 2020 Bed Need, Fairfield County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Fairfield County	Medical/Surgical														
	0-14	24	22	9	0.1	0.1	0.0	0.0	0.94156	0.0	0.80	0			
	15 - 44	36,754	36,515	36,603	100.7	100.0	100.3	100.3	1.01179	101.5	0.80	127			
	45 - 64	101,246	100,366	100,502	277.4	275.0	275.3	275.6	1.00638	277.3	0.80	347			
	65+	214,324	212,395	219,851	587.2	581.9	602.3	593.0	1.12096	664.7	0.80	831			
	<b>Sub Total</b>	<b>352,348</b>	<b>349,298</b>	<b>356,965</b>	<b>965.3</b>	<b>957.0</b>	<b>978.0</b>	<b>968.9</b>		<b>1043.5</b>			<b>1304</b>		
	Maternity														
	0-14	13	3	13	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0			
	15 - 44	36,503	36,650	38,076	100.0	100.4	104.3	102.3	1.00774	103.1	0.50	206			
	45 - 64	203	363	295	0.6	1.0	0.8	0.8	1.01051	0.8	0.50	2			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>36,719</b>	<b>37,016</b>	<b>38,384</b>	<b>100.6</b>	<b>101.4</b>	<b>105.2</b>	<b>103.2</b>		<b>104.0</b>			<b>208</b>		
	Psychiatric														
	0-14	2,233	1,513	1,463	6.1	4.1	4.0	4.4	0.94156	4.1	0.80	5			
	15 - 44	24,876	21,953	22,400	68.2	60.1	61.4	62.1	1.01179	62.8	0.80	79			
	45 - 64	18,043	17,802	16,754	49.4	48.8	45.9	47.4	1.00638	47.7	0.80	60			
	65+	8,594	8,425	8,788	23.5	23.1	24.1	23.7	1.12096	26.5	0.80	33			
	<b>Sub Total</b>	<b>53,746</b>	<b>49,693</b>	<b>49,405</b>	<b>147.2</b>	<b>136.1</b>	<b>135.4</b>	<b>137.6</b>		<b>141.2</b>			<b>177</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	1,036	972	860	2.8	2.7	2.4	2.5	1.01179	2.6	0.80	3			
	45 - 64	5,178	4,604	4,220	14.2	12.6	11.6	12.3	1.00638	12.4	0.80	16			
	65+	11,963	12,450	13,121	32.8	34.1	35.9	34.8	1.12096	39.0	0.80	49			
	<b>Sub Total</b>	<b>18,177</b>	<b>18,026</b>	<b>18,201</b>	<b>49.8</b>	<b>49.4</b>	<b>49.9</b>	<b>49.7</b>		<b>54.0</b>			<b>68</b>		
	Pediatric														
	0-19	3,576	3,067	2,765	9.8	8.4	7.6	8.2	0.94908	7.8	0.80	10			
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0			
<b>Sub Total</b>	<b>3,576</b>	<b>3,067</b>	<b>2,765</b>	<b>9.8</b>	<b>8.4</b>	<b>7.6</b>	<b>8.2</b>		<b>7.8</b>			<b>10</b>			
<b>Total</b>		<b>464,566</b>	<b>457,100</b>	<b>465,720</b>	<b>1,273</b>	<b>1,252</b>	<b>1,276</b>	<b>1,267.5</b>		<b>1350.5</b>		<b>1766</b>	<b>2,083</b>	<b>-317</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Bridgeport Hospital, Danbury Hospital, Greenwich Hospital, Norwalk Hospital, Saint Vincent's Hospital, Stamford Hospital.

**Table D.2. Acute Care Hospital 2020 Bed Need, Hartford County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Hartford County	Medical/Surgical														
	0-14	13	6	0	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0			
	15 - 44	53,013	47,603	47,670	145.2	130.4	130.6	133.0	1.01227	134.6	0.80	168			
	45 - 64	144,405	137,921	132,450	395.6	377.9	362.9	373.3	0.98238	366.8	0.80	458			
	65+	244,425	232,821	232,126	669.7	637.9	636.0	642.2	1.13688	730.1	0.80	913			
	<b>Sub Total</b>	<b>441,856</b>	<b>418,351</b>	<b>412,246</b>	<b>1,210.6</b>	<b>1,146.2</b>	<b>1,129.4</b>	<b>1,148.5</b>		<b>1231.5</b>			<b>1539</b>		
	Maternity														
	0-14	32	3	4	0.1	0.0	0.0	0.0	0.96778	0.0	0.50	0			
	15 - 44	35,522	35,008	34,631	97.3	95.9	94.9	95.6	1.00881	96.5	0.50	193			
	45 - 64	89	152	125	0.2	0.4	0.3	0.4	0.98553	0.3	0.50	1			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>35,643</b>	<b>35,163</b>	<b>34,760</b>	<b>97.7</b>	<b>96.3</b>	<b>95.2</b>	<b>96.0</b>		<b>96.8</b>			<b>194</b>		
	Psychiatric														
	0-14	8,522	7,186	7,014	23.3	19.7	19.2	20.1	0.96707	19.4	0.80	24			
	15 - 44	36,177	36,664	37,662	99.1	100.4	103.2	101.6	1.01227	102.8	0.80	129			
	45 - 64	25,387	26,387	24,348	69.6	72.3	66.7	69.0	0.98238	67.8	0.80	85			
	65+	7,963	9,420	9,486	21.8	25.8	26.0	25.2	1.13688	28.7	0.80	36			
	<b>Sub Total</b>	<b>78,049</b>	<b>79,657</b>	<b>78,510</b>	<b>213.8</b>	<b>218.2</b>	<b>215.1</b>	<b>215.9</b>		<b>218.8</b>			<b>273</b>		
	Rehabilitation														
	0-14	84	67	45	0.2	0.2	0.1	0.2	0.96707	0.2	0.80	0			
	15 - 44	82	11	0	0.2	0.0	0.0	0.0	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
<b>Sub Total</b>	<b>166</b>	<b>78</b>	<b>45</b>	<b>0.5</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>		<b>0.2</b>			<b>0</b>			
Pediatric															
0-19	24,802	24,039	21,626	68.0	65.9	59.2	62.9	0.96673	60.8	0.80	76				
20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0				
<b>Sub Total</b>	<b>24,802</b>	<b>24,039</b>	<b>21,626</b>	<b>68.0</b>	<b>65.9</b>	<b>59.2</b>	<b>62.9</b>		<b>60.8</b>			<b>76</b>			
<b>Total</b>		<b>580,516</b>	<b>557,288</b>	<b>547,187</b>	<b>1,590</b>	<b>1,527</b>	<b>1,499</b>	<b>1,523.6</b>		<b>1608.1</b>		<b>2083</b>	<b>2,572</b>	<b>-489</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Bristol Hospital, CCMC Hospital, Hartford Hospital, Hospital of Central Connecticut, John Dempsey Hospital, Manchester Hospital, St. Francis Hospital

**Table D.3. Acute Care Hospital 2020 Bed Need, Litchfield County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Litchfield County Pop chg. 2015 to 2020	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)
Litchfield County	Medical/Surgical													
	0-14	9	0	2	0.0	0.0	0.0	0.0	0.88581	0.0	0.80	0		
	15 - 44	2,711	2,270	2,040	7.4	6.2	5.6	6.1	0.98490	6.0	0.80	8		
	45 - 64	8,188	7,508	7,089	22.4	20.6	19.4	20.3	0.96706	19.6	0.80	25		
	65+	19,632	18,974	19,408	53.8	52.0	53.2	52.9	1.20043	63.5	0.80	79		
	<b>Sub Total</b>	<b>30,540</b>	<b>28,752</b>	<b>28,539</b>	<b>83.7</b>	<b>78.8</b>	<b>78.2</b>	<b>79.3</b>		<b>89.1</b>		<b>111</b>		
	Maternity													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88634	0.0	0.50	0		
	15 - 44	1,816	1,864	1,869	5.0	5.1	5.1	5.1	0.97955	5.0	0.50	10		
	45 - 64	8	0	0	0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0		
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0		
	<b>Sub Total</b>	<b>1,824</b>	<b>1,864</b>	<b>1,869</b>	<b>5.0</b>	<b>5.1</b>	<b>5.1</b>	<b>5.1</b>		<b>5.0</b>		<b>10</b>		
	Psychiatric													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	1,603	1,207	1,211	4.4	3.3	3.3	3.5	0.98490	3.4	0.80	4		
	45 - 64	1,590	1,989	1,711	4.4	5.4	4.7	4.9	0.96706	4.7	0.80	6		
	65+	1,493	1,857	1,984	4.1	5.1	5.4	5.1	1.20043	6.1	0.80	8		
	<b>Sub Total</b>	<b>4,686</b>	<b>5,053</b>	<b>4,906</b>	<b>12.8</b>	<b>13.8</b>	<b>13.4</b>	<b>13.5</b>		<b>14.3</b>		<b>18</b>		
	Rehabilitation													
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0		
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0		
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0		
65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0			
<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>		<b>0</b>			
Pediatric														
0-19	92	29	19	0.3	0.1	0.1	0.1	0.90723	0.1	0.80	0			
20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0			
<b>Sub Total</b>	<b>92</b>	<b>29</b>	<b>19</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>		<b>0.1</b>		<b>0</b>			
<b>Total</b>		<b>37,142</b>	<b>35,698</b>	<b>35,333</b>	<b>102</b>	<b>98</b>	<b>97</b>	<b>98.0</b>		<b>108.5</b>		<b>139</b>	<b>187</b>	<b>-48</b>

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Charlotte Hungerford Hospital, Sharon Hospital.

**Table D.4. Acute Care Hospital 2020 Bed Need, Middlesex County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Middlesex County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Middlesex County	Medical/Surgical														
	0-14	2	4	1	0.0	0.0	0.0	0.0	0.90103	0.0	0.80	0			
	15 - 44	4,020	3,290	3,571	11.0	9.0	9.8	9.7	0.98633	9.6	0.80	12			
	45 - 64	13,999	13,130	12,278	38.4	36.0	33.6	35.2	0.97358	34.3	0.80	43			
	65+	30,147	28,600	28,153	82.6	78.4	77.1	78.5	1.20478	94.5	0.80	118			
	<b>Sub Total</b>	<b>48,168</b>	<b>45,024</b>	<b>44,003</b>	<b>132.0</b>	<b>123.4</b>	<b>120.6</b>	<b>123.4</b>		<b>138.4</b>		<b>173</b>			
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90155	0.0	0.50	0			
	15 - 44	2,866	2,943	2,948	7.9	8.1	8.1	8.0	0.98063	7.9	0.50	16			
	45 - 64	10	10	5	0.0	0.0	0.0	0.0	0.97791	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19360	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,876</b>	<b>2,953</b>	<b>2,953</b>	<b>7.9</b>	<b>8.1</b>	<b>8.1</b>	<b>8.1</b>		<b>7.9</b>		<b>16</b>			
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0			
	15 - 44	2,366	2,641	2,398	6.5	7.2	6.6	6.8	0.98633	6.7	0.80	8			
	45 - 64	3,018	2,592	2,788	8.3	7.1	7.6	7.6	0.97358	7.4	0.80	9			
	65+	767	855	832	2.1	2.3	2.3	2.3	1.20478	2.7	0.80	3			
	<b>Sub Total</b>	<b>6,151</b>	<b>6,088</b>	<b>6,018</b>	<b>16.9</b>	<b>16.7</b>	<b>16.5</b>	<b>16.6</b>		<b>16.8</b>		<b>21</b>			
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98633	0.0	0.80	0			
45 - 64	0	0	0	0.0	0.0	0.0	-	0.97358	0.0	0.80	0				
65+	0	0	0	0.0	0.0	0.0	-	1.20478	0.0	0.80	0				
<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>		<b>0</b>				
Pediatric															
0-19	4	1	0	0.0	0.0	0.0	0.0	0.92096	0.0	0.80	0				
20+	0	0	0	0.0	0.0	0.0	-	1.03553	0.0	0.80	0				
<b>Sub Total</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>		<b>0</b>				
<b>Total</b>		<b>57,199</b>	<b>54,066</b>	<b>52,974</b>	<b>157</b>	<b>148</b>	<b>145</b>	<b>148.1</b>		<b>163.1</b>		<b>210</b>	<b>275</b>	<b>-65</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospital: Middlesex Hospital.



**Table D.5. Acute Care Hospital 2020 Bed Need, New Haven County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (+)	
New Haven County	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	64,808	61,610	60,248	177.6	168.8	165.1	168.4	1.01313	170.6	0.80	213			
	45 - 64	149,007	145,719	147,892	408.2	399.2	405.2	403.7	0.98400	397.3	0.80	497			
	65+	236,189	231,035	231,598	647.1	633.0	634.5	636.1	1.14363	727.5	0.80	909			
	<b>Sub Total</b>	<b>450,004</b>	<b>438,364</b>	<b>439,738</b>	<b>1,232.9</b>	<b>1,201.0</b>	<b>1,204.8</b>	<b>1,208.2</b>		<b>1295.3</b>			<b>1619</b>		
	Maternity														
	0-14	10	7	12	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0			
	15 - 44	31,296	30,284	29,720	85.7	83.0	81.4	82.7	1.01253	83.7	0.50	167			
	45 - 64	151	166	179	0.4	0.5	0.5	0.5	0.98578	0.5	0.50	1			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>31,457</b>	<b>30,457</b>	<b>29,911</b>	<b>86.2</b>	<b>83.4</b>	<b>81.9</b>	<b>83.2</b>		<b>84.2</b>			<b>168</b>		
	Psychiatric														
	0-14	8,916	7,095	5,965	24.4	19.4	16.3	18.7	0.97443	18.2	0.80	23			
	15 - 44	31,128	32,659	33,038	85.3	89.5	90.5	89.3	1.01313	90.5	0.80	113			
	45 - 64	19,460	20,254	20,450	53.3	55.5	56.0	55.4	0.98400	54.5	0.80	68			
	65+	6,646	8,158	7,311	18.2	22.4	20.0	20.5	1.14363	23.4	0.80	29			
	<b>Sub Total</b>	<b>66,150</b>	<b>68,166</b>	<b>66,764</b>	<b>181.2</b>	<b>186.8</b>	<b>182.9</b>	<b>183.9</b>		<b>186.7</b>			<b>233</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	96	56	229	0.3	0.2	0.6	0.4	1.01313	0.4	0.80	1			
	45 - 64	468	989	965	1.3	2.7	2.6	2.4	0.98400	2.4	0.80	3			
	65+	2,072	1,840	1,784	5.7	5.0	4.9	5.1	1.14363	5.8	0.80	7			
<b>Sub Total</b>	<b>2,636</b>	<b>2,885</b>	<b>2,978</b>	<b>7.2</b>	<b>7.9</b>	<b>8.2</b>	<b>7.9</b>		<b>8.6</b>			<b>11</b>			
Pediatric															
0-19	21,381	18,442	18,483	58.6	50.5	50.6	51.9	0.96530	50.1	0.80	63				
20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0				
<b>Sub Total</b>	<b>21,381</b>	<b>18,442</b>	<b>18,483</b>	<b>58.6</b>	<b>50.5</b>	<b>50.6</b>	<b>51.9</b>		<b>50.1</b>			<b>63</b>			
<b>Total</b>		<b>571,628</b>	<b>558,314</b>	<b>557,874</b>	<b>1,566</b>	<b>1,530</b>	<b>1,528</b>	<b>1,535.1</b>		<b>1624.9</b>		<b>2,094</b>	<b>2,521</b>	<b>-427</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Griffin Hospital, MidState Hospital, Milford Hospital, Saint Mary's Hospital, Waterbury Hospital, Yale New Haven Hospital.

