



Regional Community Health Needs Assessment

# Natchaug Hospital

June 8, 2022



## Letter from Project Sponsors

As we've faced the pandemic, our community has been traumatized and many have developed behavioral health concerns related to stress and anxiety, fear, and uncertainty. As a behavioral health care organization, we must address the unforeseen impact of the excessive mental and emotional pressure that the populace may be ill-equipped to manage. People need help coping with the ways in which the inability to plan proactively for sustained security may have traumatized them. We anticipated that people in the State of Connecticut, and around the world, will emerge from the pandemic with behavioral health needs including a need for addiction treatment and/or services; the Community Health Needs Assessment (CHNA) conducted over the course of 2022 has shown this to be true.

When people need intensive, comprehensive treatment for psychiatric and chemical dependency issues but do not need inpatient or residential hospital care, Natchaug Hospital has been there for them, offering concentrated, structured clinical treatment programs. Group therapy and medications alone do not provide the optimal combination for wellness for people living with Substance Use Disorder (SUD) and/or mental illness, and at Natchaug we know that the traditional approach to wellness is not always successful. For this reason, we work to find ways to offer more comprehensive programming that encompasses the needs of the people in our care. SUD and mental illness are pervasive and blind to race, gender, and socioeconomic status; there is no situational indicator, and we are all at risk. One in three Americans is living with SUD and one in five is living with a mental illness; Natchaug strives to provide treatment and services to help people get on the road to recovery. The events occurring over the past decade have sparked national and statewide dialogues, raising many questions about the adequacy of the mental health system. Stigma abounds with regard to mental health and mental illness and finding more effective ways to identify and intervene early is a priority not just for Connecticut, but across the country. It is our goal, through the information gathered in this CHNA, to implement a Community Health Improvement Plan (CHIP) that will address behavioral health, among other concerns, in our communities and to help turn the tide against discrimination so that people feel comfortable accessing the treatment and services they need.

Even before the pandemic, about 60% of people with a treatable mental health condition were not receiving care for it, and this problem has grown even worse. This is an extraordinary and challenging time across the nation, within our local communities, and here at Natchaug Hospital. COVID-19 continues to impact all of us personally and professionally. In the midst of this relentless pandemic, Natchaug colleagues worked at the hospital and inside the community to try to ensure access to behavioral health information, services and treatment, as well food security through the Natchaug Food Pantry.

I am proud of the effort my colleagues here at Natchaug have put forth to meet the needs uncovered in the 2021 CHNA and resulting CHIP. Their dedication to the community and to our patients is unparalleled. I know that the resulting effort to enact the 2022 CHIP and assist our community in finding the resources they need, receiving education and training that will help them help themselves and other community members, and ensure that food security is being addressed, will be as strong as it always has been.

Thomas King, MS, LPC

Vice President of Operations

Natchaug Hospital

Dear Reader,

Thank you for reading the 2022 Community Health Needs Assessment for Natchaug Hospital.

Hartford HealthCare's 2022 Community Health Needs Assessment process presents us with an historic opportunity to align dialogue and action around a common framework for improving health. An ongoing global pandemic and a renewed national racial reckoning bring into sharp focus the imperative of listening with humility and curiosity to the voices and realities of the people, families, and organizations that form the fabric of each neighborhood we have the privilege to serve.

We improved our needs assessment process this year to assemble a meaningful picture of our community's current health status. Further, our process intentionally developed mechanisms through which we will continually learn, in real time, from and about the evolving realities and perspectives of residents and local stakeholders. It is our intention that the ensuing report provides an important foundation for community stakeholders to identify and define priorities for health improvement, to name and amplify existing community strengths and assets, and to outline areas for further collaboration and collective action.

The community-centered objectives that guided our process included:

- 1) Enhance our community engagement and better incorporate on an on-going basis the voices of those we serve in our community health work and priority setting, particularly those in historically marginalized and systemically under-resourced communities.
- 2) Focus on growing and sustaining our community-based partnerships with whom we share the responsibility and opportunity to improve health and address health disparities and inequities.
- 3) Better align community health work with HHC's overall equity value and journey, and assure an equitable distribution of resources and capabilities across its regions to advance this work.
- 4) Be more effective, measurable, and reportable with our community health work and interventions, particularly in addressing social influencers of health, health disparities and inequities, and social impact investing.

In pursuing these objectives, we accomplished the several process improvements. We expanded the use of qualitative methods of collecting data – ultimately conducting over 100 interviews, 30 focus groups, and 600 surveys across the state. We introduced *Equity Champions* into our CHNA process. Equity Champions are community-based opinion leaders who guided us through outreach and engagement, assisting with analysis and priority setting, and disrupting our thinking around long-standing assumptions and processes in health outcome assessments and intervention planning.

The resulting health needs assessments provide a comprehensive overview of the social, economic, physical, and emotional health of the populations residing in each region we serve. We invite you to actively engage with the findings offered in these pages, and to partner with us in creating a more equitable future.

In good health,

Sarah S. Lewis

Vice President,

Health Equity, Diversity & Inclusion

Hartford HealthCare

# Table of Contents

Letter from Project Sponsors	
Section 1: Introduction and Executive Summary	1
About the Hartford HealthCare Community Health Needs Assessment	2
Goals	3
Approach	3
Categories of Needs	3
Final List of Prioritized Needs	4
Taking Action and Next Steps	5
Section 2: Body of the CHNA	6
Regions, Participating Hospitals & Health Equity Champions	7
Goals of the Assessment & Next Steps	9
Assessment Approach & Methodology	9
Data Notes & Limitations	12
Community & HSA Definition – Description of the People Who Live Here	13
Health Equity Data Results	14
Social Influencers of Health (SIOH)	14
Community Overview Description	14
Demographics & Health Equity Profile	15
Income, Jobs & Wages	16
Education	17
Social & Physical Environment	18
Housing	18
Transportation	18
Environment & Sustainability	19
Food Insecurity	20
Crime Rates	21
Neighborhood Disinvestment	22
Community Health Status & Patterns	24
Life Expectancy	24
Preventive Care Measures	25

Behavioral Health	27
CHIME Data Results: Service	29
Demographics for this Analysis	30
Qualitative Themes & Consensus Community Perceptions	31
Community Survey	33
Participant Demographics	33
Survey Results	34
Access Audit	35
Section 3: Conclusions, Prioritized Needs, and Next Steps	36
Prioritization Process	37
Final Prioritized List of Needs	38
Transferring Knowledge Into Change	39
Overview	39
Example to Help “Cull the Findings”	39
Appendices	41
Appendix 1: Community Health Improvement Plan (CHIP) Objectives	41
Appendix 2: Natchaug Hospital Service Area 2022 Equity Profile – DataHaven	42
EXECUTIVE SUMMARY	43
OVERVIEW	44
DEMOGRAPHICS	45
POPULATION CHANGE: 2020 CENSUS	47
HOUSING	48
EDUCATION	51
ECONOMY	53
INCOME & WEALTH	54
HEALTH	56
CIVIC LIFE & COMMUNITY COHESION	68
ENVIRONMENT & SUSTAINABILITY	71
Acknowledgments	77
Suggested citation	77
About DataHaven	77

Appendix 3: Previous CHNA Priority Needs & Activities to Address Them	78
Appendix 4: Resources	80
Appendix 5: Neighborhood Disinvestment & Gentrification Maps	81
Bridgeport and New Haven	82
Danbury	83
Hartford	84
Middletown	85
New London	86
Norwalk and Stamford	87
Norwich	88
Torrington	89
Willimantic / Windham	90
Appendix 6: CHNA Community Survey Tables	91
Demographic Profile of Survey Respondents	91
Health Care Access	93
Additional Community and Access to Care Issues	94
Community Survey Needs	96
Appendix 7: CHIME Data Results Encounter Summary	98
Demographics for this Analysis	100
Hospital encounter data	101
Encounter rates per 10,000, age-adjusted and by age	103
Appendix 8: Voices from the Community	109
Stakeholder Interview Summary, Natchaug Region	109
Appendix 9: Key Steps to CHIP Development and Impact	115
Appendix 10: Age Distribution Trends and Change since 2010	118

# Section 1: Introduction and Executive Summary

## About the Hartford HealthCare Community Health Needs Assessment

The Hartford HealthCare (HHC) Community Health Needs Assessment (CHNA) serves as a component in the overall efforts to improve community health and health equity in each of the seven-hospital service areas. It is a process that provides a means of identifying and collecting community data while engaging community members in both the data collection and the prioritization of collaborative efforts for improving the well-being of the area.

The ultimate purpose of the HHC CHNA is to improve community health and to do so in an effective and efficient way. The supporting objectives are to do the following:

- 1) Enhance Community Engagement and Better Incorporate the Consumer's Voice** - CHNA/CHIP process leads to continuous and trusting feedback loops with diverse populations and enhances our methods for on-going engagement with the communities we serve.
- 2) Grow and Sustain our Community-based Partnerships** - CHNA/CHIP process leads to more formalized partnerships with regional and community organizations and collaborations, and more meaningful relationships with key community opinion leaders.
- 3) Align Community Health with our Equity Value and Across the Regions** - CHNA/CHIP process leads to a greater sense of team and purpose within HHC, assures each region is equitably resourced, and that collectively we know and understand more about identifying community health needs and improving health outcomes.
- 4) Bring Greater Clarity and Social Impact to our Community Health Work** - CHNA/CHIP process leads to more effective, justified, measurable, and reportable interventions across our collective CHIPs and inspires and informs our social investment, sponsorship, and donation activities.



## Goals

The ultimate purpose of the CHNA is to improve the quality of life of people living in our service area, and to do so in an efficient and effective manner. To do this, the CHNA sought to do the following:

- Learn about the individuals and families who live here
- Explore the health-related impact of the social and physical environment (e.g., housing, access to affordable food, education, and similar “built environment” issues)
- Identify emerging or urgent community health issues
- Discover the impact of health inequities and patterns that can be used as a foundation to drive change

## Approach

The major pieces of the assessment helped to assemble a large list of needs. Major assessment activities are listed below. Note that the survey and qualitative research numbers refer to HHC system CHNA activities – not solely this hospital.

- Data analysis – an extensive set of Hospital Service Area (HSA) data tables reflecting demographics, Social Influencers of Health, lifestyle characteristics, disease incidence (morbidity and mortality) and others
- Qualitative research – an in-depth series of 100 stakeholder interviews and 30 focus group discussions
- Survey research – a bilingual community survey with approximately 600 responses

Interestingly, ALL of the needs are important, yet to achieve the ultimate goal of the CHNA, HHC leaders deployed a needs prioritization process to identify a granular list of 13 needs. The prioritization process and other assessment activities are described in the body of this CHNA.

## Categories of Needs

In order to truly affect change and address high-priority needs, needs were identified and categorized into the following groups:

- Ones with the greatest opportunity for Immediate impact (i.e., the “low hanging fruit” issues for which HHC can take a leadership role and rapidly deploy activities and resources).
- Issues supported by the data that have the greatest impact on health outcomes
- Needs identified by community as urgent or high-priority concerns
- Issues that present the greatest opportunity for collaboration and policy change

## Final List of Prioritized Needs

Based on the results of the assessment research and the prioritization process, the final list of prioritized needs is below.

Aggregated Needs By Tier For Natchaug Hospital	
Prioritized Need	Suggested Category of Need <sup>1]</sup>
Healthcare Services For Children With Special Needs and Their Families	Community-based urgent or high-priority concern
Suicide Prevention	Community-based urgent or high-priority concern
Recruit And Retain Medical and Mental Health Care Staff With DEI Awareness	Community-based urgent or high-priority concern
Adaptive Equipment For People Living With Long-Term Disabilities	“Low hanging fruit” issue
Mental Health Services for Adolescents and Their Families	“Low hanging fruit” issue
Services For People Living With Disabilities	Data-based greatest impact on health outcomes; and, Community-based urgent or high-priority concern
Co-Locating Case Managers And Behavioral Health Providers With Primary Care	Opportunity for collaboration and policy change
Multilingual Medical And Mental Health Services	“Low hanging fruit” issue
Additional Programs To Enhance Access to Care For Lower-income Families	Data-based greatest impact on health outcomes
Broad-based, integrated services --- Medical, Mental Health, Substance Use Disorder, SDoH – for People and Families Experiencing Homelessness	Community-based urgent or high-priority concern
Care Coordination and Support to Help Manage Care for Patients With Complex Health Conditions	Community-based urgent or high-priority concern
Enhanced Collaboration with Community Partners	Opportunity for collaboration and policy change

Note that many of the issues shown above are particularly urgent among disadvantaged communities, people of color, and others who have historically lacked adequate access to services

<sup>1</sup> Note that many needs apply to overlapping categories. Those noted in table reflect the most prominent.

## Taking Action and Next Steps

The CHNA is formulated in a way to ultimately impact individuals and families in the service area. To accomplish this, HHC leaders will take CHNA results and deploy a systematic approach to developing the Community Health Improvement Plan (CHIP) – an activity critical to achieving this ultimate goal. Some of the initial, well-defined steps to develop and deploy the CHIP include the following:

### **STEP 1 - Culling the Findings – Brainstorming with your local collaboratives by answering the following questions:**

CHNA Immediate Impact findings – where is the low hanging fruit?

CHNA Greatest Impact findings -- what will most influence health outcomes?

CHNA Most Desired Change findings - what change does the community most want?

CHNA Forging Opportunities findings - where are the greatest opportunities for partnership?

### **STEP 2 - Organizing the focus areas and assembling your rationale for action**

### **STEP 3 - Selecting your Strategies and Interventions**

### **Step 4 – Executing and Evaluation**

Section 2: Body of the CHNA provides additional insight to the actions and next steps, as well as the background, approach, and results of the CHNA.

## Section 2: Body of the CHNA

## Regions, Participating Hospitals & Health Equity Champions

The collaborative regional approach has been decades in the making across Connecticut. The HHC regional approach improves the efficiency of the CHNA process and utilizes essential components of collaborative partnerships including:

- Creating a vision that is broadly understood
- Working across organizational boundaries
- Including those most affected by health challenges in solution-creation
- Utilizing ongoing planning and joint accountability to measure change

Throughout the process and this report, there is evidence of each of these key elements. The resulting document creates a frame of reference for community members to discuss the health status of a population. The purpose of this CHNA process and report has been to identify health issues, identify and engage local collaborators and assets, and prioritize the implementation activities needed to address the identified issues.

The regional approach <sup>2</sup>includes partners within and across regions, hospital services areas (HSA), and health equity community-based health equity champions. Recognizing the need to reduce and eliminate health disparities and to increase diversity at the leadership and governance levels of health care and other local organizations is a central and necessary first step in community health improvement.

The second step to improving health equity is to collect and use data about race, ethnicity, and language preference to develop a shared understanding of the challenges in the community. Education about cultural sensitivity is also required. The HHC regional teams engaged a team of health “Equity Champions” representing multiracial or other marginalized communities to help ensure the research is reflective of the community perspectives.

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<sup>2</sup> Note that the “Regional Approach” refers to the several Hartford HealthCare (HHC) service areas across the state that worked together to complete the CHNA. The regional approach identified hospital service area (HSA) unique needs while also helping to inform broader issues impacting the wider HHC service area.

The following table describes this **regional approach** and leaders.

HHC Hospital	Region	Regional Leaders	Health Equity Champions
Backus Hospital	East	Joseph Zuzel Regional Director Community Health East Region  Michele Brezniak, BSN, RN Community Health RN-East Region	Adela Cruz Dina Dufort Melanie Roberts Ryan K. Aubin Shiela Hayes
Charlotte Hungerford Hospital	Northwest	Carla Angevine, Manager of Community Health and Health Promotion  Tasha La Viera, Community Health Outreach Case Manager  Pamela Tino, Community Health Development Specialist	Effie Lucas Judy Kobylarz-Dillard Thalia Castro
Hartford Hospital	Hartford	Greg Jones, Vice President Community Health and Engagement Hartford HealthCare  Dorely Roldan, Community Outreach Specialist Community Health, Hartford Region	Angela Harris Beverly Redd Donna Trowers-Morrison Pastor Roberto Calcano Suzanne Thomas
Hospital of Central Connecticut	Central	Lynn Faria, Community Relations Director, Central Region  Rhea Highsmith Community Relations Specialist Central Region	Tracey Madden Hennessey Mary McCallister Paulette Fox
MidState Medical Center	Central	Lynn Faria, Community Relations Director, Central Region  Rhea Highsmith Community Relations Specialist Central Region	Adriana Rodriguez Marissa Cardona Dona Ditrio
Natchaug Hospital	East	Katherine M. McNulty, MA, CHC, CHRC Regional Director of Development  Sherry Smardon, Manager of Philanthropy and Community Benefits	Dr. Maryann Brescia Erin Joudrey
Windham Hospital	East	Joseph Zuzel Regional Director Community Health East Region  Michele Brezniak, BSN, RN Community Health RN-East Region	Adela Cruz Dina Dufort Melanie Roberts Ryan K. Aubin Shiela Hayes

Note that the survey and qualitative research numbers refer to HHC system CHNA activities – not solely this hospital.

In addition, separate community groups were convened as part of the CHNA prioritization process.

## Goals of the Assessment & Next Steps

To meet the objective of improving community health and health equity, the CHNA process has included meeting the following goals:

- Identifying resources, strengths, and barriers to improving health outcomes
- Developing a deeper understanding of community access to care challenges, including those faced by marginalized communities
- Enabling community partners to coalesce around the opportunities for population health improvement

On an ongoing basis, the CHNA data can be updated with information gathered at community meetings, forums, focus groups and surveys. Dissemination of the information in this document in different forms is a critical step in communications that inform partners, stakeholders, community agencies, associations, and the public about the availability of the community health needs assessment and what community members can do to make a difference.

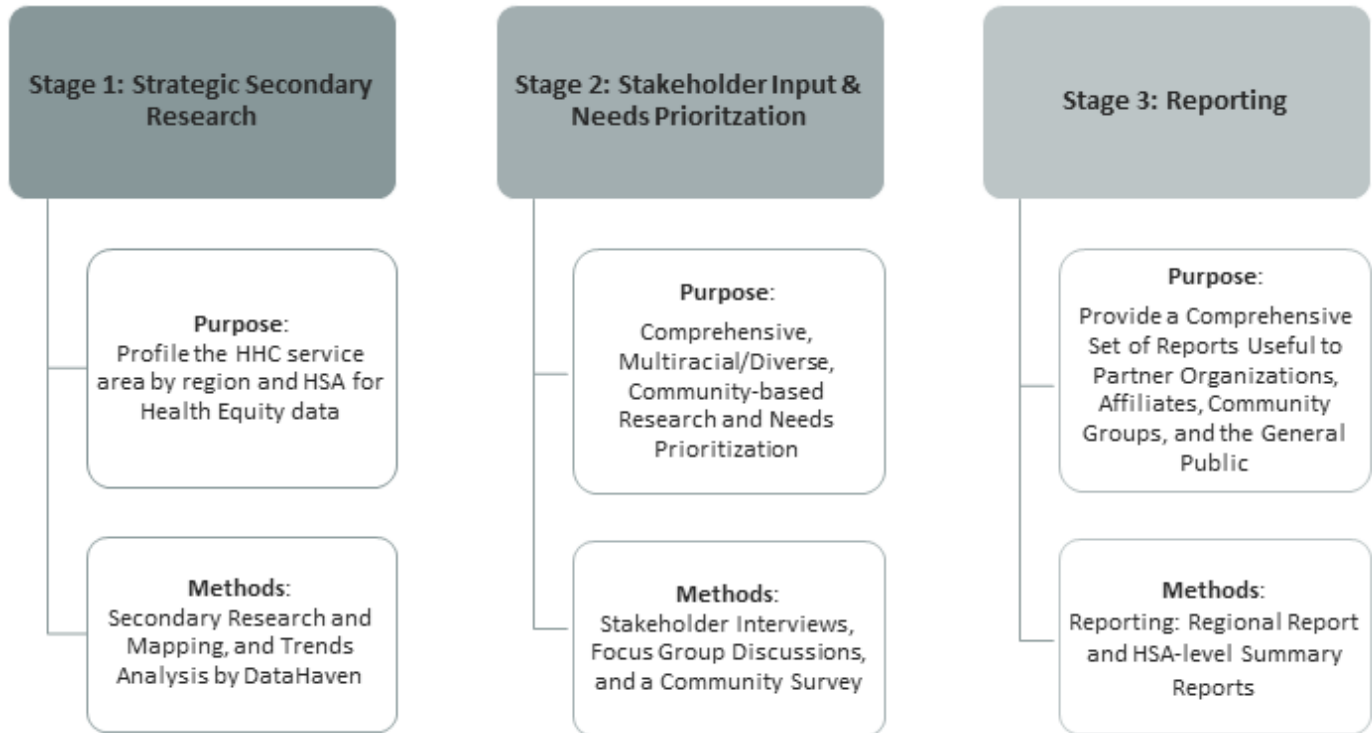
## Assessment Approach & Methodology

HHC worked with its assessment partners Crescendo Consulting Group and DataHaven to formalize and deploy a highly inclusive assessment framework. The framework was structured to be welcoming to priority communities and others, steeped in best practices, and designed to triangulate insights. At the conclusion of the process, the local stakeholders developed a succinct, prioritized list of community needs. To do this, the methodology included a mixed modality approach – quantitative, qualitative, and technology-based techniques – to learn about the human stories and voices while weaving them with the best available data.

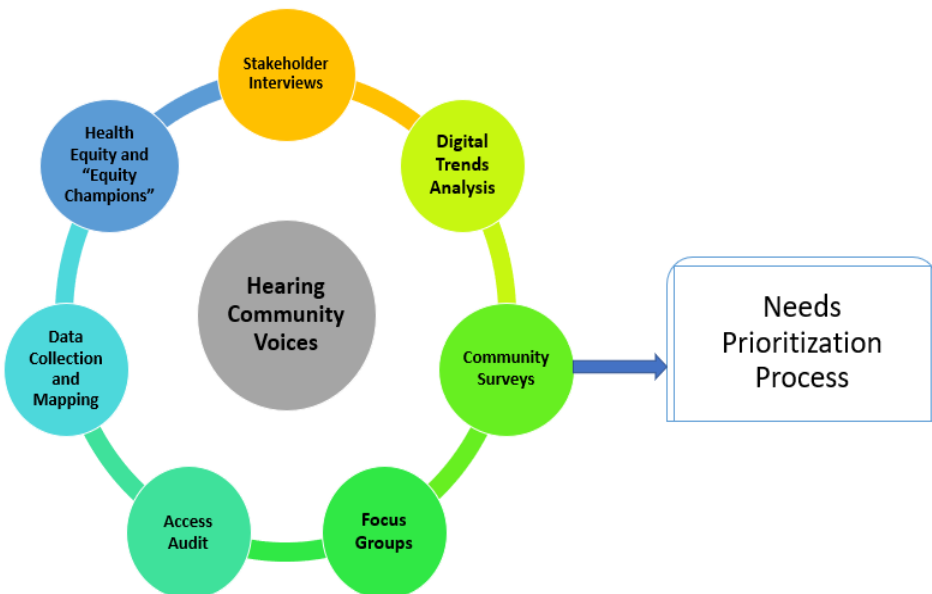
Crescendo engaged community partners, used data analytics, and invited others to join the discovery process to help describe a positive cycle of change. The assessment activities meet the following goals:

- Identify community resources, strengths, and barriers
- Develop a deeper understanding of community health equity and inequalities
- Enable the community to coalesce around, and act upon, the opportunities for population health improvement

The following illustrates the three-stage methodology used to achieve the project goals.



Below is a graphic illustrating how the mixed modality research methodology used stakeholder interviews, focus group discussions, a large sample community survey, and an access audit to ensure community voices were combined and fed into the prioritization process.



Based on the results of the mixed-modality approach, an extensive list of over 50 needs in each area was developed. Crescendo deployed a “Modified Delphi Technique” to prioritize the needs. Individual hospital facilities further refined their priorities. Each technique deployed in the CHNA was part of the longer-term Assessment as Action Cycle which jump-starts the continuous process of assessing community needs, addressing high-priority needs, evaluating impact, adjusting strategies, and assessing community needs.



The CHNA provided an important opportunity for all the stakeholders in this complex landscape to work together to build a positive cycle of change. The ongoing cycle of assessment, strategy development, program development, program implementation, data collection, and program evaluation is a way to continually improve community health.

The approach endeavored to engage voices that are often hard to hear – young people, gender minorities, isolated seniors, Black, Indigenous & People of Color (BIPOC<sup>3</sup>) households, households where English is rarely spoken, single-parent households, LGBTQ+ community members, and others.

### Assessment as Action Cycle®



### Focus Group Discussions

HHC conducted 30 focus group discussions during the CHNA. The group embraced an inclusive set of community partners such as those listed in the table below:

HHC Region	Host / Partner	Community Group
Northwest	Northwestern Connecticut Community College	Students & Faculty
Central	Meriden Commission on Aging and Disabilities	Older Adults, People Living With Disabilities & Caregivers
Central	Meriden Senior Center	Older Adults
Central	North End Senior Center	Older Adults
Northwest	Winchester Senior Center	Older Adults
Northwest	New Opportunities	Hispanic & Latino, Low Socioeconomic Status
East	Southeastern Mental Health Network	Mental Health Professionals
Central	Meriden Council on Aging	Older Adults
Central	YWCA New Britain	Arabic Community
Northwest	Our Culture is Beautiful	Equality and Diversity
Northwest	The Be Ready Project	Parents and Caregivers of Children Living With Disabilities
East	Norwich Free Academy	Students & Faculty
Northwest	Regional Early Childhood Alliance Steering Committee & Northwest Regional Parent Advisory Committee	Parents
All	General Community	All

<sup>3</sup> Black, Indigenous & People of Color. BIPOC is person-first language. It enables a shift away from terms like “marginalized” and “minority.” Available at: [www.healthline.com/health/bipoc-meaning#meaning](http://www.healthline.com/health/bipoc-meaning#meaning)

## Data Notes & Limitations

Health disparities indicate differences in health linked with social, economic, and/or environmental disadvantages. Health disparities adversely affect communities who have systematically experienced greater barriers to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.<sup>4</sup>

The secondary data collection portion of the CHNA report utilizes text and tables from Version 1.0 of the DataHaven town equity profiles which DataHaven has published for all 169 towns and several regions of Connecticut. The health equity data was augmented with information from the United States Census Bureau American Community Survey (ACS) which covers a broad range of topics about the social, economic, demographic, and housing characteristics of the U.S. population.

The primary advantage of using multiyear estimates is the increased statistical reliability of the data for less populated areas and small population subgroups. By collecting and analyzing data from a great breadth of publicly available data sources, proprietary databases, and other sources, the team developed a detailed view of each of the seven hospital service areas (HSAs) represented in this report.

It is important to note that some health equity data can have percentage changes that look dramatic simply because the raw counts of some populations are so small. In addition, cross-tabulations by county or HSA may result in slight differences in totals. As DataHaven notes in each HSA report found in the appendix, “throughout most of the measures in this report, there are important differences by race and ethnicity as well as neighborhood that reflect differences in access to resources and other health-related social needs. Wherever possible, data will be presented with racial and ethnic breakdowns. Data for white, Black, Asian and other populations represent non-Hispanic/Latino members of each racial group.”

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<sup>4</sup> Health.gov. How does Healthy People 2030 define health disparities and health equity? Available at: <https://health.gov/our-work/national-health-initiatives/healthy-people/healthy-people-2030/questions-answers#q9>

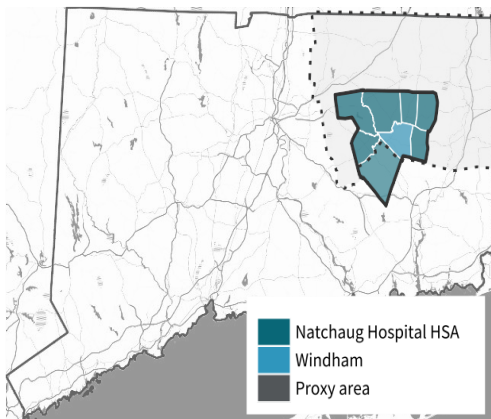
# Community & HSA Definition – Description of the People Who Live Here

Note that much of the following secondary research section was contributed by DataHaven of New Haven, Connecticut. Our thanks to them! Their entire report is contained in the appendices.

Founded in 1954, Natchaug Hospital is Eastern Connecticut's primary provider of psychiatric treatment for children, adolescents, and adults. The hospital admits approximately 4,000 people each year for treatment in one or more of its programs. In addition to the 57-bed inpatient psychiatric treatment program for children, adolescents, and adults, Natchaug operates a 10-site network of partial hospitalization and after-school treatment programs, as well as a 13-bed residential treatment program for girls and a multisite kindergarten through 12th grade special education program. Natchaug Hospital also has an Older Adult Program at the HHC Center for Healthy Aging located in Windham Hospital. The hospital operates locations throughout Eastern Connecticut serving children, adolescents, and adults with quality, compassionate care. For more information, please visit [www.natchaug.org](http://www.natchaug.org).

Natchaug Hospital is a member of HHC which operates seven acute-care hospitals, air-ambulance services, behavioral health and rehabilitation services, a physician group and clinical integration organization, skilled-nursing and home health services, and a comprehensive range of services for seniors, including senior-living facilities. For more information, please visit <https://hartfordhealthcare.org/>

**TABLE 1: STUDY AREA**



*Note: “Windham” refers to the Town of Windham in the table below.*

**The Natchaug Hospital HSA is made up of the following locations (with 2020 populations):**

- Chaplin (2,151)
- Columbia (5,272)
- Coventry (12,235)
- Hampton (1,728)
- Lebanon (7,142)
- Mansfield (25,892)
- Scotland (1,576)
- Windham (24,425)

**The proxy study area is made up of the following locations (with 2020 populations):**

- Tolland County (149,788)
- Windham County (116,418)

Indicator	Connecticut	Natchaug Hosp. HSA	Windham
Total population	3,605,944	80,421	24,425
Total households	1,370,746	26,339	8,590
Homeownership rate	66%	68%	47%
Housing cost burden rate	36%	36%	44%
Adults with less than a high sch. diploma	9%	9%	19%
Median household income	\$78,444	\$76,359	\$47,481
Poverty rate	10%	15%	25%
Life expectancy (years)	80.3	79.8	77.5
Ages 18–64 w/o health insurance	11%	12%	17%

# Health Equity Data Results

## Social Influencers of Health (SloH)

SloH (also known as Social Determinants of Health) describe the conditions that affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>5</sup> They are the conditions in which people are born, grow, work, live, and age - and often the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems. SDoH have an important influence on health inequities - the unfair and avoidable differences in health status seen within and between HSAs. Across the globe in countries where levels of income, health, and illness follow a social gradient, the lower the socioeconomic position, the worse the health.<sup>6</sup>

## Community Overview Description

As of 2020, the population of the Natchaug Hospital HSA is 80,421, including 12,885 children and 67,536 adults. Approximately 30% of the residents in the Natchaug Hospital service area are people of color, compared to 37% of the residents statewide. The composite snapshot indicates:

- Of the region's 26,339 households, 68% are homeowner households. Approximately 36% of the Natchaug Hospital HSA's households are cost-burdened, meaning they spend at least 30% of their total income on housing costs.
- Among the region's adults ages 25 and up, 35% have earned a bachelors degree or higher.
- The Natchaug Hospital service area is home to 26,317 jobs, with the largest share in the Health Care and Social Assistance sector.
- The median household income in the Natchaug Hospital service area is \$76,359. The average life expectancy in the Natchaug HSA is 79.8 years.
- More than half (57%) of adults in the Natchaug Hospital service area say they are in excellent or very good health. In 2020, 27 people in the Natchaug Hospital HSA died of drug overdoses.
- Approximately 86% of adults in the Natchaug Hospital HSA are satisfied with their area, and 56% say their local government is responsive to residents' needs.
- In the 2020 presidential election, 78% of registered voters in the Natchaug Hospital HSA voted.
- Approximately 40% of adults in the Natchaug Hospital HSA report having stores, banks, and other locations in walking distance of their home, and 40% say there are safe sidewalks and crosswalks in their neighborhood.

## Social Determinants of Health



<sup>5</sup> Healthy People 2030, Social Determinants of Health. Available at: [www.health.gov/healthypeople/objectives-and-data/social-determinants-health](http://www.health.gov/healthypeople/objectives-and-data/social-determinants-health)

<sup>6</sup> World Health Organization, Social Determinants of Health. Available at: [www.who.int/health-topics/social-determinants-of-health#tab=tab\\_1](http://www.who.int/health-topics/social-determinants-of-health#tab=tab_1)

## Demographics & Health Equity Profile

Throughout most of the measures in this report, there are important differences by race/ethnicity and neighborhood that reflect differences in access to resources and other health-related social needs. Wherever possible, data will be presented with racial/ethnic breakdowns. Data for white, Black, Asian and other populations represent non-Hispanic/Latino members of each racial group

As of 2020, the population of the Natchaug Hospital HSA is 80,421, including 12,885 children and 67,536 adults. Thirty percent of the Natchaug Hospital HSA’s residents are people of color, compared to 37 percent of the residents statewide.

**TABLE 2: POPULATION BY RACE & ETHNICITY, 2020**

Area	White		Black		Latinx		Asian		Native American		Other race/ethnicity	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
<b>Connecticut</b>	2,279,232	63%	360,937	10%	623,293	17%	170,459	5%	6,404	<1%	165,619	5%
<b>Natchaug Hosp. HSA</b>	55,989	70%	2,360	3%	13,699	17%	4,842	6%	189	<1%	3,342	4%
<b>Windham</b>	11,536	47%	897	4%	10,199	42%	799	3%	50	<1%	944	4%

- As Connecticut’s predominantly White Baby Boomers age, younger generations are driving the state’s increased racial and ethnic diversity.
- Black and Latino populations in particular skew much younger than White populations.

## Income, Jobs & Wages

Economic stability is a known social determinant of health as people living in poverty are less likely to have access to health care, healthy food, stable housing, and opportunities for physical activity. These disparities mean people living in poverty are more likely to die from preventable diseases.

**TABLE 3: MEDIAN HOUSEHOLD INCOME BY RACE<sup>7</sup>**

County	Median Household Income	White	Black or African American	Native American	Asian	Latinx
Connecticut	\$77,696	\$89,527	\$49,000	\$43,350	\$96,689	\$47,753
Fairfield County	\$95,645	\$116,337	\$53,679	\$43,482	\$125,033	\$53,413
Hartford County	\$75,148	\$87,104	\$51,323	\$34,435	\$94,656	\$42,002
Litchfield County	\$79,906	\$81,230	\$59,167	ND	\$83,958	\$66,103
New Haven County	\$69,905	\$82,388	\$44,566	\$39,178	\$89,427	\$44,618
<b>New London</b>	<b>\$73,490</b>	<b>\$78,151</b>	<b>\$42,190</b>	<b>\$58,333</b>	<b>\$78,125</b>	<b>\$50,613</b>
<b>Tolland County</b>	<b>\$87,069</b>	<b>\$90,921</b>	<b>\$29,071</b>	<b>ND</b>	<b>\$88,517</b>	<b>\$73,420</b>
<b>Windham County</b>	<b>\$66,550</b>	<b>\$70,843</b>	<b>\$27,344</b>	<b>ND</b>	<b>\$53,258</b>	<b>\$40,998</b>

Source: U.S. Census Bureau American Community Survey 5-Year Estimates, 2015-2019

There are a total of 26,317 jobs based in towns in the Natchaug Hospital HSA, with 10,117 jobs based in Windham. Jobs in the Health Care and Social Assistance sector make up the largest share in the region. While these numbers are from 2019 and do not include economic outcomes related to the COVID-19 pandemic, they describe general labor market strengths and average wages for the area.

**TABLE 4: JOBS & WAGES IN NATCHAUG HOSPITAL HSA'S 5 LARGEST SECTORS, 2019**

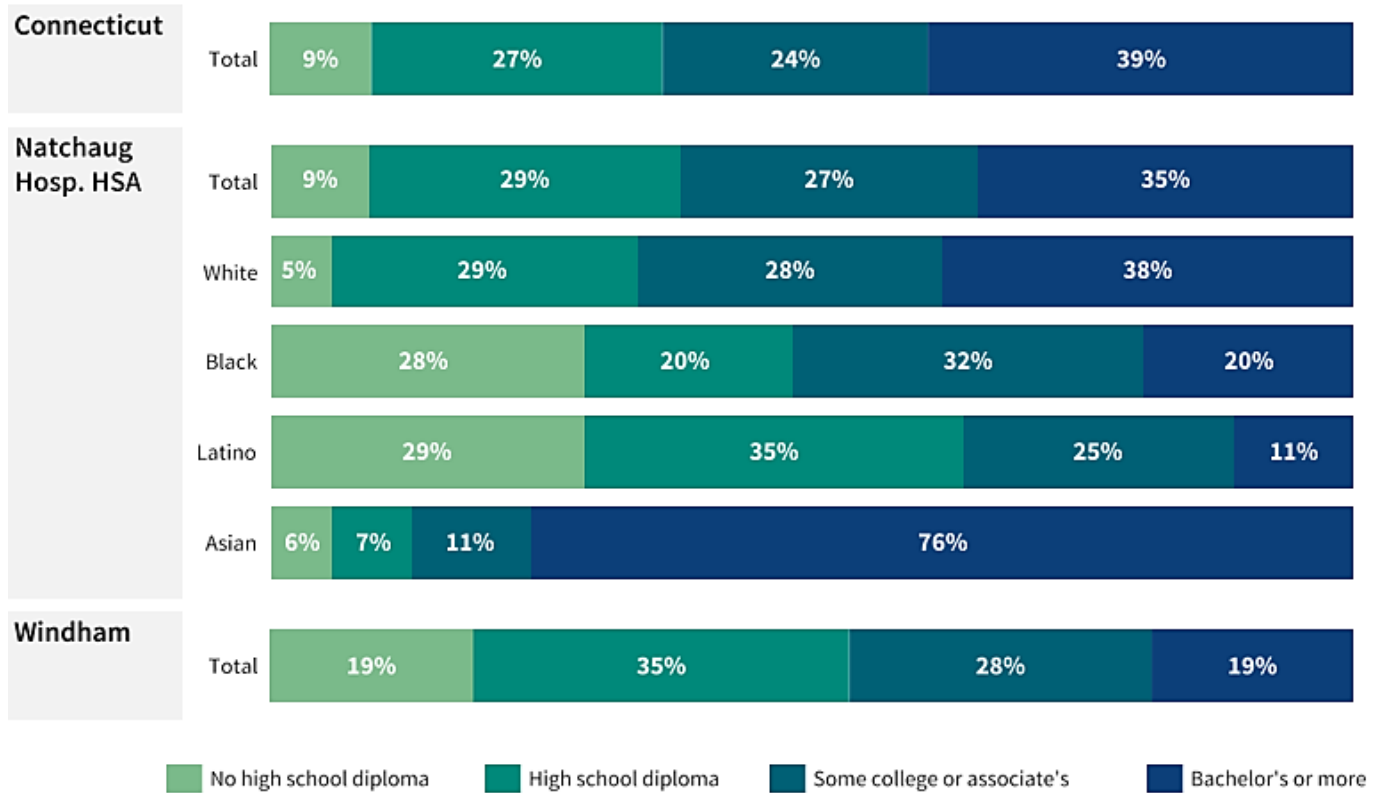
Sector	Connecticut		Natchaug Hosp. HSA	
	Total jobs	Avg annual pay	Total jobs	Avg annual pay
<b>All Sectors</b>	1,670,354	\$69,806	26,317	\$51,029
<b>Health Care and Social Assistance</b>	271,014	\$54,858	4,088	\$49,724
<b>Retail Trade</b>	175,532	\$35,833	2,615	\$30,585
<b>Accommodation and Food Services</b>	129,012	\$23,183	2,288	\$22,282
<b>Administrative and Support and Waste Management and Remediation Services</b>	89,852	\$47,443	799	\$39,219
<b>Manufacturing</b>	161,893	\$85,031	784	\$66,646

<sup>7</sup> 'White' indicator implies the percentage of the population that identifies as, 'White alone, not Hispanic or Latino. 'Native American' indicator implies the percentage of the population that identifies as, 'American Indian and Alaskan Native'. 'Latinx' indicator implies the percentage of the population that identifies as 'Hispanic or Latinx origin (of any race)' according to the U.S. Census Bureau.

## Education

Public school students in the Natchaug Hospital HSA are served by 10 school districts for pre-kindergarten through grade 12, including two regional districts. During the 2019–2020 school year, there were a total of 9,202 students enrolled in these districts, with 3,345 enrolled in the Windham School District. Tracking student success measures is important since disparate academic and disciplinary outcomes are observed as early as preschool and can ultimately affect a person’s long- term educational attainment and economic potential.

**FIGURE 1: EDUCATIONAL ATTAINMENT BY RACE/ETHNICITY, SHARE OF ADULTS AGES 25 AND UP, 2019**



## Social & Physical Environment

### Housing

The Natchaug Hospital service area has 26,339 households, of which 67% are homeowner households. Of the region's 28,858 housing units, 70% are single-family units. Housing costs have risen while wages have not increased at the same rate. Hence, lower-income workers are more likely to rent.

**TABLE 5: HOMEOWNERSHIP RATE BY RACE & ETHNICITY OF HEAD OF HOUSEHOLD, 2019**

Area	Total	White	Black	Latinx	Asian	Native American
Connecticut	66%	76%	39%	34%	58%	40%
Natchaug Hospital HSA	68%	77%	30%	27%	44%	36%
Windham	47%	63%	27%	24%	ND	29%

- Homeownership rates vary by race/ethnicity. Younger adults are less likely than older adults to own their homes across several race/ethnicity groups. However, in most towns, younger White adults own their homes at rates comparable to or higher than older Black and Latinx adults.
- Cost burden generally affects renters more than homeowners and has a greater impact on Black and Latinx householders. Among renter households in the Natchaug Hospital HSA, 54% are cost-burdened, compared to 26% of owner households.

### Transportation

Within the HSA, the mean travel time to get to work are 23.5 minutes in Windham County, 31.3 minutes in 26.3 minutes in Tolland County, and 23.7 minutes in New London County.

**TABLE 6: POPULATION COMMUTING TO WORK**

	Connecticut	Fairfield County	Hartford County	Litchfield County	New Haven County	New London	Tolland County	Windham County
Workers Aged 16 & Older	1,786,592	468,064	443,046	95,123	422,610	137,099	76,781	57,149
Mean travel time to work (minutes)	26.6	31.3	25.5	26.5	28.7	23.7	26.3	23.5
Car, truck, or van -- drove alone	78.2%	72.2%	81.1%	83.2%	78.3%	80.4%	80.3%	83.3%
Car, truck, or van -- carpooled	7.9%	8.1%	8.1%	6.0%	8.4%	8.6%	6.1%	8.0%
Public transportation (excluding taxicab)	4.7%	10.1%	3.2%	1.4%	3.8%	1.4%	1.9%	0.6%
Walked	2.7%	2.5%	2.0%	2.4%	3.3%	3.0%	4.2%	2.5%
Other means	1.2%	1.1%	1.0%	1.3%	1.5%	1.2%	0.9%	0.8%
Worked from home	5.3%	6.0%	4.6%	5.6%	4.7%	5.3%	6.6%	4.8%

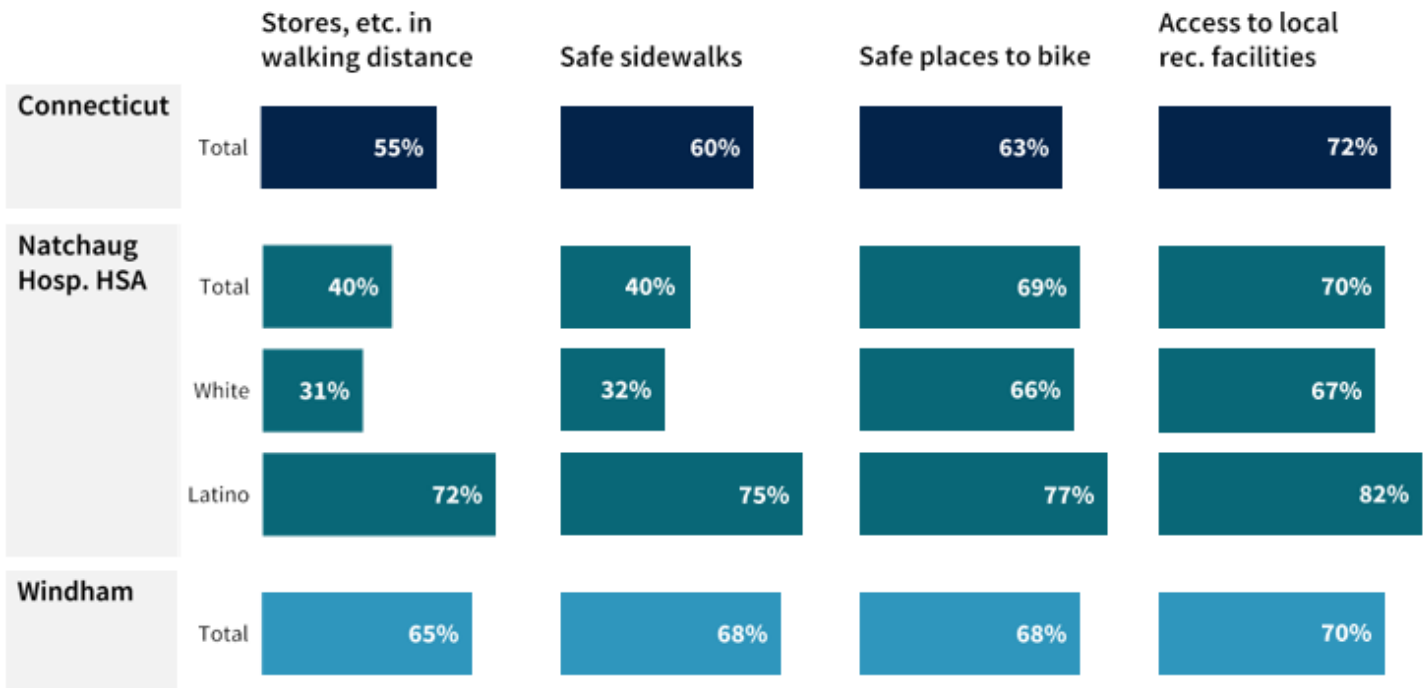
Source: U.S. Census Bureau American Community Survey 5-Year Estimates, 2015-2019



## Environment & Sustainability

High-quality built environment resources, such as recreational facilities and safe sidewalks, help keep residents active and bring communities together. Walkable neighborhoods may also encourage decreased reliance on cars. Throughout Connecticut, Black and Latinx residents are largely concentrated in denser urban areas which tend to offer greater walkability. Of adults in the Natchaug Hospital HSA, 40% report having stores, banks, and other locations they need in walking distance, lower than the share of adults statewide.

**FIGURE 2: RESIDENTS' RATINGS OF LOCAL WALKABILITY MEASURES BY RACE & ETHNICITY, SHARE OF ADULTS, 2015-2021**



## Food Insecurity

Food insecurity refers to USDA’s measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. It is important to note that the COVID-19 pandemic impacted access to nutritious foods for vulnerable populations and communities that had not experienced food insecurity prior to 2020. Research indicates that the pandemic ultimately ended years of declining rates of food insecurity – the lack of access to sufficient food because of limited financial resources.<sup>8</sup>

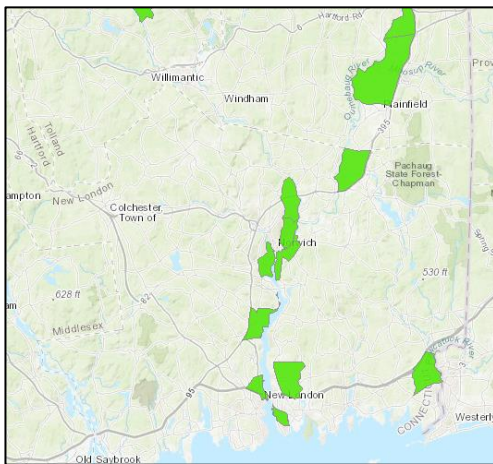
In 2019, food insecurity rates for the whole population were predominantly lower compared to the statewide figure of 12%. New London County experienced the largest increase in child food insecurity from 11.7% in 2019 to 14.8% in two years.

**TABLE 7: FOOD INSECURITY**

	Connecticut	Fairfield County	Hartford County	Litchfield County	New Haven County	New London	Tolland County	Windham County
<b>2019</b>								
Food Insecure Population	12.0%	9.7%	11.3%	10.4%	11.9%	11.7%	9.8%	12.6%
Food Insecure Children	15.1%	11.1%	14.1%	11.8%	15.4%	14.9%	9.8%	15.3%
<b>2021</b>								
Food Insecure Population	ND	12.3%	13.9%	12.3%	14.5%	14.8%	11.6%	14.9%
Food Insecure Children	ND	15.5%	18.6%	15.6%	19.8%	20.2%	13.2%	19.4%

Source: USDA Food Environment Atlas, Map the Meal Gap from Feeding America

**FIGURE 3: FOOD ACCESS RESEARCH ATLAS**



Source: U.S. Department Of Agriculture. Economic Research Service, Food Access Research Atlas

### Food Insecure Communities

The Food Access Research Atlas indicates low-income census tracts where a significant number or share of residents is more than one mile (urban) or 10 miles (rural) from the nearest supermarket.

The green shaded areas within Figure 3 indicate areas of potential food deserts within the HSA.

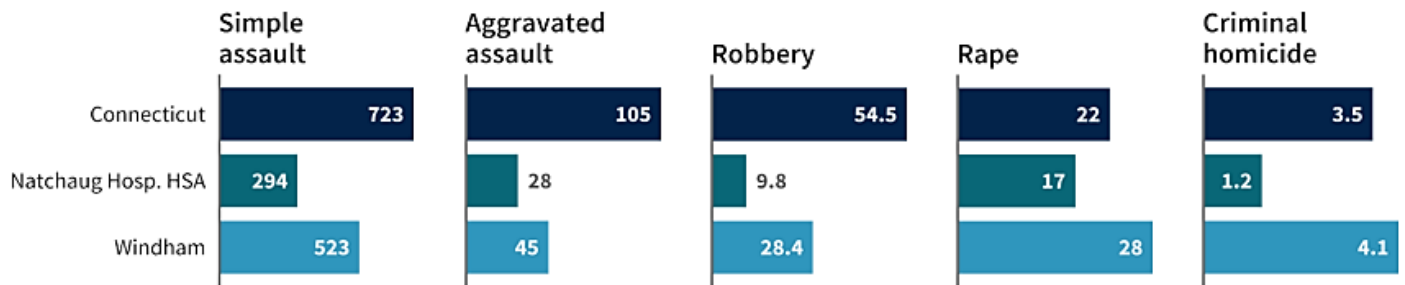
<sup>8</sup> Feeding America. The Impact of the Coronavirus on Food Insecurity in 2020 & 2021, March 2021. Available at: [www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief\\_3.9.2021\\_0.pdf](http://www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief_3.9.2021_0.pdf)

## Crime Rates

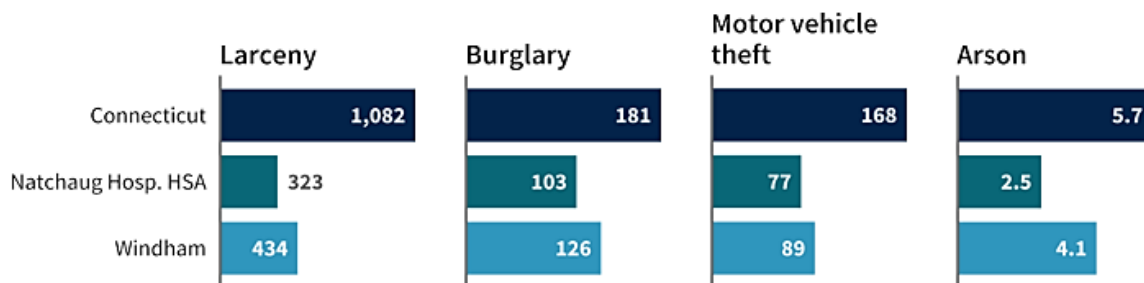
Crime rates per 100,000 residents are based on reports to law enforcement of violent force against persons, as well as offenses involving property. Not all crimes involve residents of the areas where the crimes occur, which is important to consider when evaluating crime rates in areas or towns with more commercial activity. Crime patterns can also vary dramatically by neighborhood. Crime can impact the social and economic well-being of communities, including through negative health effects.

**FIGURE 4: CRIME RATES PER 100,000 RESIDENTS BY TOWN/JURISDICTION, 2019**

### Crimes against persons



### Crimes against property



## Neighborhood Disinvestment

Neighborhood disinvestment and gentrification present significant risks or threats to lower income communities while simultaneously offering some economic opportunities (e.g., through Economic Opportunity Zones and similar programs). Disinvestment is the withdrawal of investment from communities by business owners, investors, and others. They no longer work to improve schools, neighborhoods, businesses, or the general community. Eventually, a lack of investment degrades the infrastructure needed to support the community.

As neighborhood disinvestment occurs, businesses vital to the fabric of the community leave, as well. This often leaves community members with reduced services and puts them at an even greater risk of experiencing barriers to health care services, reduced access to affordable, nutritious food, and other basic services. The ultimate impact may be a continuing (or accelerating) cycle of poverty for many lower-income residents.

From the Open Science Education organization some examples of how communities are impacted by disinvestment follow:<sup>9</sup>

- It is more challenging for members of these communities to secure a home loan to buy a new house. If a family member cannot get a loan for a home of their own, this leads to more family members sharing a single home together.
- Grocery store companies build new grocery stores in “more-desirable” neighborhoods. Their disinvestment in Black and Hispanic/Latinx communities means that these communities have very few grocery options. Fresh groceries, such as vegetables, fruits, fresh meats, and bakeries, can be hard to find in these communities.
- Homes in “desirable” communities are worth more money. Higher home values generate more property tax money for schools in the community. Disinvestment in communities keeps home values low, which generates less money for schools. Schools with less money to spend cannot upgrade their buildings, purchase new materials and technologies for classrooms, or pay teachers the same wage that other schools can pay.
- There are few job opportunities within a community experiencing disinvestment because there are not as many businesses hiring workers. People in these communities must seek jobs in other communities. Many will need to ride public transportation to and from their jobs in other communities.
- These communities can experience higher unemployment because of a low number of job opportunities, which creates a lack of access to health care. Individuals in these communities may not have health insurance, which could prevent them from seeing a doctor when they are sick. These communities also have few clinics and medical providers within the community, so they have to travel to other communities to see a doctor.
- These communities also have fewer green spaces or spaces for sports and outdoor recreation than the majority-White neighborhoods, making exercise and recreation much harder for people who live there.

The National Community Reinvestment Coalition conducted a recent study<sup>10</sup> that analyzed the impact of Opportunity Zones on neighborhood disinvestment and gentrification. Generally, areas that are eligible for gentrification are at-risk of neighborhood disinvestment. In addition, when (or if) economic expansion is attracted via some form of

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<sup>9</sup> Open Science Education, 2020. Available at [https://www.openscienced.org/wp-content/uploads/2020/09/L6.Reading\\_Systemic-Racism-and-Disinvestment-in-Communities.pdf](https://www.openscienced.org/wp-content/uploads/2020/09/L6.Reading_Systemic-Racism-and-Disinvestment-in-Communities.pdf)

<sup>10</sup> National Community Reinvestment Coalition, “Gentrification and Disinvestment 2020”, Available at <https://ncrc.org/gentrification20/>

gentrification, existing residents are often faced with accelerating apartment rental fees, higher property taxes, and similar, related issues.

The results of the national study identified 11 Connecticut cities in which gentrification had taken place (2012 to 2017) or was eligible to do so based on the following criteria:



Opportunity Zones (OZs) – created under the Tax Cuts and Jobs Act of 2017 – are a U.S. Federal Government economic tool that incentivizes people to invest in economically challenged areas. Their purpose is to raise local income and accelerate economic growth and job creation in low-income neighborhoods while providing tax benefits to investors.

- In Connecticut, most (i.e., seven of 11) targeted cities had experienced gentrification through 2017.
- Gentrification implies that individuals and families not benefiting from increased or modestly rising incomes can be priced out of their neighborhoods. Additionally, they may be compelled to sacrifice other basic needs (e.g., health care, food, education) in order to remain housed.
- Most neighborhoods in which gentrification is taking place in Connecticut are predominantly populated by racial or ethnic minorities.

**The appendices contain maps showing each of the 11 Connecticut cities referenced above.**

### Neighborhood Classifications

Neighborhood Type	Description	Neighborhood Count
Eligible to gentrify	In the lower 40th percentile of income and home value but not gentrifying	9,743
Gentrifying	Eligible and with increases in income, home values, and college attainment	954
Opportunity Zone	Designated opportunity Zone with no evidence of gentrification	4,089 Urban
		4,581 Rural
Gentrifying Opportunity Zone	Opportunity Zone and gentrified	179
Other	Urban neighborhoods that were not eligible to gentrify and are not Opportunity Zones (usually middle- to upper-income)	15,039

NCRC.ORG

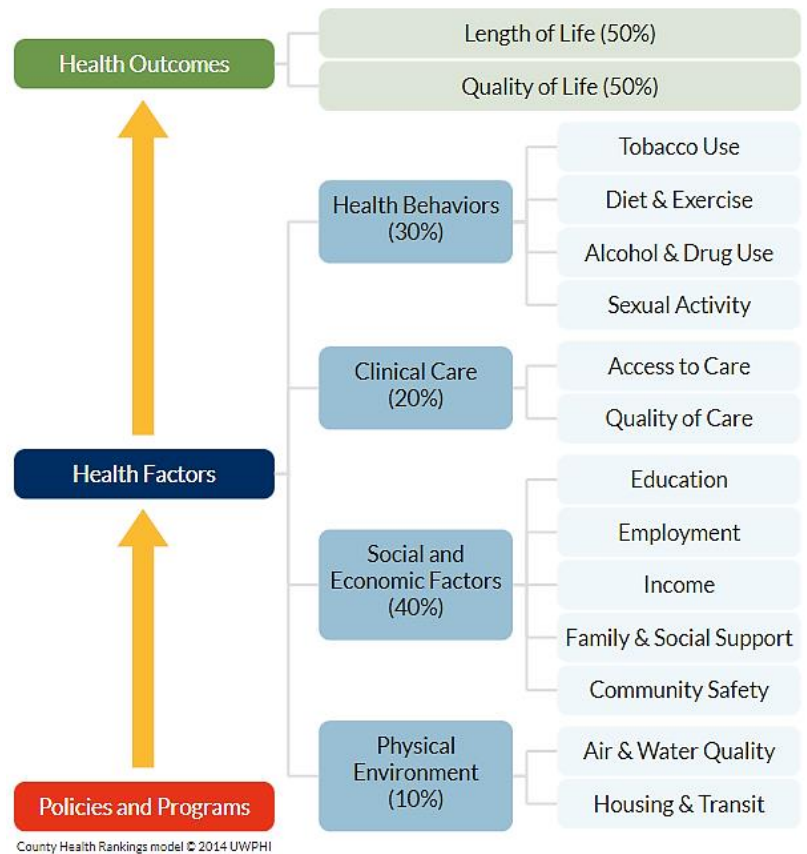
NATIONAL COMMUNITY REINVESTMENT COALITION

Neighborhood categories used in this study with description and count of census tracts, or neighborhoods in each category. Note that the “Gentrified Opportunity Zone” category duplicates neighborhoods in both “Gentrified” and “Opportunity Zone” categories.

# Community Health Status & Patterns

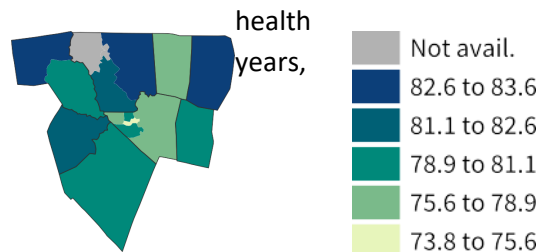
A mix of factors contributes to individual and community health status and range from the very personal health behaviors to programs and policies, but fundamental contributors are programs and policies designed to limit social inequality. In a seminal article two decades ago, Christopher Jencks after years of studying social inequality noted: “My bottom line is that the social consequences of economic inequality are sometimes negative, sometimes neutral, but seldom as far as I can discover - positive.”<sup>11</sup> The graphic to the right illustrates how the various factors contribute to and drive health outcomes.<sup>12</sup> The socioeconomic disparities described in this report tend to correlate with health outcomes. Factors such as stable housing, employment, literacy, and linguistic fluency, environmental hazards, and transportation all impact access to care, physical and mental health outcomes, and overall quality of life.

Income and employment status often drive differences in access to health care, the likelihood of getting preventive screenings as recommended, the affordability of life-saving medicines, and the ability to purchase other goods and services, including high-quality housing and nutritious food.



## Life Expectancy

Life expectancy is a good proxy for overall health and well-being since it is the culmination of so many other social and factors. The average life expectancy in the Natchaug Hospital HSA is 79.8 compared to 77.5 years in Windham and 80.3 years statewide.



**FIGURE 5: LIFE EXPECTANCY, NATCHAUG HSA BY CENSUS TRACT, 2015**

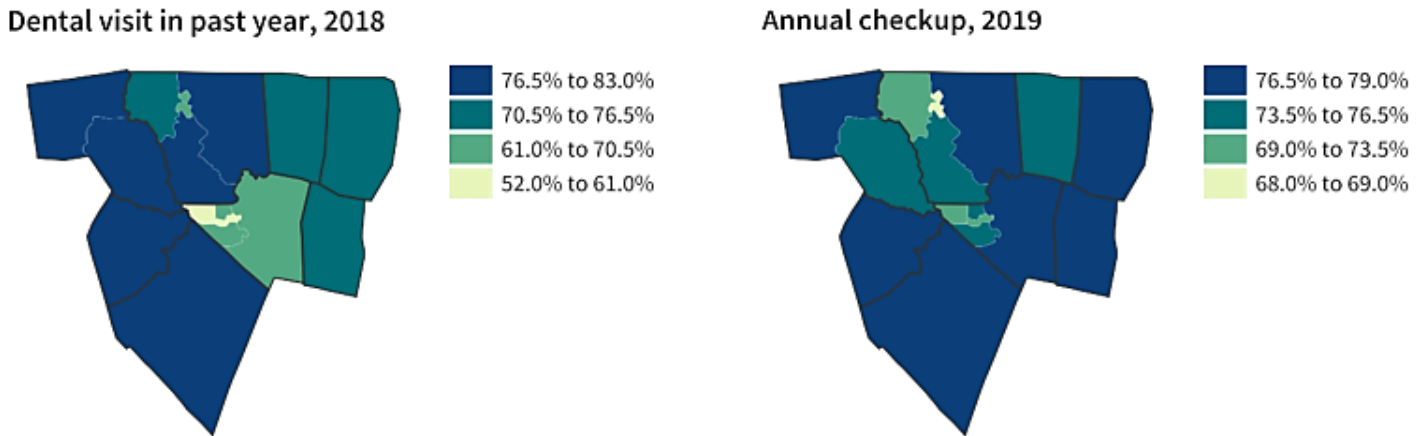
<sup>11</sup> Jencks, C. 2002. “Does Inequality Matter? Daedalus 131, (Winter): 49-65.

<sup>12</sup> County Health Rankings and Roadmaps. Available at <https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model>

## Preventive Care Measures

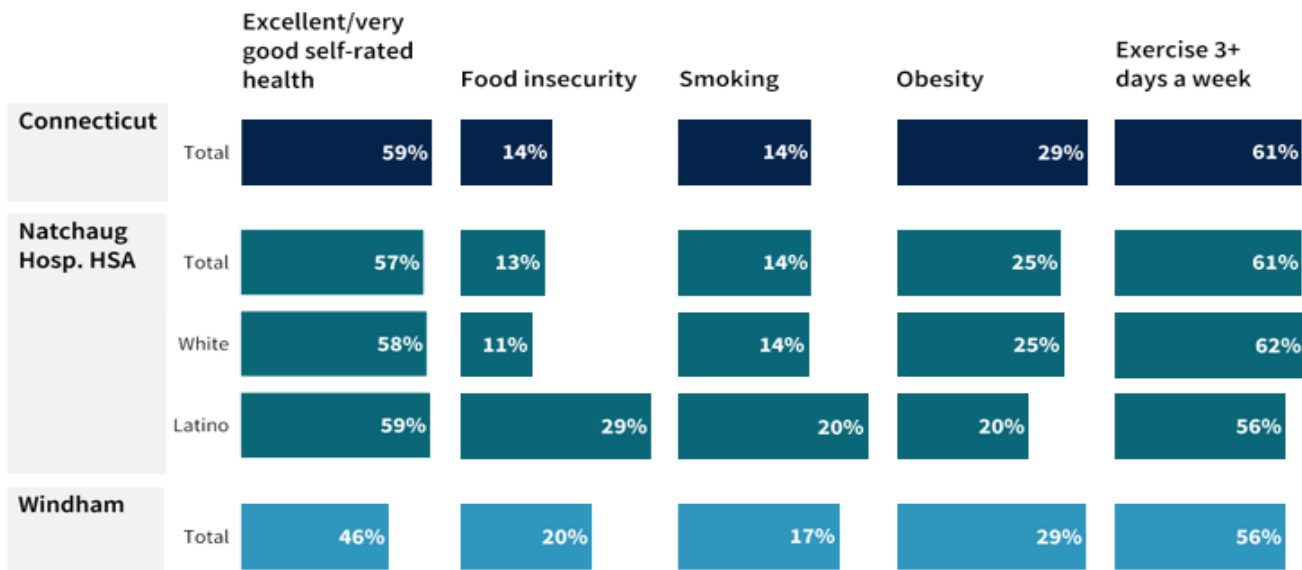
Preventive care can help counteract economic disadvantages, as a person’s health can be improved by addressing risk factors like hypertension and chronic stress early. Lack of affordable, accessible, and consistent medical care can lead to residents relying on expensive emergency room visits later on. Overall, 75% of the adults in the Natchaug Hospital HSA had an annual checkup as of 2018, and 72% had a dental visit within the previous 12 months.