**Table D.6. Acute Care Hospital 2020 Bed Need, New London County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New London County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
<b>New London County</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	9,221	9,010	8,592	25.3	24.7	23.5	24.2	0.99490	24.1	0.80	30			
	45 - 64	27,987	28,426	25,595	76.7	77.9	70.1	73.8	0.97130	71.7	0.80	90			
	65+	49,334	47,766	47,010	135.2	130.9	128.8	130.5	1.19137	155.5	0.80	194			
	<b>Sub Total</b>	<b>86,542</b>	<b>85,202</b>	<b>81,197</b>	<b>237.1</b>	<b>233.4</b>	<b>222.5</b>	<b>228.6</b>		<b>251.3</b>			<b>314</b>		
	Maternity														
	0-14	0	0	2	0.0	0.0	0.0	0.0	0.94942	0.0	0.50	0			
	15 - 44	6,285	6,566	6,618	17.2	18.0	18.1	17.9	0.98704	17.7	0.50	35			
	45 - 64	8	32	18	0.0	0.1	0.0	0.1	0.97794	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0			
	<b>Sub Total</b>	<b>6,293</b>	<b>6,598</b>	<b>6,638</b>	<b>17.2</b>	<b>18.1</b>	<b>18.2</b>	<b>18.0</b>		<b>17.8</b>			<b>36</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	4,832	4,636	4,876	13.2	12.7	13.4	13.1	0.99490	13.1	0.80	16			
	45 - 64	4,162	4,784	4,536	11.4	13.1	12.4	12.5	0.97130	12.1	0.80	15			
	65+	837	1,040	852	2.3	2.8	2.3	2.5	1.19137	3.0	0.80	4			
	<b>Sub Total</b>	<b>9,831</b>	<b>10,460</b>	<b>10,264</b>	<b>26.9</b>	<b>28.7</b>	<b>28.1</b>	<b>28.1</b>		<b>28.2</b>			<b>35</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	242	166	221	0.7	0.5	0.6	0.6	0.99490	0.6	0.80	1			
	45 - 64	918	1,115	1,100	2.5	3.1	3.0	2.9	0.97130	2.9	0.80	4			
	65+	2,979	3,215	3,128	8.2	8.8	8.6	8.6	1.19137	10.2	0.80	13			
<b>Sub Total</b>	<b>4,139</b>	<b>4,496</b>	<b>4,449</b>	<b>11.3</b>	<b>12.3</b>	<b>12.2</b>	<b>12.1</b>		<b>13.6</b>			<b>17</b>			
Pediatric															
0-19	422	185	120	1.2	0.5	0.3	0.5	0.95388	0.5	0.80	1				
20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0				
<b>Sub Total</b>	<b>422</b>	<b>185</b>	<b>120</b>	<b>1.2</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>		<b>0.5</b>			<b>1</b>			
<b>Total</b>		<b>107,227</b>	<b>106,941</b>	<b>102,668</b>	<b>294</b>	<b>293</b>	<b>281</b>	<b>287.3</b>		<b>311.4</b>		<b>403</b>	<b>493</b>	<b>-90</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Backus Hospital, Lawrence+Memorial Hospital.

**Table D.7. Acute Care Hospital 2020 Bed Need, Tolland County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Tolland County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
<b>Tolland County</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	2,264	2,210	2,119	6.2	6.1	5.8	6.0	1.00969	6.0	0.80	8			
	45 - 64	6,421	6,225	5,947	17.6	17.1	16.3	16.8	0.98044	16.4	0.80	21			
	65+	15,615	14,115	12,755	42.8	38.7	34.9	37.5	1.20444	45.2	0.80	56			
	<b>Sub Total</b>	<b>24,300</b>	<b>22,550</b>	<b>20,821</b>	<b>66.6</b>	<b>61.8</b>	<b>57.0</b>	<b>60.2</b>		<b>67.6</b>			<b>85</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0			
	15 - 44	562	614	546	1.5	1.7	1.5	1.6	1.00881	1.6	0.50	3			
	45 - 64	0	6	3	0.0	0.0	0.0	0.0	0.99659	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0			
	<b>Sub Total</b>	<b>562</b>	<b>620</b>	<b>549</b>	<b>1.5</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>		<b>1.6</b>			<b>3</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	1,346	1,897	1,415	3.7	5.2	3.9	4.3	1.00969	4.3	0.80	5			
	45 - 64	1,342	1,540	1,252	3.7	4.2	3.4	3.7	0.98044	3.7	0.80	5			
	65+	257	284	396	0.7	0.8	1.1	0.9	1.20444	1.1	0.80	1			
	<b>Sub Total</b>	<b>2,945</b>	<b>3,721</b>	<b>3,063</b>	<b>8.1</b>	<b>10.2</b>	<b>8.4</b>	<b>8.9</b>		<b>9.1</b>			<b>11</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	33	36	22	0.1	0.1	0.1	0.1	0.94612	0.1	0.80	0			
20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0				
<b>Sub Total</b>	<b>33</b>	<b>36</b>	<b>22</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>		<b>0.1</b>			<b>0</b>			
<b>Total</b>		<b>27,840</b>	<b>26,927</b>	<b>24,455</b>	<b>76</b>	<b>74</b>	<b>67</b>	<b>70.8</b>		<b>78.4</b>		<b>99</b>	<b>194</b>	<b>-95</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Johnson Memorial Hospital, Rockville General Hospital.

**Table D.8. Acute Care Hospital 2020 Bed Need, Windham County**

County	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Windham County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Windham County	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	2,499	1,808	1,511	6.8	5.0	4.1	4.9	1.00029	4.9	0.80	6			
	45 - 64	7,168	5,906	6,107	19.6	16.2	16.7	17.0	1.01073	17.2	0.80	22			
	65+	16,181	13,729	13,714	44.3	37.6	37.6	38.7	1.22440	47.4	0.80	59			
	<b>Sub Total</b>	<b>25,848</b>	<b>21,443</b>	<b>21,332</b>	<b>70.8</b>	<b>58.7</b>	<b>58.4</b>	<b>60.6</b>		<b>69.5</b>		<b>87</b>			
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95605	0.0	0.50	0			
	15 - 44	2,464	2,428	2,027	6.8	6.7	5.6	6.1	0.99720	6.1	0.50	12			
	45 - 64	0	0	2	0.0	0.0	0.0	0.0	1.01070	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,464</b>	<b>2,428</b>	<b>2,029</b>	<b>6.8</b>	<b>6.7</b>	<b>5.6</b>	<b>6.1</b>		<b>6.1</b>		<b>12</b>			
	Psychiatric														
	0-14	6	0	0	0.0	0.0	0.0	0.0	0.95771	0.0	0.80	0			
	15 - 44	2,497	2,286	1,917	6.8	6.3	5.3	5.9	1.00029	5.9	0.80	7			
	45 - 64	1,206	1,430	1,293	3.3	3.9	3.5	3.6	1.01073	3.7	0.80	5			
	65+	590	353	461	1.6	1.0	1.3	1.2	1.22440	1.5	0.80	2			
	<b>Sub Total</b>	<b>4,299</b>	<b>4,069</b>	<b>3,671</b>	<b>11.8</b>	<b>11.1</b>	<b>10.1</b>	<b>10.7</b>		<b>11.0</b>		<b>14</b>			
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0			
45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0				
65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0				
<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>		<b>0</b>				
Pediatric															
0-19	157	31	21	0.4	0.1	0.1	0.1	0.96487	0.1	0.80	0				
20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0				
<b>Sub Total</b>	<b>157</b>	<b>31</b>	<b>21</b>	<b>0.4</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>		<b>0.1</b>		<b>0</b>				
<b>Total</b>		<b>32,768</b>	<b>27,971</b>	<b>27,053</b>	<b>90</b>	<b>77</b>	<b>74</b>	<b>77.6</b>		<b>86.7</b>		<b>113</b>	<b>234</b>	<b>-121</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

Hospitals: Day Kimball Hospital, Windham Hospital.

**APPENDIX E. ACUTE CARE BED NEED BY HOSPITAL**

**Table E.2. Acute Care Hospital 2020 Bed Need, Backus Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New London County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Backus</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	4,318	3,977	3,812	11.8	10.9	10.4	10.8	0.99490	10.8	0.80	13			
	45 - 64	13,569	14,085	12,869	37.2	38.6	35.3	36.7	0.97130	35.6	0.80	45			
	65+	21,464	21,407	22,030	58.8	58.6	60.4	59.5	1.19137	70.9	0.80	89			
	<b>Sub Total</b>	<b>39,351</b>	<b>39,469</b>	<b>38,711</b>	<b>107.8</b>	<b>108.1</b>	<b>106.1</b>	<b>107.0</b>		<b>117.3</b>			<b>147</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94942	0.0	0.50	0			
	15 - 44	2,017	2,067	2,173	5.5	5.7	6.0	5.8	0.98704	5.7	0.50	11			
	45 - 64	6	16	10	0.0	0.0	0.0	0.0	0.97794	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,023</b>	<b>2,083</b>	<b>2,183</b>	<b>5.5</b>	<b>5.7</b>	<b>6.0</b>	<b>5.8</b>		<b>5.7</b>			<b>11</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	2,297	2,151	2,114	6.3	5.9	5.8	5.9	0.99490	5.9	0.80	7			
	45 - 64	2,000	2,297	2,232	5.5	6.3	6.1	6.1	0.97130	5.9	0.80	7			
	65+	401	338	377	1.1	0.9	1.0	1.0	1.19137	1.2	0.80	2			
	<b>Sub Total</b>	<b>4,698</b>	<b>4,786</b>	<b>4,723</b>	<b>12.9</b>	<b>13.1</b>	<b>12.9</b>	<b>13.0</b>		<b>13.0</b>			<b>16</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.99490	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97130	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19137	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	173	56	56	0.5	0.2	0.2	0.2	0.95388	0.2	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0			
<b>Sub Total</b>	<b>173</b>	<b>56</b>	<b>56</b>	<b>0.5</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>			<b>0</b>			
<b>Total</b>		<b>46,245</b>	<b>46,394</b>	<b>45,673</b>	<b>127</b>	<b>127</b>	<b>125</b>	<b>126.1</b>		<b>136.2</b>		<b>175</b>	<b>213</b>	<b>-38</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New London.

**Table E.3. Acute Care Hospital 2020 Bed Need, Bridgeport Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Bridgeport	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	9,435	9,189	9,682	25.8	25.2	26.5	26.0	1.01179	26.3	0.80	33			
	45 - 64	22,874	24,394	26,167	62.7	66.8	71.7	68.6	1.00638	69.0	0.80	86			
	65+	37,983	37,693	42,749	104.1	103.3	117.1	110.3	1.12096	123.7	0.80	155			
	<b>Sub Total</b>	<b>70,292</b>	<b>71,276</b>	<b>78,598</b>	<b>192.6</b>	<b>195.3</b>	<b>215.3</b>	<b>204.9</b>		<b>218.9</b>			<b>274</b>		
	Maternity														
	0-14	4	0	4	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0			
	15 - 44	7,386	7,614	8,240	20.2	20.9	22.6	21.6	1.00774	21.8	0.50	44			
	45 - 64	20	52	27	0.1	0.1	0.1	0.1	1.01051	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>7,410</b>	<b>7,666</b>	<b>8,271</b>	<b>20.3</b>	<b>21.0</b>	<b>22.7</b>	<b>21.7</b>		<b>21.9</b>			<b>44</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	3,073	3,132	2,972	8.4	8.6	8.1	8.3	1.01179	8.4	0.80	11			
	45 - 64	2,980	3,122	2,747	8.2	8.6	7.5	8.0	1.00638	8.0	0.80	10			
	65+	4,269	3,919	4,532	11.7	10.7	12.4	11.7	1.12096	13.2	0.80	16			
	<b>Sub Total</b>	<b>10,322</b>	<b>10,173</b>	<b>10,251</b>	<b>28.3</b>	<b>27.9</b>	<b>28.1</b>	<b>28.0</b>		<b>29.6</b>			<b>37</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	441	416	284	1.2	1.1	0.8	1.0	1.01179	1.0	0.80	1			
	45 - 64	1,829	1,759	1,271	5.0	4.8	3.5	4.2	1.00638	4.2	0.80	5			
	65+	3,172	2,919	3,300	8.7	8.0	9.0	8.6	1.12096	9.7	0.80	12			
	<b>Sub Total</b>	<b>5,442</b>	<b>5,094</b>	<b>4,855</b>	<b>14.9</b>	<b>14.0</b>	<b>13.3</b>	<b>13.8</b>		<b>14.9</b>			<b>19</b>		
	Pediatric														
	0-19	306	176	149	0.8	0.5	0.4	0.5	0.94908	0.5	0.80	1			
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0			
<b>Sub Total</b>	<b>306</b>	<b>176</b>	<b>149</b>	<b>0.8</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>		<b>0.5</b>			<b>1</b>			
<b>Total</b>		<b>93,772</b>	<b>94,385</b>	<b>102,124</b>	<b>257</b>	<b>259</b>	<b>280</b>	<b>268.9</b>		<b>285.8</b>		<b>374</b>	<b>373</b>	<b>-1</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

**Table E.4. Acute Care Hospital 2020 Bed Need, Bristol Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2011 ADC	FY 2012 ADC	FY 2013 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Bristol	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	3,095	2,257	2,341	8.5	6.2	6.4	6.7	1.01227	6.8	0.80	8			
	45 - 64	7,284	6,945	6,568	20.0	19.0	18.0	18.7	0.98238	18.3	0.80	23			
	65+	12,838	12,353	10,852	35.2	33.8	29.7	32.0	1.13688	36.4	0.80	45			
	<b>Sub Total</b>	<b>23,217</b>	<b>21,555</b>	<b>19,761</b>	<b>63.6</b>	<b>59.1</b>	<b>54.1</b>	<b>57.4</b>		<b>61.5</b>			<b>77</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0			
	15 - 44	1,542	1,758	1,487	4.2	4.8	4.1	4.3	1.00881	4.4	0.50	9			
	45 - 64	3	1	3	0.0	0.0	0.0	0.0	0.98553	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>1,545</b>	<b>1,759</b>	<b>1,490</b>	<b>4.2</b>	<b>4.8</b>	<b>4.1</b>	<b>4.4</b>		<b>4.4</b>			<b>9</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	1,694	1,625	1,998	4.6	4.5	5.5	5.0	1.01227	5.1	0.80	6			
	45 - 64	1,314	1,371	1,884	3.6	3.8	5.2	4.4	0.98238	4.4	0.80	5			
	65+	334	282	150	0.9	0.8	0.4	0.6	1.13688	0.7	0.80	1			
	<b>Sub Total</b>	<b>3,342</b>	<b>3,278</b>	<b>4,032</b>	<b>9.2</b>	<b>9.0</b>	<b>11.0</b>	<b>10.0</b>		<b>10.1</b>			<b>13</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	55	2	3	0.2	0.0	0.0	0.0	0.96673	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0			
<b>Sub Total</b>	<b>55</b>	<b>2</b>	<b>3</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>28,159</b>	<b>26,594</b>	<b>25,286</b>	<b>77</b>	<b>73</b>	<b>69</b>	<b>71.8</b>		<b>76.0</b>		<b>98</b>	<b>134</b>	<b>-36</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.