**FIGURE 6: PREVENTIVE CARE MEASURES, SHARE OF ADULTS BY CENSUS TRACT, NATCHAUG HOSPITAL HSA**



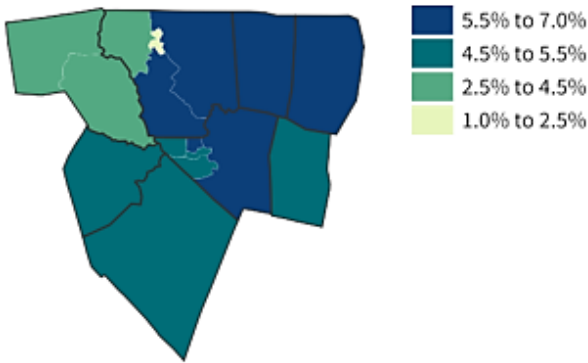
Throughout the state, people of color face greater rates and earlier onset of many chronic diseases and risk factors, particularly those that are linked to socioeconomic status and access to resources. For example, diabetes is much more common among older adults than younger ones, yet middle-aged Black adults in Connecticut have higher diabetes rates than white adults aged 65 and older.

**FIGURE 7: SELECTED HEALTH RISK FACTORS, SHARE OF ADULTS, 2015-2021**

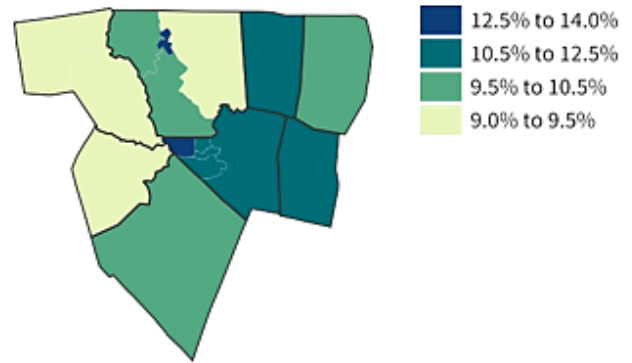


**FIGURE 8: CHRONIC DISEASE PREVALENCE, SHARE OF ADULTS BY CENSUS TRACT, NATCHAUG HOSPITAL HSA**

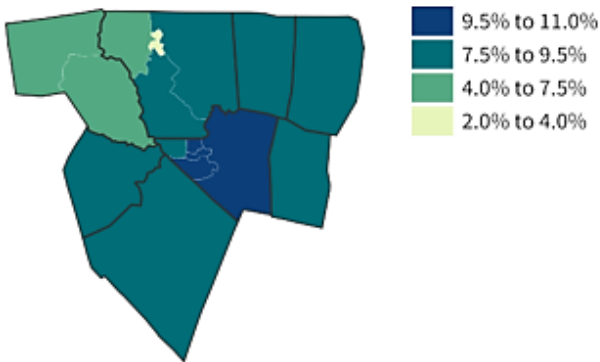
**Coronary heart disease, 2019**



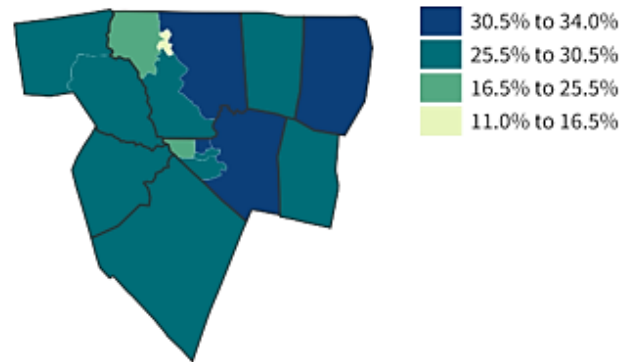
**Current asthma, 2019**



**Diabetes, 2019**



**High blood pressure, 2019**





Birth outcomes often reflect health inequities for parents giving birth, and those outcomes can affect a child throughout their life. Often, parents of color have more complications related to birth and pregnancy than White parents. Complications during pregnancy or childbirth also contribute to elevated mortality among parents giving birth.

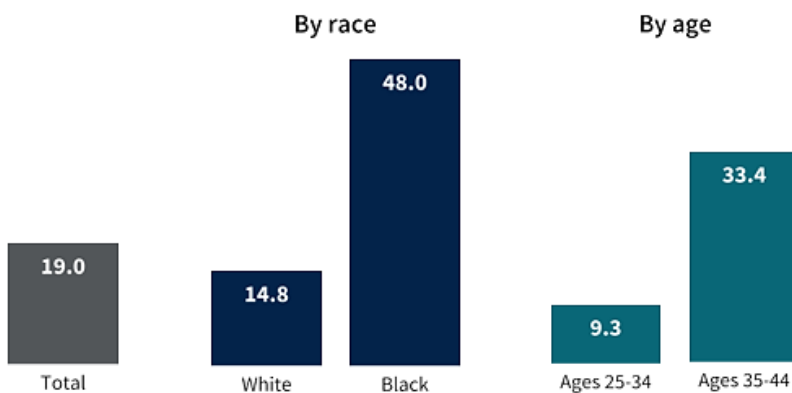
**TABLE 8 A, B, C: SELECTED BIRTH OUTCOMES BY RACE & ETHNICITY OF PARENT GIVING BIRTH, 2016-2018**

Area	Total	White	Black	Latina			Asian
				Latina (overall)	Puerto Rican	Other Latina	
Late or no prenatal care							
Connecticut	3.4%	2.5%	5.7%	4.0%	2.9%	5.1%	3.5%
Natchaug Hosp. HSA	2.9%	2.3%	N/A	4.0%	3.3%	5.5%	N/A
Windham	4.1%	3.8%	N/A	4.0%	3.6%	4.9%	0.0%

Area	Total	White	Black	Latina			Asian
				Latina (overall)	Puerto Rican	Other Latina	
Low birthweight							
Connecticut	7.8%	6.4%	12.1%	8.3%	10.2%	6.6%	8.7%
Natchaug Hosp. HSA	9.1%	7.7%	N/A	8.9%	4.7%	N/A	N/A
Windham	9.5%	N/A	N/A	8.9%	N/A	N/A	N/A

Area	Total	White	Black	Latina			Asian
				Latina (overall)	Puerto Rican	Other Latina	
Infant mortality (per 1k live births)							
Connecticut	4.6	3.1	9.5	5.0	N/A	N/A	N/A
Natchaug Hosp. HSA	3.5	N/A	N/A	N/A	N/A	N/A	N/A
Windham	ND	0.0	N/A	N/A	N/A	N/A	N/A

**FIGURE 9: MATERNAL MORTALITY RATE PER 100K BIRTHS, CONNECTICUT, 2013–2017**



### Behavioral Health

Mental health issues like depression and anxiety can be linked to social influencers like income, employment, and environment, and can pose risks of physical health problems as well, including by complicating a person’s ability to keep up with other aspects of their health care. People of color are slightly more likely to report feeling mostly or completely

anxious and being bothered by feeling depressed or hopeless. Overall, 15% of Natchaug Hospital HSA adults report experiencing anxiety regularly and 9% report being bothered by depression.

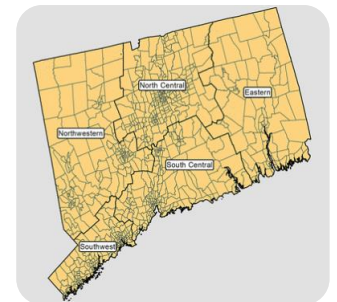
**TABLE 9: SELECTED MENTAL HEALTH INDICATORS, SHARE OF ADULTS, 2015-2021**

	Total	White	Black	Latinx	Asian	Native American
<b>Experiencing anxiety</b>						
<b>Connecticut</b>	13%	11%	15%	19%	15%	15%
<b>Natchaug Hosp. HSA</b>	15%	12%	N/A	22%	N/A	N/A
<b>Tolland &amp; Windham Counties</b>	12%	11%	36%	18%	N/A	N/A
<b>Windham</b>	23%	19%	ND	21%	N/A	N/A
<b>Bothered by depression</b>						
<b>Connecticut</b>	9%	8%	10%	14%	9%	11%
<b>Natchaug Hosp. HSA</b>	9%	7%	N/A	17%	N/A	N/A
<b>Tolland &amp; Windham Counties</b>	10%	8%	32%	19%	N/A	N/A
<b>Windham</b>	16%	18%	N/A	14%	N/A	N/A

**TABLE 10: AVERAGE SELF-REPORTED POOR MENTAL HEALTH DAYS**

18+	Connecticut	Eastern	North Central	Northwestern	South Central	Southwest
Received Mental Health Services in the Past Year <sup>13</sup>	16.7%	16.8%	18.7%	15.9%	16.9%	14.1%
Serious Mental Illness in the Past Year	4.7%	5.0%	5.0%	4.4%	5.1%	3.5%
Any Mental Illness in the Past Year	18.9%	20.4%	21.4%	17.8%	18.3%	16.2%

Source: SAMHSA. 2018-2020 National Survey on Drug Use and Health, Substate Region Estimates



<sup>13</sup> Mental Health Services for adults includes inpatient treatment/counseling, outpatient treatment/counseling, or use of prescription medication for problems with emotions, nerves, or mental health.

## CHIME Data Results: Service

Data about residents’ visits to hospitals and emergency rooms may be used as a tool to examine variations in health and quality of life by geography and within specific populations. Chime Data is a member service of the Connecticut Hospital Association which offers data collection and reporting services to its acute care hospital members. In addition, Chime Data is used to help hospitals meet regulatory reporting requirements. Chime Data's database is the most comprehensive hospital database in the state, containing over 31 million patient encounters dating back to 1980.

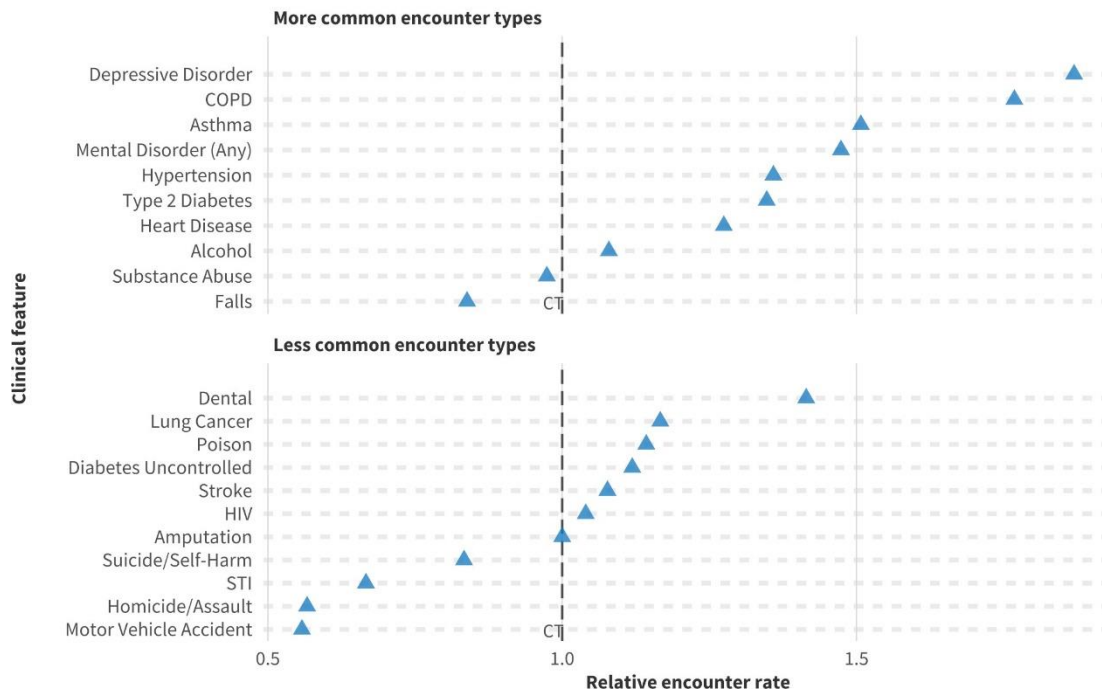
The tables in this section are based on a DataHaven analysis (2022) of 2018-2021 Chime for the HHC Hospital Service Area (HSA). Annualized encounter rates were calculated for the indicator flags assigned within the dataset including Asthma, COPD, Substance Abuse, and many other conditions. Analyses in this document describe data on “all hospital encounters” including inpatient, emergency department (ED), and observation encounters. Annualized encounter rates per 10,000 persons were calculated for the period from 2018 to October 2021 by merging CHIME data with population data. DataHaven also calculated rates by race, but those results are not included in this document because we believe that the collection of race/ethnicity data is not yet standardized in a way that allows for accurate comparisons across geographic areas. In some cases, results are not included in this report if the number of observations and/or populations in any given area were very small. Please see the appendix for the DataHaven report and additional data limitations.

Compared to the Connecticut rates, the encounter data HSA analysis for Natchaug Hospital suggests:

- Rates for nearly all common and most of the less common hospital encounters are higher than the state rate.
- Depressive Disorder and COPD encounters are nearly 2.5 times higher than the state.
- Mental health and Asthma, especially Depressive Disorder encounters are also significantly elevated.

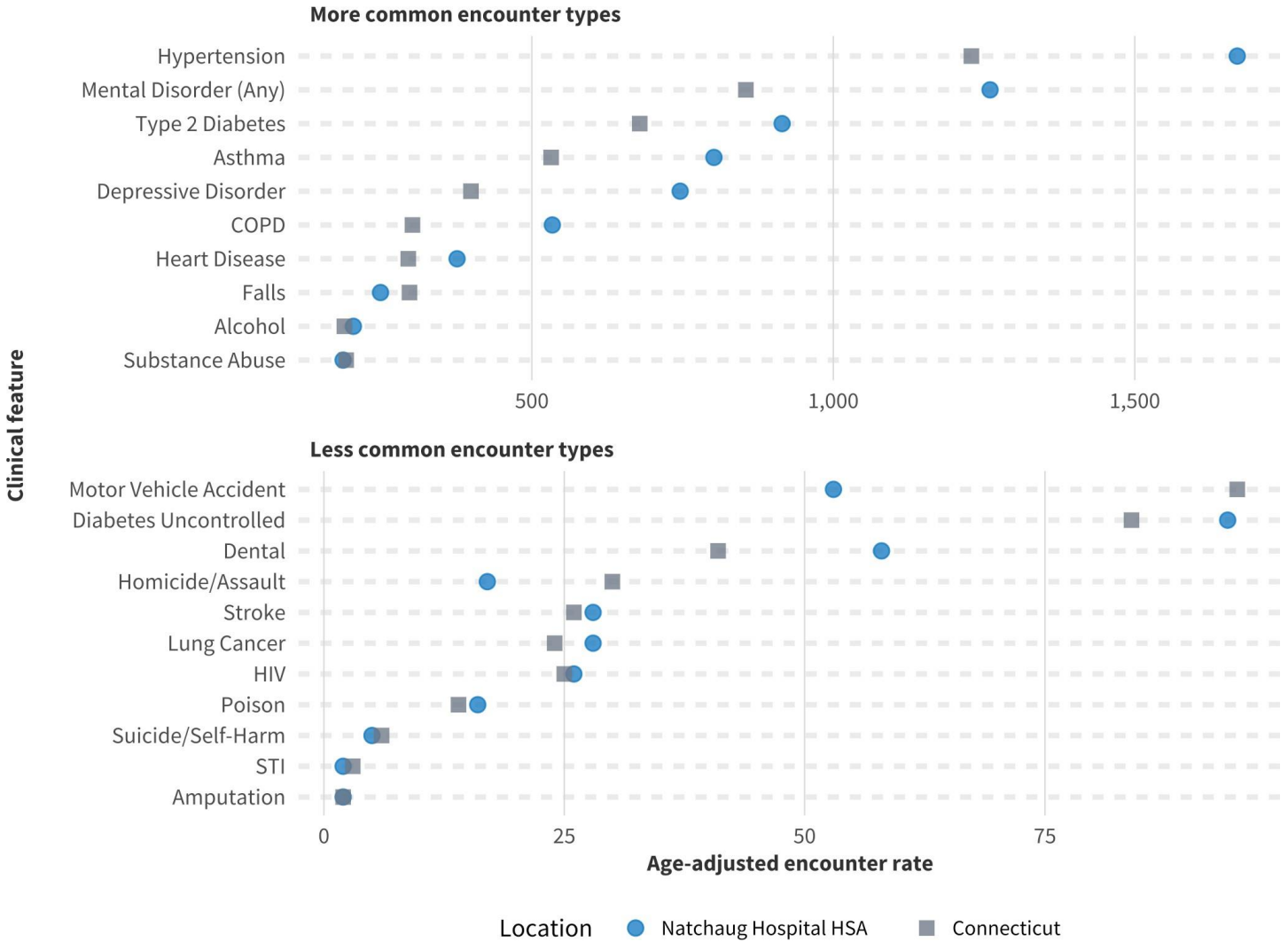
### Annualized relative encounter rates per 10,000 residents

Ratio to Connecticut rate, Natchaug Hospital Hsa, 2018-2021



## Annualized age-adjusted encounter rates per 10,000 residents

Natchaug Hospital HSA and Connecticut, 2018-2021



### Demographics for this Analysis

Natchaug Hospital HSA has a population of 80,654 people, with the following breakdown:

Gender	All Ages	Age 0-19	Age 20-44	Age 45-64	Age 65-74	Age 75+
Female	40,655	10,415	15,027	9,181	3,235	2,797
Male	39,999	10,901	14,895	8,955	3,450	1,798
Total	80,421	21,316	29,922	18,136	6,685	4,595

## Qualitative Themes & Consensus Community Perceptions

The assessment involved substantial qualitative data gathering to highlight local knowledge and expertise, and support outreach efforts for community engagement. The primary qualitative mixed-mode approach engaged policy leaders, key stakeholders, non-profit organizations, health care consumers, the criminal justice system, diversity representatives, people experiencing homelessness, and others throughout the hospital service area.

- Health Equity Champions Outreach
- Stakeholder One-to-One Interviews
- Focus Group Discussions

Systemwide, 100 interviews and 30 focus group discussions were held. There were 26 individual interviews in the Natchaug region. Participants included social service agency leaders and providers, health care providers and executives, community health workers, professionals working in various government roles at the municipal and regional levels, policy experts, and members of numerous community organizations representing a variety of interests and demographics. These conversations lasted approximately 30 minutes each and took place over the course of three weeks in March and April of 2022.

Conversations with community stakeholders helped us identify weaknesses of programs and resources in the community. Themes that emerged from the conversations are described below. Each of the themes includes an illustrative comment from a stakeholder interview or focus group discussion participant.

- Access to care: Lack of access to mental health care
  - Insurance coverage is insufficient for many families – some are uninsured, and others cannot afford deductibles and co-pays.
  - There is a lack of awareness regarding financial assistance programs, insurability, and other resources available to help offset the cost of care.
  - Specialty medical care providers in the region require wait times of up to eight months.
  - Many people have difficulty accessing transportation.
- Basic Needs: Social Influencers of Health (SIOH)
  - There is a lack of safe and affordable housing.
  - Stigma exists toward housing insecure/unsheltered populations.
  - Access to affordable, nutritious food is a financial (and mental health) challenge to many families, though there is a somewhat lower perceived stigma about using a food bank (or similar resource).

*“It’s exhausting what people have to go through to get mental health care.”*

*“I had a really good experience at Natchaug Hospital! When I was discharged, I did pretty well, but I would have liked more communication between the hospital and my [PCP] doctor.”*

*“Housing is definitely an issue here – there are lots of people worrying about housing, and it affects you mentally and physically.”*

- Cultural impacts: Language & cultural barriers to accessing health care
  - Members of underrepresented communities or ones in which English is not the primary language are challenged to find providers who can grasp the health-related nuances of their culture or lifestyle.
  - Although multilingual resources are often available at hospitals (and some clinics or other outpatient service sites), it is still lacking in some areas – especially for mental health.
- Policies: not aligned with real-life needs of vulnerable populations
  - Awareness of services (and ways to access them) is low among low-income and racial minority neighborhoods.
  - Limited hours of operation for outpatient services present a barrier to access to care.

*“It’s hard to trust providers when they don’t look like you and you feel like they don’t understand or respect your life experience.”*

**Note that the appendices contain additional quotes or paraphrases comments – “voices from the community.”**

## Community Survey

The HHC CHNA includes a large-sample community survey that contains 596 responses from community members throughout the aggregated HHC service areas. The survey was designed to collect the opinions and insights of a diverse set of community members on issues regarding unmet community needs and several other related issues. Surveys were distributed in Spanish and English both online and on paper.

The following summary provides a snapshot of the survey respondents and their responses to key questions

### Participant Demographics

Survey respondents represent a breadth of counties and community groups throughout the state. Skewed toward White respondents, the survey also includes a notable percent (approximately 20%) of people indicating that they are members of racial or ethnic minority communities.

**TABLE 11: SURVEY RESPONDENTS' DEMOGRAPHICS**

Demographic Profile of Survey Respondents	
Race/Ethnicity	Percent of respondents
White or Caucasian	78.6
Black or African American	10.5
Hispanic/Latinx	8.2
Asian	1.3
Others	1.3
Annual Household Income	Percent of respondents
None	0.4
Under \$15,000	1.1
\$15,000 - \$24,999	1.8
\$25,000 - \$34,999	5.7
\$35,000 - \$44,999	6.5
\$45,000 - \$54,999	10.0
\$55,000 - \$64,999	6.8
\$65,000 - \$74,999	7.5
\$75,000 - \$99,999	14.0
\$100,000 or more	46.2

- Approximately one in three respondents indicate a low- to medium annual household income (i.e., less than \$55,000).
- More than two of five (46.2%) earn over \$100,000 per year.

Approximately one of seven survey participants live in a single-parent household (15.5%), and one in 10 (9.9%) live in a multigenerational household. Both household groups represent greater vulnerability to economic challenges and the related impact on access to health care services.

**TABLE 12: HOUSEHOLD SITUATION**

Home Situations	Percent saying, "Yes"
<b>Situation</b>	
Do you live in a single-parent household?	15.5
Do you live in a multi-generation household or in a home with three or more generations living together (such as grandparents, kids, and grandkids)?	9.9

## Survey Results

The survey evaluated 34 granular community needs on the basis the percentage of respondents saying that there was a feel need more attention for improvement. Most of the needs fell into the following categories:

1. Counseling and other behavioral health services
2. Substance Use Disorder education, early intervention, and treatment services (including crisis care)
3. Access to care – specifically, topics around affordability and related childcare
4. The process of care – care coordination for complex medical or mental health patients requiring services from multiple providers.
5. Integrated medical and mental health services for seniors

The survey questions asked about participants’ ratings on a wide range of programs and resources in the community on a scale of 1 (no more focus needed) to 5 (much more focus needed) in regard to, “Which of the issues need more attention for improvement?”

- Four of the most common needs (of 15) indicate the service gaps, or need, for additional mental health services, apart from Substance Use Disorder care; two of the top three needs reflect the need for additional counseling services.
- An additional four of 15 of the most commonly noted needs are related to Substance Use Disorder care.
- Overall, respondents clearly illuminate the need for additional services in these areas, yet they also indicate the “need” to address the process of care – the way in which any/all services are provided.

In addition, three questions focused on Access to Care. More than one-third of respondents (37.3%) chose NOT to get care when they needed it (see appendices). Most commonly, they did not get needed care because the wait time to see a provider was too long (43.9%) or they could not afford it (36.3%). While “access” is not a service or program, extrapolating these percentages to the actual number of individuals, children, and families in each HSA suggests a high percentage of the population is having difficulty accessing services.

**A complete set of survey response demographic tables is contained in the appendices.**



## Access Audit

Access audits or “mystery shopper” calls are an effective way to evaluate customer service data and consumer-level access to care issues. The goal is to understand practical access to service issues perceived by clients and prospective clients. The results provide insight to access gaps, improvement strategies, and service variations. The HHC affiliated outpatient service sites were “shopped” (i.e., called on the telephone) by Crescendo “shoppers” seeking to schedule an appointment or to learn about other factors that potentially impact consumer access to services. Calls were made at different times throughout the day during the first two weeks of May 2022.

Calls were made to six health care facilities in the Natchaug Hospital service areas. Callers asked primarily about behavioral health care. The factors used to identify areas of opportunity during the calls included:

Ability of the site or facility to accept new patients

Ability of the facility to answer questions and refer the caller elsewhere when the desired services are not available

How staff asks questions to define prospective client needs

Ease of speaking with a person

A summary of the Access Audit follows.

### Ability of the site or facility to accept new patients

Of the six sites, the caller was able to get ahold of five sites; one of the sites had a busy signal. Of the five behavioral health sites, four are accepting new patients – one behavioral health care site was not accepting new patients. However, even among those accepting new patients, wait times range from three weeks to eight months. One of the sites could not give an idea of wait times to the caller because they would have to put all patient information in the system to create a patient chart in order to see provider availability.

### Ability of the facility to answer questions and refer the caller elsewhere when the desired services are not available

Four of the sites had staff members that went above and beyond. Staff members at these sites were extremely informative and eager to talk to the caller. Staff members gave detailed information about the process of becoming a new patient. The staff member at the behavioral health site that is not accepting new patients gave the caller a list of behavioral health sites and numbers who are accepting new patients.

### How staff asks questions to define prospective client needs

All staff members asked the caller what type of insurance he/she had to make sure that the site accepts their insurance. Four of the six sites responded in a helpful manner.

### Ease of speaking with a person

All staff at the health care sites were very nice and eager to help the caller. Five out of the six sites had an automated phone tree, all of which had efficient phone tree options. The longest wait time to speak to staff was seven minutes. None of the sites had language options other than English on the phone tree. The lack of Spanish language options may create a barrier for patients whose primary language is not English.

## Section 3: Conclusions, Prioritized Needs, and Next Steps

# Prioritization Process

## Background

The Needs Prioritization Process brought together the summary of results from secondary research data references, qualitative research themes, and the community survey. The summary and the process were described for the participants in an advance email as follows:

Primary and secondary research. The needs included in the Prioritization Process were derived from the extensive secondary and primary research described below.

- Secondary research: Secondary research includes extensive amounts of data from the US Census Bureau; sites providing information on poverty and other social influencers of health measures; DataHaven Charts; and other validated data sources.
- Primary research: This includes a *community survey* with [system-wide] approximately 600 responses, results from *qualitative research* (i.e., approximately 100 in-depth stakeholder interviews and results from 30 focus groups).

Direct linkages between the “needs” and the research data. Each of the needs in the prioritization process directly links to data observations and/or qualitative feedback. Supporting data and a detailed list of 50 needs in each county was created. Duplicates were removed and similar needs were combined. The resulting list of needs represents the items participants were asked to evaluate in the Prioritization Process.

Crescendo then worked with seven sets of project leaders – one set for each HHC hospital – to implement a modified Delphi Method to construct a prioritized list of needs for each county. The “three-round” approach described for the participants in advance included:

- Round 1: The first step asked participants to evaluate and comment on each need in a provided list via an online survey derived from primary and secondary research.
- Round 2: The second step asked participants to evaluate the same or similar list of needs, but this list showed their colleagues’ comments. The purpose of this process is to provide participants with additional insight as they evaluate each need.
- Round 3: Based on the results of the first two rounds of the Prioritization Process (conducted separately with teams from each of the seven hospital service areas), community survey results, secondary data, and qualitative research results, Crescendo assembled a draft version of the top 10 needs for each hospital. As a final stage of the Prioritization Process, Crescendo and approximately 35 HHC Regional Leaders reviewed the drafts versions to do the following:
  - Confirm and validate research results
  - Discuss additional, locally known or emerging needs to append to the initial lists of the top 10 needs
  - Discuss project next steps.

Based on the results of the Round 3 discussion, the final list of prioritized needs is shown below.

## Final Prioritized List of Needs

Aggregated Needs By Tier For Natchaug Hospital
Healthcare Services For Children With Special Needs and Their Families
Suicide Prevention
Recruit And Retain Medical and Mental Health Care Staff With DEI Awareness
Adaptive Equipment For People Living With Long-Term Disabilities
Mental Health Services for Adolescents and Their Families
Services For People Living With Disabilities
Co-Locating Case Managers And Behavioral Health Providers With Primary Care
Multilingual Medical And Mental Health Services
Additional Programs To Enhance Access to Care For Lower-income Families
Broad-based, integrated services --- Medical, Mental Health, Substance Use Disorder, SDoH – for People and Families Experiencing Homelessness
Care Coordination and Support to Help Manage Care for Patients With Complex Health Conditions
Enhanced Collaboration with Community Partners
Substance Use Disorder Crisis Care and Treatment

As noted in the Executive Summary, many of the issues shown above are particularly urgent among disadvantaged communities, people of color, and others who have historically lacked adequate access to services

# Transferring Knowledge Into Change

## Overview

The critical component of any CHNA is the efficiency and effectiveness of how it segues into strategies and plans. Strategies and plans must be designed to address the ultimate goal of improving community health and address high-priority needs. A systematic approach to developing the Community Health Improvement Plan (CHIP) is critical to achieving this ultimate goal.

Some of the initial, well-defined steps to develop and deploy the CHIP include the following:

### **STEP 1 - Culling the Findings – Brainstorming with your local collaboratives by answering the following questions:**

CHNA Immediate Impact findings – where is the low hanging fruit?

CHNA Greatest Impact findings -- what will most influence health outcomes?

CHNA Most Desired Change findings - what change does the community most want?

CHNA Forging Opportunities findings - where are the greatest opportunities for partnership?

### **STEP 2 - Organizing the focus areas and assembling your rationale for action**

### **STEP 3 - Selecting your Strategies and Interventions**

### **Step 4 – Executing and Evaluation**

**Note that the timeline is designed to facilitate Board adoption of the CHIP in September 2022.**

The appendices (“Key Steps to CHIP Development and Impact”) provides additional detail and indicated actions.

## Example to Help “Cull the Findings”

Culling the findings – Step 1, above – involves taking a systemic approach to begin to identify the “low hanging fruit” (i.e., needs that are high-priority and are within the hospital’s ability to quickly make an impact), issues that most influence health outcomes, and ones desired. As an initial step to consider, CHNA/CHIP leaders may choose to assign each of the high-priority community needs values based on the facility’s ability to control community based activities and the timeline within which to impact the issue.

The table below is a sample using the actual CHNA prioritized needs. Upon completion of the table, CHIP leaders will have a clear understanding of initial projects (e.g., “low hanging fruit”) and the degree and focus of required collaboration. Additional CHIP strategies, collaborations, and roadmaps will be constructed to further meet hospital-level needs, opportunities, and resource availability.

**Timeline**  
*Less than 1 year,  
 1 to 3 years,  
 3+ years*

**Degree of Control**  
*HHC can fully direct;  
 HHC to collaborate;  
 HHC to support partners*

**Needs**

<b><u>Needs</u></b>	<b><u>Timeline</u></b> <i>Less than 1 year, 1 to 3 years, 3+ years</i>	<b><u>Degree of Control</u></b> <i>HHC can fully direct; HHC to collaborate; HHC to support partners</i>
Healthcare Services For Children With Special Needs and Their Families		
Suicide Prevention		
Recruit And Retain Medical and Mental Health Care Staff With DEI Awareness		
Adaptive Equipment For People Living With Long-Term Disabilities		
Mental Health Services for Adolescents and Their Families		
Services For People Living With Disabilities		
Co-Locating Case Managers And Behavioral Health Providers With Primary Care		
Multilingual Medical And Mental Health Services		
Additional Programs To Enhance Access to Care For Lower-income Families		
Broad-based, integrated services --- Medical, Mental Health, Substance Use Disorder, SDoH – for People and Families Experiencing Homelessness		
Care Coordination and Support to Help Manage Care for Patients With Complex Health Conditions		
Enhanced Collaboration with Community Partners		
Substance Use Disorder Crisis Care and Treatment		

# Appendices

## Appendix 1: Community Health Improvement Plan (CHIP) Objectives

- 1) Enhance Community Engagement and Better Incorporate the Consumer's Voice** - CHNA/CHIP process leads to continuous and trusting feedback loops with diverse populations and enhances our methods for on-going engagement with the communities we serve.
- 2) Grow and Sustain our Community-based Partnerships** - CHNA/CHIP process leads to more formalized partnerships with regional and community organizations and collaborations, and more meaningful relationships with key community opinion leaders.
- 3) Align Community Health with our Equity Value and Across the Regions** - CHNA/CHIP process leads to a greater sense of team and purpose within HHC, assures each region is equitably resourced, and that collectively we know and understand more about identifying community health needs and improving health outcomes.
- 4) Bring Greater Clarity and Social Impact to our Community Health Work** - CHNA/CHIP process leads to more effective, justified, measurable, and reportable interventions across our collective CHIPs and inspires and informs our social investment, sponsorship, and donation activities.

## Appendix 2: Natchaug Hospital Service Area 2022 Equity Profile – DataHaven

Executive Summary	2
Overview	3
Demographics	4
Housing	7
Education	9
Economy	11
Income & Wealth	12
Health	14
Civic Life & Community Cohesion	22
Environment & Sustainability	25
Notes	27

Compiled by DataHaven in April 2022.

This report is designed to inform local-level efforts to improve community well-being and racial equity. This represents version 1.0 of the DataHaven town equity profile, which DataHaven has published for all 169 towns and several regions of Connecticut. Please contact DataHaven with suggestions for version 2.0 of this report.

[ctdatahaven.org](http://ctdatahaven.org)



## EXECUTIVE SUMMARY

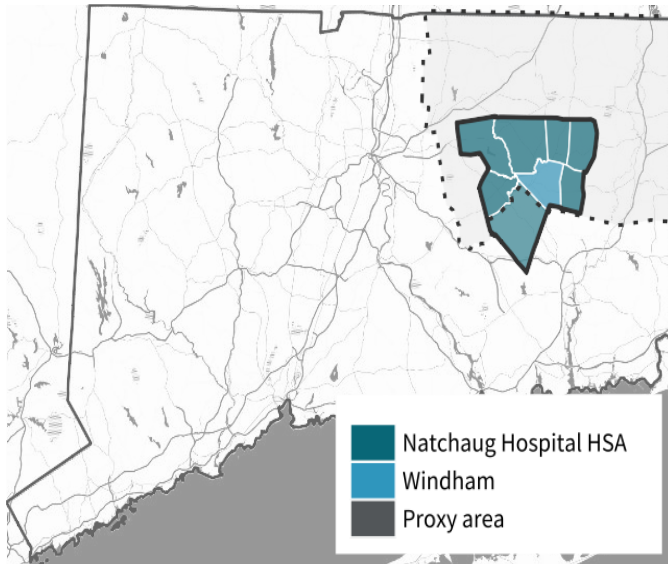
Throughout most of the measures in this report, there are important differences by race/ethnicity and neighborhood that reflect differences in access to resources and other health-related social needs. Wherever possible, data will be presented with racial/ethnic breakdowns. Data for white, Black, Asian, and other populations represent non-Hispanic members of each racial group.

- The Natchaug Hospital Service Area is a region of 80,421 residents, 30% of whom are people of color. The region's population has decreased by 3% since 2010.
- Of the region's 26,339 households, 68% are homeowner households.
- Thirty-six percent of the Natchaug Hospital HSA's households are cost-burdened, meaning they spend at least 30% of their total income on housing costs.
- Among the region's adults ages 25 and up, 35% have earned a bachelor's degree or higher.
- The Natchaug Hospital HSA is home to 26,317 jobs, with the largest share in the Health Care and Social Assistance sector.
- The median household income in the Natchaug Hospital HSA is \$76,359. The Natchaug Hospital HSA's average life expectancy is 79.8 years.
- Fifty-seven percent of adults in the Natchaug Hospital HSA say they are in excellent or very good health. In 2020, 27 people in the Natchaug Hospital HSA died of drug overdoses.
- Eighty-six percent of adults in the Natchaug Hospital HSA are satisfied with their area, and 56% say their local government is responsive to residents' needs.
- In the 2020 presidential election, 78% of registered voters in the Natchaug Hospital HSA voted.
- Forty percent of adults in the Natchaug Hospital HSA report having stores, banks, and other locations in walking distance of their home, and 40% say there are safe sidewalks and crosswalks in their neighborhood.

## OVERVIEW

For the purposes of this report, the Natchaug Hospital HSA will be compared to Connecticut as a whole, as well as to Windham where possible. Where necessary, data may be presented for a proxy region made up of public use microdata areas (PUMAs) designated by the US Census Bureau, including all of Tolland County and Windham County and parts of New London County. Charts and tables based on these proxy areas are noted as such in their titles.

**TABLE 13: STUDY AREA**



**The Natchaug Hospital HSA is made up of the following locations (with 2020 populations):**

- Chaplin (2,151)
- Columbia (5,272)
- Coventry (12,235)
- Hampton (1,728)
- Lebanon (7,142)
- Mansfield (25,892)
- Scotland (1,576)
- Windham (24,425)

**The proxy study area is made up of the following locations (with 2020 populations):**

- Tolland County (149,788)
- Windham County (116,418)

Indicator	Connecticut	Natchaug Hosp. HSA	Windham
Total population	3,605,944	80,421	24,425
Total households	1,370,746	26,339	8,590
Homeownership rate	66%	68%	47%
Housing cost burden rate	36%	36%	44%
Adults with less than a high school diploma	9%	9%	19%
Median household income	\$78,444	\$76,359	\$47,481
Poverty rate	10%	15%	25%
Life expectancy (years)	80.3	79.8	77.5
Ages 18–64 w/o health insurance	11%	12%	17%

## DEMOGRAPHICS

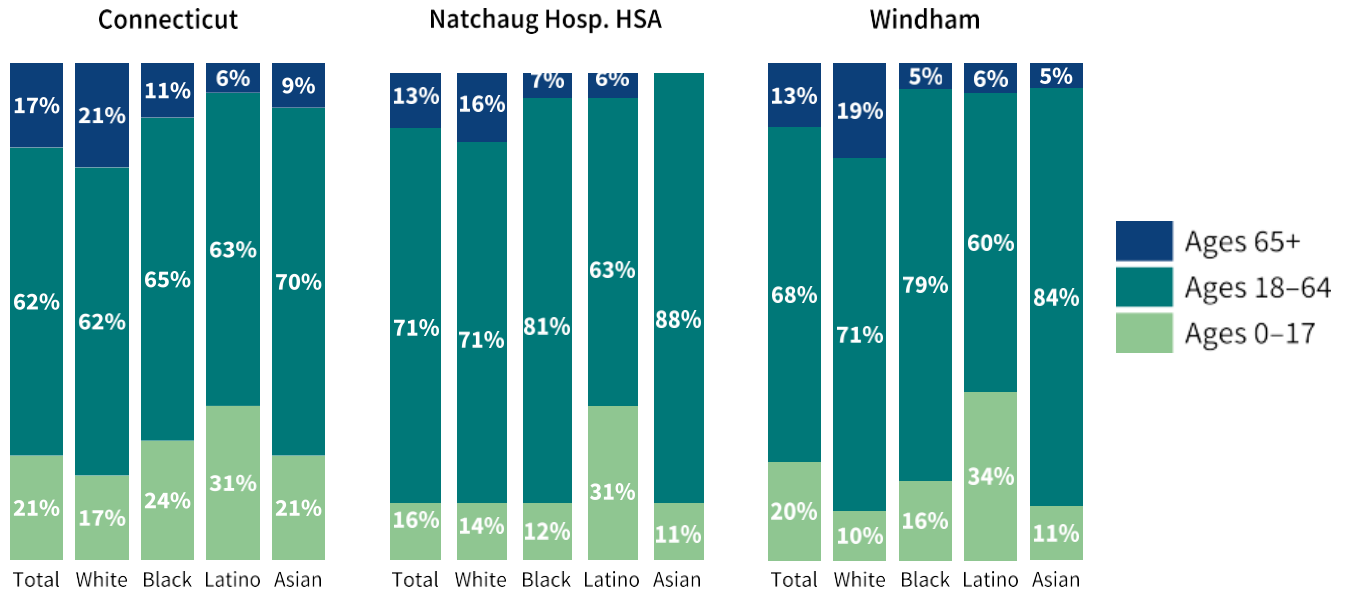
As of 2020, the population of the Natchaug Hospital HSA is 80,421, including 12,885 children and 67,536 adults. Thirty percent of the Natchaug Hospital HSA’s residents are people of color, compared to 37% of the residents statewide.

**TABLE 14: STUDY A POPULATION BY RACE/ETHNICITY, 2020**

Area	White		Black		Latinx		Asian		Native American		Other race/ethnicity	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
<b>Connecticut</b>	2,279,232	63%	360,937	10%	623,293	17%	170,459	5%	6,404	<1%	165,619	5%
<b>Natchaug Hosp. HSA</b>	55,989	70%	2,360	3%	13,699	17%	4,842	6%	189	<1%	3,342	4%
<b>Windham</b>	11,536	47%	897	4%	10,199	42%	799	3%	50	<1%	944	4%

As Connecticut’s predominantly white Baby Boomers age, younger generations are driving the State’s increased racial and ethnic diversity. Black and Latinx populations in particular skew much younger than white populations.

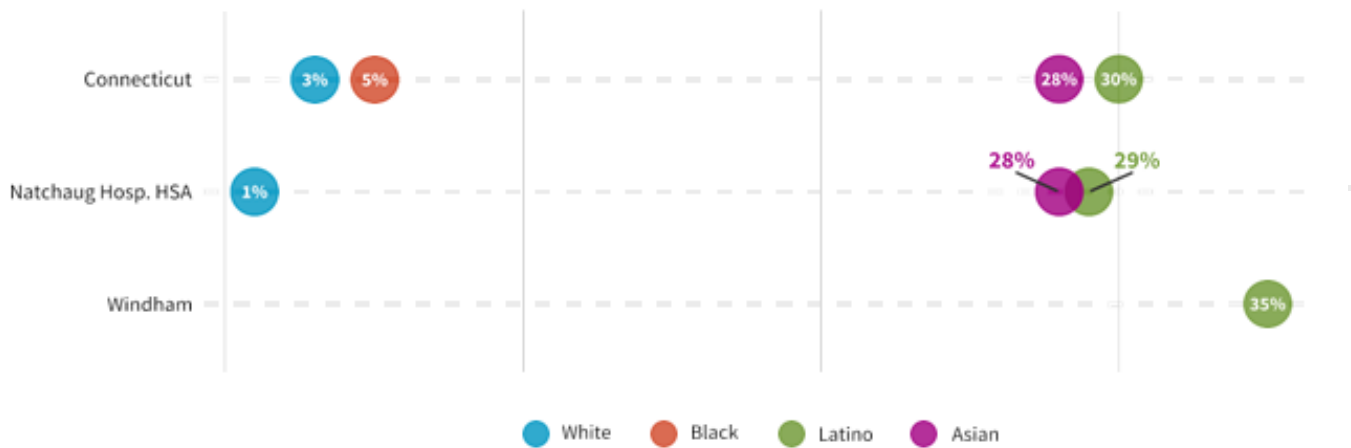
**FIGURE 10: POPULATION BY RACE/ETHNICITY AND AGE GROUP, 2019**



Note: Only groups with at least 50 residents shown.

About 6,397 residents of the Natchaug Hospital HSA, or 8% of the population, are foreign-born. Linguistic isolation is characterized as speaking English less than “very well.” People who struggle with English proficiency may have difficulty in school, seeking health care, accessing social services, or finding work in a largely English-speaking community. As of 2019, 5,333 Natchaug Hospital HSA residents, or 7% of the population age 5 and older, were linguistically isolated. Latinos and Asian Americans are more likely to be linguistically isolated than other racial/ethnic groups.

**FIGURE 11: LINGUISTIC ISOLATION BY RACE/ETHNICITY, 2019**



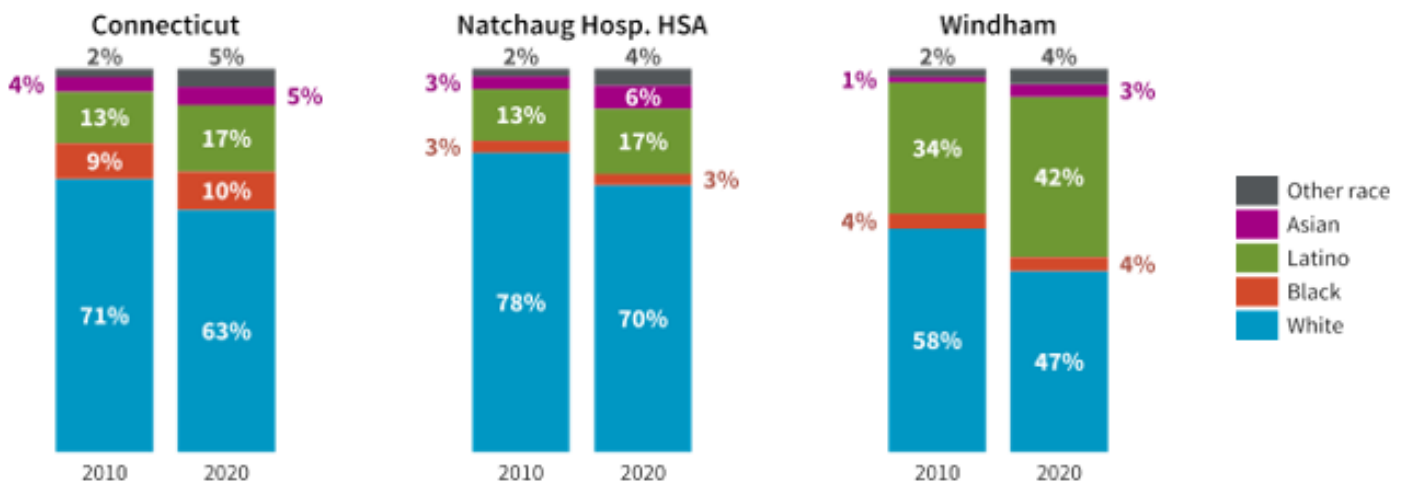
## POPULATION CHANGE: 2020 CENSUS

The first set of data from the 2020 Census was released in August 2021, containing basic population counts by age and race/ethnicity. Between 2010 and 2020, Connecticut’s population was nearly stagnant. During the same period, the Natchaug Hospital HSA shrank by 2,512 people, a 3% decrease. The number of white residents in the Natchaug Hospital HSA shrank by 14%, while the non-white population grew by 35%.

**TABLE 15: POPULATION AND POPULATION CHANGE BY AGE GROUP, 2010–2020**

	Population, 2010	Population, 2020	Change	Percent change
<b>Connecticut</b>				
<b>All ages</b>	3,574,097	3,605,944	+31,847	+0.9%
<b>Children</b>	817,015	736,717	-80,298	-9.8%
<b>Adults</b>	2,757,082	2,869,227	+112,145	+4.1%
<b>Natchaug Hospital HSA</b>				
<b>All ages</b>	82,933	80,421	-2,512	-3.0%
<b>children</b>	14,980	12,885	-2,095	-14.0%
<b>Adults</b>	67,953	67,536	-417	-0.6%
<b>Windham</b>				
<b>All ages</b>	25,268	24,425	-843	-3.3%
<b>Children</b>	5,383	4,784	-599	-11.1%
<b>Adults</b>	19,885	19,641	-244	-1.2%

**FIGURE 12: SHARE OF POPULATION BY RACE/ETHNICITY, 2010–2020**



## HOUSING

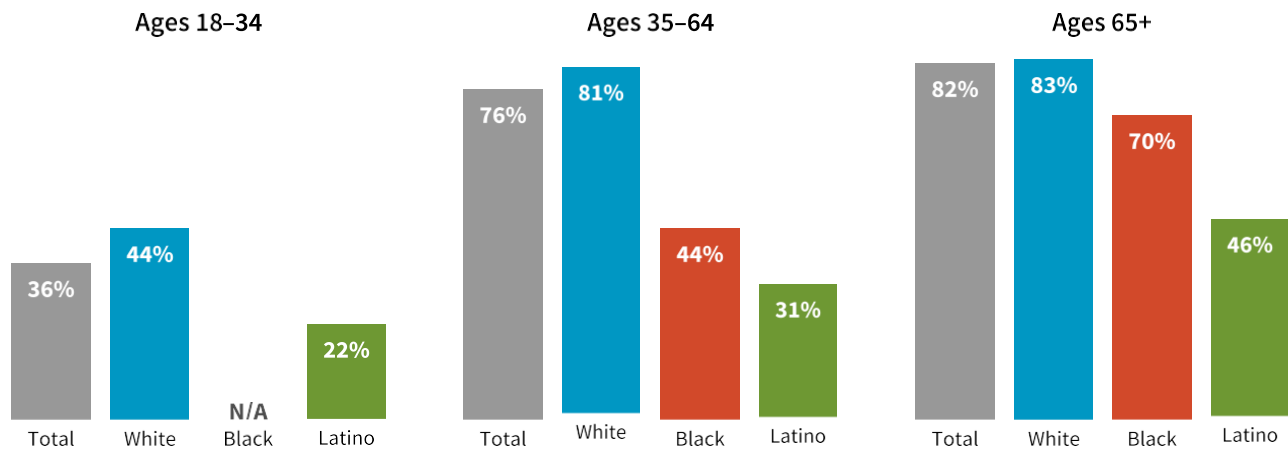
The Natchaug Hospital HSA has 26,339 households, of which 67% are homeowner households. Of the region’s 28,858 housing units, 70% are single-family units. Homeownership rates vary by race/ethnicity. Purchasing a home is more attainable for advantaged groups because the process of purchasing a home has a long history of racially discriminatory practices that continue to restrict access to homeownership today. This challenge, coupled with municipal zoning dominated by single-family housing, results in de facto racial and economic segregation seen throughout Connecticut.

**TABLE 16: HOMEOWNERSHIP RATE BY RACE/ETHNICITY OF HEAD OF HOUSEHOLD, 2019**

Area	Total	White	Black	Latinx	Asian	Native American
Connecticut	66%	76%	39%	34%	58%	40%
Natchaug Hospital HSA	68%	77%	30%	27%	44%	36%
Windham	47%	63%	27%	24%	N/A	29%

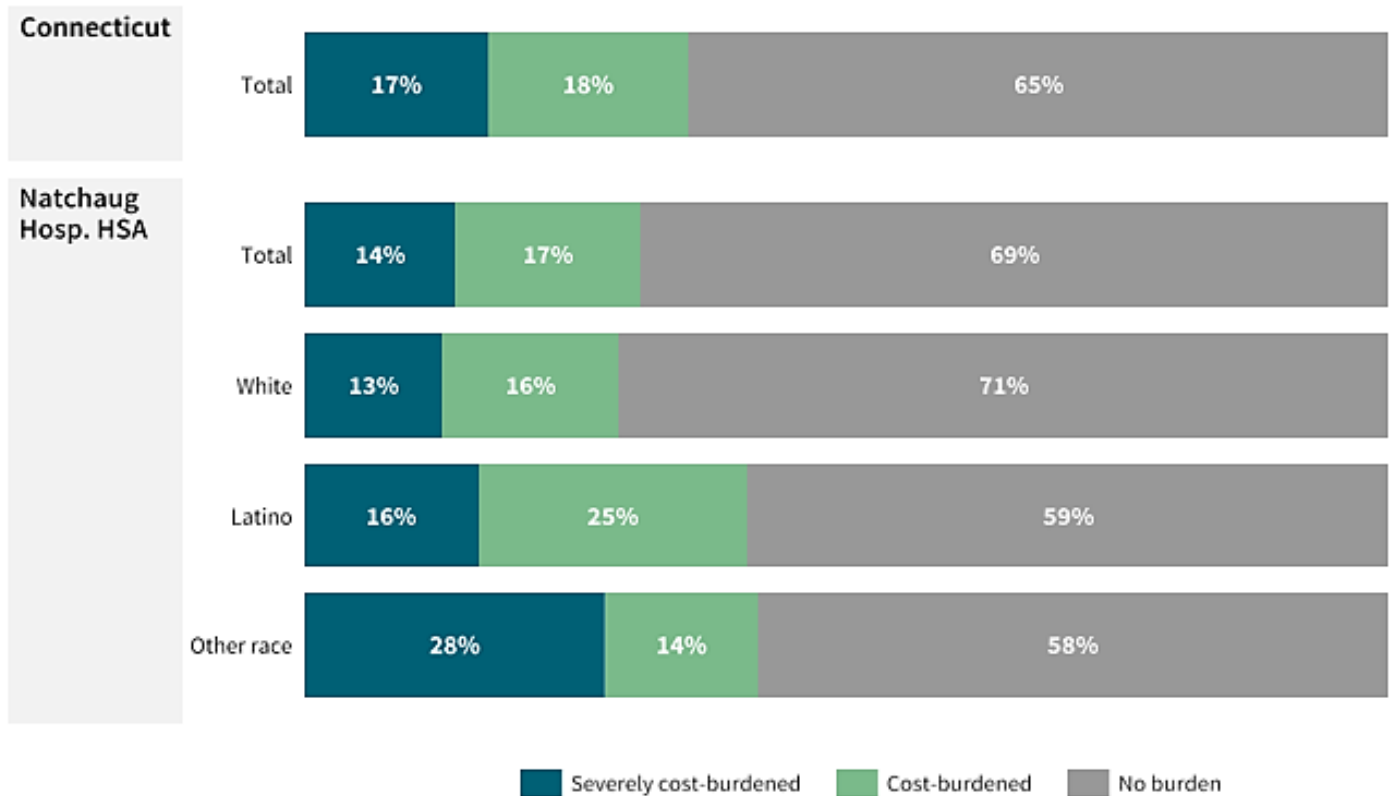
Younger adults are less likely than older adults to own their homes across several race/ethnicity groups. However, in most towns, younger white adults own their homes at rates comparable to or higher than older Black and Latinx adults.

**FIGURE 13: HOMEOWNERSHIP RATES BY AGE AND RACE/ETHNICITY OF HEAD OF HOUSEHOLD, NATCHAUG HOSPITAL HSA (PROXY AREA), 2019**



A household is cost-burdened when they spend 30% or more of their income on housing costs, and severely cost-burdened when they spend half or more of their income on housing costs. Housing costs continue to rise, due in part to municipal zoning measures that limit new construction to very few towns statewide. Meanwhile, wages have largely stagnated, especially among lower-income workers who are more likely to rent. As a result, cost-burden generally affects renters more than homeowners, and has greater impact on Black and Latinx householders. Among renter households in the Natchaug Hospital HSA, 54% are cost-burdened, compared to 26% of owner households.

**FIGURE 14: HOUSING COST-BURDEN RATES BY RACE/ETHNICITY (WITH PROXY AREA), 2019**



Household overcrowding is defined as having more than one occupant per room. Overcrowding may increase the spread of illnesses among the household and can be associated with higher levels of stress. Increasing the availability of appropriately- sized affordable units helps to alleviate overcrowding.

**TABLE 17: OVERCROWDED HOUSEHOLDS BY RACE/ETHNICITY OF HEAD OF HOUSEHOLD, 2019**

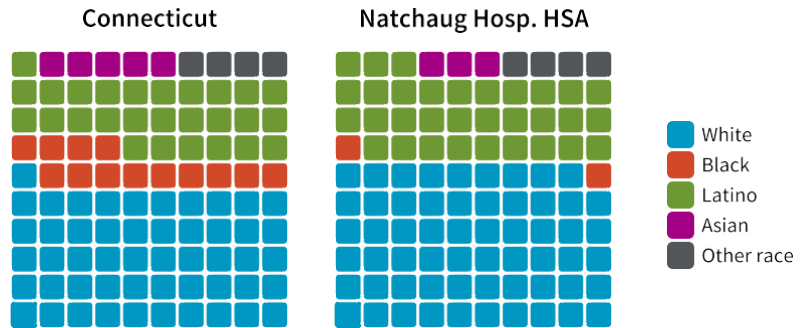
	Total		White		Black		Latinx		Asian		Count	Native American	
	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count		Share	
<b>Connecticut</b>	25,541	2%	7,252	<1%	4,437	3%	10,771	6%	2,954	6%	158	4%	
<b>Natchaug Hosp. HSA</b>	519	2%	243	1%	<50	N/A	207	5%	<50	N/A	<50	N/A	
<b>Windham</b>	259	3%	55	1%	<50	N/A	188	6%	<50	N/A	<50	N/A	



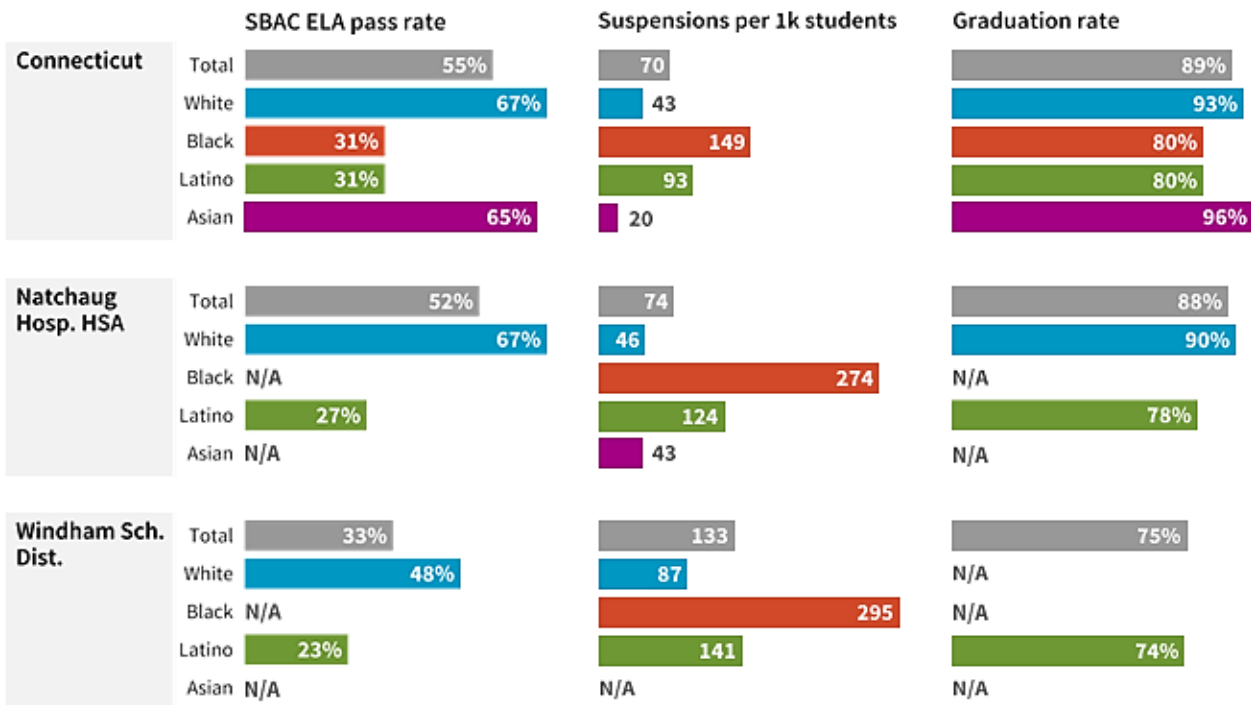
## EDUCATION

Public school students in the Natchaug Hospital HSA are served by 10 school districts for pre-kindergarten through grade 12, including 2 regional districts. During the 2019–2020 school year, there were a total of 9,202 students enrolled in these districts, with 3,345 enrolled in the Windham School District. Tracking student success measures is important since disparate academic and disciplinary outcomes are observed as early as preschool and can ultimately affect a person’s long-term educational attainment and economic potential.

**FIGURE 15: PUBLIC K–12 STUDENT ENROLLMENT BY RACE/ETHNICITY PER 100 STUDENTS, 2019–2020**

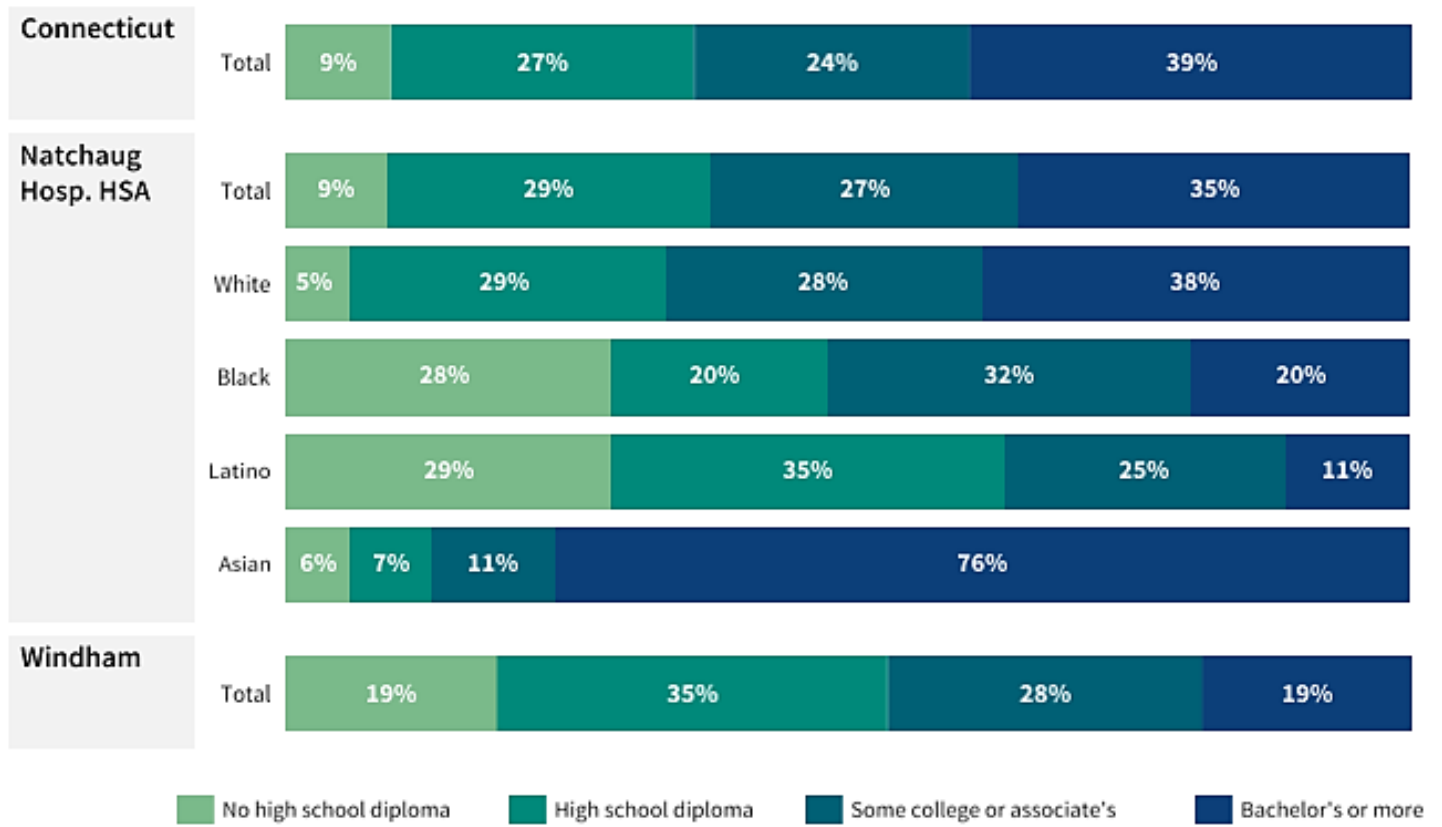


**FIGURE 16: SELECTED ACADEMIC AND DISCIPLINARY OUTCOMES BY STUDENT RACE/ETHNICITY, 2018–2019**



Adults with high school diplomas or college degrees have more employment options and considerably higher potential earnings, on average, than those who do not finish high school. In the Natchaug Hospital HSA, 9% of adults ages 25 and over, or 3,940 people, lack a high school diploma; this share is 9% statewide and 19% in Windham.