**Table E.5. Acute Care Hospital 2020 Bed Need, CCMC Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
CCMC	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	1,005	1,441	1,453	2.8	3.9	4.0	3.8	1.01227	3.8	0.80	5			
	45 - 64	0	27	3	0.0	0.1	0.0	0.0	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>1,005</b>	<b>1,468</b>	<b>1,456</b>	<b>2.8</b>	<b>4.0</b>	<b>4.0</b>	<b>3.8</b>		<b>3.8</b>			<b>5</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0			
	15 - 44	2	2	4	0.0	0.0	0.0	0.0	1.00881	0.0	0.50	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98553	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>		
	Psychiatric														
	0-14	55	59	103	0.2	0.2	0.3	0.2	0.96707	0.2	0.80	0			
	15 - 44	101	159	90	0.3	0.4	0.2	0.3	1.01227	0.3	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>156</b>	<b>218</b>	<b>193</b>	<b>0.4</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>		<b>0.5</b>			<b>1</b>		
	Rehabilitation														
	0-14	84	67	45	0.2	0.2	0.1	0.2	0.96707	0.2	0.80	0			
	15 - 44	82	11		0.2	0.0	0.0	0.0	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>166</b>	<b>78</b>	<b>45</b>	<b>0.5</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>		<b>0.2</b>			<b>0</b>		
	Pediatric														
	0-19	23,583	23,362	21,297	64.6	64.0	58.3	61.3	0.96673	59.2	0.80	74			
20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0				
<b>Sub Total</b>	<b>23,583</b>	<b>23,362</b>	<b>21,297</b>	<b>64.6</b>	<b>64.0</b>	<b>58.3</b>	<b>61.3</b>		<b>59.2</b>			<b>74</b>			
<b>Total</b>		<b>24,912</b>	<b>25,128</b>	<b>22,995</b>	<b>68</b>	<b>69</b>	<b>63</b>	<b>65.8</b>		<b>63.8</b>		<b>80</b>	<b>115</b>	<b>-35</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.



**Table E.6. Acute Care Hospital 2020 Bed Need, Charlotte Hungerford Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Litchfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Charlotte Hungerford	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0			
	15 - 44	1,853	1,732	1,681	5.1	4.7	4.6	4.7	0.98490	4.7	0.80	6			
	45 - 64	6,140	5,802	5,539	16.8	15.9	15.2	15.7	0.96706	15.2	0.80	19			
	65+	13,063	12,742	13,694	35.8	34.9	37.5	36.4	1.20043	43.6	0.80	55			
	<b>Sub Total</b>	<b>21,056</b>	<b>20,276</b>	<b>20,914</b>	<b>57.7</b>	<b>55.6</b>	<b>57.3</b>	<b>56.8</b>		<b>63.5</b>		<b>79</b>			
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88634	0.0	0.50	0			
	15 - 44	1,151	1,163	1,189	3.2	3.2	3.3	3.2	0.97955	3.2	0.50	6			
	45 - 64	4			0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0			
	<b>Sub Total</b>	<b>1,155</b>	<b>1,163</b>	<b>1,189</b>	<b>3.2</b>	<b>3.2</b>	<b>3.3</b>	<b>3.2</b>		<b>3.2</b>		<b>6</b>			
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0			
	15 - 44	1,584	1,204	1,211	4.3	3.3	3.3	3.5	0.98490	3.4	0.80	4			
	45 - 64	1,375	1,703	1,289	3.8	4.7	3.5	3.9	0.96706	3.8	0.80	5			
	65+	171	219	289	0.5	0.6	0.8	0.7	1.20043	0.8	0.80	1			
	<b>Sub Total</b>	<b>3,130</b>	<b>3,126</b>	<b>2,789</b>	<b>8.6</b>	<b>8.6</b>	<b>7.6</b>	<b>8.1</b>		<b>8.1</b>		<b>10</b>			
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>		<b>0</b>			
	Pediatric														
	0-19	58	22	7	0.2	0.1	0.0	0.1	0.90723	0.1	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0			
<b>Sub Total</b>	<b>58</b>	<b>22</b>	<b>7</b>	<b>0.2</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>		<b>0.1</b>		<b>0</b>				
<b>Total</b>		<b>25,399</b>	<b>24,587</b>	<b>24,899</b>	<b>70</b>	<b>67</b>	<b>68</b>	<b>68.2</b>		<b>74.7</b>		<b>96</b>	<b>109</b>	<b>-13</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Litchfield.

**Table E.7. Acute Care Hospital 2020 Bed Need, Danbury Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Danbury*</b>	Medical/Surgical														
	0-14	24	22	9	0.1	0.1	0.0	0.0	0.94156	0.0	0.80	0			
	15 - 44	6,214	6,137	6,603	17.0	16.8	18.1	17.5	1.01179	17.7	0.80	22			
	45 - 64	20,982	20,131	20,059	57.5	55.2	55.0	55.4	1.00638	55.8	0.80	70			
	65+	46,104	47,940	52,706	126.3	131.3	144.4	137.0	1.12096	153.6	0.80	192			
	<b>Sub Total</b>	<b>73,324</b>	<b>74,230</b>	<b>79,377</b>	<b>200.9</b>	<b>203.4</b>	<b>217.5</b>	<b>210.0</b>		<b>227.1</b>			<b>284</b>		
	Maternity														
	0-14	2	0	0	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0			
	15 - 44	6,184	5,959	6,063	16.9	16.3	16.6	16.6	1.00774	16.7	0.50	33			
	45 - 64	25	40	53	0.1	0.1	0.1	0.1	1.01051	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>6,211</b>	<b>5,999</b>	<b>6,116</b>	<b>17.0</b>	<b>16.4</b>	<b>16.8</b>	<b>16.7</b>		<b>16.8</b>			<b>34</b>		
	Psychiatric														
	0-14	7	10	0	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0			
	15 - 44	2,715	2,724	2,885	7.4	7.5	7.9	7.7	1.01179	7.8	0.80	10			
	45 - 64	2,399	2,397	2,364	6.6	6.6	6.5	6.5	1.00638	6.6	0.80	8			
	65+	1,151	1,441	1,086	3.2	3.9	3.0	3.3	1.12096	3.7	0.80	5			
	<b>Sub Total</b>	<b>6,272</b>	<b>6,572</b>	<b>6,335</b>	<b>17.2</b>	<b>18.0</b>	<b>17.4</b>	<b>17.5</b>		<b>18.1</b>			<b>23</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	180	235	243	0.5	0.6	0.7	0.6	1.01179	0.6	0.80	1			
	45 - 64	1,381	1,174	1,023	3.8	3.2	2.8	3.1	1.00638	3.1	0.80	4			
	65+	2,308	2,496	2,518	6.3	6.8	6.9	6.8	1.12096	7.6	0.80	10			
	<b>Sub Total</b>	<b>3,869</b>	<b>3,905</b>	<b>3,784</b>	<b>10.6</b>	<b>10.7</b>	<b>10.4</b>	<b>10.5</b>		<b>11.4</b>			<b>14</b>		
	Pediatric														
	0-19	568	388	540	1.6	1.1	1.5	1.4	0.94908	1.3	0.80	2			
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0			
<b>Sub Total</b>	<b>568</b>	<b>388</b>	<b>540</b>	<b>1.6</b>	<b>1.1</b>	<b>1.5</b>	<b>1.4</b>		<b>1.3</b>			<b>2</b>			
<b>Total</b>		<b>90,244</b>	<b>91,094</b>	<b>96,152</b>	<b>247</b>	<b>250</b>	<b>263</b>	<b>256.1</b>		<b>274.7</b>		<b>356</b>	<b>430</b>	<b>-74</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

\* New Milford Hospital in Litchfield County became a Danbury Hospital campus in FY 2015. This table contains the combined data for the two campuses.

**Table E.8. Acute Care Hospital 2020 Bed Need, Day Kimball Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Windham County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Day Kimball	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	893	839	629	2.4	2.3	1.7	2.0	1.00029	2.0	0.80	3			
	45 - 64	3,084	2,698	2,623	8.4	7.4	7.2	7.5	1.01073	7.5	0.80	9			
	65+	6,596	6,618	7,018	18.1	18.1	19.2	18.7	1.22440	22.9	0.80	29			
	<b>Sub Total</b>	<b>10,573</b>	<b>10,155</b>	<b>10,270</b>	<b>29.0</b>	<b>27.8</b>	<b>28.1</b>	<b>28.2</b>			<b>32.4</b>		<b>41</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95605	0.0	0.50	0			
	15 - 44	1,475	1,441	1,449	4.0	3.9	4.0	4.0	0.99720	4.0	0.50	8			
	45 - 64			2	0.0	0.0	0.0	0.0	1.01070	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0			
	<b>Sub Total</b>	<b>1,475</b>	<b>1,441</b>	<b>1,451</b>	<b>4.0</b>	<b>3.9</b>	<b>4.0</b>	<b>4.0</b>			<b>4.0</b>		<b>8</b>		
	Psychiatric														
	0-14	6			0.0	0.0	0.0	0.0	0.95771	0.0	0.80	0			
	15 - 44	2,493	2,255	1,917	6.8	6.2	5.3	5.8	1.00029	5.8	0.80	7			
	45 - 64	1,203	1,425	1,269	3.3	3.9	3.5	3.6	1.01073	3.6	0.80	5			
	65+	453	330	445	1.2	0.9	1.2	1.1	1.22440	1.4	0.80	2			
	<b>Sub Total</b>	<b>4,155</b>	<b>4,010</b>	<b>3,631</b>	<b>11.4</b>	<b>11.0</b>	<b>9.9</b>	<b>10.5</b>			<b>10.8</b>		<b>14</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>			<b>0.0</b>		<b>0</b>		
	Pediatric														
	0-19	52	16	9	0.1	0.0	0.0	0.1	0.96487	0.0	0.80	0			
20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0				
<b>Sub Total</b>	<b>52</b>	<b>16</b>	<b>9</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>			<b>0.0</b>		<b>0</b>			
<b>Total</b>		<b>16,255</b>	<b>15,622</b>	<b>15,361</b>	<b>45</b>	<b>43</b>	<b>42</b>	<b>42.7</b>		<b>47.3</b>		<b>62</b>	<b>104</b>	<b>-42</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Windham.

**Table E.9. Acute Care Hospital 2020 Bed Need, Greenwich Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Greenwich	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	2,863	2,736	2,317	7.8	7.5	6.3	7.0	1.01179	7.1	0.80	9			
	45 - 64	7,943	7,721	6,953	21.8	21.2	19.0	20.2	1.00638	20.3	0.80	25			
	65+	26,045	24,670	24,776	71.4	67.6	67.9	68.4	1.12096	76.6	0.80	96			
	<b>Sub Total</b>	<b>36,851</b>	<b>35,127</b>	<b>34,046</b>	<b>101.0</b>	<b>96.2</b>	<b>93.3</b>	<b>95.5</b>		<b>104.0</b>			<b>130</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94081	0.0	0.50	0			
	15 - 44	7,376	8,179	8,802	20.2	22.4	24.1	22.9	1.00774	23.1	0.50	46			
	45 - 64	61	159	126	0.2	0.4	0.3	0.3	1.01051	0.3	0.50	1			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>7,437</b>	<b>8,338</b>	<b>8,928</b>	<b>20.4</b>	<b>22.8</b>	<b>24.5</b>	<b>23.2</b>		<b>23.4</b>			<b>47</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	29	147	29	0.1	0.4	0.1	0.2	1.01179	0.2	0.80	0			
	45 - 64	46	39	49	0.1	0.1	0.1	0.1	1.00638	0.1	0.80	0			
	65+	83	243	51	0.2	0.7	0.1	0.3	1.12096	0.4	0.80	0			
	<b>Sub Total</b>	<b>158</b>	<b>429</b>	<b>129</b>	<b>0.4</b>	<b>1.2</b>	<b>0.4</b>	<b>0.6</b>		<b>0.7</b>			<b>1</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01179	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.00638	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12096	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	388	294	277	1.1	0.8	0.8	0.8	0.94908	0.8	0.80	1			
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0			
<b>Sub Total</b>	<b>388</b>	<b>294</b>	<b>277</b>	<b>1.1</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>		<b>0.8</b>			<b>1</b>			
<b>Total</b>		<b>44,834</b>	<b>44,188</b>	<b>43,380</b>	<b>123</b>	<b>121</b>	<b>119</b>	<b>120.3</b>		<b>128.9</b>		<b>179</b>	<b>174</b>	<b>+5</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

**Table E.10. Acute Care Hospital 2020 Bed Need, Griffin Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
Griffin	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	2,578	2,433	2,434	7.1	6.7	6.7	6.7	1.01313	6.8	0.80	9			
	45 - 64	6,548	6,908	6,909	17.9	18.9	18.9	18.8	0.98400	18.5	0.80	23			
	65+	14,994	13,949	14,032	41.1	38.2	38.4	38.8	1.14363	44.4	0.80	55			
	<b>Sub Total</b>	<b>24,120</b>	<b>23,290</b>	<b>23,375</b>	<b>66.1</b>	<b>63.8</b>	<b>64.0</b>	<b>64.3</b>		<b>69.7</b>			<b>87</b>		
	Maternity														
	0-14		2		0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0			
	15 - 44	1,725	1,689	1,432	4.7	4.6	3.9	4.3	1.01253	4.3	0.50	9			
	45 - 64	3	4	3	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>1,728</b>	<b>1,695</b>	<b>1,435</b>	<b>4.7</b>	<b>4.6</b>	<b>3.9</b>	<b>4.3</b>		<b>4.4</b>			<b>9</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	1,487	1,515	1,701	4.1	4.2	4.7	4.4	1.01313	4.5	0.80	6			
	45 - 64	1,496	1,626	1,851	4.1	4.5	5.1	4.7	0.98400	4.6	0.80	6			
	65+	328	706	588	0.9	1.9	1.6	1.6	1.14363	1.8	0.80	2			
	<b>Sub Total</b>	<b>3,311</b>	<b>3,847</b>	<b>4,140</b>	<b>9.1</b>	<b>10.5</b>	<b>11.3</b>	<b>10.7</b>		<b>10.9</b>			<b>14</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	9		1	0.0	0.0	0.0	0.0	0.96530	0.0	0.80	0			
20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0				
<b>Sub Total</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>29,168</b>	<b>28,832</b>	<b>28,951</b>	<b>80</b>	<b>79</b>	<b>79</b>	<b>79.3</b>		<b>84.9</b>		<b>109</b>	<b>160</b>	<b>-51</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.