**FIGURE 17: EDUCATIONAL ATTAINMENT BY RACE/ETHNICITY, SHARE OF ADULTS AGES 25 AND UP, 2019**



## ECONOMY

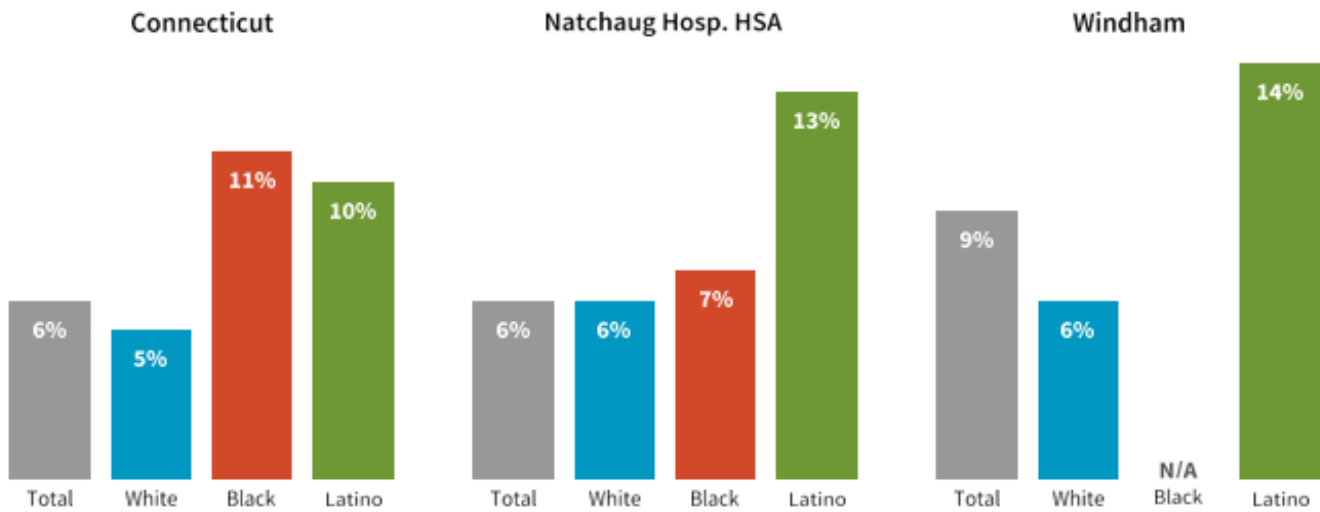
There are a total of 26,317 jobs based in towns in the Natchaug Hospital HSA, with 10,117 jobs based in Windham. Jobs in the Health Care and Social Assistance sector make up the largest share in the region. While these numbers are from 2019 and do not include economic outcomes related to the COVID-19 pandemic, they describe general labor market strengths and average wages for the area.

**TABLE 18: JOBS AND WAGES IN NATCHAUG HOSPITAL HSA'S 5 LARGEST SECTORS, 2019**

Sector	Connecticut		Natchaug Hosp. HSA	
	Total jobs	Avg annual pay	Total jobs	Avg annual pay
<b>All Sectors</b>	1,670,354	\$69,806	26,317	\$51,029
<b>Health Care and Social Assistance</b>	271,014	\$54,858	4,088	\$49,724
<b>Retail Trade</b>	175,532	\$35,833	2,615	\$30,585
<b>Accommodation and Food Services</b>	129,012	\$23,183	2,288	\$22,282
<b>Administrative and Support and Waste Management and Remediation Services</b>	89,852	\$47,443	799	\$39,219
<b>Manufacturing</b>	161,893	\$85,031	784	\$66,646

Rates of unemployment also vary by race and ethnicity. Generally, workers of color are more likely to be unemployed due to factors ranging from hiring practices to proximity to available jobs. Overall unemployment in the Natchaug Hospital HSA averaged 6% in 2019.

**FIGURE 18: UNEMPLOYMENT RATE BY RACE/ETHNICITY, 2019**



## INCOME & WEALTH

The median household income in Connecticut is \$77,696. Within the Natchaug Hospital HSA, median household incomes by town range from \$47,481 in Windham to \$109,962 in Columbia. Racial disparities in outcomes related to education, employment, and wages result in disparate household-level incomes and overall wealth. Households led by Black or Latino adults generally average lower incomes than white households.

Over the past 40 years, neighborhood income inequality has grown statewide as the share of the population living in wealthy or poor neighborhoods has increased and the population in middle income areas declined in a process known as “economic sorting,” which often leads to further disparities in access to economic opportunity, healthy environments, and municipal resources.

The Supplemental Nutritional Assistance Program (SNAP, or food stamps) is a program available to very low-income households earning less than 130% of the federal poverty guideline (\$25,750 for a family of four in 2019). Throughout the state, poverty and SNAP utilization rates are higher among Black and Latinx households than white households.

**TABLE 19: SELECTED HOUSEHOLD ECONOMIC INDICATORS BY RACE/ETHNICITY OF HEAD OF HOUSEHOLD, 2019**

	Total		White		Black		Latinx		Asian		Native American	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Population living below poverty level												
<b>Connecticut</b>	344,146	10%	137,123	6%	65,664	18%	123,431	22%	12,398	8%	1,629	17%
<b>Natchaug Hosp. HSA</b>	9,617	15%	4,889	10%	561	33%	3,586	30%	470	28%	<50	N/A
<b>Windham</b>	5,219	25%	1,618	16%	282	29%	3,119	32%	154	46%	<50	N/A
Households receiving food stamps/SNAP												
<b>Connecticut</b>	162,967	12%	67,339	7%	34,650	26%	56,091	32%	3,145	6%	958	26%
<b>Natchaug Hosp. HSA</b>	3,369	13%	1,600	8%	182	24%	1,532	38%	<50	N/A	121	50%
<b>Windham</b>	2,446	28%	784	16%	182	50%	1,490	46%	<50	N/A	118	56%

Access to a personal vehicle may also be considered a measure of wealth since reliable transportation plays a significant role in job access and quality of life. Vehicle access reduces the time a family may spend running errands or traveling to appointments, school, or work.

**TABLE 20: HOUSEHOLDS WITH NO VEHICLE AT HOME BY RACE/ETHNICITY OF HEAD OF HOUSEHOLD (WITH PROXY AREA), 2019**

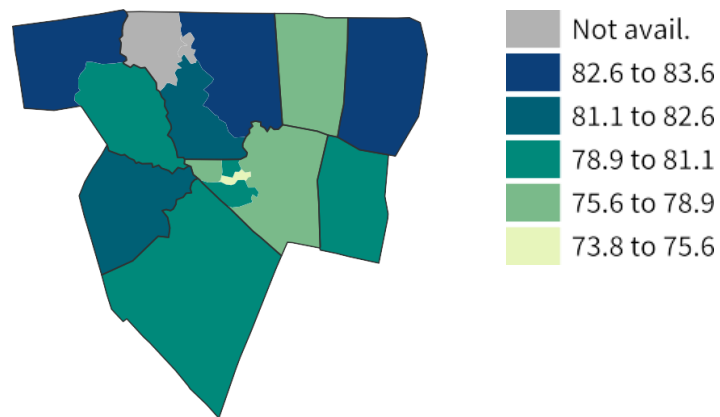
Area	Total		White		Black		Latinx		Other race	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
<b>Connecticut</b>	121,434	9%	55,942	6%	27,048	21%	30,496	17%	7,948	10%
<b>Natchaug Hospital HSA</b>	5,506	5%	4,243	5%	351	15%	658	10%	254	6%
<b>Windham</b>	1,050	13%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## HEALTH

The socioeconomic disparities described above tend to correlate with health outcomes. Factors such as stable housing, employment, literacy and linguistic fluency, environmental hazards, and transportation all impact access to care, physical and mental health outcomes, and overall quality of life. Income and employment status often drive differences in access to health care, the likelihood of getting preventive screenings as recommended, the affordability of life-saving medicines, and the ability to purchase other goods and services, including high-quality housing and nutritious food.

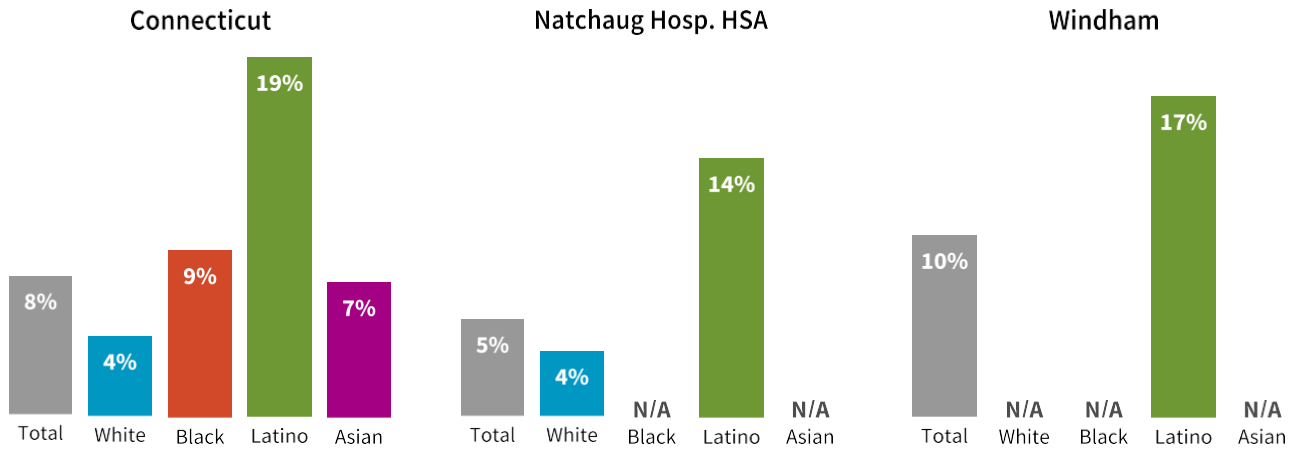
Life expectancy is a good proxy for overall health and well-being since it is the culmination of so many other social and health factors. The average life expectancy in the Natchaug Hospital HSA is 79.8 years, compared to 77.5 years in Windham and 80.3 years statewide.

**FIGURE 19: LIFE EXPECTANCY, NATCHAUG HOSPITAL HSA BY CENSUS TRACT, 2015**



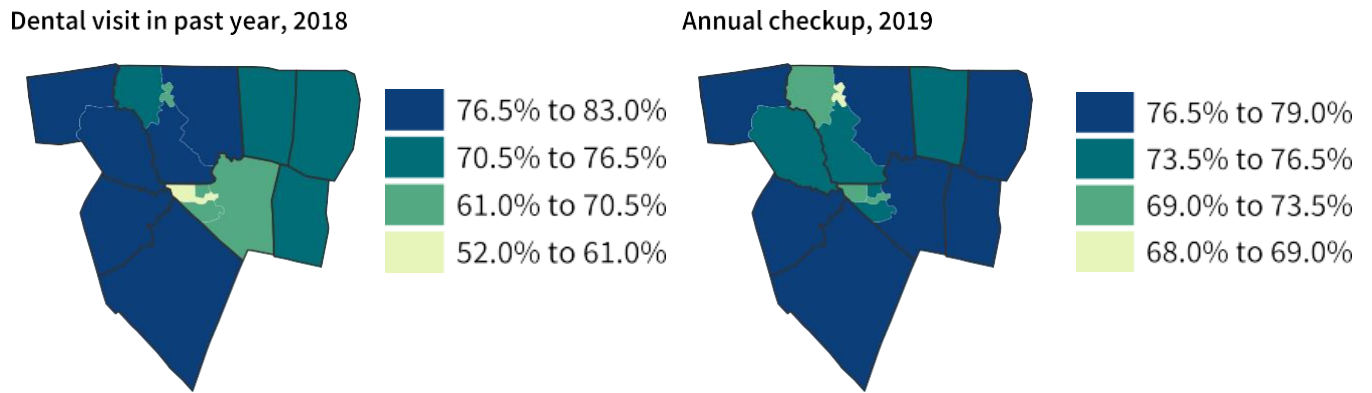
Health-related challenges begin with access to care. Due to differences in workplace benefits, income, and eligibility factors, Black and especially Latinx people are less likely to have health insurance than white people.

**FIGURE 20: UNINSURED RATE AMONG ADULTS AGES 19–64 BY RACE/ETHNICITY, 2019**



Preventive care can help counteract economic disadvantages, as a person’s health can be improved by addressing risk factors like hypertension and chronic stress early. Lack of affordable, accessible, and consistent medical care can lead to residents relying on expensive emergency room visits later on. Overall, 75% of the adults in the Natchaug Hospital HSA had an annual checkup as of 2018, and 72% had a dental visit within the previous 12 months.

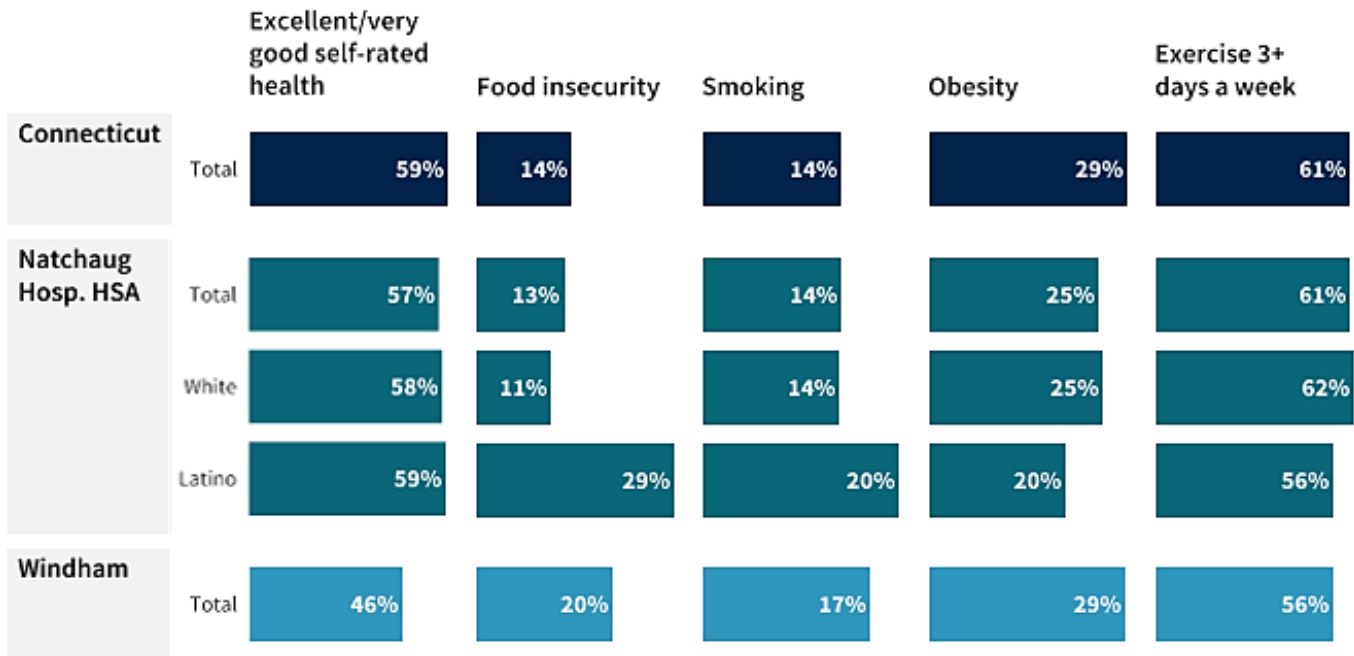
**FIGURE 21: PREVENTIVE CARE MEASURES, SHARE OF ADULTS BY CENSUS TRACT, NATCHAUG HOSPITAL HSA**



Throughout the state, people of color face greater rates and earlier onset of many chronic diseases and risk factors, particularly those that are linked to socioeconomic status and access to resources. For example, diabetes is much more common among older adults than younger ones, yet middle-aged Black adults in Connecticut have higher diabetes rates than white seniors.

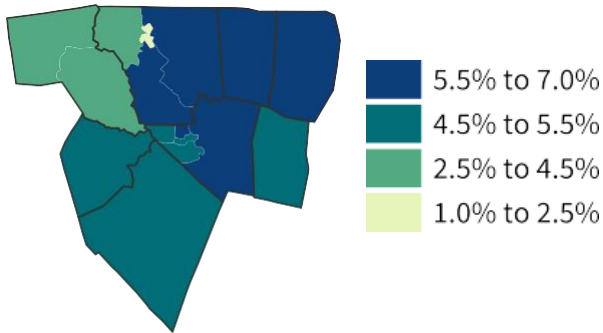


FIGURE 22: SELECTED HEALTH RISK FACTORS, SHARE OF ADULTS, 2015–2021

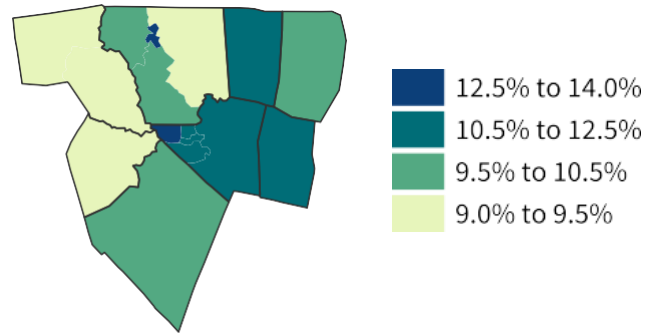


**FIGURE 23: CHRONIC DISEASE PREVALENCE, SHARE OF ADULTS BY CENSUS TRACT, NATCHAUG HOSPITAL HSA**

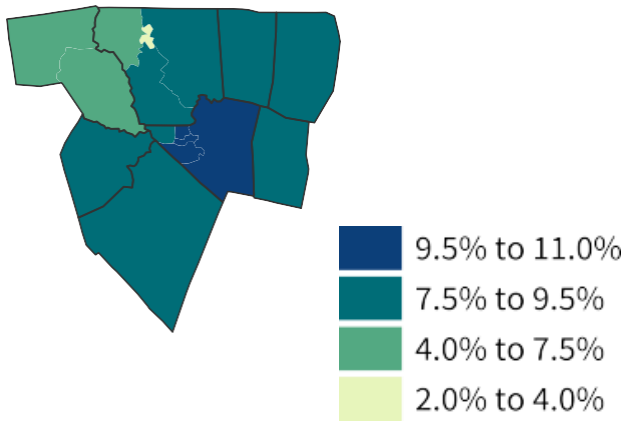
**Coronary heart disease, 2019**



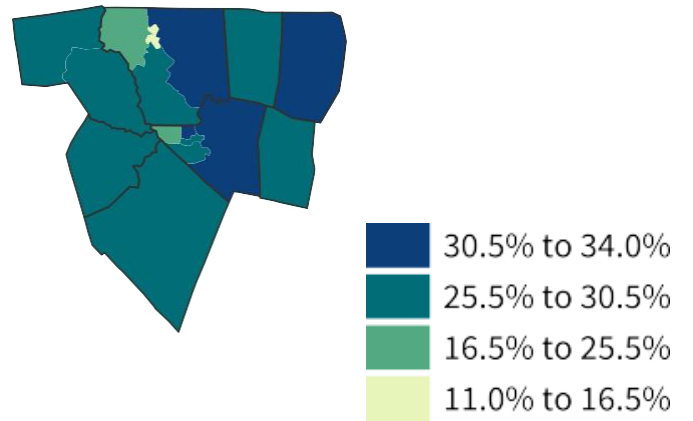
**Current asthma, 2019**



**Diabetes, 2019**



**High blood pressure, 2019**



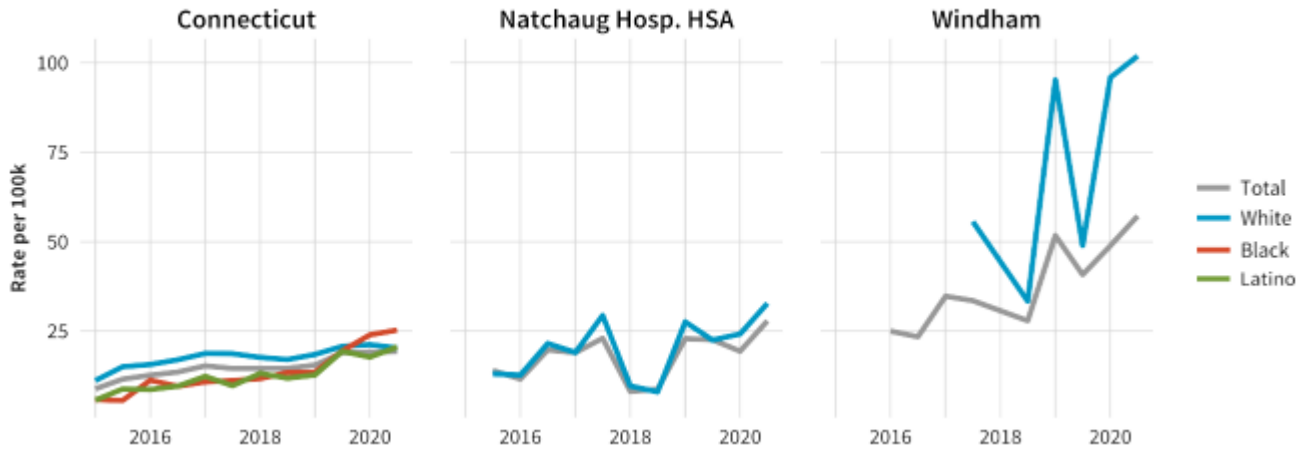
Mental health issues like depression and anxiety can be linked to social influencers like income, employment, and environment, and can pose risks of physical health problems as well, including by complicating a person’s ability to keep up other aspects of their health care. People of color are slightly more likely to report feeling mostly or completely anxious and being bothered by feeling depressed or hopeless. Overall, 15% of Natchaug Hospital HSA adults report experiencing anxiety regularly and 9% report being bothered by depression.

**TABLE 21: SELECTED MENTAL HEALTH INDICATORS, SHARE OF ADULTS, 2015–2021**

	<b>Total</b>	<b>White</b>	<b>Black</b>	<b>Latinx</b>	<b>Asian</b>	<b>Native American</b>
<b>Experiencing anxiety</b>						
<b>Connecticut</b>	13%	11%	15%	19%	15%	15%
<b>Natchaug Hosp. HSA</b>	15%	12%	N/A	22%	N/A	N/A
<b>Tolland &amp; Windham Counties</b>	12%	11%	36%	18%	N/A	N/A
<b>Windham</b>	23%	19%	N/A	21%	N/A	N/A
<b>Bothered by depression</b>						
<b>Connecticut</b>	9%	8%	10%	14%	9%	11%
<b>Natchaug Hosp. HSA</b>	9%	7%	N/A	17%	N/A	N/A
<b>Tolland &amp; Windham Counties</b>	10%	8%	32%	19%	N/A	N/A
<b>Windham</b>	16%	18%	N/A	14%	N/A	N/A

Like other states, Connecticut has seen a rise in drug overdose deaths in the last several years. In 2020, Connecticut saw an average of 113 overdose deaths per month, up from 60 in 2015. White residents long comprised the bulk of these deaths, but as overall overdose death rates have increased, an increasing share of those deaths have been people of color.

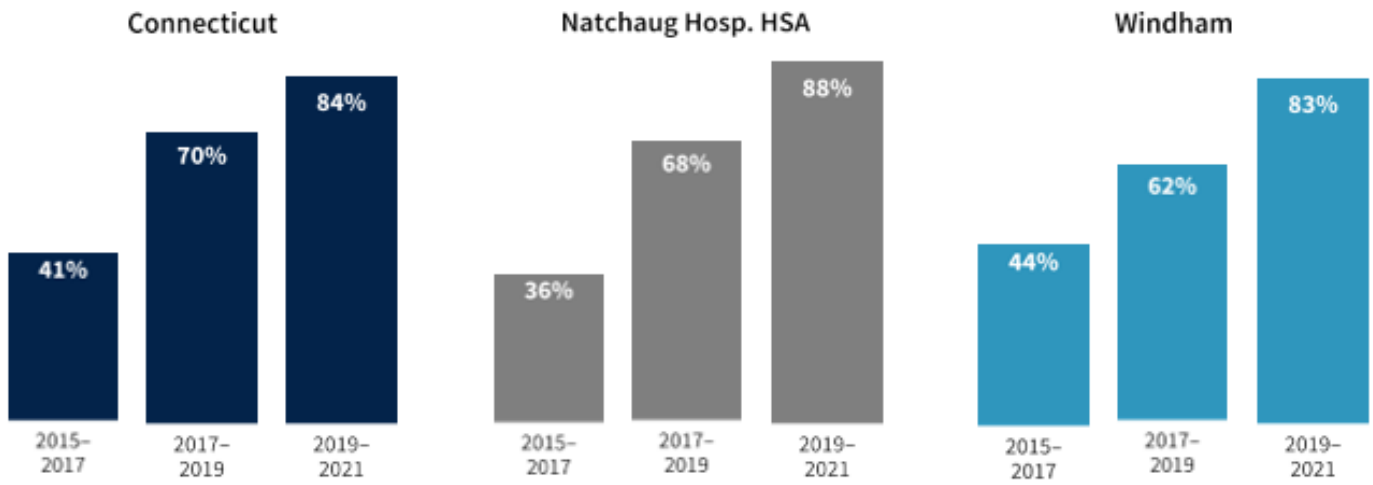
**FIGURE 24: AGE-ADJUSTED SEMI-ANNUAL RATES OF DRUG OVERDOSE DEATHS PER 100,000 RESIDENTS BY RACE/ETHNICITY, 2015–2020**



Note: Values suppressed for small populations or few overdose incidents.

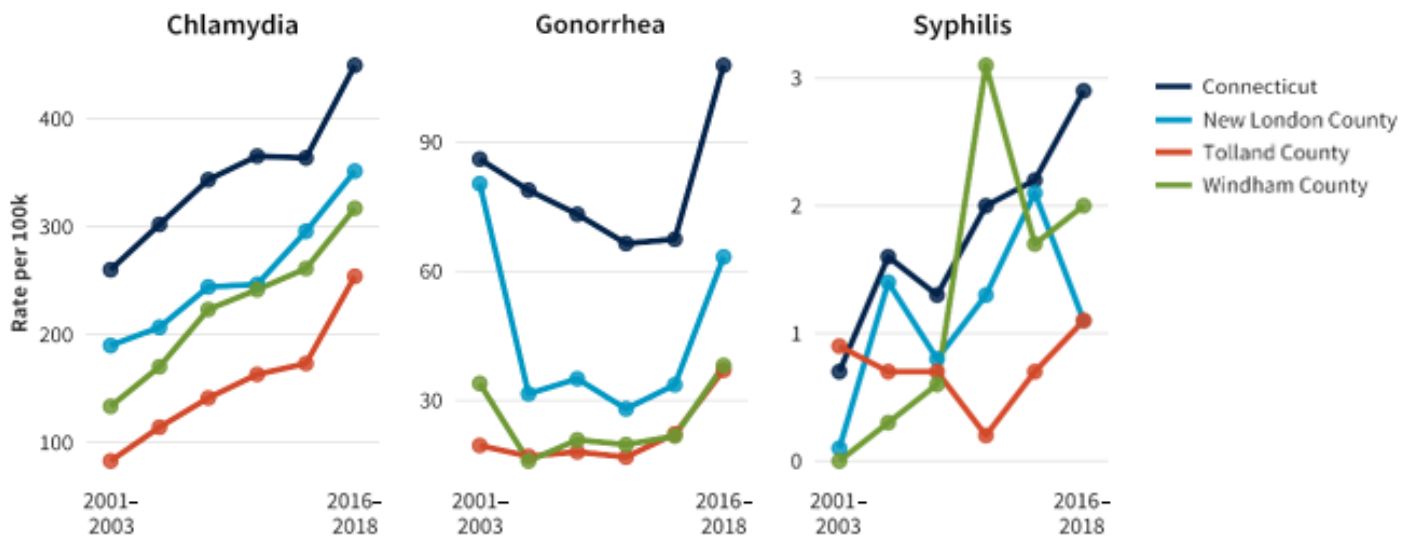
The introduction and spread of fentanyl in drugs—both with and without consumer’s knowledge—is thought to have contributed to this steep rise in overdoses. In 2015 and 2016, 36% of the drug overdose deaths in the Natchaug Hospital HSA involved fentanyl; in 2019 and 2020, this share was 88%.

FIGURE 25: SHARE OF DRUG OVERDOSE DEATHS INVOLVING FENTANYL, 2015–2020



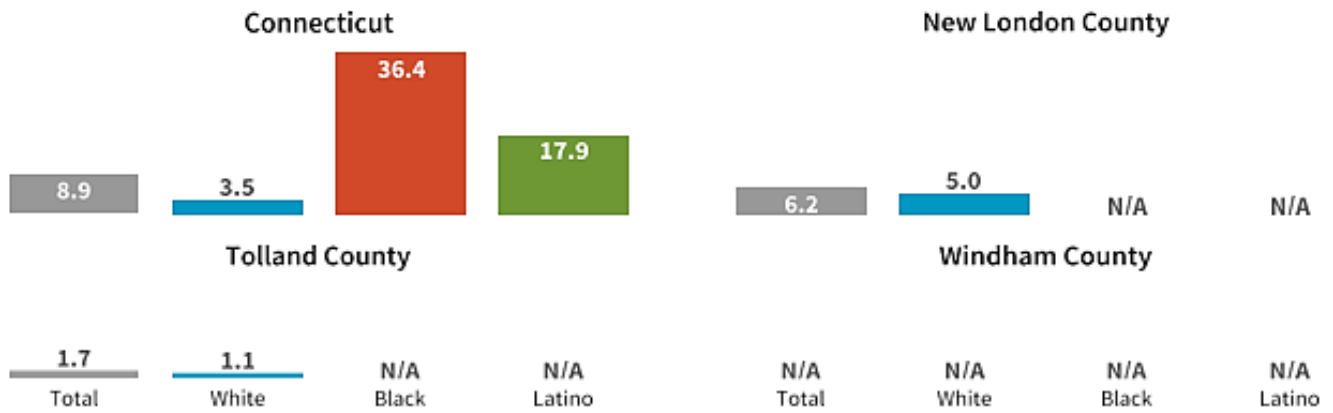
Sexually transmitted infections (STIs) can have long-term implications for health, including reproductive health problems and certain cancers, and can increase the risk of acquiring and transmitting diseases such as HIV and hepatitis C. Following nationwide trends, Connecticut has seen increases in the rates of STIs like chlamydia and gonorrhea over the past two decades. Between 2016 and 2018, New London County had annual average case rates of 352 new cases of chlamydia per 100,000 residents, 63 cases of gonorrhea per 100,000, and 1.1 cases of syphilis per 100,000, Tolland County had annual average case rates of 254 new cases of chlamydia per 100,000 residents, 37 cases of gonorrhea per 100,000, and 1.1 cases of syphilis per 100,000, ; Windham County had annual average case rates of 317 new cases of chlamydia per 100,000 residents, 38 cases of gonorrhea per 100,000, and 2 cases of syphilis per 100,000.

**FIGURE 26: ANNUALIZED AVERAGE RATES OF NEW CASES OF SELECTED SEXUALLY TRANSMITTED INFECTIONS PER 100,000 RESIDENTS, 2001–2003 THROUGH 2016–2018**



Like many other diseases, Connecticut’s Black and Latinx residents face a higher burden of HIV rates. Statewide between 2016 and 2018, Black residents ages 13 and up were more than 10 times more likely to be diagnosed with HIV than white residents.

**FIGURE 27: ANNUALIZED AVERAGE RATE OF NEW HIV DIAGNOSES PER 100,000 RESIDENTS AGES 13 AND OVER, 2016–2018**



Birth outcomes often reflect health inequities for parents giving birth, and those outcomes can affect a child throughout their life. Often, parents of color have more complications related to birth and pregnancy than white parents. Complications during pregnancy or childbirth also contribute to elevated mortality among parents giving birth.