**Table E.11. Acute Care Hospital 2020 Bed Need, Hartford Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Hartford</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	22,043	20,364	20,891	60.4	55.8	57.2	57.3	1.01227	58.0	0.80	72			
	45 - 64	59,243	59,519	58,528	162.3	163.1	160.4	161.6	0.98238	158.7	0.80	198			
	65+	93,257	91,743	91,503	255.5	251.4	250.7	251.7	1.13688	286.2	0.80	358			
	<b>Sub Total</b>	<b>174,543</b>	<b>171,626</b>	<b>170,922</b>	<b>478.2</b>	<b>470.2</b>	<b>468.3</b>	<b>470.6</b>		<b>502.9</b>			<b>629</b>		
	Maternity														
	0-14	13	2	2	0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0			
	15 - 44	12,545	12,584	12,519	34.4	34.5	34.3	34.4	1.00881	34.7	0.50	69			
	45 - 64	26	61	43	0.1	0.2	0.1	0.1	0.98553	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>12,584</b>	<b>12,647</b>	<b>12,564</b>	<b>34.5</b>	<b>34.6</b>	<b>34.4</b>	<b>34.5</b>		<b>34.8</b>			<b>70</b>		
	Psychiatric														
	0-14	4,910	4,807	4,606	13.5	13.2	12.6	12.9	0.96707	12.5	0.80	16			
	15 - 44	18,421	18,120	18,020	50.5	49.6	49.4	49.6	1.01227	50.3	0.80	63			
	45 - 64	11,123	11,531	9,668	30.5	31.6	26.5	28.9	0.98238	28.3	0.80	35			
	65+	4,565	5,475	5,207	12.5	15.0	14.3	14.2	1.13688	16.2	0.80	20			
	<b>Sub Total</b>	<b>39,019</b>	<b>39,933</b>	<b>37,501</b>	<b>106.9</b>	<b>109.4</b>	<b>102.7</b>	<b>105.7</b>		<b>107.3</b>			<b>134</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	253	146	82	0.7	0.4	0.2	0.4	0.96673	0.3	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0			
<b>Sub Total</b>	<b>253</b>	<b>146</b>	<b>82</b>	<b>0.7</b>	<b>0.4</b>	<b>0.2</b>	<b>0.4</b>		<b>0.3</b>			<b>0</b>			
<b>Total</b>		<b>226,399</b>	<b>224,352</b>	<b>221,069</b>	<b>620</b>	<b>615</b>	<b>606</b>	<b>611.1</b>		<b>645.3</b>		<b>833</b>	<b>819</b>	<b>+14</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.

**Table E.12. Acute Care Hospital 2020 Bed Need, Hospital of Central Connecticut**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
HOCC	Medical/Surgical														
	0-14	13	6		0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0			
	15 - 44	6,210	5,015	4,664	17.0	13.7	12.8	13.8	1.01227	14.0	0.80	17			
	45 - 64	18,314	15,995	15,188	50.2	43.8	41.6	43.8	0.98238	43.0	0.80	54			
	65+	33,899	30,260	30,369	92.9	82.9	83.2	84.7	1.13688	96.3	0.80	120			
	<b>Sub Total</b>	<b>58,436</b>	<b>51,276</b>	<b>50,221</b>	<b>160.1</b>	<b>140.5</b>	<b>137.6</b>	<b>142.3</b>		<b>153.3</b>			<b>192</b>		
	Maternity														
	0-14	8	1		0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0			
	15 - 44	4,738	4,802	4,715	13.0	13.2	12.9	13.0	1.00881	13.1	0.50	26			
	45 - 64	7	27	13	0.0	0.1	0.0	0.0	0.98553	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>4,753</b>	<b>4,830</b>	<b>4,728</b>	<b>13.0</b>	<b>13.2</b>	<b>13.0</b>	<b>13.1</b>		<b>13.2</b>			<b>26</b>		
	Psychiatric														
	0-14			1	0.0	0.0	0.0	0.0	0.96707	0.0	0.80	0			
	15 - 44	2,997	3,126	3,951	8.2	8.6	10.8	9.6	1.01227	9.8	0.80	12			
	45 - 64	2,929	2,971	2,912	8.0	8.1	8.0	8.0	0.98238	7.9	0.80	10			
	65+	702	716	823	1.9	2.0	2.3	2.1	1.13688	2.4	0.80	3			
	<b>Sub Total</b>	<b>6,628</b>	<b>6,814</b>	<b>7,686</b>	<b>18.2</b>	<b>18.7</b>	<b>21.1</b>	<b>19.8</b>		<b>20.0</b>			<b>25</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	585	346	30	1.6	0.9	0.1	0.6	0.96673	0.6	0.80	1			
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0			
<b>Sub Total</b>	<b>585</b>	<b>346</b>	<b>30</b>	<b>1.6</b>	<b>0.9</b>	<b>0.1</b>	<b>0.6</b>		<b>0.6</b>			<b>1</b>			
<b>Total</b>		<b>70,402</b>	<b>63,266</b>	<b>62,665</b>	<b>193</b>	<b>173</b>	<b>172</b>	<b>175.8</b>		<b>187.1</b>		<b>244</b>	<b>414</b>	<b>-170</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.

**Table E.13. Acute Care Hospital 2020 Bed Need, John Dempsey Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>John Dempsey</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	4,948	4,687	4,658	13.6	12.8	12.8	12.9	1.01227	13.1	0.80	16			
	45 - 64	11,151	10,608	9,180	30.6	29.1	25.2	27.4	0.98238	26.9	0.80	34			
	65+	14,713	14,651	15,215	40.3	40.1	41.7	40.9	1.13688	46.5	0.80	58			
	<b>Sub Total</b>	<b>30,812</b>	<b>29,946</b>	<b>29,053</b>	<b>84.4</b>	<b>82.0</b>	<b>79.6</b>	<b>81.2</b>		<b>86.5</b>			<b>108</b>		
	Maternity														
	0-14	2		2	0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0			
	15 - 44	3,534	2,399	2,974	9.7	6.6	8.1	7.9	1.00881	7.9	0.50	16			
	45 - 64	25	24	11	0.1	0.1	0.0	0.0	0.98553	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>3,561</b>	<b>2,423</b>	<b>2,987</b>	<b>9.8</b>	<b>6.6</b>	<b>8.2</b>	<b>7.9</b>		<b>8.0</b>			<b>16</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	1,789	1,817	1,654	4.9	5.0	4.5	4.7	1.01227	4.8	0.80	6			
	45 - 64	2,090	2,043	2,117	5.7	5.6	5.8	5.7	0.98238	5.6	0.80	7			
	65+	1,214	1,318	1,413	3.3	3.6	3.9	3.7	1.13688	4.2	0.80	5			
	<b>Sub Total</b>	<b>5,093</b>	<b>5,178</b>	<b>5,184</b>	<b>14.0</b>	<b>14.2</b>	<b>14.2</b>	<b>14.2</b>		<b>14.6</b>			<b>18</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	31	1	4	0.1	0.0	0.0	0.0	0.96673	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0			
<b>Sub Total</b>	<b>31</b>	<b>1</b>	<b>4</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>39,497</b>	<b>37,548</b>	<b>37,228</b>	<b>108</b>	<b>103</b>	<b>102</b>	<b>103.3</b>		<b>109.1</b>		<b>142</b>	<b>224</b>	<b>-82</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.



**Table E.14. Acute Care Hospital 2020 Bed Need, Johnson Memorial Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Tolland County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Johnson	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	1,101	1,135	1,285	3.0	3.1	3.5	3.3	1.00969	3.3	0.80	4			
	45 - 64	3,135	2,869	3,192	8.6	7.9	8.7	8.4	0.98044	8.3	0.80	10			
	65+	7,791	7,391	6,736	21.3	20.2	18.5	19.5	1.20444	23.5	0.80	29			
	<b>Sub Total</b>	<b>12,027</b>	<b>11,395</b>	<b>11,213</b>	<b>33.0</b>	<b>31.2</b>	<b>30.7</b>	<b>31.3</b>		<b>35.1</b>			<b>44</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0			
	15 - 44	560	613	540	1.5	1.7	1.5	1.6	1.00881	1.6	0.50	3			
	45 - 64	0	6	3	0.0	0.0	0.0	0.0	0.99659	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0			
	<b>Sub Total</b>	<b>560</b>	<b>619</b>	<b>543</b>	<b>1.5</b>	<b>1.7</b>	<b>1.5</b>	<b>1.6</b>		<b>1.6</b>			<b>3</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	1,344	1,893	1,414	3.7	5.2	3.9	4.3	1.00969	4.3	0.80	5			
	45 - 64	1,335	1,531	1,252	3.7	4.2	3.4	3.7	0.98044	3.7	0.80	5			
	65+	235	262	340	0.6	0.7	0.9	0.8	1.20444	1.0	0.80	1			
	<b>Sub Total</b>	<b>2,914</b>	<b>3,686</b>	<b>3,006</b>	<b>8.0</b>	<b>10.1</b>	<b>8.2</b>	<b>8.8</b>		<b>8.9</b>			<b>11</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	13	12	7	0.0	0.0	0.0	0.0	0.94612	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0			
<b>Sub Total</b>	<b>13</b>	<b>12</b>	<b>7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>15,514</b>	<b>15,712</b>	<b>14,769</b>	<b>43</b>	<b>43</b>	<b>40</b>	<b>41.7</b>		<b>45.7</b>		<b>58</b>	<b>92</b>	<b>-34</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Tolland.

**Table E.15. Acute Care Hospital 2020 Bed Need, Lawrence+Memorial Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New London County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Lawrence + Memorial</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	4,903	5,033	4,780	13.4	13.8	13.1	13.4	0.99490	13.3	0.80	17			
	45 - 64	14,418	14,341	12,726	39.5	39.3	34.9	37.1	0.97130	36.0	0.80	45			
	65+	27,870	26,359	24,980	76.4	72.2	68.4	71.0	1.19137	84.6	0.80	106			
	<b>Sub Total</b>	<b>47,191</b>	<b>45,733</b>	<b>42,486</b>	<b>129.3</b>	<b>125.3</b>	<b>116.4</b>	<b>121.5</b>		<b>134.0</b>			<b>167</b>		
	Maternity														
	0-14			2	0.0	0.0	0.0	0.0	0.94942	0.0	0.50	0			
	15 - 44	4,268	4,499	4,445	11.7	12.3	12.2	12.1	0.98704	12.0	0.50	24			
	45 - 64	2	16	8	0.0	0.0	0.0	0.0	0.97794	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.17099	0.0	0.50	0			
	<b>Sub Total</b>	<b>4,270</b>	<b>4,515</b>	<b>4,455</b>	<b>11.7</b>	<b>12.4</b>	<b>12.2</b>	<b>12.2</b>		<b>12.0</b>			<b>24</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	2,535	2,485	2,762	6.9	6.8	7.6	7.2	0.99490	7.2	0.80	9			
	45 - 64	2,162	2,487	2,304	5.9	6.8	6.3	6.4	0.97130	6.2	0.80	8			
	65+	436	702	475	1.2	1.9	1.3	1.5	1.19137	1.8	0.80	2			
	<b>Sub Total</b>	<b>5,133</b>	<b>5,674</b>	<b>5,541</b>	<b>14.1</b>	<b>15.5</b>	<b>15.2</b>	<b>15.1</b>		<b>15.2</b>			<b>19</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95225	0.0	0.80	0			
	15 - 44	242	166	221	0.7	0.5	0.6	0.6	0.99490	0.6	0.80	1			
	45 - 64	918	1,115	1,100	2.5	3.1	3.0	2.9	0.97130	2.9	0.80	4			
	65+	2,979	3,215	3,128	8.2	8.8	8.6	8.6	1.19137	10.2	0.80	13			
	<b>Sub Total</b>	<b>4,139</b>	<b>4,496</b>	<b>4,449</b>	<b>11.3</b>	<b>12.3</b>	<b>12.2</b>	<b>12.1</b>		<b>13.6</b>			<b>17</b>		
	Pediatric														
	0-19	249	129	64	0.7	0.4	0.2	0.3	0.95388	0.3	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03192	0.0	0.80	0			
<b>Sub Total</b>	<b>249</b>	<b>129</b>	<b>64</b>	<b>0.7</b>	<b>0.4</b>	<b>0.2</b>	<b>0.3</b>		<b>0.3</b>			<b>0</b>			
<b>Total</b>		<b>60,982</b>	<b>60,547</b>	<b>56,995</b>	<b>167</b>	<b>166</b>	<b>156</b>	<b>161.2</b>		<b>175.1</b>		<b>228</b>	<b>280</b>	<b>-52</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New London.

**Table E.16. Acute Care Hospital 2020 Bed Need, Manchester Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (-)	
Manchester	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	2,660	2,904	2,032	7.3	8.0	5.6	6.7	1.01227	6.7	0.80	8			
	45 - 64	8,710	8,019	6,301	23.9	22.0	17.3	19.9	0.98238	19.6	0.80	24			
	65+	18,175	15,523	13,556	49.8	42.5	37.1	41.0	1.13688	46.7	0.80	58			
	<b>Sub Total</b>	<b>29,545</b>	<b>26,446</b>	<b>21,889</b>	<b>80.9</b>	<b>72.5</b>	<b>60.0</b>	<b>67.6</b>		<b>73.0</b>			<b>91</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96778	0.0	0.50	0			
	15 - 44	3,411	3,480	3,776	9.3	9.5	10.3	9.9	1.00881	10.0	0.50	20			
	45 - 64	9	10	23	0.0	0.0	0.1	0.0	0.98553	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>3,420</b>	<b>3,490</b>	<b>3,799</b>	<b>9.4</b>	<b>9.6</b>	<b>10.4</b>	<b>10.0</b>		<b>10.0</b>			<b>20</b>		
	Psychiatric														
	0-14	600	358	239	1.6	1.0	0.7	0.9	0.96707	0.9	0.80	1			
	15 - 44	5,031	5,357	5,476	13.8	14.7	15.0	14.7	1.01227	14.9	0.80	19			
	45 - 64	3,753	4,152	3,817	10.3	11.4	10.5	10.7	0.98238	10.5	0.80	13			
	65+	641	864	1,206	1.8	2.4	3.3	2.7	1.13688	3.1	0.80	4			
	<b>Sub Total</b>	<b>10,025</b>	<b>10,731</b>	<b>10,738</b>	<b>27.5</b>	<b>29.4</b>	<b>29.4</b>	<b>29.1</b>		<b>29.4</b>			<b>37</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	11	15	5	0.0	0.0	0.0	0.0	0.96673	0.0	0.80	0			
20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0				
<b>Sub Total</b>	<b>11</b>	<b>15</b>	<b>5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>43,001</b>	<b>40,682</b>	<b>36,431</b>	<b>118</b>	<b>111</b>	<b>100</b>	<b>106.7</b>		<b>112.5</b>		<b>148</b>	<b>249</b>	<b>-101</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.