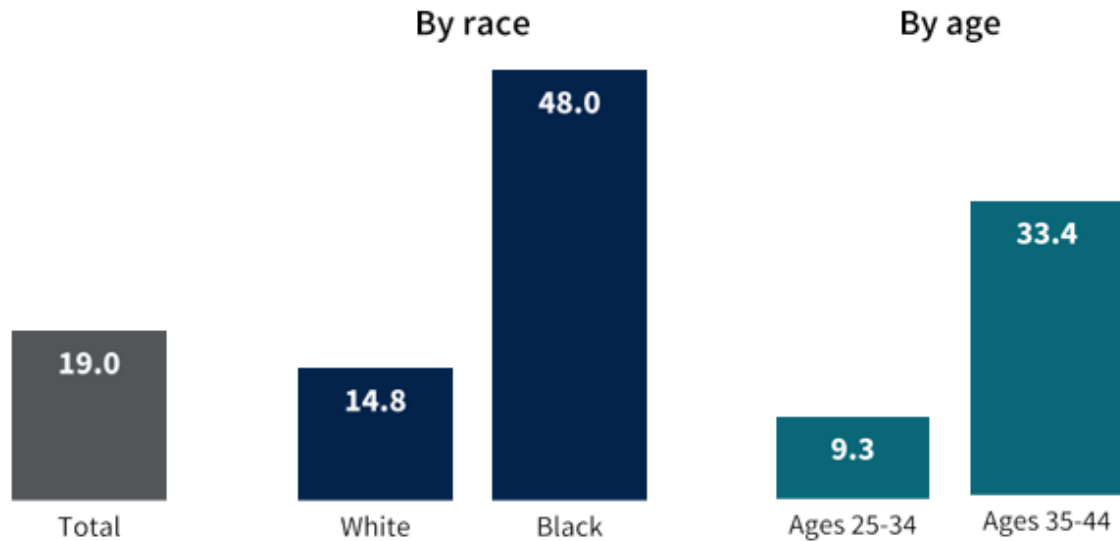


TABLE 22:

SELECTED BIRTH OUTCOMES BY RACE/ETHNICITY OF PARENT GIVING BIRTH, 2016–2018

Area	Total	White	Black	Latina (overall)	Puerto Rican	Other Latina	Asian
Late or no prenatal care							
Connecticut	3.4%	2.5%	5.7%	4.0%	2.9%	5.1%	3.5%
Natchaug Hosp. HSA	2.9%	2.3%	N/A	4.0%	3.3%	5.5%	N/A
Windham	4.1%	3.8%	N/A	4.0%	3.6%	4.9%	0.0%
Low birthweight							
Connecticut	7.8%	6.4%	12.1%	8.3%	10.2%	6.6%	8.7%
Natchaug Hosp. HSA	9.1%	7.7%	N/A	8.9%	4.7%	N/A	N/A
Windham	9.5%	N/A	N/A	8.9%	N/A	N/A	N/A
Infant mortality (per 1k live births)							
Connecticut	4.6	3.1	9.5	5.0	N/A	N/A	N/A
Natchaug Hosp. HSA	3.5	N/A	N/A	N/A	N/A	N/A	N/A
Windham	N/A	0.0	N/A	N/A	N/A	N/A	N/A

FIGURE 28: MATERNAL MORTALITY RATE PER 100K BIRTHS, CONNECTICUT, 2013–2017



Children under 7 years old are monitored annually for potential lead poisoning, based on having blood-lead levels in excess of the State’s accepted threshold. Between 2013 and 2017, 3.5% of children tested in the Natchaug Hospital HSA were found to have elevated blood lead levels. Children living in homes built before 1960 are at a higher risk of potential lead poisoning due to the more widespread use of lead-based paints in older homes. Black and Latinx households are slightly more likely to live in structures built before 1960.

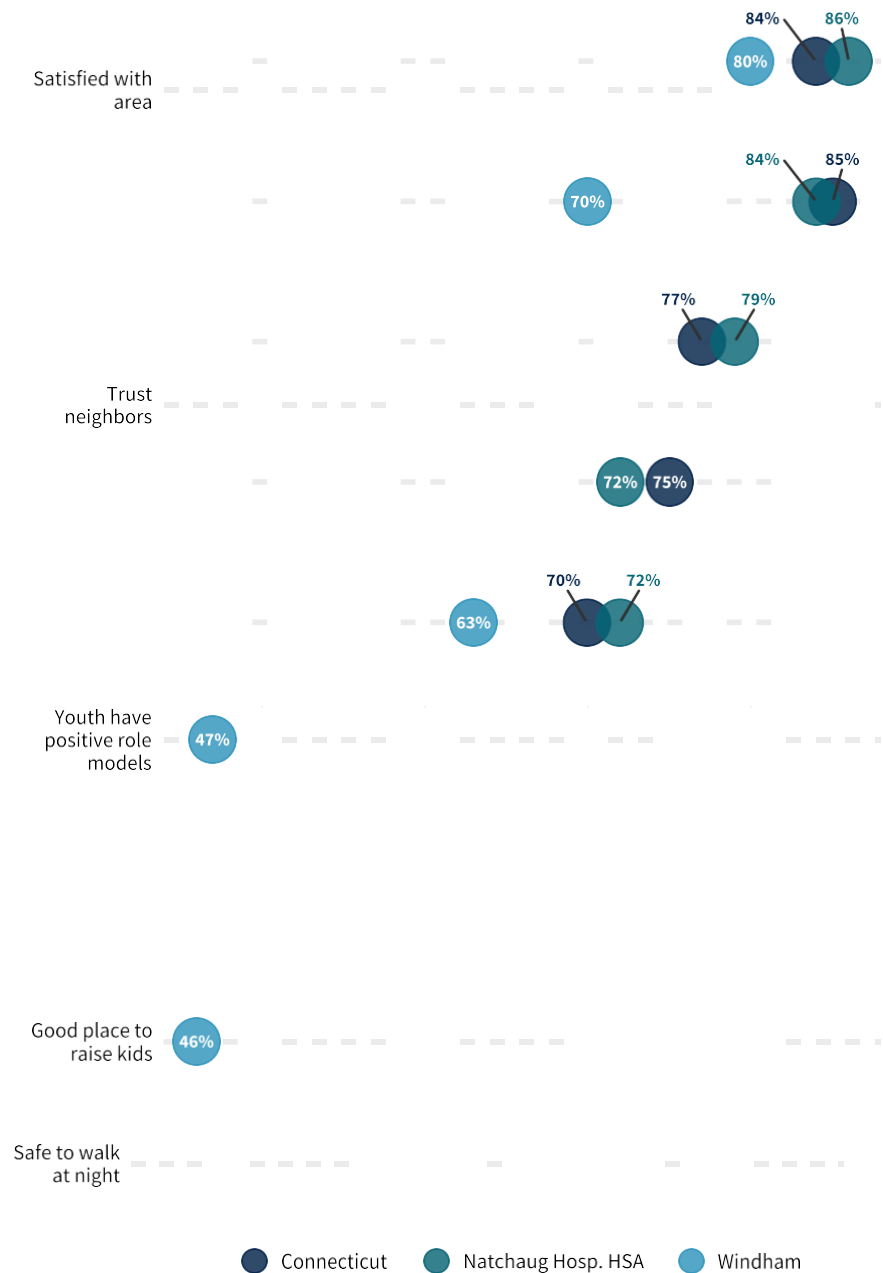
**TABLE 23: HOUSEHOLDS LIVING IN STRUCTURES BUILT BEFORE 1960 BY RACE/ETHNICITY OF HEAD OF HOUSEHOLD (WITH PROXY AREA), 2019**

Area	Total		White		Black		Latinx		Other race	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Connecticut	580,941	42%	399,512	40%	63,552	49%	93,011	53%	24,866	32%
Natchaug Hosp. HSA	32,948	33%	28,842	33%	598	25%	2,731	44%	777	20%

## CIVIC LIFE & COMMUNITY COHESION

Beyond individual health, several measures from the DataHaven Community Wellbeing Survey show how local adults feel about the health of their neighborhoods. High quality of life and community cohesion can positively impact resident well-being through the availability of resources, sense of safety, and participation in civic life. For example, adults who see the availability of role models in their community may enroll their children in extracurricular activities that benefit them educationally and socially; residents who know and trust their neighbors may find greater social support. Overall, 86% of Natchaug Hospital HSA adults reported being satisfied with the area where they live.

**FIGURE 29: RESIDENTS' RATINGS OF COMMUNITY COHESION MEASURES, SHARE OF ADULTS, 2015–2021**



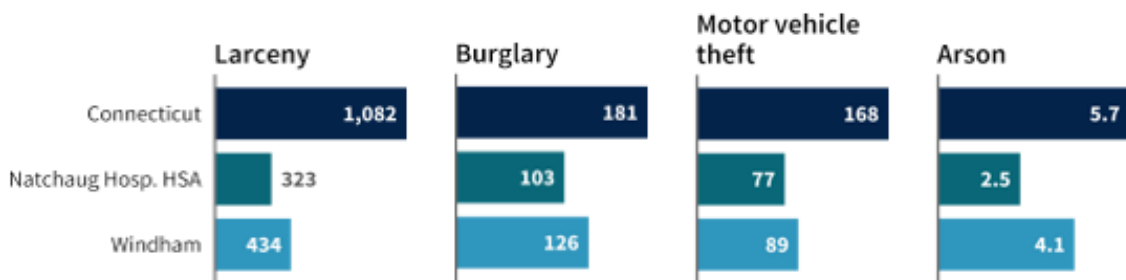
Crime rates per 100,000 residents are based on reports to law enforcement of violent force against persons, as well as offenses involving property. Not all crimes involve residents of the areas where the crimes occur, which is important to consider when evaluating crime rates in areas or towns with more commercial activity. Crime patterns can also vary dramatically by neighborhood. Crime can impact the social and economic well-being of communities, including through negative health effects.

**FIGURE 30: PART I CRIME RATES PER 100,000 RESIDENTS BY TOWN / JURISDICTION, 2019**

**Crimes against persons**



**Crimes against property**



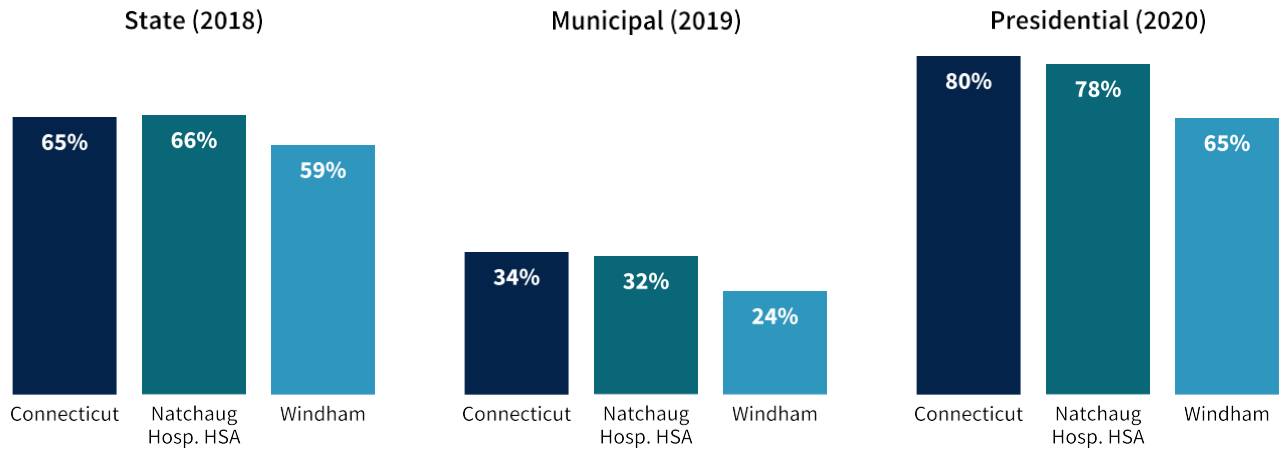
A lack of trust in and engagement with local government and experiences of unfair treatment by authorities can impair community well-being and cohesion. Fifty-six percent of Natchaug Hospital HSA adults feel their local government is responsive to residents’ needs, compared to 53% statewide.

**TABLE 24: RESIDENTS’ RATINGS OF LOCAL GOVERNMENT, SHARE OF ADULTS, 2015–2021**

Area	Local govt is responsive	Have some influence over local govt
Connecticut	53%	67%
Natchaug Hospital HSA	56%	71%
Windham	49%	69%

During the 2020 presidential election, 78% of registered voters in the Natchaug Hospital HSA cast ballots, as did 80% statewide. Seventy-eight percent of area voters voted in the 2016 presidential election.

**FIGURE 31: REGISTERED VOTER TURNOUT, 2018–2020**

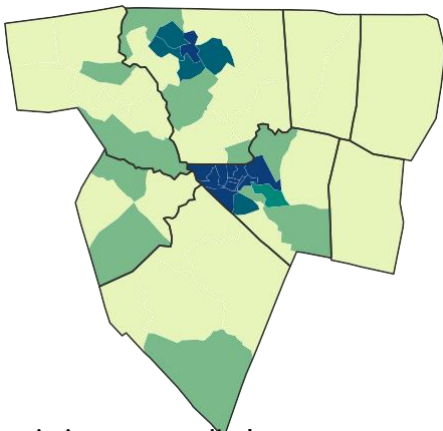


## ENVIRONMENT & SUSTAINABILITY

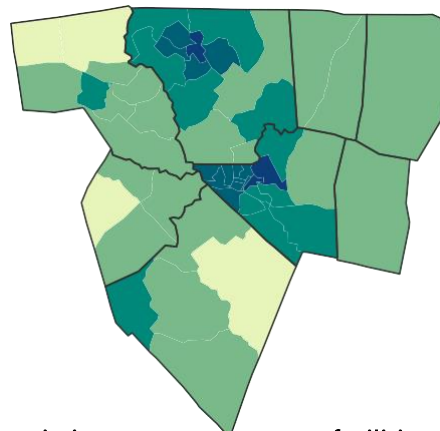
Many environmental factors—from access to outdoor resources to tree canopy to exposure to pollutants—can have direct impacts on residents’ health and quality of life. Environmental justice is the idea that these factors of built and natural environments follow familiar patterns of socioeconomic disparities and segregation. The federal Environmental Protection Agency (EPA) ranks small areas throughout the US on their risks of exposure to a variety of pollutants and hazards, scaled to account for the historically disparate impact of these hazards on people of color and lower-income people.

**FIGURE 32: EPA ENVIRONMENTAL JUSTICE INDEX BY BLOCK GROUP, NATCHAUG HOSPITAL HSA**

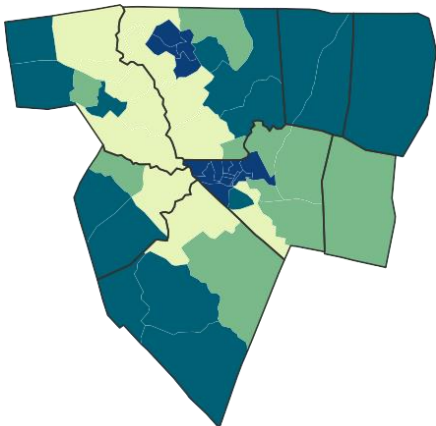
Lead paint exposure risk



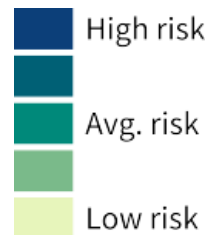
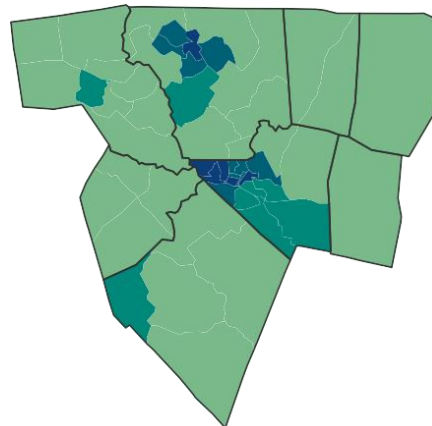
Air cancer risk



Proximity to water discharge

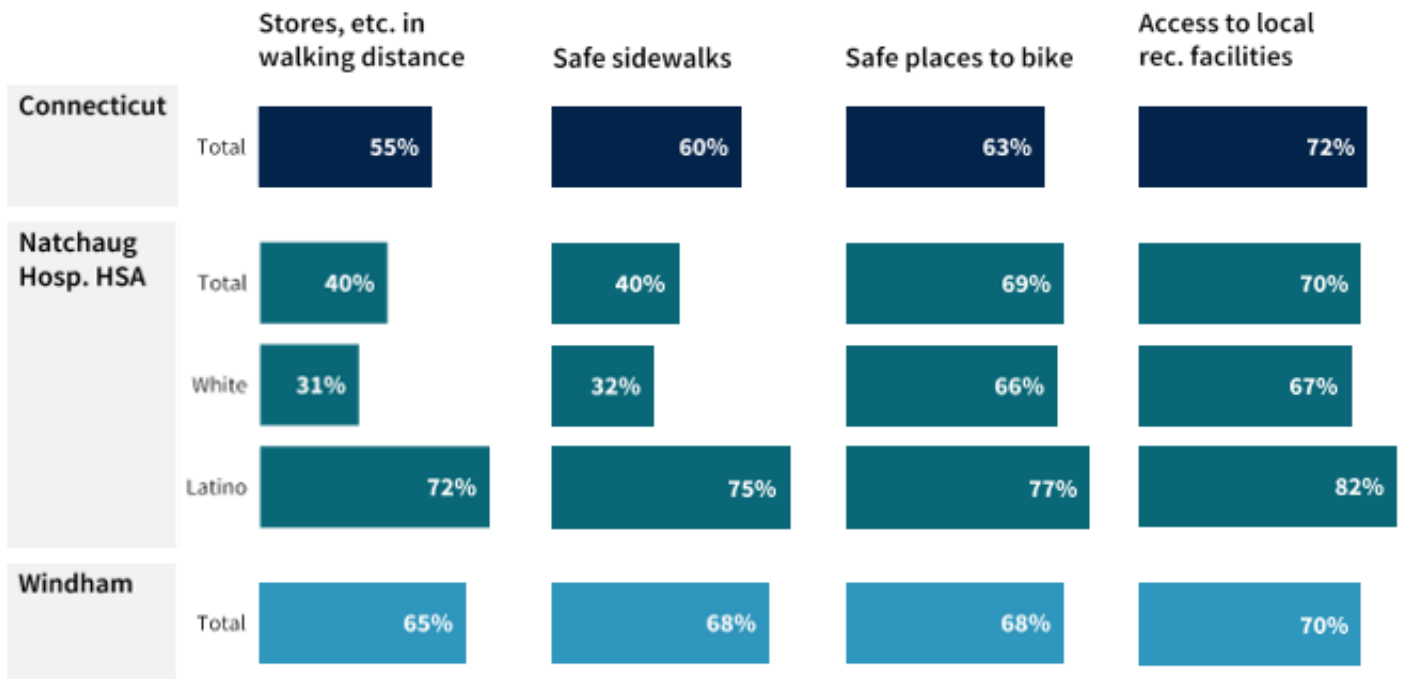


Proximity to waste treatment facilities



High-quality built environment resources, such as recreational facilities and safe sidewalks, help keep residents active and bring communities together. Walkable neighborhoods may also encourage decreased reliance on cars. Throughout Connecticut, Black and Latinx residents are largely concentrated in denser urban areas which tend to offer greater walkability. Of adults in the Natchaug Hospital HSA, 40% report having stores, banks, and other locations they need in walking distance, lower than the share of adults statewide.

**FIGURE 33: RESIDENTS’ RATINGS OF LOCAL WALKABILITY MEASURES BY RACE/ETHNICITY, SHARE OF ADULTS, 2015–2021**



## NOTES

Figure 1. Study area. Map tiles by Stamen Design, under CC BY 3.0. Data by OpenStreetMap, under ODbL.

Table 1. About the area. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates. Available at <https://data.census.gov>; US Census Bureau 2020 Decennial Census P.L. 94-171 Redistricting Data. Available at <https://www.census.gov/programs-surveys/decennial-census/about/rdo.html>; PLACES Project. Centers for Disease Control and Prevention. Available at <https://www.cdc.gov/places>; and National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project (USALEEP): Life Expectancy Estimates Files, 2010–2015. National Center for Health Statistics. 2018. Available at <https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html>

Table 2. Population by race/ethnicity, 2020. US Census Bureau 2020 Decennial Census P.L. 94-171 Redistricting Data.

Figure 2. Population by race/ethnicity and age group, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 3. Linguistic isolation by race/ethnicity, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Table 3. Population and population change by age group, 2010–2020. US Census Bureau 2010 & 2020 Decennial Census P.L. 94-171 Redistricting Data.

Figure 4. Share of population by race/ethnicity, 2010–2020. US Census Bureau 2010 & 2020 Decennial Census P.L. 94-171 Redistricting Data.

Table 4. Homeownership rate by race/ethnicity of head of household, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 5. Homeownership rates by age and race/ethnicity of head of household, Natchaug Hospital HSA (proxy area), 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year public use microdata sample (PUMS) data, accessed via IPUMS. Steven Ruggles, Sarah Flood, Sophia Foster, Ronald Goeken, Jose Pacas, Megan Schouweiler and Matthew Sobek. IPUMS USA: Version 11.0 [dataset]. Minneapolis, MN: IPUMS, 2021. <https://doi.org/10.18128/D010.V11.0>

Figure 6. Housing cost-burden rates by race/ethnicity (with proxy area), 2019. DataHaven analysis (2021) of Ruggles, et al. (2019).

Table 5. Overcrowded households by race/ethnicity of head of household, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 7. Public K–12 student enrollment by race/ethnicity per 100 students, 2019–2020. DataHaven analysis (2021) of 2019–2020 school year enrollment data from the Connecticut State

Department of Education, accessed via EdSight at <http://edsight.ct.gov>

At the school district level, not all groups may be shown due to CTSDE data suppression rules for small enrollment counts, even though they may represent more than 1% of the school district population.

Figure 8. Selected academic and disciplinary outcomes by student race/ethnicity, 2018–2019. DataHaven analysis (2021) of 2018–2019 school year Smarter Balanced Assessment Consortium (SBAC) testing (8th grade English/language arts), discipline, and four-year graduation data from the Connecticut State Department of Education, accessed via EdSight. Because students can be suspended more than once in a school year, the suspension rate is given as the number of reported suspensions per 1,000 enrolled students rather than a percentage.

Figure 9. Educational attainment by race/ethnicity, share of adults ages 25 and up, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Table 6. Jobs and wages in Natchaug Hospital HSA's 5 largest sectors, 2019. DataHaven analysis (2021) of annual employment data from the Connecticut Department of Labor. Note that in some cases, especially for smaller towns or where data were deemed unreliable for whatever reason, data have been suppressed by the department. In a few cases, that may mean large sectors in an area are missing from the analysis here. Available at <https://www1.ctdol.state.ct.us/lmi/202/202>

[\\_annualaverage.asp](#)

Figure 10. Median income by race/ethnicity and sex for full-time workers ages 25 and over with positive income, 2019.

DataHaven analysis (2021) of Ruggles, et al. (2019).

Figure 11. Unemployment rate by race/ethnicity, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 12. Median household income by race/ethnicity of head of household, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Table 7. Selected household economic indicators by race/ethnicity of head of household, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Table 8. Households with no vehicle at home by race/ethnicity of head of household (with proxy area), 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 13. Distribution of population by neighborhood income level, Natchaug Hospital HSA, 1980–2019.



DataHaven analysis (2021) of household income and population by Census tract. Values for 1980–2000 are from the US Census Bureau Decennial Census, provided by the Neighborhood Change Database (NCDB) created by GeoLytics and the Urban Institute with support from the Rockefeller Foundation (2012). 2019 values are calculated from US Census Bureau American Community Survey 2019 5-year estimates.

Figure 14. Life expectancy, Natchaug Hospital HSA by Census tract, 2015. Data from National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project (USALEEP): Life Expectancy Estimates Files, 2010–2015. National Center for Health Statistics. 2018. Available at <https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html>

Figure 15. Uninsured rate among adults ages 19–64 by race/ethnicity, 2019. DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 16. Preventive care measures, share of adults by Census tract, Natchaug Hospital HSA. Data from PLACES Project. Centers for Disease Control and Prevention.

Figure 17. Selected health risk factors, share of adults, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey. Available at <https://ctdatahaven.org/reports/datahaven-community-wellbeing-survey>

Figure 18. Selected health indicators by age and race/ethnicity, share of adults, NA, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey.

Figure 19. Chronic disease prevalence, share of adults by Census tract, Natchaug Hospital HSA. Data from PLACES Project. Centers for Disease Control and Prevention.

Table 9. Selected mental health indicators, share of adults, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey.

Figure 20. Age-adjusted semi-annual rates of drug overdose deaths per 100,000 residents by race/ethnicity, 2015–2020.

DataHaven analysis (2021) of Accidental Drug Related Deaths 2012–2018. Connecticut Office of the Chief Medical Examiner. Available at <https://data.ct.gov/resource/rybz-nyjw>. Rates are weighted with the U.S. Centers for Disease Control and Prevention (CDC) 2000 U.S. Standard Population 18 age group weights available at <https://seer.cancer.gov/stdpopulations>

Figure 21. Share of drug overdose deaths involving fentanyl, 2015–2020. DataHaven analysis (2021) of Accidental Drug Related Deaths 2012–2018. Connecticut Office of the Chief Medical Examiner.

Figure 22. Annualized average rates of new cases of selected sexually transmitted infections per 100,000

residents, 2001– 2003 through 2016–2018. DataHaven analysis (2021) of data from Centers for Disease Control and Prevention. NCHHSTP AtlasPlus. Updated 2019. <https://www.cdc.gov/nchhstp/atlas/index.htm>

Figure 23. Annualized average rate of new HIV diagnoses per 100,000 residents ages 13 and over, 2016–2018. DataHaven analysis (2021) of data from Centers for Disease Control and Prevention. NCHHSTP AtlasPlus.

Table 10. Selected birth outcomes by race/ethnicity of parent giving birth, 2016–2018. DataHaven analysis (2021) of data from the Connecticut Department of Public Health Vital Statistics. Retrieved from <https://portal.ct.gov/DPH/Health-Information>

-Systems--Reporting/Hisrhome/Vital-Statistics-Registration-Reports

Figure 24. Maternal mortality rate per 100k births, Connecticut, 2013–2017. America’s Health Rankings analysis of CDC WONDER Online Database, Mortality files, United Health Foundation. Retrieved from <https://www.americashealthrankings.org>

Table 11. Households living in structures built before 1960 by race/ethnicity of head of household (with proxy area), 2019.

DataHaven analysis (2021) of US Census Bureau American Community Survey 2019 5-year estimates.

Figure 25. Residents’ ratings of community cohesion measures, share of adults, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey.

Figure 26. Part I crime rates per 100,000 residents by town / jurisdiction, 2019. DataHaven analysis (2021) of 2019 Crimes Analysis Offenses. Connecticut Department of Emergency Services and Public Protection. Available at <https://portal.ct.gov>

/DESPP/Division-of-State-Police/Crimes-Analysis-Unit/Crimes-Analysis-Unit

Table 12. Residents’ ratings of local government, share of adults, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey.

Figure 27. Registered voter turnout, 2018–2020. DataHaven analysis (2021) of data from the Connecticut Office of the Secretary of the State Elections Management System. Available at <https://ctemspublic.pcctg.net>

Figure 28. EPA Environmental Justice Index by block group, Natchaug Hospital HSA. United States Environmental Protection Agency. 2019 version. EJSCREEN. Retrieved from <https://www.epa.gov/ejscreen>

Figure 29. Residents’ ratings of local walkability measures by race/ethnicity, share of adults, 2015–2021. DataHaven analysis (2021) of 2015, 2018, and 2021 DataHaven Community Wellbeing Survey.

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Visit DataHaven ([ctdatahaven.org](http://ctdatahaven.org)) for more information. This report was authored by Camille Seaberry, Kelly Davila, and Mark Abraham of DataHaven.

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## About DataHaven

DataHaven is a non-profit organization with a 25-year history of public service to Connecticut. Our mission is to empower people to create thriving communities by collecting and ensuring access to data on well-being, equity, and quality of life.

DataHaven is a formal partner of the National Neighborhood Indicators Partnership of the Urban Institute in Washington, D.C.

[ctdata](#)     [connecticutdata](#)     [ctdata](#)     [ctdatahaven.org](#)

## Appendix 3: Previous CHNA Priority Needs & Activities to Address Them

### Promote Healthy Behaviors and Lifestyles

#### **Increase access to steady, healthy food supply**

Impact: Pounds of food distributed (2021-2022)

Lbs. of food: 9,470

#### **Increase knowledge around the importance of proper use and disposal of prescription medications and the dangers of using illegal substances**

Impact: 4 Informational sessions (2021-2022)

Sessions:

#### **Increase knowledge around the dangers of alcohol abuse**

Impact: 2 Informational Sessions (2021-2022)

Sessions:

Impact: Online Self-Assessment tool - # times accessed (2021-2022)

Accessed: 225

### Reduce the Burden of Chronic Disease

#### **Provide information on suicide prevention strategies**

Impact: Health Fairs;

Fairs: 1

People reached: 110

Impact: Online Sessions (2021-2022)

Sessions: 22

#### **Provide resources in the community to help identify depression and provide support accessing services at the appropriate level of care**

Impact: Community awareness of resources (2021-2022)

# Population reached: 1,436

Speakers: 3

### Improve Health Equity, Social Influencers of Health, and Access to and Coordination of Care and Services

#### **Assist in ensuring availability of prescriber services outside the Natchaug environment of care**

Impact: Psychiatrist hours in the ED (2021-2022)

Incidents: 23 (Windham Hospital)

**Provide Narcan™ kits and training on how to dispense the drug**

Impact: Trainings to individuals and community and kits distributed (2021-2022)

Trainings: 75 individuals, 0 community

Kits: 75

**Enhance Community-Based Behavioral Health Services**

**Promote access to behavioral health services by helping the community identify persons experiencing a behavioral health crisis through Mental Health First Aid (MHFA) training**

Impact: MHFA Trainings (2021-2022)

Trainings: 0

**Ensure clients and the community is able to connect as peers**

Impact: Space to meet provided to support groups

Meetings: 22

People: 153

## Appendix 4: Resources

### Federally Qualified Health Centers Located the Hospital HSA

Name	Address	City	ZIP Code
Generations Family Health Center, Inc.	40 Mansfield Ave	Willimantic	06226
Leap SBHC	729 Main St	Willimantic	06226
Generations Family Health Center	1315 Main St	Willimantic	06226

Source: HRSA, 2021.

Note: According to Windham Hospital, Generations Health Center has only one location in Willimantic (40 Mansfield Avenue) and no school based health center (SBHC) currently is operating in the HAS.

Generations: One location at 40 Mansfield Ave. Includes medical, mental health, dental

Windham has school based health centers run by HHC in Barrows k-8 Magnet school, Windham Middle School grades 6-8 and pre-K, Windham High School grades 9-12 and Early Head Start pre-k program. Locations include Medical and mental health.

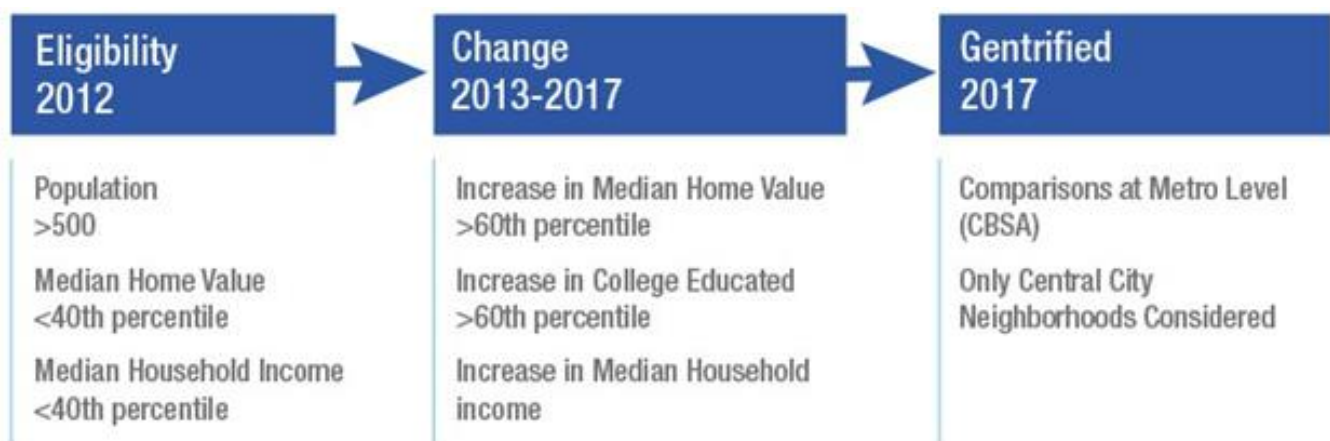
LEAP School based health center no longer in existence.

## Appendix 5: Neighborhood Disinvestment & Gentrification Maps

As noted in the body of the CHNA, neighborhood disinvestment and gentrification present significant risks or threats to lower income communities while simultaneously offering some economic opportunities (e.g., through Economic Opportunity Zones and similar programs). Disinvestment is the withdrawal of investment from communities by business owners, investors, and others. They no longer work to improve schools, neighborhoods, businesses, or the general community. Eventually, a lack of investment degrades the infrastructure needed to support the community.

The National Community Reinvestment Coalition conducted a recent study<sup>14</sup> that analyzed the impact of Opportunity Zones on neighborhood disinvestment and gentrification. Generally, areas that are eligible for gentrification are at-risk of neighborhood disinvestment. In addition, when (or if) economic expansion is attracted via some form of gentrification, existing residents are often faced with accelerating apartment rental fees, higher property taxes, and similar, related issues.

The results of the national study identified 11 Connecticut cities in which gentrification had taken place (2012 to 2017) or was eligible to do so based on the following criteria:

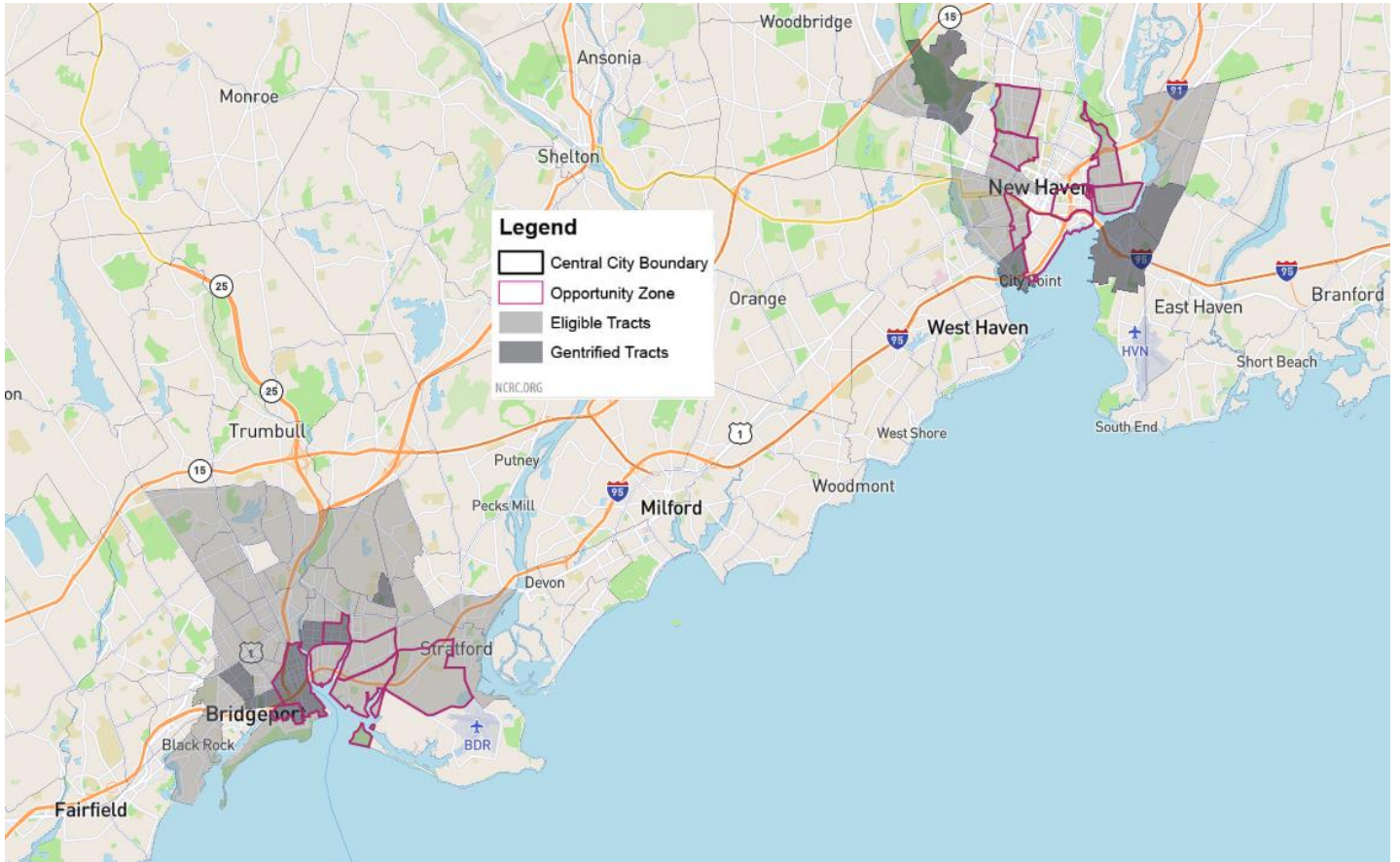


Opportunity Zones (OZs) – created under the Tax Cuts and Jobs Act of 2017 – are a U.S. Federal Government economic tool that incentivizes people to invest in economically challenged areas. Their purpose is to raise local income and accelerate economic growth and job creation in low-income neighborhoods while providing tax benefits to investors.

Maps of each site are shown below.

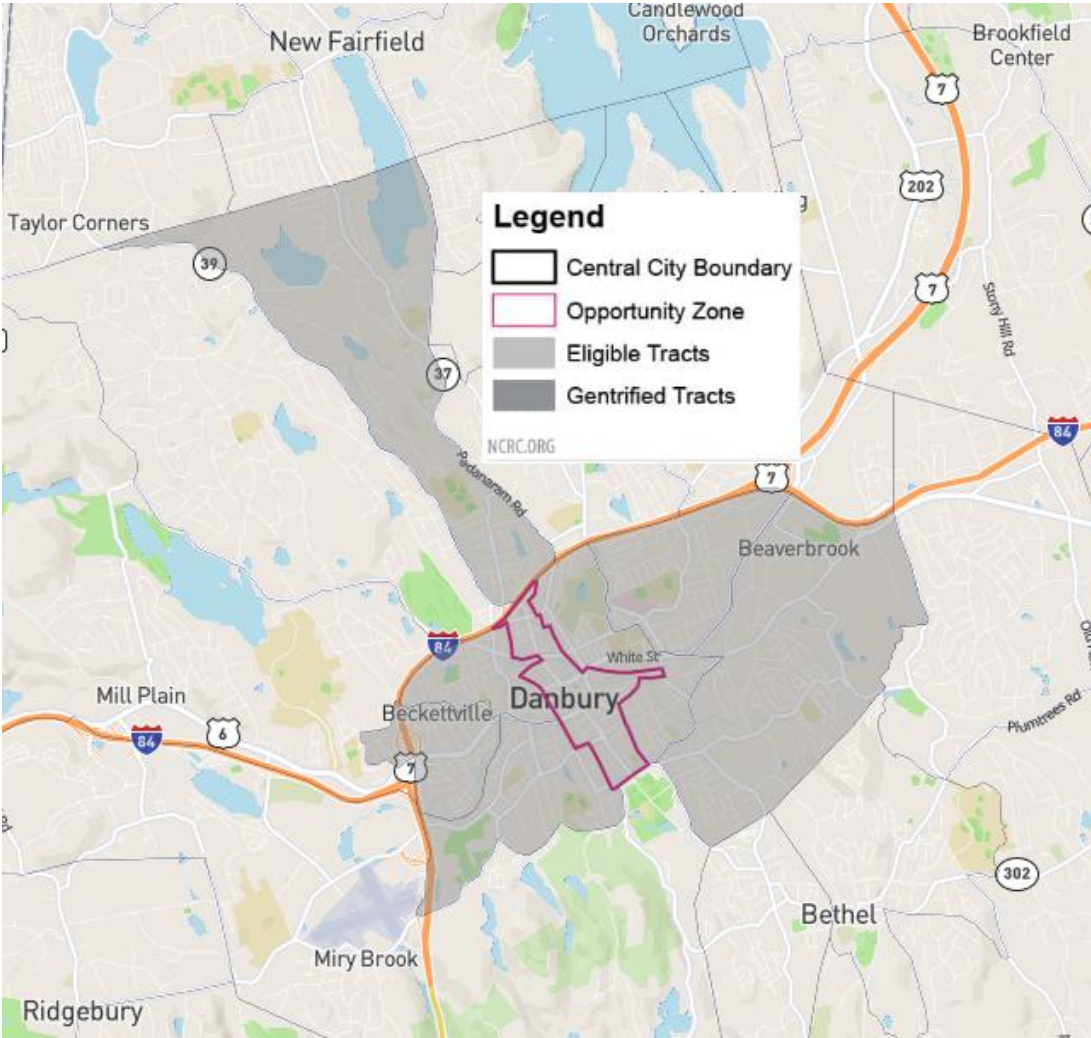
<sup>14</sup> National Community Reinvestment Coalition, “Gentrification and Disinvestment 2020”, Available at <https://ncrc.org/gentrification20/>

## Bridgeport and New Haven

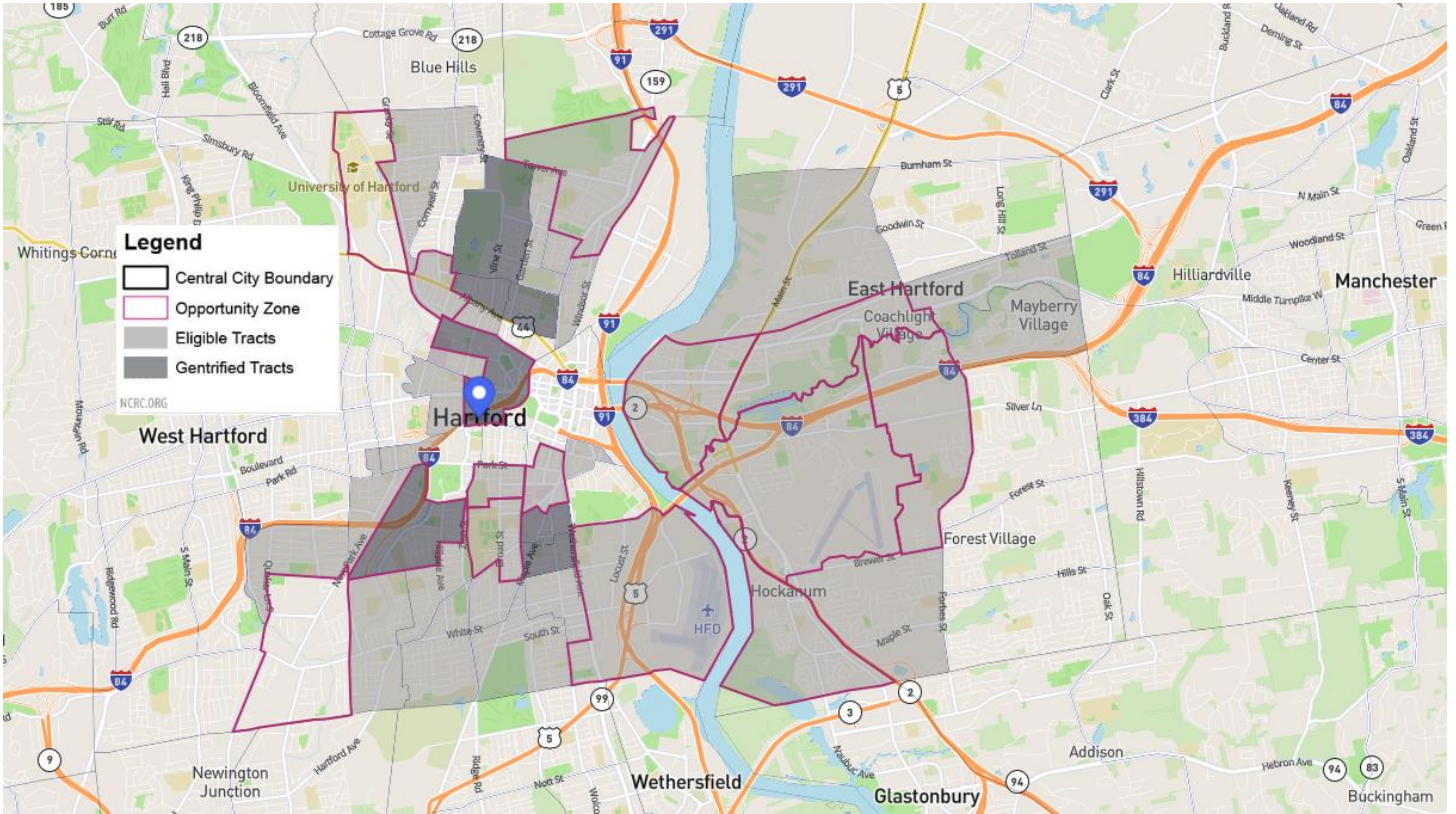




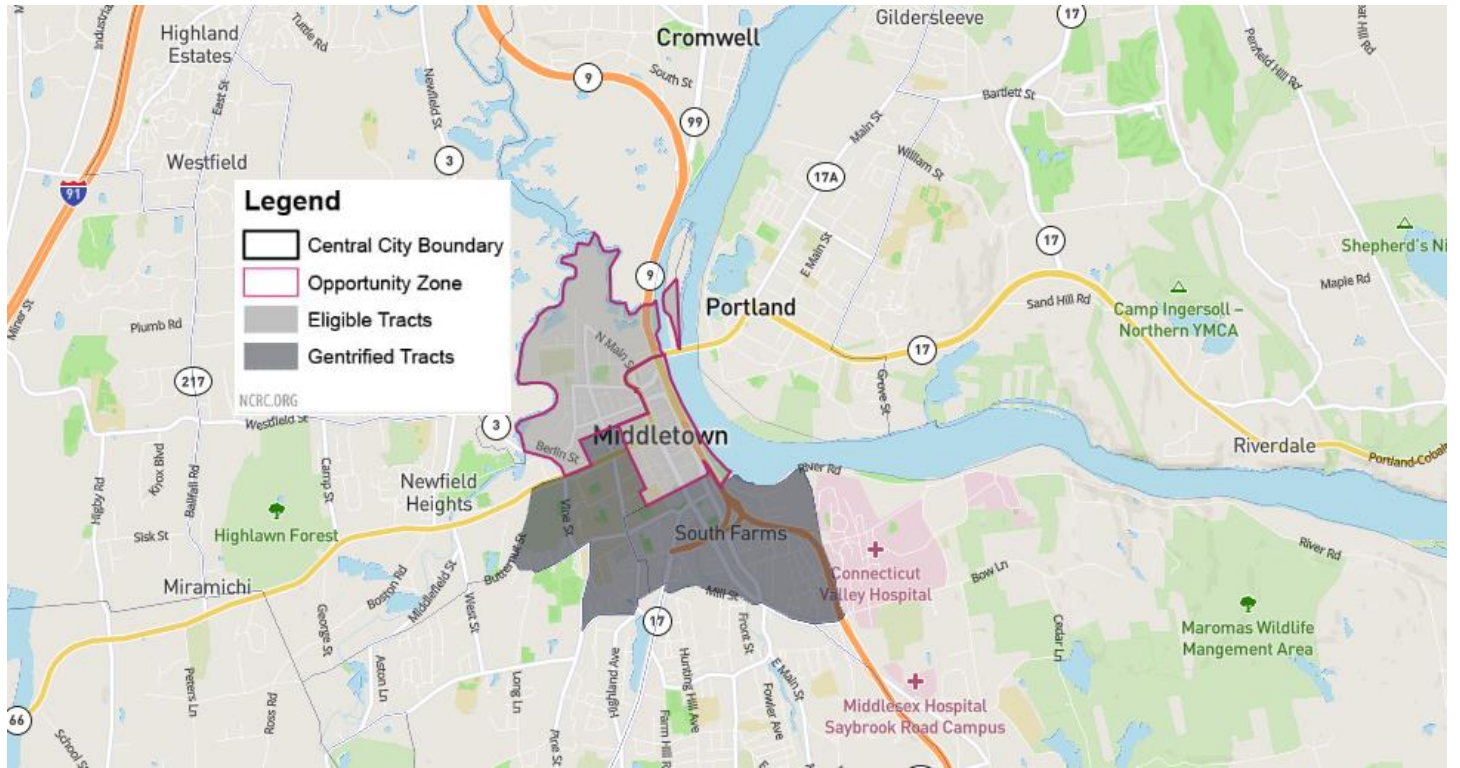
# Danbury



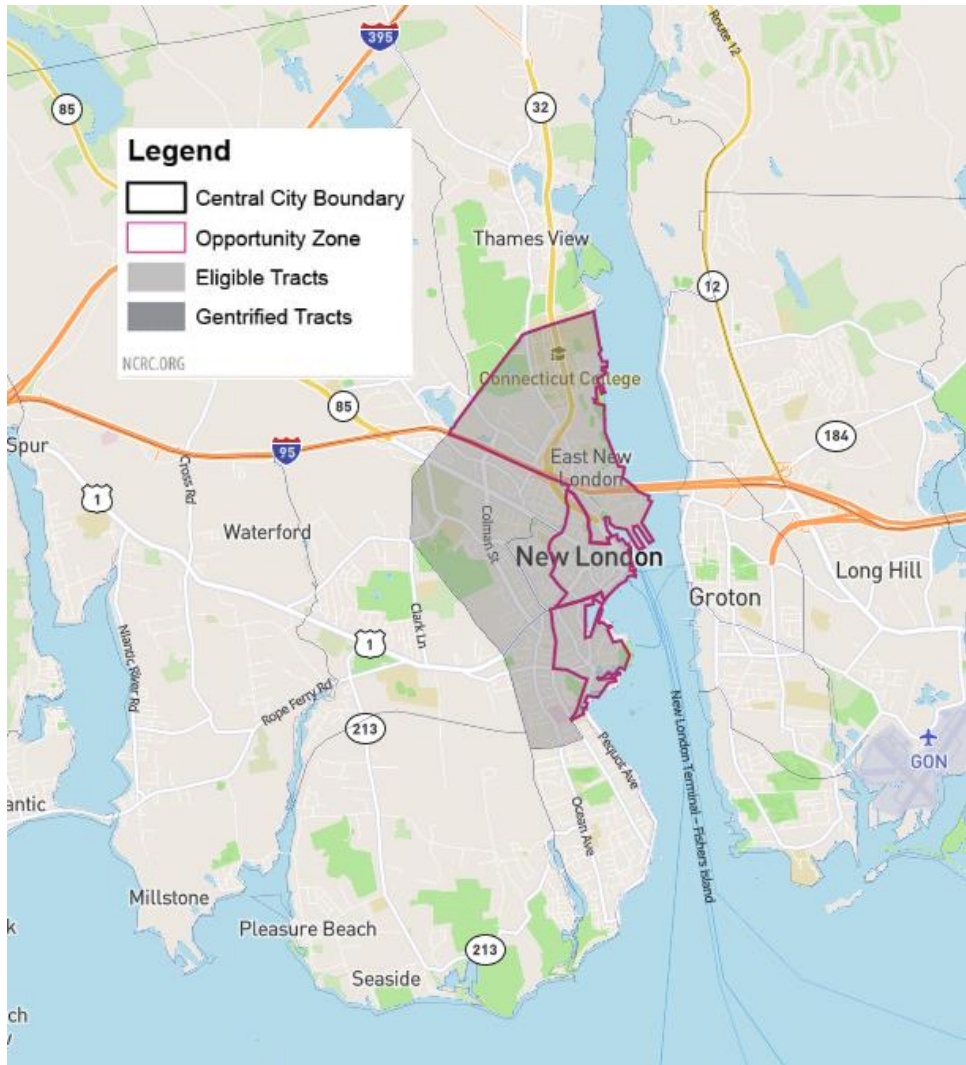
# Hartford



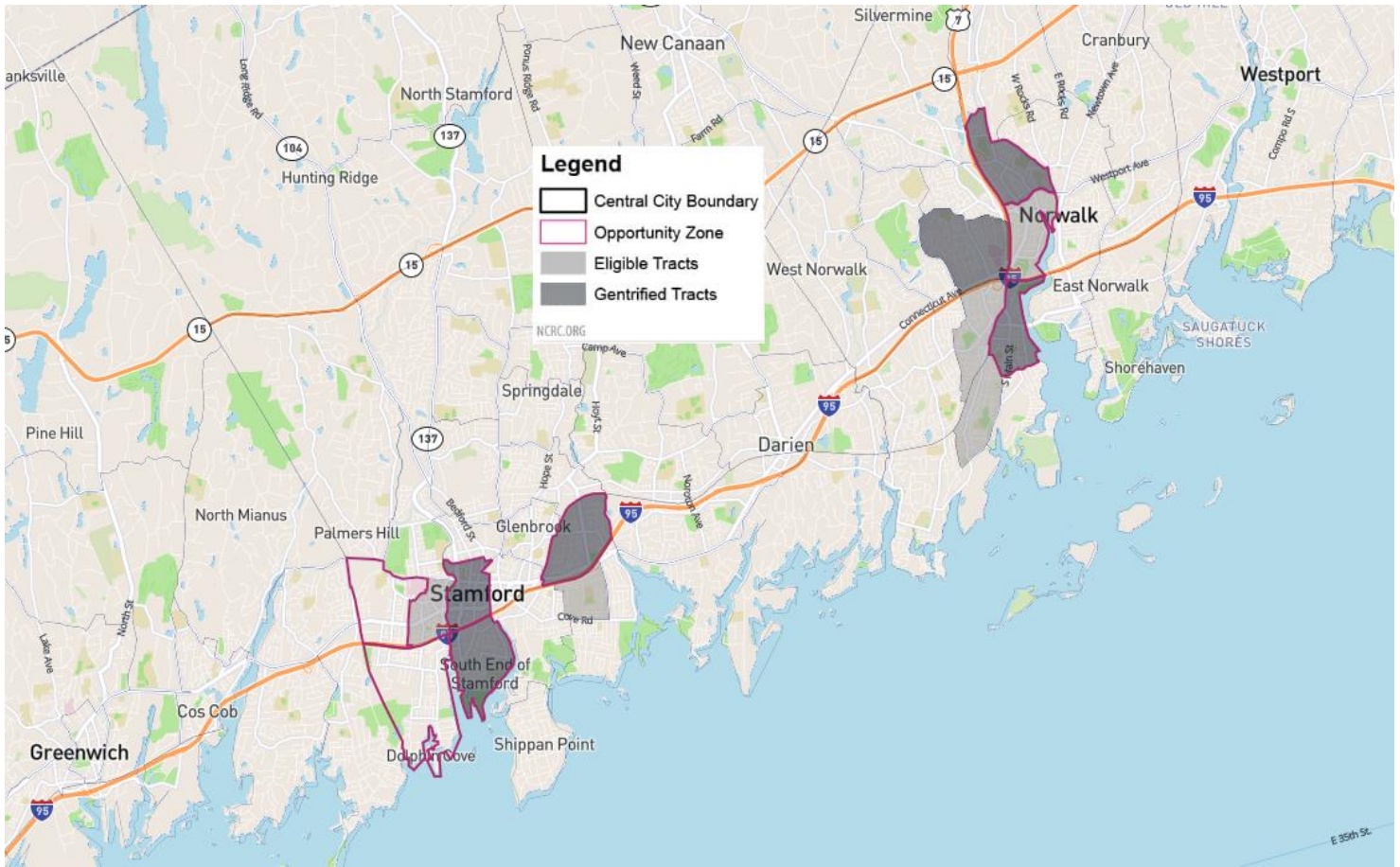
# Middletown



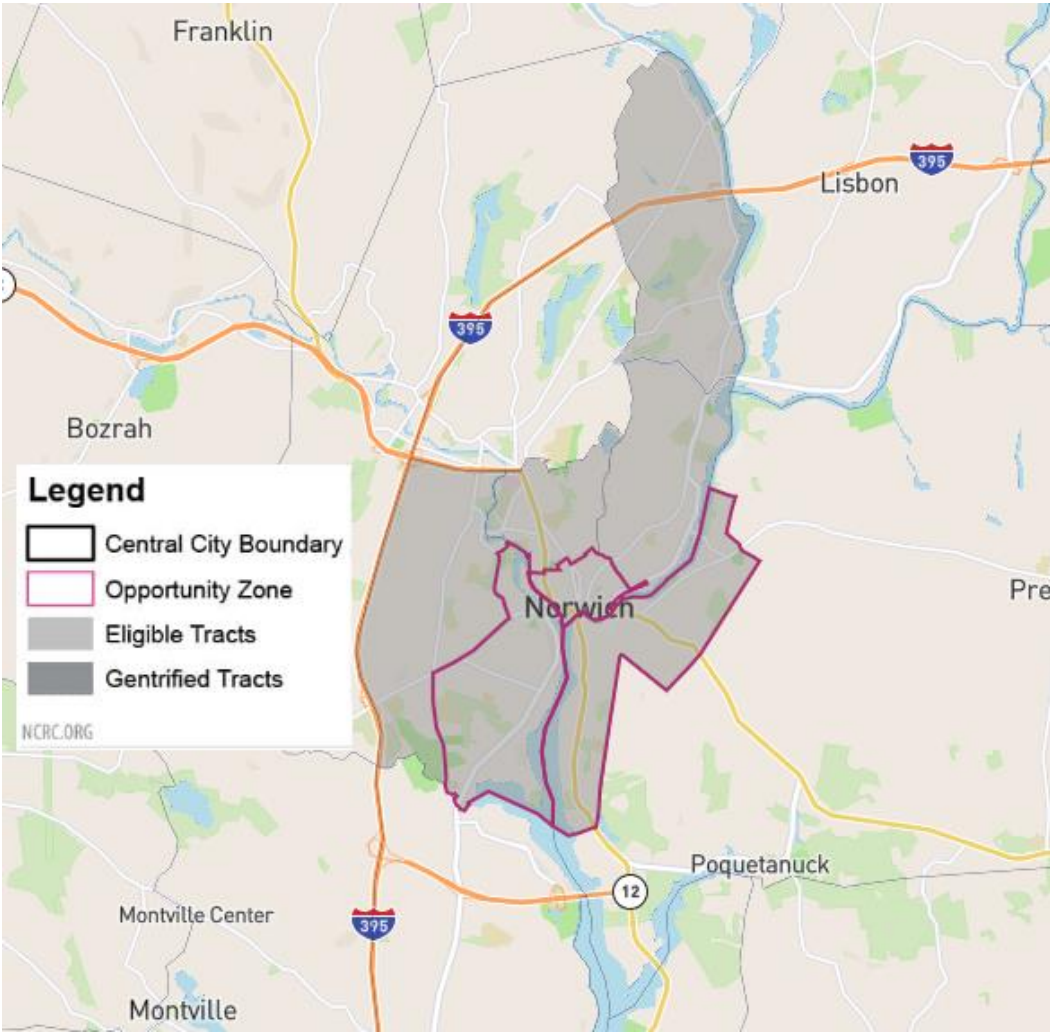
# New London



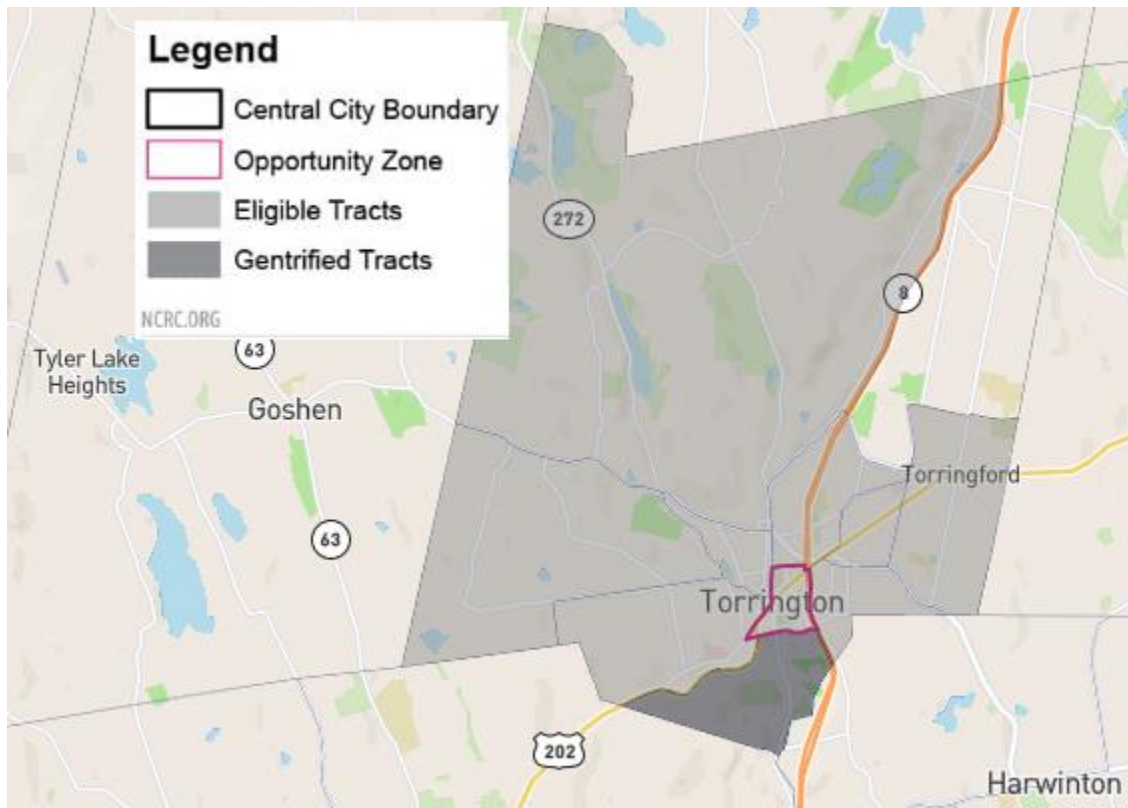
# Norwalk and Stamford



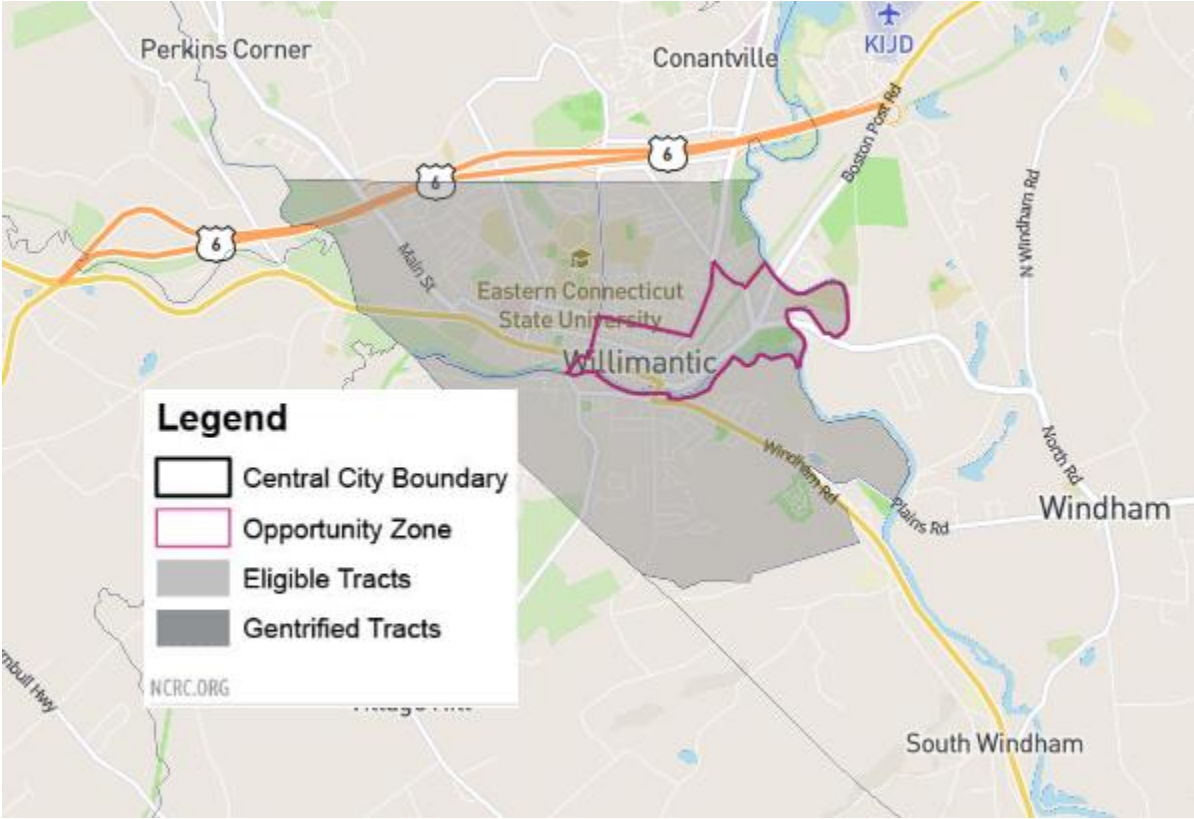
# Norwich



# Torrington



# Willimantic / Windham



Source: The National Community Reinvestment Coalition, Gentrification and Opportunity Zones



## Appendix 6: CHNA Community Survey Tables

### Demographic Profile of Survey Respondents

**TABLE 25: COUNTY OF SURVEY RESPONDENTS**

What county do you live in?	Percent of Respondents
Fairfield	1.3
Hartford	29.1
Litchfield	19.3
Middlesex	3.4
New Haven	26.2
New London	10.8
Tolland	4.5
Windham	5.4

**TABLE 26: GENDER AND RACE/ETHNICITY OF SURVEY RESPONDENTS**

Gender & Race/Ethnicity	Percent of respondents
Female	77.0
Male	19.6
Non-binary	1.6
I'd rather not share	1.9
White or Caucasian	78.6
Black or African American	10.5
Hispanic/Latinx	8.2
Asian	1.3
Native American or Alaska Native	1.0
Native Hawaiian or other Pacific Islander	0.0
Another race/ethnicity	0.3