**Table E.17. Acute Care Hospital 2020 Bed Need, Middlesex Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Middlesex County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Middlesex	Medical/Surgical														
	0-14	2	4	1	0.0	0.0	0.0	0.0	0.90103	0.0	0.80	0			
	15 - 44	4,020	3,290	3,571	11.0	9.0	9.8	9.7	0.98633	9.6	0.80	12			
	45 - 64	13,999	13,130	12,278	38.4	36.0	33.6	35.2	0.97358	34.3	0.80	43			
	65+	30,147	28,600	28,153	82.6	78.4	77.1	78.5	1.20478	94.5	0.80	118			
	<b>Sub Total</b>	<b>48,168</b>	<b>45,024</b>	<b>44,003</b>	<b>132.0</b>	<b>123.4</b>	<b>120.6</b>	<b>123.4</b>		<b>138.4</b>			<b>173</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90155	0.0	0.50	0			
	15 - 44	2,866	2,943	2,948	7.9	8.1	8.1	8.0	0.98063	7.9	0.50	16			
	45 - 64	10	10	5	0.0	0.0	0.0	0.0	0.97791	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19360	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,876</b>	<b>2,953</b>	<b>2,953</b>	<b>7.9</b>	<b>8.1</b>	<b>8.1</b>	<b>8.1</b>		<b>7.9</b>			<b>16</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0			
	15 - 44	2,366	2,641	2,398	6.5	7.2	6.6	6.8	0.98633	6.7	0.80	8			
	45 - 64	3,018	2,592	2,788	8.3	7.1	7.6	7.6	0.97358	7.4	0.80	9			
	65+	767	855	832	2.1	2.3	2.3	2.3	1.20478	2.7	0.80	3			
	<b>Sub Total</b>	<b>6,151</b>	<b>6,088</b>	<b>6,018</b>	<b>16.9</b>	<b>16.7</b>	<b>16.5</b>	<b>16.6</b>		<b>16.8</b>			<b>21</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.90103	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98633	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.97358	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20478	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	4	1		0.0	0.0	0.0	0.0	0.92096	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03553	0.0	0.80	0			
<b>Sub Total</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>57,199</b>	<b>54,066</b>	<b>52,974</b>	<b>157</b>	<b>148</b>	<b>145</b>	<b>148.1</b>		<b>163.1</b>		<b>210</b>	<b>275</b>	<b>-65</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Middlesex.

**Table E.18. Acute Care Hospital 2020 Bed Need, MidState Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
MidState	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	3,581	3,432	2,972	9.8	9.4	8.1	8.8	1.01313	9.0	0.80	11			
	45 - 64	10,188	9,567	8,638	27.9	26.2	23.7	25.2	0.98400	24.8	0.80	31			
	65+	21,327	19,792	19,624	58.4	54.2	53.8	54.7	1.14363	62.6	0.80	78			
	<b>Sub Total</b>	<b>35,096</b>	<b>32,791</b>	<b>31,234</b>	<b>96.2</b>	<b>89.8</b>	<b>85.6</b>	<b>88.8</b>		<b>96.3</b>			<b>120</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97102	0.0	0.50	0			
	15 - 44	2,498	2,401	2,373	6.8	6.6	6.5	6.6	1.01253	6.7	0.50	13			
	45 - 64	3	11	3	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,501</b>	<b>2,412</b>	<b>2,376</b>	<b>6.9</b>	<b>6.6</b>	<b>6.5</b>	<b>6.6</b>		<b>6.7</b>			<b>13</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	940	728	614	2.6	2.0	1.7	1.9	1.01313	2.0	0.80	2			
	45 - 64	1,066	1,064	886	2.9	2.9	2.4	2.7	0.98400	2.6	0.80	3			
	65+	139	262	92	0.4	0.7	0.3	0.4	1.14363	0.5	0.80	1			
	<b>Sub Total</b>	<b>2,145</b>	<b>2,054</b>	<b>1,592</b>	<b>5.9</b>	<b>5.6</b>	<b>4.4</b>	<b>5.0</b>		<b>5.1</b>			<b>6</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	2	20		0.0	0.1	0.0	0.0	0.96530	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0			
	<b>Sub Total</b>	<b>2</b>	<b>20</b>	<b>0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>		
<b>Total</b>		<b>39,744</b>	<b>37,277</b>	<b>35,202</b>	<b>109</b>	<b>102</b>	<b>96</b>	<b>100.4</b>		<b>108.1</b>		<b>140</b>	<b>144</b>	<b>-4</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.

**Table E.19. Acute Care Hospital 2020 Bed Need, Milford Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
<b>Milford</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	824	990	731	2.3	2.7	2.0	2.3	1.01313	2.3	0.80	3			
	45 - 64	3,133	2,967	3,142	8.6	8.1	8.6	8.4	0.98400	8.3	0.80	10			
	65+	8,834	7,943	7,829	24.2	21.8	21.4	22.0	1.14363	25.2	0.80	31			
	<b>Sub Total</b>	<b>12,791</b>	<b>11,900</b>	<b>11,702</b>	<b>35.0</b>	<b>32.6</b>	<b>32.1</b>	<b>32.7</b>			<b>35.8</b>		<b>45</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97102	0.0	0.50	0			
	15 - 44	321	423	169	0.9	1.2	0.5	0.8	1.01253	0.8	0.50	2			
	45 - 64		3		0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>321</b>	<b>426</b>	<b>169</b>	<b>0.9</b>	<b>1.2</b>	<b>0.5</b>	<b>0.8</b>			<b>0.8</b>		<b>2</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	1	5		0.0	0.0	0.0	0.0	1.01313	0.0	0.80	0			
	45 - 64	18	8	6	0.0	0.0	0.0	0.0	0.98400	0.0	0.80	0			
	65+	14	22	44	0.0	0.1	0.1	0.1	1.14363	0.1	0.80	0			
	<b>Sub Total</b>	<b>33</b>	<b>35</b>	<b>50</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>			<b>0.1</b>		<b>0</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>			<b>0.0</b>		<b>0</b>		
	Pediatric														
	0-19	0	0	0	0.0	0.0	0.0	-	0.96530	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>			<b>0.0</b>		<b>0</b>		
<b>Total</b>		<b>13,145</b>	<b>12,361</b>	<b>11,921</b>	<b>36</b>	<b>34</b>	<b>33</b>	<b>33.6</b>		<b>36.7</b>		<b>46</b>	<b>106</b>	<b>-60</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.

**Table E.20. Acute Care Hospital 2020 Bed Need, Norwalk Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Norwalk</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	4,156	4,435	3,914	11.4	12.2	10.7	11.3	1.01179	11.4	0.80	14			
	45 - 64	12,455	12,657	11,945	34.1	34.7	32.7	33.6	1.00638	33.8	0.80	42			
	65+	27,203	27,627	28,475	74.5	75.7	78.0	76.7	1.12096	85.9	0.80	107			
	<b>Sub Total</b>	<b>43,814</b>	<b>44,719</b>	<b>44,334</b>	<b>120.0</b>	<b>122.5</b>	<b>121.5</b>	<b>121.6</b>		<b>131.2</b>			<b>164</b>		
	Maternity														
	0-14	7	0	9	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0			
	15 - 44	4,445	4,043	4,103	12.2	11.1	11.2	11.3	1.00774	11.4	0.50	23			
	45 - 64	14	47	16	0.0	0.1	0.0	0.1	1.01051	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>4,466</b>	<b>4,090</b>	<b>4,128</b>	<b>12.2</b>	<b>11.2</b>	<b>11.3</b>	<b>11.4</b>		<b>11.5</b>			<b>23</b>		
	Psychiatric														
	0-14	9	7	15	0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0			
	15 - 44	1,292	899	966	3.5	2.5	2.6	2.7	1.01179	2.8	0.80	3			
	45 - 64	1,248	1,195	1,278	3.4	3.3	3.5	3.4	1.00638	3.4	0.80	4			
	65+	538	577	707	1.5	1.6	1.9	1.7	1.12096	2.0	0.80	2			
	<b>Sub Total</b>	<b>3,087</b>	<b>2,678</b>	<b>2,966</b>	<b>8.5</b>	<b>7.3</b>	<b>8.1</b>	<b>7.9</b>		<b>8.2</b>			<b>10</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	159	20	14	0.4	0.1	0.0	0.1	1.01179	0.1	0.80	0			
	45 - 64	294	352	324	0.8	1.0	0.9	0.9	1.00638	0.9	0.80	1			
	65+	1,624	1,485	1,043	4.4	4.1	2.9	3.5	1.12096	4.0	0.80	5			
	<b>Sub Total</b>	<b>2,077</b>	<b>1,857</b>	<b>1,381</b>	<b>5.7</b>	<b>5.1</b>	<b>3.8</b>	<b>4.5</b>		<b>5.0</b>			<b>6</b>		
	Pediatric														
	0-19	1,223	1,132	935	3.4	3.1	2.6	2.9	0.94908	2.7	0.80	3			
20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0				
<b>Sub Total</b>	<b>1,223</b>	<b>1,132</b>	<b>935</b>	<b>3.4</b>	<b>3.1</b>	<b>2.6</b>	<b>2.9</b>		<b>2.7</b>			<b>3</b>			
<b>Total</b>		<b>54,667</b>	<b>54,476</b>	<b>53,744</b>	<b>150</b>	<b>149</b>	<b>147</b>	<b>148.3</b>		<b>158.6</b>		<b>207</b>	<b>328</b>	<b>-121</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

**Table E.21. Acute Care Hospital 2020 Bed Need, Rockville General Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Tolland County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Rockville</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	1,163	1,075	834	3.2	2.9	2.3	2.7	1.00969	2.7	0.80	3			
	45 - 64	3,286	3,356	2,755	9.0	9.2	7.5	8.3	0.98044	8.2	0.80	10			
	65+	7,824	6,724	6,019	21.4	18.4	16.5	18.0	1.20444	21.6	0.80	27			
	<b>Sub Total</b>	<b>12,273</b>	<b>11,155</b>	<b>9,608</b>	<b>33.6</b>	<b>30.6</b>	<b>26.3</b>	<b>29.0</b>		<b>32.5</b>			<b>41</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93517	0.0	0.50	0			
	15 - 44	2	1	6	0.0	0.0	0.0	0.0	1.00881	0.0	0.50	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.99659	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19032	0.0	0.50	0			
	<b>Sub Total</b>	<b>2</b>	<b>1</b>	<b>6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>			<b>0</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	2	4	1	0.0	0.0	0.0	0.0	1.00969	0.0	0.80	0			
	45 - 64	7	9		0.0	0.0	0.0	0.0	0.98044	0.0	0.80	0			
	65+	22	22	56	0.1	0.1	0.2	0.1	1.20444	0.1	0.80	0			
	<b>Sub Total</b>	<b>31</b>	<b>35</b>	<b>57</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>		<b>0.1</b>			<b>0</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.93074	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00969	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98044	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20444	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	20	24	15	0.1	0.1	0.0	0.1	0.94612	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.04017	0.0	0.80	0			
<b>Sub Total</b>	<b>20</b>	<b>24</b>	<b>15</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>		<b>0.0</b>			<b>0</b>			
<b>Total</b>		<b>12,326</b>	<b>11,215</b>	<b>9,686</b>	<b>34</b>	<b>31</b>	<b>27</b>	<b>29.1</b>		<b>32.7</b>		<b>41</b>	<b>102</b>	<b>-61</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Tolland.



**Table E.22. Acute Care Hospital 2020 Bed Need, St. Francis Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Hartford County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
St. Francis	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	13,052	10,935	11,631	35.8	30.0	31.9	31.9	1.01227	32.3	0.80	40			
	45 - 64	39,703	36,808	36,682	108.8	100.8	100.5	102.0	0.98238	100.2	0.80	125			
	65+	71,543	68,291	70,631	196.0	187.1	193.5	191.8	1.13688	218.0	0.80	273			
	<b>Sub Total</b>	<b>124,298</b>	<b>116,034</b>	<b>118,944</b>	<b>340.5</b>	<b>317.9</b>	<b>325.9</b>	<b>325.7</b>		<b>350.5</b>			<b>438</b>		
	Maternity														
	0-14	9			0.0	0.0	0.0	0.0	0.96778	0.0	0.50	0			
	15 - 44	9,750	9,983	9,156	26.7	27.4	25.1	26.1	1.00881	26.3	0.50	53			
	45 - 64	19	29	32	0.1	0.1	0.1	0.1	0.98553	0.1	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.11856	0.0	0.50	0			
	<b>Sub Total</b>	<b>9,778</b>	<b>10,012</b>	<b>9,188</b>	<b>26.8</b>	<b>27.4</b>	<b>25.2</b>	<b>26.2</b>		<b>26.4</b>			<b>53</b>		
	Psychiatric														
	0-14	2,957	1,961	2,066	8.1	5.4	5.7	6.0	0.96707	5.8	0.80	7			
	15 - 44	6,144	6,460	6,473	16.8	17.7	17.7	17.6	1.01227	17.8	0.80	22			
	45 - 64	4,178	4,319	3,950	11.4	11.8	10.8	11.3	0.98238	11.1	0.80	14			
	65+	507	765	687	1.4	2.1	1.9	1.9	1.13688	2.1	0.80	3			
	<b>Sub Total</b>	<b>13,786</b>	<b>13,505</b>	<b>13,176</b>	<b>37.8</b>	<b>37.0</b>	<b>36.1</b>	<b>36.7</b>		<b>36.8</b>			<b>46</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.96707	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01227	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98238	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.13688	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	284	167	205	0.8	0.5	0.6	0.6	0.96673	0.5	0.80	1			
	20+	0	0	0	0.0	0.0	0.0	-	1.03196	0.0	0.80	0			
<b>Sub Total</b>	<b>284</b>	<b>167</b>	<b>205</b>	<b>0.8</b>	<b>0.5</b>	<b>0.6</b>	<b>0.6</b>		<b>0.5</b>			<b>1</b>			
<b>Total</b>		<b>148,146</b>	<b>139,718</b>	<b>141,513</b>	<b>406</b>	<b>383</b>	<b>388</b>	<b>389.1</b>		<b>414.2</b>		<b>538</b>	<b>617</b>	<b>-79</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Hartford.

**Table E.23. Acute Care Hospital 2020 Bed Need, Saint Mary's Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
Saint Mary's	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	5,933	4,644	4,752	16.3	12.7	13.0	13.5	1.01313	13.6	0.80	17			
	45 - 64	12,510	12,483	12,254	34.3	34.2	33.6	33.9	0.98400	33.4	0.80	42			
	65+	24,218	23,432	23,452	66.4	64.2	64.3	64.6	1.14363	73.9	0.80	92			
	<b>Sub Total</b>	<b>42,661</b>	<b>40,559</b>	<b>40,458</b>	<b>116.9</b>	<b>111.1</b>	<b>110.8</b>	<b>111.9</b>			<b>120.9</b>		<b>151</b>		
	Maternity														
	0-14	3		3	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0			
	15 - 44	2,730	3,042	2,942	7.5	8.3	8.1	8.1	1.01253	8.2	0.50	16			
	45 - 64	4	4	11	0.0	0.0	0.0	0.0	0.98578	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>2,737</b>	<b>3,046</b>	<b>2,956</b>	<b>7.5</b>	<b>8.3</b>	<b>8.1</b>	<b>8.1</b>			<b>8.2</b>		<b>16</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	1,635	2,380	2,008	4.5	6.5	5.5	5.7	1.01313	5.7	0.80	7			
	45 - 64	1,470	1,587	1,670	4.0	4.3	4.6	4.4	0.98400	4.3	0.80	5			
	65+	241	86	64	0.7	0.2	0.2	0.3	1.14363	0.3	0.80	0			
	<b>Sub Total</b>	<b>3,346</b>	<b>4,053</b>	<b>3,742</b>	<b>9.2</b>	<b>11.1</b>	<b>10.3</b>	<b>10.4</b>			<b>10.4</b>		<b>13</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>			<b>0.0</b>		<b>0</b>		
	Pediatric														
	0-19	1	3	10	0.0	0.0	0.0	0.0	0.96530	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0			
<b>Sub Total</b>	<b>1</b>	<b>3</b>	<b>10</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>			<b>0.0</b>		<b>0</b>			
<b>Total</b>		<b>48,745</b>	<b>47,661</b>	<b>47,166</b>	<b>134</b>	<b>131</b>	<b>129</b>	<b>130.4</b>		<b>139.4</b>		<b>180</b>	<b>347</b>	<b>-167</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.

**Table E.24. Acute Care Hospital 2020 Bed Need, Saint Vincent's Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Saint Vincent's	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	8,045	8,240	9,290	22.0	22.6	25.5	23.9	1.01179	24.2	0.80	30			
	45 - 64	24,291	23,750	24,071	66.6	65.1	65.9	65.8	1.00638	66.2	0.80	83			
	65+	50,454	47,045	43,592	138.2	128.9	119.4	125.7	1.12096	140.9	0.80	176			
	<b>Sub Total</b>	<b>82,790</b>	<b>79,035</b>	<b>76,953</b>	<b>226.8</b>	<b>216.5</b>	<b>210.8</b>	<b>215.4</b>		<b>231.3</b>			<b>289</b>		
	Maternity														
	0-14	0	3	0	0.0	0.0	0.0	0.0	0.94081	0.0	0.50	0			
	15 - 44	3,001	2,809	2,906	8.2	7.7	8.0	7.9	1.00774	8.0	0.50	16			
	45 - 64	15	18	4	0.0	0.0	0.0	0.0	1.01051	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>3,016</b>	<b>2,830</b>	<b>2,910</b>	<b>8.3</b>	<b>7.8</b>	<b>8.0</b>	<b>7.9</b>		<b>8.0</b>			<b>16</b>		
	Psychiatric														
	0-14	2,214	1,493	1,448	6.1	4.1	4.0	4.4	0.94156	4.1	0.80	5			
	15 - 44	15,479	12,946	13,346	42.4	35.5	36.6	37.2	1.01179	37.6	0.80	47			
	45 - 64	9,657	9,233	8,480	26.5	25.3	23.2	24.5	1.00638	24.6	0.80	31			
	65+	1,955	1,471	1,631	5.4	4.0	4.5	4.5	1.12096	5.0	0.80	6			
	<b>Sub Total</b>	<b>29,305</b>	<b>25,143</b>	<b>24,905</b>	<b>80.3</b>	<b>68.9</b>	<b>68.2</b>	<b>70.5</b>		<b>71.3</b>			<b>89</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	147	146	141	0.4	0.4	0.4	0.4	1.01179	0.4	0.80	0			
45 - 64	1,015	860	843	2.8	2.4	2.3	2.4	1.00638	2.4	0.80	3				
65+	1,697	1,950	2,080	4.6	5.3	5.7	5.4	1.12096	6.1	0.80	8				
<b>Sub Total</b>	<b>2,859</b>	<b>2,956</b>	<b>3,064</b>	<b>7.8</b>	<b>8.1</b>	<b>8.4</b>	<b>8.2</b>		<b>8.9</b>			<b>11</b>			
Pediatric															
0-19	13	10	29	0.0	0.0	0.1	0.1	0.94908	0.1	0.80	0				
20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0				
<b>Sub Total</b>	<b>13</b>	<b>10</b>	<b>29</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>		<b>0.1</b>			<b>0</b>			
<b>Total</b>		<b>117,983</b>	<b>109,974</b>	<b>107,861</b>	<b>323</b>	<b>301</b>	<b>296</b>	<b>302.1</b>		<b>319.6</b>		<b>405</b>	<b>473</b>	<b>-68</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

**Table E.25. Acute Care Hospital 2020 Bed Need, Sharon Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Litchfield County Pop chg. 2015 to 2020	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Sharon</b>	Medical/Surgical														
	0-14	9		2	0.0	0.0	0.0	0.0	0.88581	0.0	0.80	0			
	15 - 44	858	538	359	2.4	1.5	1.0	1.4	0.98490	1.4	0.80	2			
	45 - 64	2,048	1,706	1,550	5.6	4.7	4.2	4.6	0.96706	4.5	0.80	6			
	65+	6,569	6,232	5,714	18.0	17.1	15.7	16.5	1.20043	19.8	0.80	25			
	<b>Sub Total</b>	<b>6,569</b>	<b>6,232</b>	<b>5,714</b>	<b>18.0</b>	<b>17.1</b>	<b>15.7</b>	<b>16.5</b>		<b>25.7</b>		<b>32</b>			
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88634	0.0	0.50	0			
	15 - 44	665	701	680	1.8	1.9	1.9	1.9	0.97955	1.8	0.50	4			
	45 - 64	4	0	0	0.0	0.0	0.0	0.0	0.97230	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.18059	0.0	0.50	0			
	<b>Sub Total</b>	<b>669</b>	<b>701</b>	<b>680</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>		<b>1.8</b>		<b>4</b>			
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0			
	15 - 44	19	3		0.1	0.0	0.0	0.0	0.98490	0.0	0.80	0			
	45 - 64	215	286	422	0.6	0.8	1.2	0.9	0.96706	0.9	0.80	1			
	65+	1,322	1,638	1,695	3.6	4.5	4.6	4.4	1.20043	5.3	0.80	7			
	<b>Sub Total</b>	<b>1,556</b>	<b>1,927</b>	<b>2,117</b>	<b>4.3</b>	<b>5.3</b>	<b>5.8</b>	<b>5.4</b>		<b>6.2</b>		<b>8</b>			
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.88581	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	0.98490	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.96706	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.20043	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>		<b>0</b>			
	Pediatric														
	0-19	34	7	12	0.1	0.0	0.0	0.0	0.90723	0.0	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03251	0.0	0.80	0			
<b>Sub Total</b>	<b>34</b>	<b>7</b>	<b>12</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>		<b>0</b>				
<b>Total</b>		<b>8,828</b>	<b>8,867</b>	<b>8,523</b>	<b>24</b>	<b>24</b>	<b>23</b>	<b>23.8</b>		<b>33.8</b>		<b>44</b>	<b>78</b>	<b>-34</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Litchfield.

**Table E.26. Acute Care Hospital 2020 Bed Need, Stamford Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Fairfield County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
<b>Stamford</b>	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	6,041	5,778	4,797	16.6	15.8	13.1	14.6	1.01179	14.8	0.80	18			
	45 - 64	12,701	11,713	11,307	34.8	32.1	31.0	32.0	1.00638	32.2	0.80	40			
	65+	26,535	27,420	27,553	72.7	75.1	75.5	74.9	1.12096	84.0	0.80	105			
	<b>Sub Total</b>	<b>45,277</b>	<b>44,911</b>	<b>43,657</b>	<b>124.0</b>	<b>123.0</b>	<b>119.6</b>	<b>121.5</b>		<b>130.9</b>			<b>164</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94081	0.0	0.50	0			
	15 - 44	8,111	8,046	7,962	22.2	22.0	21.8	22.0	1.00774	22.1	0.50	44			
	45 - 64	68	47	69	0.2	0.1	0.2	0.2	1.01051	0.2	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.09873	0.0	0.50	0			
	<b>Sub Total</b>	<b>8,179</b>	<b>8,093</b>	<b>8,031</b>	<b>22.4</b>	<b>22.2</b>	<b>22.0</b>	<b>22.1</b>		<b>22.3</b>			<b>45</b>		
	Psychiatric														
	0-14	3	3		0.0	0.0	0.0	0.0	0.94156	0.0	0.80	0			
	15 - 44	2,288	2,105	2,202	6.3	5.8	6.0	6.0	1.01179	6.1	0.80	8			
	45 - 64	1,713	1,816	1,836	4.7	5.0	5.0	5.0	1.00638	5.0	0.80	6			
	65+	598	774	781	1.6	2.1	2.1	2.0	1.12096	2.3	0.80	3			
	<b>Sub Total</b>	<b>4,602</b>	<b>4,698</b>	<b>4,819</b>	<b>12.6</b>	<b>12.9</b>	<b>13.2</b>	<b>13.0</b>		<b>13.3</b>			<b>17</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.94156	0.0	0.80	0			
	15 - 44	109	155	178	0.3	0.4	0.5	0.4	1.01179	0.4	0.80	1			
	45 - 64	659	459	759	1.8	1.3	2.1	1.8	1.00638	1.8	0.80	2			
	65+	3,162	3,600	4,180	8.7	9.9	11.5	10.5	1.12096	11.7	0.80	15			
	<b>Sub Total</b>	<b>3,930</b>	<b>4,214</b>	<b>5,117</b>	<b>10.8</b>	<b>11.5</b>	<b>14.0</b>	<b>12.7</b>		<b>13.9</b>			<b>17</b>		
	Pediatric														
	0-19	1,078	1,067	835	3.0	2.9	2.3	2.6	0.94908	2.5	0.80	3			
	20+	0	0	0	0.0	0.0	0.0	-	1.03582	0.0	0.80	0			
<b>Sub Total</b>	<b>1,078</b>	<b>1,067</b>	<b>835</b>	<b>3.0</b>	<b>2.9</b>	<b>2.3</b>	<b>2.6</b>		<b>2.5</b>			<b>3</b>			
<b>Total</b>		<b>63,066</b>	<b>62,983</b>	<b>62,459</b>	<b>173</b>	<b>173</b>	<b>171</b>	<b>171.9</b>		<b>183.0</b>		<b>245</b>	<b>305</b>	<b>-60</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Fairfield.

**Table E.27. Acute Care Hospital 2020 Bed Need, Waterbury Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
Waterbury	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	3,702	4,230	3,821	10.1	11.6	10.5	10.8	1.01313	10.9	0.80	14			
	45 - 64	11,680	13,582	11,884	32.0	37.2	32.6	34.0	0.98400	33.5	0.80	42			
	65+	23,553	24,383	23,555	64.5	66.8	64.5	65.3	1.14363	74.7	0.80	93			
	<b>Sub Total</b>	<b>38,935</b>	<b>42,195</b>	<b>39,260</b>	<b>106.7</b>	<b>115.6</b>	<b>107.6</b>	<b>110.1</b>		<b>119.1</b>			<b>149</b>		
	Maternity														
	0-14	2			0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0			
	15 - 44	3,377	3,096	3,114	9.3	8.5	8.5	8.6	1.01253	8.7	0.50	17			
	45 - 64	9	4	22	0.0	0.0	0.1	0.0	0.98578	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>3,388</b>	<b>3,100</b>	<b>3,136</b>	<b>9.3</b>	<b>8.5</b>	<b>8.6</b>	<b>8.7</b>		<b>8.8</b>			<b>18</b>		
	Psychiatric														
	0-14	354	282	407	1.0	0.8	1.1	1.0	0.97443	1.0	0.80	1			
	15 - 44	5,170	4,964	4,354	14.2	13.6	11.9	12.9	1.01313	13.0	0.80	16			
	45 - 64	2,623	2,948	3,880	7.2	8.1	10.6	9.2	0.98400	9.1	0.80	11			
	65+	1,271	1,021	479	3.5	2.8	1.3	2.2	1.14363	2.5	0.80	3			
	<b>Sub Total</b>	<b>9,418</b>	<b>9,215</b>	<b>9,120</b>	<b>25.8</b>	<b>25.2</b>	<b>25.0</b>	<b>25.2</b>		<b>25.5</b>			<b>32</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.01313	0.0	0.80	0			
	45 - 64	0	0	0	0.0	0.0	0.0	-	0.98400	0.0	0.80	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.14363	0.0	0.80	0			
	<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>		<b>0.0</b>			<b>0</b>		
	Pediatric														
	0-19	84	52	48	0.2	0.1	0.1	0.2	0.96530	0.1	0.80	0			
	20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0			
<b>Sub Total</b>	<b>84</b>	<b>52</b>	<b>48</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>		<b>0.1</b>			<b>0</b>			
<b>Total</b>		<b>51,825</b>	<b>54,562</b>	<b>51,564</b>	<b>142</b>	<b>149</b>	<b>141</b>	<b>144.1</b>		<b>153.5</b>		<b>198</b>	<b>357</b>	<b>-159</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.

F

**Table E.28. Acute Care Hospital 2020 Bed Need, Windham Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	Windham County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (-) or Deficit (+)	
Windham	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	1,606	969	882	4.4	2.7	2.4	2.8	1.00029	2.8	0.80	4			
	45 - 64	4,084	3,208	3,484	11.2	8.8	9.5	9.6	1.01073	9.7	0.80	12			
	65+	9,585	7,111	6,696	26.3	19.5	18.3	20.0	1.22440	24.5	0.80	31			
	<b>Sub Total</b>	<b>15,275</b>	<b>11,288</b>	<b>11,062</b>	<b>41.8</b>	<b>30.9</b>	<b>30.3</b>	<b>32.4</b>			<b>37.0</b>		<b>46</b>		
	Maternity														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95605	0.0	0.50	0			
	15 - 44	989	987	578	2.7	2.7	1.6	2.1	0.99720	2.1	0.50	4			
	45 - 64	0	0	0	0.0	0.0	0.0	-	1.01070	0.0	0.50	0			
	65+	0	0	0	0.0	0.0	0.0	-	1.19786	0.0	0.50	0			
	<b>Sub Total</b>	<b>989</b>	<b>987</b>	<b>578</b>	<b>2.7</b>	<b>2.7</b>	<b>1.6</b>	<b>2.1</b>			<b>2.1</b>		<b>4</b>		
	Psychiatric														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	4	31		0.0	0.1	0.0	0.0	1.00029	0.0	0.80	0			
	45 - 64	3	5	24	0.0	0.0	0.1	0.0	1.01073	0.0	0.80	0			
	65+	137	23	16	0.4	0.1	0.0	0.1	1.22440	0.1	0.80	0			
	<b>Sub Total</b>	<b>144</b>	<b>59</b>	<b>40</b>	<b>0.4</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>			<b>0.2</b>		<b>0</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.95771	0.0	0.80	0			
	15 - 44	0	0	0	0.0	0.0	0.0	-	1.00029	0.0	0.80	0			
45 - 64	0	0	0	0.0	0.0	0.0	-	1.01073	0.0	0.80	0				
65+	0	0	0	0.0	0.0	0.0	-	1.22440	0.0	0.80	0				
<b>Sub Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-</b>			<b>0.0</b>		<b>0</b>			
Pediatric															
0-19	105	15	12	0.3	0.0	0.0	0.1	0.96487	0.1	0.80	0				
20+	0	0	0	0.0	0.0	0.0	-	1.05121	0.0	0.80	0				
<b>Sub Total</b>	<b>105</b>	<b>15</b>	<b>12</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>			<b>0.1</b>		<b>0</b>			
<b>Total</b>		<b>16,513</b>	<b>12,349</b>	<b>11,692</b>	<b>45</b>	<b>34</b>	<b>32</b>	<b>34.8</b>		<b>39.5</b>		<b>51</b>	<b>130</b>	<b>-79</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: Windham.

**Table E.29. Acute Care Hospital 2020 Bed Need, Yale New Haven Hospital**

Hospital	Services <sup>1</sup>	FY 2013 patient days	FY 2014 patient days	FY 2015 patient days	FY 2013 ADC	FY 2014 ADC	FY 2015 ADC	Weighted ADC	New Haven County Pop chg. 2015 to 2020 <sup>2</sup>	Projected ADC	Target Occupancy	Beds Needed 2020	Licensed Beds <sup>3</sup>	Excess (+) or Deficit (-)	
Yale-New Haven	Medical/Surgical														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	48,190	45,881	45,538	132.0	125.7	124.8	126.3	1.01313	127.9	0.80	160			
	45 - 64	104,948	100,212	105,065	287.5	274.6	287.8	283.4	0.98400	278.8	0.80	349			
	65+	143,263	141,536	143,106	392.5	387.8	392.1	390.7	1.14363	446.8	0.80	559			
	<b>Sub Total</b>	<b>296,401</b>	<b>287,629</b>	<b>293,709</b>	<b>812.1</b>	<b>788.0</b>	<b>804.7</b>	<b>800.4</b>			<b>853.6</b>		<b>1067</b>		
	Maternity														
	0-14	5	5	9	0.0	0.0	0.0	0.0	0.97102	0.0	0.50	0			
	15 - 44	20,645	19,633	19,690	56.6	53.8	53.9	54.3	1.01253	55.0	0.50	110			
	45 - 64	132	140	140	0.4	0.4	0.4	0.4	0.98578	0.4	0.50	1			
	65+	0	0	0	0.0	0.0	0.0	-	1.12499	0.0	0.50	0			
	<b>Sub Total</b>	<b>20,782</b>	<b>19,778</b>	<b>19,839</b>	<b>56.9</b>	<b>54.2</b>	<b>54.4</b>	<b>54.7</b>			<b>55.4</b>		<b>111</b>		
	Psychiatric														
	0-14	8,562	6,813	5,558	23.5	18.7	15.2	17.7	0.97443	17.3	0.80	22			
	15 - 44	21,895	23,067	24,361	60.0	63.2	66.7	64.4	1.01313	65.3	0.80	82			
	45 - 64	12,787	13,021	12,157	35.0	35.7	33.3	34.4	0.98400	33.8	0.80	42			
	65+	4,653	6,061	6,044	12.7	16.6	16.6	15.9	1.14363	18.2	0.80	23			
	<b>Sub Total</b>	<b>47,897</b>	<b>48,962</b>	<b>48,120</b>	<b>131.2</b>	<b>134.1</b>	<b>131.8</b>	<b>132.5</b>			<b>134.6</b>		<b>168</b>		
	Rehabilitation														
	0-14	0	0	0	0.0	0.0	0.0	-	0.97443	0.0	0.80	0			
	15 - 44	96	56	229	0.3	0.2	0.6	0.4	1.01313	0.4	0.80	1			
	45 - 64	468	989	965	1.3	2.7	2.6	2.4	0.98400	2.4	0.80	3			
	65+	2,072	1,840	1,784	5.7	5.0	4.9	5.1	1.14363	5.8	0.80	7			
	<b>Sub Total</b>	<b>2,636</b>	<b>2,885</b>	<b>2,978</b>	<b>7.2</b>	<b>7.9</b>	<b>8.2</b>	<b>7.9</b>			<b>8.6</b>		<b>11</b>		
	Pediatric														
	0-19	21,285	18,367	18,424	58.3	50.3	50.5	51.7	0.96530	49.9	0.80	62			
20+	0	0	0	0.0	0.0	0.0	-	1.03672	0.0	0.80	0				
<b>Sub Total</b>	<b>21,285</b>	<b>18,367</b>	<b>18,424</b>	<b>58.3</b>	<b>50.3</b>	<b>50.5</b>	<b>51.7</b>			<b>49.9</b>		<b>62</b>			
<b>Total</b>		<b>389,001</b>	<b>377,621</b>	<b>383,070</b>	<b>1,066</b>	<b>1,035</b>	<b>1,050</b>	<b>1,047.2</b>		<b>1102.2</b>		<b>1419</b>	<b>1,407</b>	<b>-12</b>	

<sup>1</sup> Excludes Newborn service category.

<sup>2</sup> Source: CT State Data Center (CTSDC).

<sup>3</sup> Excludes bassinets.

County: New Haven.



**APPENDIX F. UNMET NEED AND HOSPITAL COMMUNITY HEALTH NEED ASSESSMENT BY TOWN, 2011-2016**

Scores in red are higher than the state overall

Town of Residence	County	2009 UConn Five <sup>1</sup>	Socio-economic Status Index <sup>2</sup>	Health Outcomes Index <sup>3</sup>	Unmet Need Composite Index <sup>4</sup>	One or more HPSA /MUA designation <sup>5</sup>	Hospital Community Health Need Assessment (CHNA) <sup>6</sup>	In a Hospital Primary Service Area (PSA) <sup>7</sup>	Yellow= Covered by CHNA but not PSA Blue= Hospital PSA
<b>Connecticut</b>	<b>CT</b>		<b>10.0</b>	<b>5.0</b>	<b>15.0</b>				<b>Legend</b>
Andover	Tolland	S	4.9	2.7	7.6		9		Yellow
Ansonia	New Haven	UC	12.6	4.6	17.2	Yes	5	Yes	Blue
Ashford	Windham	R	7.0	3.0	10.0		3,9		Yellow
Avon	Hartford	W	4.6	2.9	7.5		6,19	Yes	Blue
Barkhamsted	Litchfield	R	3.6	2.8	6.5		6,16,15,19		Yellow
Beacon Falls	New Haven	S	5.4	3.1	8.5		5,14,20		Yellow
Berlin	Hartford	UP	6.7	3.6	10.2		6,11,19	Yes	Blue
Bethany	New Haven	W	5.2	2.4	7.6		22,12		Yellow
Bethel	Fairfield	UP	7.1	3.3	10.5		4	Yes	Blue
Bethlehem	Litchfield	R	5.4	2.7	8.1		16,14,15,20		Yellow
Bloomfield	Hartford	UP	10.1	7.6	17.7		6,13,19	Yes	Blue
Bolton	Tolland	S	5.4	2.7	8.2		9		Yellow
Bozrah	New London	R	5.5	3.7	9.1		18		Yellow
Branford	New Haven	UP	7.5	4.0	11.5		12, 22	Yes	Blue
Bridgeport	Fairfield	UC	21.4	6.5	27.9	Yes	4	Yes	Blue
Bridgewater	Litchfield	R	4.9	3.0	7.9		15		Yellow
Bristol	Hartford	UP	9.2	5.8	15.0	Yes	1,6,19	Yes	Blue
Brookfield	Fairfield	W	4.6	2.6	7.2		4		Yellow
Brooklyn	Windham	R	7.6	3.4	11.0		3,18	Yes	Blue
Burlington	Hartford	W	4.5	2.3	6.9		6,19		Yellow
Canaan	Litchfield	R	7.3	3.4	10.6		15		Yellow
Canterbury	Windham	R	6.8	3.5	10.3		3,18	Yes	Blue
Canton	Hartford	S	5.1	2.7	7.8		6,19	Yes	Blue
Chaplin	Windham	R	6.9	3.4	10.3		3		Yellow
Cheshire	New Haven	W	5.5	2.9	8.4		14,20	Yes	Blue
Chester	Middlesex	R	6.3	4.4	10.7		10,11	Yes	Blue
Clinton	Middlesex	UP	7.8	3.7	11.4		10	Yes	Blue
Colchester	New London	S	5.4	3.5	8.8		10,18	Yes	Blue
Colebrook	Litchfield	R	4.6	2.3	6.9		16,15		Yellow
Columbia	Tolland	R	6.5	3.1	9.7		9	Yes	Blue
Cornwall	Litchfield	R	8.0	2.8	10.8		16,15		Yellow
Coventry	Tolland	R	4.5	2.7	7.3		9	Yes	Blue
Cromwell	Middlesex	UP	6.4	4.1	10.5		6,10	Yes	Blue
Danbury	Fairfield	UP	14.9	4.0	18.9	Yes	4	Yes	Blue
Darien	Fairfield	W	4.0	2.3	6.2		4		Yellow
Deep River	Middlesex	R	6.7	3.5	10.1		10		Yellow

Scores in red are higher than the state overall

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<b>Connecticut</b>	<b>CT</b>		<b>6.7</b>	<b>5.0</b>	<b>11.7</b>				<b>Legend</b>
Derby	New Haven	UC	12.6	4.6	17.2		5	Yes	Blue
Durham	Middlesex	W	3.7	2.8	6.5		10,11	Yes	Blue
East Granby	Hartford	S	5.0	2.7	7.8		19		Blue
East Haddam	Middlesex	R	5.2	2.8	8.0		10	Yes	Blue
East Hampton	Middlesex	S	5.2	3.5	8.7		10	Yes	Blue
East Hartford	Hartford	UC	14.9	4.8	19.7	Yes	6,9,13,19	Yes	Blue
East Haven	New Haven	UP	9.0	6.1	15.1		12,22	Yes	Blue
East Lyme	New London	S	6.5	3.6	10.1		8	Yes	Blue
East Windsor	Hartford	R	6.9	3.8	10.8		7,9,19		Yellow
Eastford	Windham	R	5.7	2.2	7.9		3		Yellow
Easton	Fairfield	W	5.1	2.7	7.8		4		Yellow
Ellington	Tolland	S	4.2	2.5	6.6		6,7,9	Yes	Blue
Enfield	Hartford	UP	8.4	3.3	11.6	Yes	6,7,13	Yes	Blue
Essex	Middlesex	S	6.1	3.9	10.0		10	Yes	Blue
Fairfield	Fairfield	W	5.8	3.4	9.2		4	Yes	Blue
Farmington	Hartford	S	5.9	3.7	9.7		6,19	Yes	Blue
Franklin	New London	R	5.7	3.2	8.9		18		Yellow
Glastonbury	Hartford	W	5.5	3.0	8.5		6,9,10,19	Yes	Blue
Goshen	Litchfield	R	6.0	2.8	8.8		16,15		Yellow
Granby	Hartford	S	4.1	2.6	6.7		6,19		Yellow
Greenwich	Fairfield	W	7.1	2.9	9.9		4	Yes	Blue
Griswold	New London	R	8.3	3.6	12.0		18	Yes	Blue
Groton	New London	UP	8.1	5.8	13.9	Yes	8,11,18	Yes	Blue
Guilford	New Haven	S	5.2	3.1	8.4		10,12,15,22	Yes	Blue
Haddam	Middlesex	S	4.1	2.9	7.0		10	Yes	Blue
Hamden	New Haven	UP	8.0	4.6	12.6		12,22	Yes	Blue
Hampton	Windham	R	6.1	3.1	9.1		3		Yellow
Hartford	Hartford	UC	25.2	7.6	32.8	Yes	2,6,17,13,11	Yes	Blue
Hartland	Hartford	R	5.5	2.3	7.7		19		Yellow
Harwinton	Litchfield	S	6.8	2.8	9.6		16,15,19		Yellow
Hebron	Tolland	S	3.9	2.6	6.5		9,10		Yellow
Kent	Litchfield	R	6.4	3.6	10.0		15	Yes	Blue
Killingly	Windham	R	8.6	4.1	12.7	Yes	3	Yes	Blue
Killingworth	Middlesex	S	4.6	2.8	7.4		10		Yellow
Lebanon	New London	R	5.7	3.3	9.1		18	Yes	Blue
Ledyard	New London	R	6.1	3.7	9.8		8,18	Yes	Blue
Lisbon	New London	R	5.5	3.5	9.0		18	Yes	Blue

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<b>Connecticut</b>	<b>CT</b>		<b>4.5</b>	<b>5.0</b>	<b>9.5</b>				<b>Legend</b>
Litchfield	Litchfield	S	6.0	3.6	9.6		16,15,19	Yes	Blue
Lyme	New London	R	6.5	3.1	9.7		8,10	Yes	Blue
Madison	New Haven	W	4.5	3.1	7.6		10,12,22	Yes	Blue
Manchester	Hartford	UP	10.0	4.8	14.8	Yes	6,9,13,19	Yes	Blue
Mansfield	Tolland	R	6.3	1.9	8.1	Yes	9	Yes	Blue
Marlborough	Hartford	S	4.1	3.2	7.3		6,10		Yellow
Meriden	New Haven	UC	<b>12.1</b>	<b>6.0</b>	<b>18.1</b>	<b>Yes</b>	6,11	Yes	Blue
Middlebury	New Haven	W	6.3	2.9	9.2		14,20		Yellow
Middlefield	Middlesex	S	4.2	3.1	7.3		10,11		Yellow
Middletown	Middlesex	UP	8.8	5.6	14.4	Yes	6,17,10,11	Yes	Blue
Milford	New Haven	UP	6.6	4.2	10.7		12,22	Yes	Blue
Monroe	Fairfield	S	4.7	2.7	7.4		4		Yellow
Montville	New London	R	8.5	4.0	12.4		8,18	Yes	Blue
Morris	Litchfield	R	4.8	2.7	7.6		16,14,15,20		Yellow
Naugatuck	New Haven	UP	9.5	4.9	14.5		14,20	Yes	Blue
New Britain	Hartford	UC	<b>17.1</b>	<b>7.7</b>	<b>24.8</b>	<b>Yes</b>	6,19	Yes	Blue
New Canaan	Fairfield	W	4.6	2.2	6.9		4		Yellow
New Fairfield	Fairfield	S	5.7	2.5	8.2		4		Yellow
New Hartford	Litchfield	R	4.8	2.6	7.4		16,15,19		Yellow
New Haven	New Haven	UC	<b>19.1</b>	<b>6.8</b>	<b>25.9</b>	<b>Yes</b>	11,12,17,22	Yes	Blue
New London	New London	UC	<b>17.5</b>	<b>5.9</b>	<b>23.4</b>	<b>Yes</b>	18,21,8	Yes	Blue
New Milford	Litchfield	S	7.1	<b>5.4</b>	12.4		15	Yes	Blue
Newington	Hartford	UP	7.6	2.8	10.4		6,19	Yes	Blue
Newtown	Fairfield	W	5.1	2.7	7.7		4	Yes	Blue
Norfolk	Litchfield	R	7.7	2.8	10.5		16,15		Yellow
North Branford	New Haven	S	5.0	3.5	8.5		12,22	Yes	Blue
North Canaan	Litchfield	R	6.9	4.2	11.1		15	Yes	Blue
North Haven	New Haven	UP	6.3	3.6	9.9		12,22	Yes	Blue
North Stonington	New London	R	7.4	2.7	10.1		8		Yellow
Norwalk	Fairfield	UP	<b>11.7</b>	4.5	<b>16.2</b>	<b>Yes</b>	4	Yes	Blue
Norwich	New London	UC	<b>13.7</b>	<b>7.4</b>	<b>21.1</b>	<b>Yes</b>	18	Yes	Blue
Old Lyme	New London	S	5.1	3.8	8.9		8,10	Yes	Blue
Old Saybrook	Middlesex	S	7.5	4.9	12.4		10	Yes	Blue
Orange	New Haven	S	5.9	3.8	9.7		12,22	Yes	Blue
Oxford	New Haven	S	5.4	2.7	8.1		5,14,20	Yes	Blue
Plainfield	Windham	R	8.7	4.5	13.2		3,18	Yes	Blue
Plainville	Hartford	UP	8.4	4.0	12.4		6,18,19	Yes	Blue

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Town of Residence	County	2009 UConn Five <sup>1</sup>	Socio-economic Status Index <sup>2</sup>	Health Outcomes Index <sup>3</sup>	Unmet Need Composite Index <sup>4</sup>	One or more HPSA /MUA designation <sup>5</sup>	Hospital Community Health Need Assessment (CHNA) <sup>6</sup>	In a Hospital Primary Service Area (PSA) <sup>7</sup>	Yellow= Covered by CHNA but not PSA Blue= Hospital PSA
<b>Connecticut</b>	<b>CT</b>		<b>11.0</b>	<b>5.0</b>	<b>16.0</b>				<b>Legend</b>
Plymouth	Litchfield	R	7.3	3.8	11.1		14,15,19,20	Yes	Blue
Pomfret	Windham	R	5.3	2.1	7.4		3		Yellow
Portland	Middlesex	S	5.2	3.9	9.2		6,10	Yes	Blue
Preston	New London	R	8.6	4.0	12.7		18	Yes	Blue
Prospect	New Haven	S	6.1	3.6	9.6		14,20		Yellow
Putnam	Windham	R	11.0	4.0	15.0		3	Yes	Blue
Redding	Fairfield	W	4.5	2.9	7.4		4		Yellow
Ridgefield	Fairfield	W	3.9	2.5	6.4		4	Yes	Blue
Rocky Hill	Hartford	UP	7.7	4.1	11.8		6,10,19	Yes	Blue
Roxbury	Litchfield	R	4.1	2.6	6.7		15		Yellow
Salem	New London	S	5.1	2.9	7.9		10,18		Yellow
Salisbury	Litchfield	R	5.2	3.4	8.6		15	Yes	Blue
Scotland	Windham	R	6.0	2.1	8.1		3,18		Yellow
Seymour	New Haven	UP	7.2	3.7	10.9		5	Yes	Blue
Sharon	Litchfield	R	6.6	4.2	10.8		15	Yes	Blue
Shelton	Fairfield	UP	6.9	3.7	10.6		4,5	Yes	Blue
Sherman	Fairfield	W	4.7	2.6	7.3		4	Yes	Blue
Simsbury	Hartford	W	4.7	2.6	7.3		6,19	Yes	Blue
Somers	Tolland	S	6.5	2.5	9.0		7,9	Yes	Blue
South Windsor	Hartford	S	5.4	3.3	8.6		6,9,19	Yes	Blue
Southbury	New Haven	S	7.2	4.3	11.5		14,20	Yes	Blue
Southington	Hartford	UP	5.7	3.9	9.6		6,11,19	Yes	Blue
Sprague	New London	R	8.5	5.0	13.4		18		Yellow
Stafford	Tolland	R	8.3	4.4	12.7		7,9	Yes	Blue
Stamford	Fairfield	UC	13.4	3.9	17.3	Yes	4	Yes	Blue
Sterling	Windham	R	8.1	2.9	11.0		3,18		Yellow
Stonington	New London	R	6.5	3.2	9.7		8		Yellow
Stratford	Fairfield	UP	9.1	5.6	14.7	Yes	4	Yes	Blue
Suffield	Hartford	S	5.6	2.8	8.4		6,7,19	Yes	Blue
Thomaston	Litchfield	UP	5.9	3.5	9.4		16,14,15,20		Yellow
Thompson	Windham	R	6.6	2.6	9.2		3	Yes	Blue
Tolland	Tolland	S	3.9	2.8	6.7		7,9,21	Yes	Blue
Torrington	Litchfield	UP	10.4	6.3	16.8	Yes	6,16,15,19	Yes	Blue
Trumbull	Fairfield	UP	5.8	3.7	9.5		4	Yes	Blue
Union	Tolland	R	5.2	3.9	9.1		6,7,9	Yes	Blue
Vernon	Tolland	UP	8.8	4.3	13.1	Yes	6,9,19	Yes	Blue
Voluntown	New London	R	6.6	3.7	10.3		18		Yellow

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<b>Connecticut</b>	<b>CT</b>		<b>3.5</b>	<b>5.0</b>	<b>8.5</b>				<b>Legend</b>
Wallingford	New Haven	UP	6.5	3.7	10.2		11,22	Yes	Blue
Warren	Litchfield	R	6.4	2.3	8.7		15		Blue
Washington	Litchfield	R	6.0	2.7	8.7		15	Yes	Blue
Waterbury	New Haven	UC	17.4	6.7	24.1	Yes	14,20	Yes	Blue
Waterford	New London	R	7.7	4.9	12.6		8,18	Yes	Blue
Watertown	Litchfield	UP	6.4	3.7	10.2		14,15,20	Yes	Blue
West Hartford	Hartford	UP	7.4	3.6	11.0		6,13,19	Yes	Blue
West Haven	New Haven	UC	12.9	4.5	17.4	Yes	12, 22	Yes	Blue
Westbrook	Middlesex	R	8.4	5.6	14.0		10	Yes	Blue
Weston	Fairfield	W	3.5	2.0	5.4		4		Yellow
Westport	Fairfield	W	4.8	2.5	7.3		4		Yellow
Wethersfield	Hartford	UP	7.7	5.4	13.1		6,19	Yes	Blue
Willington	Tolland	R	8.7	2.9	11.6		7,9		Blue
Wilton	Fairfield	W	4.2	2.7	6.8		4		Yellow
Winchester	Litchfield	R	10.9	4.6	15.5	Yes	16,15,19	Yes	Blue
Windham	Windham	UP	16.2	5.2	21.4	Yes	18,21,3	Yes	Blue
Windsor Locks	Hartford	UP	7.2	5.7	12.9		6,7,13,19	Yes	Blue
Windsor	Hartford	UP	8.7	3.4	12.1		6,7,19	Yes	Blue
Wolcott	New Haven	UP	5.8	3.6	9.3		14,20	Yes	Blue
Woodbridge	New Haven	W	5.8	3.7	9.6		12,22		Yellow
Woodbury	Litchfield	S	5.8	2.7	8.5		14,15,20		Yellow
Woodstock	Windham	R	5.7	2.2	7.9		3		Yellow

Source:

<sup>1</sup>University of Connecticut State Data Center. The Changing Demographics of Connecticut – 1990 – 2000. Part 2: The Five Connecticuts. Occasional Paper Number: OP 2004-01, May 2004. Accessed on the web at [http://ctsdc.uconn.edu//Reports/CtSDC\\_CT\\_Part02\\_OP2004-01.pdf](http://ctsdc.uconn.edu//Reports/CtSDC_CT_Part02_OP2004-01.pdf).

<sup>2</sup>Based on data from US Census Bureau American Community Survey 5-year estimates (2011-2015), tables S1701, S1501, S2301, S0802, DP02, S2701, S0101 and B03002.

<sup>3</sup>Based on data from Department of Public Health Population Estimates, Vital Records, Mortality and Birth Tables, Office of Health Care Access Acute Care Hospital Inpatient Discharge Database and Connecticut Hospital Association Chime, Inc. Emergency Department Database.

<sup>4</sup>Sum of Socioeconomic Status and Health Outcomes Indices.

<sup>5</sup>At least one census tract is a Health Resources & Services Administration, Office of Shortage Designation primary, dental and/or mental health professional shortage area (HPSA) or medically underserved area (MUA) designee. HRSA OSD continuously updates HPSA and MUA/P designations as applications submission and decisions on applications are on-going.

<sup>6</sup>Connecticut general and children's hospitals' Community Health Needs Assessments and Strategic Implementation Plans from 2012-2016.

<sup>7</sup>Primary service area (PSA) means the area composed of the lowest number of contiguous zip codes, listed by town, from which a hospital draws at least seventy-five percent of its inpatient discharges.

**APPENDIX G. HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENTS PRIORITY HEALTH NEEDS, 2012-2016**

Conducting Hospital(s)	Year of CHNA	Year of CHIP	Priority Health Needs Identified													
			Overweight, Obesity, Nutrition, Physical Activity	Substance Abuse	Mental Health	Chronic Disease	Respiratory Health	Access to Care (general)	Safety	Maternal & Child Health	Tobacco Use	Gaps in Primary Care	Healthy Aging	HIV/AIDS	Sexually Transmitted Infections (STIs) (excluding HIV/AIDS)	Gaps in Mental Health care
Bristol Hospital	2016	2013	X	X	X			X					X			
Connecticut Children's Medical Center	2016	2017	X				X	X		X						
Day Kimball Hospital	2013	2015	X	X	X	X			X		X					
Fairfield County Community Wellbeing Index: Bridgeport Hospital & St. Vincent's Medical Center	2016	2016	X	X	X	X			X							
Fairfield County Community Wellbeing Index: Danbury Hospital - New Milford Campus	2016	2016	X	X	X	X			X				X			
Fairfield County Community Wellbeing Index: Greenwich Hospital & Norwalk Hospital	2016	2016	X	X	X	X			X							

Conducting Hospital(s)	Year of CHNA	Year of CHIP	Priority Health Needs Identified													
			Overweight, Obesity, Nutrition, Physical Activity	Substance Abuse	Mental Health	Chronic Disease	Respiratory Health	Access to Care (general)	Safety	Maternal & Child Health	Tobacco Use	Gaps in Primary Care	Healthy Aging	HIV/AIDS	Sexually Transmitted Infections (STIs) (excluding HIV/AIDS)	Gaps in Mental Health care
Fairfield County Community Wellbeing Index: Stamford Hospital	2016	2016		X	X	X						X				
Griffin Hospital	2016	2015	X				X					X			X	
Hartford Hospital	2015	2015	X	X	X	X	X		X	X			X	X	X	
Johnson Memorial Hospital	2016	2013	X	X	X	X	X									
Lawrence + Memorial Hospital	2016	2016	X								X	X				
Manchester Memorial Hospital	2016	2014	X	X	X	X	X		X	X			X	X		
Middlesex Hospital	2016	2017		X	X		X						X			
MidState Medical Center	2015	2015	X	X	X	X			X	X				X	X	
Milford Hospital	2016	2016	X	X	X		X			X		X				X
Rockville General Hospital	2016	2013	X	X		X	X		X		X	X				
Saint Francis Hospital and Medical Center	2016	2015	X	X	X	X	X	X	X	X					X	
Saint Mary's Hospital	2016	2013	X	X	X	X	X	X			X					
Sharon Hospital	2012	2012	X			X					X	X				

Conducting Hospital(s)	Year of CHNA	Year of CHIP	Priority Health Needs Identified														
			Overweight, Obesity, Nutrition, Physical Activity	Substance Abuse	Mental Health	Chronic Disease	Respiratory Health	Access to Care (general)	Safety	Maternal & Child Health	Tobacco Use	Gaps in Primary Care	Healthy Aging	HIV/AIDS	Sexually Transmitted Infections (STIs) (excluding HIV/AIDS)	Gaps in Mental Health care	Housing
The Charlotte Hungerford Hospital	2015	2011	X	X	X	X			X	X		X		X		X	
The Hospital of Central Connecticut	2015	2015	X	X	X	X	X		X	X			X	X	X		
The William W. Backus Hospital	2015	2015	X	X	X	X	X	X	X	X	X		X				
UConn John Dempsey Hospital	2016	2016				X		X									
Waterbury Hospital	2016	2013	X	X	X	X		X			X					X	
Windham Hospital	2015	2015	X	X	X	X	X	X			X		X				
Yale New Haven Hospital; St. Raphael's	2016	2016	X	X	X			X									
<b>Total Number of Assessments Identifying This Need:</b>			<b>23</b>	<b>21</b>	<b>20</b>	<b>19</b>	<b>13</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>4</b>	

NOTE: This table includes the most common priority health needs that emerged across all CHNAs conducted between 2012 and 2016. Some hospitals identified additional needs (e.g., oral health); however, because these additional needs were not common across all CHNAs, they are not shown in this table.



## References

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- <sup>1</sup> Persons identifying as lesbian, gay, bisexual, transgender or queer/questioning or intersex (LGBTQI).
- <sup>2</sup> BRFSS is the only available resource in the state to monitor health risk and proactive behaviors related to the leading causes of mortality and morbidity among demographic subgroups of age, race/ethnicity, income and educational level. The Centers for Disease Control and Prevention funds the survey in all 50 states. [http://www.ct.gov/dph/cwp/view.asp?a=3132&q=388096&dphNav\\_GID=1832%20](http://www.ct.gov/dph/cwp/view.asp?a=3132&q=388096&dphNav_GID=1832%20)
- <sup>3</sup> Healthinsurance.org (2016, November). Connecticut Health Insurance Exchange/Marketplace. <https://www.healthinsurance.org/connecticut-state-health-insurance-exchange/>
- <sup>4</sup> Office of Disease Prevention and Health Promotion, *Healthy People 2020*. <https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>.
- <sup>5</sup> Dalal, Mehul, Poulin, Stephanie and Kianoush, Sina (2014) *Quantifying the Potential Benefits of Health Equity in Connecticut: Disparities in Hospital Charges and Costs among Blacks and Hispanics compared to Whites, 2005-2012*. Connecticut Department of Public Health, Community Health and Prevention Section. [http://www.ct.gov/dph/lib/dph/hems/chronic\\_dis/disparityanalysis/poster\\_-\\_final.pdf](http://www.ct.gov/dph/lib/dph/hems/chronic_dis/disparityanalysis/poster_-_final.pdf)
- <sup>5</sup> US Department of Health and Human Services. (2016) *HHS Finalizes Rule to Improve Health Equity Under the Affordable Care Act*. Washington, D.C.: US Department of Health and Human Services. <http://www.hhs.gov/about/news/2016/05/13/hhs-finalizes-rule-to-improve-health-equity-under-affordable-care-act.html>
- <sup>7</sup> US Department of Health and Human Services. (2016) *HHS Finalizes Rule to Improve Health Equity Under the Affordable Care Act*. Washington, D.C.: US Department of Health and Human Services. <http://www.hhs.gov/about/news/2016/05/13/hhs-finalizes-rule-to-improve-health-equity-under-affordable-care-act.html>
- <sup>8</sup> National Partnership for Action to End Health Disparities. (2011) *National Stakeholder Strategy for Achieving Health Equity*. Rockville, MD: US Department of Health and Human Services, Office of Minority Health. <http://www.minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286>
- <sup>9</sup> US Department of Health and Human Services. (2011) *HHS Action Plan to Reduce Racial and Ethnic Health Disparities: A Nation Free of Disparities in Health and Healthcare*. Washington, D.C.: US Department of Health and Human Services. [http://minorityhealth.hhs.gov/assets/pdf/hhs/HHS\\_Plan\\_complete.pdf](http://minorityhealth.hhs.gov/assets/pdf/hhs/HHS_Plan_complete.pdf)
- <sup>10</sup> Connecticut Department of Public Health. (2014) *Healthy Connecticut 2020: Creating the State Health Improvement Plan*. <http://www.ct.gov/dph/cwp/view.asp?a=3130&Q=542346&PM=1>
- <sup>11</sup> Connecticut Department of Public Health. (2017) Connecticut Health Improvement Coalition. <http://www.ct.gov/dph/cwp/view.asp?a=3130&Q=515380&PM=1>
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