**TABLE 27: AVERAGE HOUSEHOLD INCOME**

<b>Annual Household Income</b>	<b>Percent of respondents</b>
None	0.4
Under \$15,000	1.1
\$15,000 - \$24,999	1.8
\$25,000 - \$34,999	5.7
\$35,000 - \$44,999	6.5
\$45,000 - \$54,999	10.0
\$55,000 - \$64,999	6.8
\$65,000 - \$74,999	7.5
\$75,000 - \$99,999	14.0
\$100,000 or more	46.2
<b>Age Group</b>	
18 – 24	2.3
25 – 34	13.6
35 – 44	17.5
45 – 54	20.4
55 – 64	27.2
65 – 74	16.5
More than 75	2.6

## Health Care Access

**TABLE 28: FAMILY DOCTOR ACCESS**

Do you have a family doctor or a place where you go for routine care?	
Response	Percent of respondents
Yes, family doctor, family health center, or clinic	94.8
Yes, emergency room	0.2
Yes, walk-in urgent care	1.4
No	3.3

**TABLE 29: ACCESS TO MEDICAL OR MENTAL HEALTH CARE**

In the past two years, has there been one or more occasions when you needed medical or mental health care but chose NOT to get it?	
Response	Percent of respondents
No	62.7
Yes	37.3
If yes, what prevented you from accessing health care or mental health services when you needed it?	
Reason	Percent of those not getting needed services
Long wait times to see a provider	43.9
Lack of money / ability to pay	36.3
COVID-19-related restrictions	27.4
Did not feel comfortable with available providers	19.7
Lack of health insurance	8.9
I don't like the providers	7.6
Lack of transportation	4.5
Providers are not culturally competent	3.8
Providers not knowledgeable about people with my sexual orientation or gender status	2.5
Providers did not speak my language, or they didn't know my culture	0.6
Concern about my immigration status	0.0

## Additional Community and Access to Care Issues

**TABLE 30: SENSE OF COMMUNITY HEALTH**

Concerning a Sense of Community Health, to what degree do you agree	
Community Issue	Percent saying, "Disagree" or "Strongly disagree"
I know my neighbors will help me stay healthy	37.1
My community has the resources to improve its health	25.6
My community works together to make positive change for health	21.2
My community can work together to improve its health	8.5
If you were experiencing a mental health or substance use challenge, would you know where to turn for help?	33.9
Do you or your family currently have unmet mental health or substance use needs?	
Yes, I have an unmet need	7.8
Yes, an adult family member has an unmet need other than me	14.7
Yes, a child family member has an unmet need	3.8
No	69.3

**TABLE 31: MENTAL HEALTH CHALLENGES**

Over the course of the COVID-19 pandemic, have you or someone you know experienced any of the following mental health challenges?	
Challenge	Percent of respondents
Depression or Anxiety	39.1
Loneliness or Isolation	32.0
Grief	22.8

**TABLE 32: DAILY CHALLENGES**

To what degree are you having any challenges with the following?	
Issue	Percent struggling daily or having it as a common challenge
Leisure activities	14.6
Feeling lonely	11.7
Managing major life issues such as relationship challenges, relocating, new job or change of school, loss of a loved one, or major illness	9.7
Establishing and maintaining trusted relationships	8.8
Regular living activities such as getting to school or work on time, grocery shopping, or doing other common tasks	6.3
Getting along with people at work or in the community	6.0
Performing adequately well at school or work	4.5
Getting along well with friends and family members	2.2

## Community Survey Needs

**TABLE 33: COMMUNITY SURVEY RATING OF NEEDS**

Which of the following community and health-related issues do you feel need more attention for improvement?		
Rank	Need	Percent saying, "Much more needed"
1	Counseling services for mental health issues such as depression, anxiety, and others for adolescents/children	64.6
2	Affordable prescription drugs	62.3
3	Counseling services for mental health issues such as depression, anxiety, and others for adults	62.2
4	Drug and other substance abuse early intervention services	54.5
5	Crisis or emergency care programs for mental health	54.0
6	Affordable quality childcare	52.3
7	Social services (other than health care) for people experiencing homelessness	51.9
8	Drug and other substance abuse treatment services	50.7
9	Programs to help drug and other substance use disorder patients recover and stay healthy	49.4
10	Drug and other substance abuse education and prevention	48.7
11	Affordable health care services for individuals or families with low income	48.4
12	Support services for children with developmental disabilities	47.9
13	Long-term care or dementia care for seniors	47.4
14	Coordination of patient care between the hospital and other clinics, private doctors, or other health service providers	46.4
15	Health care services for people experiencing homelessness	45.5
16	Services to help people learn about, and enroll in, programs that provide financial support for people needing health care	42.6
17	Special care (for example, caseworkers or "navigators") for people with chronic diseases such as diabetes, cancer, asthma, and others.	41.1
18	Secure sources for affordable, nutritious food	41.0
19	Transportation services for people needing to go to doctor's appointments or the hospital	39.5
20	Health care services for seniors	39.5
21	Education and job training	39.3
22	Education and job training	39.3
23	Services or education to help reduce teen pregnancy	37.2
24	Parenting classes for the "new Mom" or the "new Dad"	37.1
25	Crisis or emergency care services for medical issues	35.9
26	Women's health services / Prenatal care	34.3
27	Programs for obesity prevention, awareness, and care	33.1

Which of the following community and health-related issues do you feel need more attention for improvement?		
Rank	Need	Percent saying, "Much more needed"
28	General public transportation	32.6
29	Primary care services (such as a family doctor or other provider of routine care)	30.5
30	Programs for diabetes prevention, awareness, and care	29.5
31	Programs for heart health or cardiovascular health	27.8
32	HIV/AIDS education and screening	24.2
33	Emergency care and trauma services	23.6
34	HIV/AIDS treatment services	23.1

# DataHaven

## Community Health Needs Assessment CHIME Data Profile: Natchaug Hospital HSA

By DataHaven, May 2022

Data about residents' visits to hospitals and emergency rooms may be used as a tool to examine variations in health and quality of life by geography and within specific populations<sup>1</sup>. Unless otherwise noted, all information in this profile is based on a DataHaven analysis (2022) of 2018-2021 CHIME data provided by the Connecticut Hospital Association upon request from a special study agreement with partner hospitals and DataHaven. The CHIME hospital encounter data extraction included de-identified information for each of several million Connecticut hospital and emergency department encounters incurred by any residents of any town in Connecticut. Any encounter incurred by any resident of these towns at any Connecticut hospital would be included in this dataset, regardless of where they received treatment.

In order to develop statewide geographic benchmark comparisons within the CHIME data that could be used to provide context, DataHaven developed a statewide aggregate as well as rates for individual Connecticut towns and regions. Comparisons should be made with caution, especially when examining data for towns or regions near the state border, given that residents in those towns may have been more likely to receive treatment at hospitals located outside of the state in some cases.

Each encounter observation had a unique encounter ID and was populated with one or more "indicator flags" representing a variety of conditions. Each encounter could include multiple indicator flags.

Annualized encounter rates were calculated for the indicator flags assigned within the dataset including Asthma, COPD, Substance Abuse, and many other conditions. Analyses in this document describe data on "all hospital encounters" including inpatient, emergency department (ED), and observation encounters. Annualized encounter



rates per 10,000 persons were calculated for the period from 2018 to October 2021 by merging CHIME data with population data.

For each geographic area and indicator, our analysis generally included an annualized encounter rate for populations in each of five age strata (0-19, 20-44, 45-64, 65-74, and 75+ years), and by gender, as well as a single age-adjusted annualized encounter rate. DataHaven also calculated rates by race, but those results are not included in this document because we believe that the collection of race/ethnicity data is not yet standardized in a way that allows for accurate comparisons across geographic areas. In some cases, results are not included in this report if the number of observations and/or populations in any given area were very small. It is important to note that there is no way to discern the unique number of individuals in any zip code, town, area, or region who experienced hospital encounters during the period under examination or the number of encounters that represented repeat encounters by the same individual for the same or different conditions. To better examine encounter rates for asthma, the age-strata used to calculate asthma encounter rates differed from age groupings used for the other disease encounter types (0-4, 5-19, 20-44, 45-64, 65-74, and 75+ years).

Please contact DataHaven or refer to our larger documents at [ctdatahaven.org/reports](https://ctdatahaven.org/reports) for further information.

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<sup>1</sup>Towns in Natchaug Hospital HSA include Chaplin, Hampton, Columbia, Coventry, Lebanon, Mansfield, Scotland, and Windham. Data for other towns, zip codes, and regions are available via the regional Community Health Needs Assessment. We recommend comparing the information in this profile to information from surrounding towns, counties, and similar communities. General demographic information is also available at [ctdatahaven.org/communities](https://ctdatahaven.org/communities).

## Demographics for this Analysis

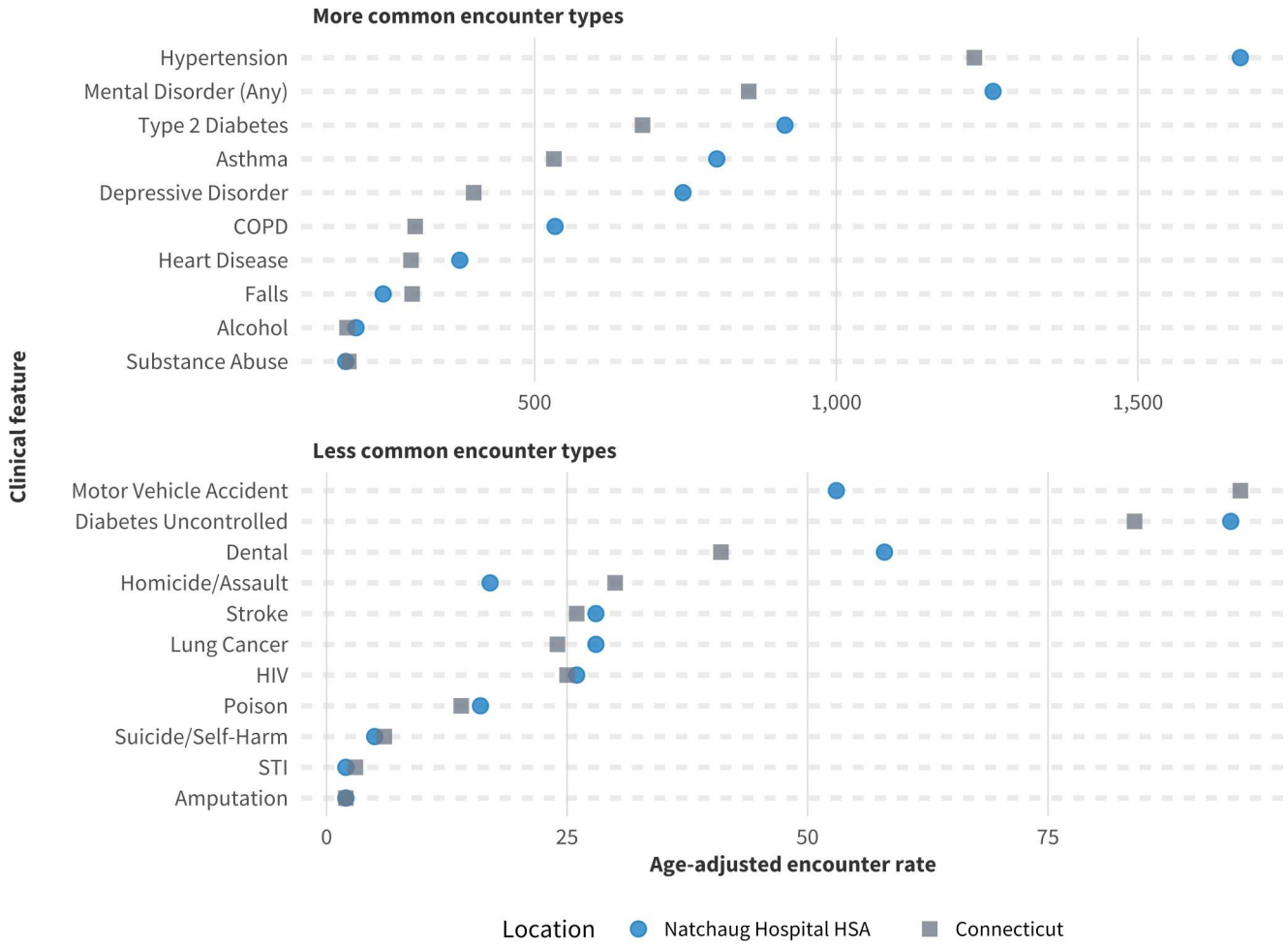
Natchaug Hospital HSA has a population of 80,654 people, with the following breakdown<sup>2</sup>:

<b>Gender</b>	<b>All Ages</b>	<b>Age 0-19</b>	<b>Age 20-44</b>	<b>Age 45-64</b>	<b>Age 65-74</b>	<b>Age 75+</b>
<b>Female</b>	40,655	10,415	15,027	9,181	3,235	2,797
<b>Male</b>	39,999	10,901	14,895	8,955	3,450	1,798
<b>Total</b>	80,421	21,316	29,922	18,136	6,685	4,595

# Hospital encounter data

## Annualized age-adjusted encounter rates per 10,000 residents

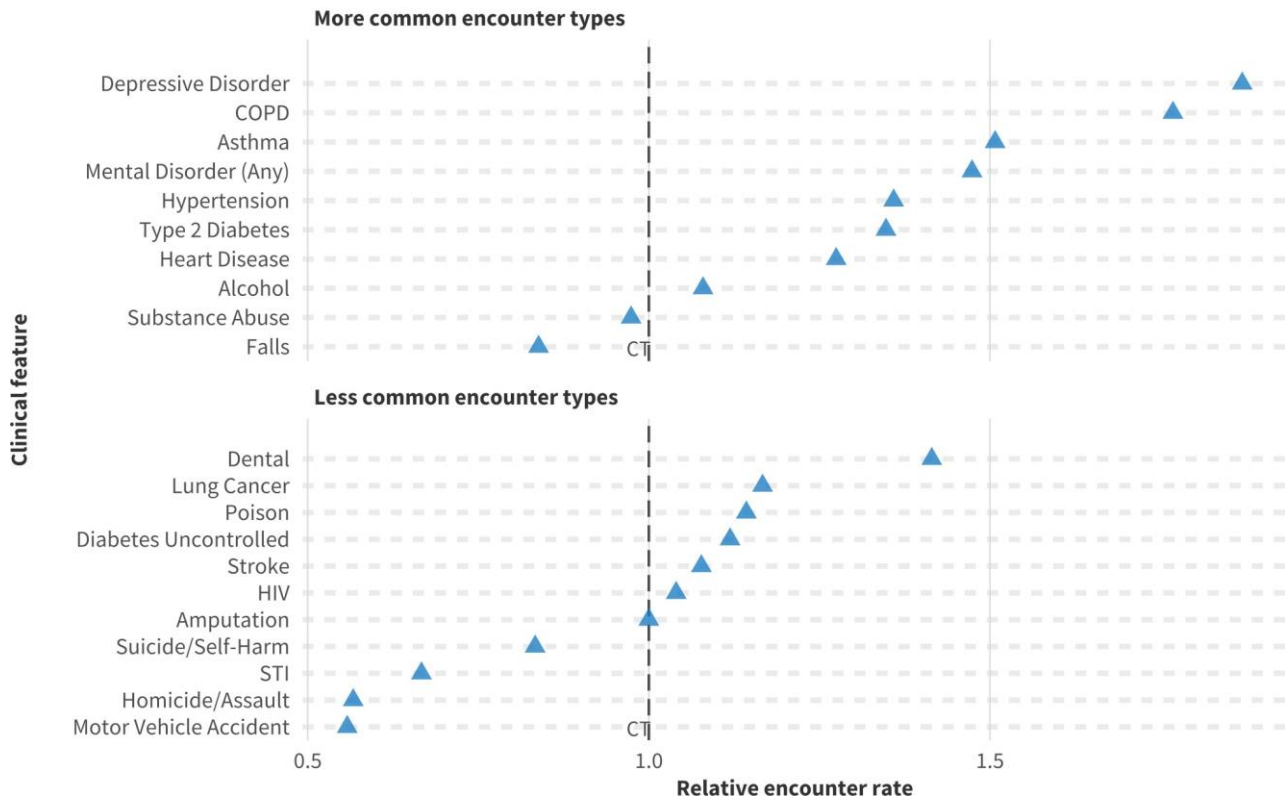
Natchaug Hospital HSA and Connecticut, 2018-2021



<sup>2</sup>DataHaven analysis (2022) of population data from U.S. Census American Community Survey 2019 5-year estimates.

## Annualized relative encounter rates per 10,000 residents

Ratio to Connecticut rate, Natchaug Hospital Hsa, 2018-2021



## Encounter rates per 10,000, age-adjusted and by age

### Natchaug Hospital HSA, 2018–2021

#### Alcohol

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	204	188	19	186	394	260	69
Female	135	126	21	128	247	193	32
Male	275	251	18	244	544	323	128

#### Amputation

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	2	2	-	-	4	-	-
Female	-	-	-	-	-	-	-
Male	3	3	-	-	6	-	-

#### Asthma

Sex	Age-adjusted	All ages, crude rate	0-4 years	20-44 years	45-64 years	5-19 years	65-74 years	75+ years
All	802	785	-	865	966	-	804	778
Female	1,056	1,036	-	1,201	1,376	-	1,190	811
Male	546	530	-	526	547	-	442	725

#### COPD

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	534	436	-	35	730	1,454	2,420
Female	521	445	-	33	794	1,511	1,932
Male	567	426	-	37	664	1,401	3,179

#### Dental

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	58	60	48	80	58	38	26
Female	53	54	45	70	57	36	-



## Depressive Disorder

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	746	675	142	526	1,170	1,177	1,432
Female	935	864	197	679	1,459	1,543	1,596
Male	550	483	90	371	874	834	1,178

## Diabetes Uncontrolled

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	94	80	4	35	164	166	263
Female	84	74	-	37	143	150	221
Male	105	86	5	34	185	181	328

## Falls

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	249	227	180	113	241	392	900
Female	268	251	171	122	266	497	910
Male	231	203	188	104	215	293	884

## Heart Disease

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	376	304	-	24	313	885	2,647
Female	301	266	-	14	256	728	2,101
Male	472	342	-	34	372	1,032	3,497

## HIV

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	26	22	-	15	67	17	-
Female	21	19	-	20	47	-	-
Male	30	25	-	10	87	22	-

## Homicide/Assault

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	17	18	10	31	16	-	-
Female	15	16	8	29	15	-	-
Male	19	20	12	32	18	-	-



## Hypertension

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	1,670	1,408	12	485	2,730	3,905	5,045
Female	1,680	1,460	11	466	2,818	4,092	4,700
Male	1,674	1,355	14	505	2,640	3,731	5,582

## Lung Cancer

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	28	23	-	3	26	112	120
Female	26	22	-	-	19	151	75
Male	32	24	-	4	32	76	190

## Mental Disorder (Any)

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	1,260	1,162	324	1,034	1,745	1,770	2,699
Female	1,539	1,447	342	1,313	2,216	2,264	2,817
Male	975	873	307	753	1,263	1,308	2,516

## Motor Vehicle Accident

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	53	54	28	79	55	37	36
Female	52	54	32	80	49	36	26
Male	55	55	25	77	61	37	51

## Poison

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	16	16	15	15	21	14	-
Female	16	16	17	13	22	-	-
Male	16	16	12	16	20	-	-

**STI**

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	2	2	-	5	-	-	-
Female	2	2	-	5	-	-	-
Male	2	3	-	5	-	-	-

**Stroke**

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	28	23	-	5	31	59	158
Female	23	20	-	5	21	48	139
Male	33	25	-	4	41	69	187

**Substance Abuse**

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	187	181	32	237	313	118	85
Female	153	147	25	180	263	114	83
Male	222	216	39	295	363	122	87

**Suicide/Self-Harm**

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	5	6	10	7	-	-	-
Female	7	7	14	8	-	-	-
Male	4	4	6	6	-	-	-

**Type 2 Diabetes**

Sex	Age-adjusted	All ages, crude rate	0-19 years	20-44 years	45-64 years	65-74 years	75+ years
All	915	766	20	218	1,450	2,106	3,145
Female	878	763	19	238	1,477	2,138	2,418
Male	982	769	21	198	1,422	2,077	4,274

## Appendix 8: Voices from the Community

### Stakeholder Interview Summary, Natchaug Region

Primary themes that emerged from the conversations will be described and illustrated below.

- Loss of locally accessible health care services
  - Shift away from community-based and community-located care towards more centralization and consolidation
  - Provider shortages locally and long wait times, especially specialty care and mental health
  - Difficulties in access and transportation, especially for low-income populations and elderly
- Lack of safe and affordable housing
- Language and cultural barriers to health care access
- Policies not aligned with real-life needs of vulnerable populations

#### Access to care: Lack of access to health care

##### Centralization, consolidation, and feeling “left behind”

One of the most consistent themes to emerge from stakeholder interviews in the region was concern about access to care – including crisis services – and the generally low capacity of mental health services considered essential by the community.

##### Provider shortages locally and long wait times, especially for specialty care and mental health

Others noted the general difficulty in finding mental health (and medical) providers, challenges with the health care system and reimbursement practices leading to consolidation and early retirements, and more opportunities for career advancement in other parts of the state. Pediatric mental health services were noted as an especially important shortage. The shift from local availability services was also noted by a variety of stakeholders. One respondent spoke of needing lab work done after Quest’s 6:00 p.m. deadline, and it resulted in a bill for thousands of dollars because the only after-hours option was the emergency room. Several respondents talked about situations where an urgent health care need simply couldn’t be addressed due to longer than viable wait times, and the impossibility of regular treatments that require a long trek for someone who is elderly, or someone living paycheck-to-paycheck where missing work can have significant financial implications (if they can even get the time off approved).

##### Difficulties in access and transportation, especially for low-income population and elderly

Nearly every stakeholder spoke about transportation being a major health access barrier, and the transportation issue vastly exacerbating the impacts of losing locally available health care services. It was noted by many that the closures and consolidations have a disproportionate impact on low-income residents, and by extension, on the BIPOC and immigrant communities who are more likely to be economically disadvantaged. Public transit services are extremely limited and medical transportation services are notoriously unreliable.

## Key takeaways

- Many expressed concerns about access to mental health services. Given rising violence, there was also rising concern about community safety and crisis services.
- There were a number of stakeholders who expressed a perception that resources are leaving the area. Some appreciated the resources that Hartford HealthCare brings to the table and expressed a desire for more meaningful engagement with those already serving the area, as well as the people in the area. Opportunities for collaboration around preventative care and opioid treatment were particularly noted.
- Almost universally, those interviewed expressed strong concern about the lack of adequate mental health services, coupled with the surge in need. The dearth of pediatric mental health services was noted as especially problematic, resulting in situations where children have ended up in adult psychiatric units (with unnecessary and potentially traumatic exposure to mentally distressed adults). Wait times for mental health treatment are very long, which many respondents noted is a major concern when someone is in a high level of emotional distress or need.
- Numerous stakeholders mentioned the effectiveness and positive reputation of Generations, a Federally Qualified Health Center (FQHC), as being a trusted local community resource for urgent and primary care services, with particular mention made of their patient-centered approach and cultural responsiveness. Positive comments were also made about United Community & Family Services (UCFS) and a variety of other locally based organizations serving the community. People noted some of the excellent collaborations in the region that are helping reduce gaps and serve the community effectively by partnering, cross-referring, and pooling resources. Many stakeholders expressed a wish that HHC would be more respectful of existing relationships and resources in the region and be more interested in coming to the table from a place of “How can we help?”

## Sample voices from the community

*“It’s exhausting what people have to go through to get mental health care.”*

*“Natchaug is an asset to the area – everyone knows that. We could really use addiction school and other crisis services, though. Maybe they exist; I’ve just not heard of them.”*

*“We had a counselor for a long time. About a year ago, he move or something, and I don’t think they’ve been about to replace him.”*

*“It is almost impossible to see a child psychiatrist. There aren’t too many around, and the wait time is really long. Especially when you kid has an addiction issue, a wait time is a real problem, and you wind up just going to the ER.”*

*“I had a really good experience at Natchaug Hospital! When I was discharged, I did pretty well, but I would have liked more communication between the hospital and my [PCP] doctor.”*

## Basic Needs: Social Influencers of Health (SloH)

Many of those interviewed noted that housing shortages, and specifically the lack of reasonably affordable or available housing, was a significant concern in the area. After transportation, this was the primary concern mentioned in terms of social influencers of health. A good number of stakeholders spoke with concern about housing insecurity and lack of healthy housing as major issues that affect everything else in a person's life. Homelessness was cited as a significant issue in the region, with some limitations in shelter accessibility and gaps in care. Some respondents spoke about a lack of sufficient recovery or transitional housing to help support sustainable transitions from homelessness to long-term housing.

### Key takeaways

- There is a shortage of housing considered to be affordable and safe, as well as conveniently located (given the transportation difficulties of the region). This was described as being true for professionals as well as for people on limited or fixed incomes.
- Some respondents expressed concern about COVID-based eviction moratoriums ending.
- Of the affordable housing that does exist, several stakeholders talked about substandard housing conditions. Concern was expressed that some local governments are so small that they do not have the resources or staffing to enforce housing codes, if they even have codes at all.
- For Section 8 and senior housing, many people described long wait lists, and housing instability as a constant issue. Some described waiting lists of 3-4 years long, and a rise in homelessness among the elderly.
- Regarding a consolidation of homeless referral services through 211, several people spoke about the new program as a success and enabling a better continuum of care, as well as better collaboration between the agencies. Others expressed concern that people can no longer walk into a shelter and that the centralization has made it a lot harder for people to get the immediate care they need.

### Sample voices from the community.

*"Housing is definitely an issue here – there are lots of people worrying about housing, and it affects you mentally and physically."*

*"Affordable housing doesn't exist here."*

*"According to the homelessness protocols, people are supposed to be referred to an emergency shelter first, but for those with a history of trauma, that's not going to be a safe place for them. Some people feel much safer living in their car or on a friend's couch. There are policies that help people stay in shadows, so you're not getting a true count of how many people are homeless."*

*"You see things like a homeless pregnant woman who's not considered a family until in 3rd trimester, so she's living in a tent because she doesn't fit the requirement to get housing."*

*"We do have a homelessness issue – not only shelters and people on the streets, but families doubling up. We also have kids who are undocumented, here with no guardians and homeless couch surfing with adults who will let them in), which is obviously super dangerous."*

## **Cultural impacts: Language and cultural barriers to accessing health care**

Numerous stakeholders described a need for more culturally competent care (in the right languages) for the BIPOC community, non-English speakers, and those who are economically disadvantaged.

### **Economic realities and socioeconomic sensitivity**

Many respondents expressed a sense of frustration at economic barriers to health care access, as well as the perceived lack of empathic understanding by providers and health care systems about the actual life circumstances of those living in low- or fixed-income situations. In addition to the economic barriers posed by unmanageable co-pays or the cost of transportation to attend distant appointments, stakeholders talked about the fact that people living with limited means are often also dealing with the most inflexible of job situations. It can be difficult to arrange for time off from work, and often results in lost (essential) wages. When providers cancel or reschedule appointments at the last minute, expect indefinite waiting room times, or expect someone to travel for recurring specialty care visits far from home, it creates unrealistic burdens and often results in people not following up or getting the care they need. Sometimes the paperwork is hard to understand, and the process feels too overwhelming to navigate amid other life stressors.

### **Cultural and language barriers**

Stakeholders in eastern Connecticut talked about the divergent needs of different populations in the region. While the majority of the region is rural and white, those interviewed talked about the fact that there is a very diverse population, with many languages spoken and a variety of cultural groups. Some providers report challenges in staffing and resources to adequately meet unique population needs, and many community members from underrepresented groups talk about the lack of representation and cultural sensitivity being significant barriers to seeking care and receiving the services they need. Efforts to integrate care into familiar experiences, with trusted liaisons, were uniformly described as helpful and an important direction for the region.

### **Key takeaways**

- Economic barriers permeate the health care landscape, and distance to appointments and poor communication from providers can create insurmountable logistical difficulties for some people to access care or follow through once care has been initiated.
- Language barriers are an important consideration in eastern Windham County, as well as cultural issues in a variety of communities.
- In addition to cultural norms that may not include preventative care standards expected by the medical community, certain groups have mistrust of the medical establishment. For some in the Black or African American community, this stems from not having their concerns or pain taken seriously. For many undocumented residents, there is fear of interfacing with official systems and completing paperwork.
- Many services are not available in the primary language of some residents. Certain segments of the population feel left behind. Many respondents spoke highly of trends to bring care into communities and meet people in situations that are familiar and in connection with existing trusted relationships.

### *Sample voices from the community*

*“The system can feel like a wall to getting medical care.”*

*“[Where I live], Spanish is the top language, then Haitian Creole. Most facilities have Spanish speaking staff, but there are hardly any with Haitian Creole, Mandarin, or Cantonese. We need more awareness and staff who can speak those languages and understand those cultures.”*

*“It’s hard to trust providers when they don’t look like you and you feel like they don’t understand or respect your life experience.”*

*“Need to know who to talk to and what to do; if don’t have immigration status can’t go to hospital.”*

*“Even where there’s a sliding scale agreement, it goes by income, and you still need to pay \$20. Also, the paperwork is a lot and hard especially if it’s not in your language. It can feel scary when undocumented to give your details.”*

*“For lots of people, they can’t even afford bus ticket let alone a bill from doctor/hospital. So, they go if gets to be an emergency, but not for preventative care. Plus, there are a lot of answering questions they don’t feel comfortable answering.”*

*“For undocumented clients, it’s really hard. They can go to FQHCs, but once there’s something going on and need a specialist, the odds are they won’t get seen because any testing would be out-of-pocket and they don’t have those funds (even if they could get an appointment and get to it).*

*“It’s frustrating when appointments get rescheduled and there’s a lack of respect and common-sense communication about appointment times being changed. Sometimes people who are decision-makers and planners don’t understand that families are literally living paycheck to paycheck and don’t have the luxury of telling their boss they will take a sick day tomorrow. They have to ask for time off well in advance. Sometimes there’s a disconnect between medical side and the greeters and case workers on the front end. Clients can feel tossed around.”*

*“Parents who come from island or Latin American countries can feel intimidated by differences in culture and often rely on their children to be interpreter and translators.”*

*“We see a lot of people surfing the social services to look for what they need and knocking on every door they can find. Sometimes we’re trying to help people and they’re already getting services. They may not understand the system or may be looking for different answers because they’re not getting their needs met. Nonprofits are collaborating, which is how we know.”*

## Policies: Not aligned with real-life needs of vulnerable populations

Multiple stakeholders spoke with frustration about policies that are not well aligned with the “real-life” needs of the people whose lives they affect. Note: these anecdotes are taken from conversations with stakeholders and have not been verified for accuracy in terms of the policies referenced.

### *Sample voices from the community*

*“There’s a lag in the coordinated access network for those who are homeless. Clients go into shelter, but don’t receive services for two weeks [health care, case management, etc.]. I guess the idea is that people’s issues “usually resolve themselves,” which is obviously not the case.”*

*“I used to work with homeless women. Residents would say that in order to get treatment, they had to have a high level of heroin in their system. So, they would have to go on street and use to be able to be accepted for treatment. One woman told me she had to “appear to be a lunatic” to get treated, so she flashed a knife in a cab and pretended psychosis. It’s crazy that someone who wants substance use treatment needs to use MORE in order to be accepted.”*

*“Undocumented people have to wait five years before they’re eligible for food stamps. What are they supposed to do in the meantime?”*



## Appendix 9: Key Steps to CHIP Development and Impact

### **STEP 1 - Culling the Findings – Brainstorming with your local collaboratives by answering the following questions:**

CHNA Immediate Impact findings – where is the low hanging fruit?

CHNA Greatest Impact findings -- what will most influence health outcomes?

CHNA Most Desired Change findings - what change does the community most want?

CHNA Forging Opportunities findings - where are the greatest opportunities for partnership?

### **STEP 2 - Organizing the focus areas and assembling your rationale for action**

HHC will organize its CHIP is across four focus areas that are intended to address root causes of community health issues while recognizing where HHC in partnership with the community can be most effective in impacting change. The driving rationale for each of these areas is derived from the CHNA findings and can be summarized as follows:

#### **1. Promote healthy behaviors and lifestyles**

Research has repeatedly shown that good eating and exercise choices are critical to averting lost or unproductive time at school or work, growing and maintaining cognitive and physical functioning, promoting mental health, and preventing and managing many chronic diseases such as heart disease, cancer, stroke, diabetes, and osteoporosis

Rationale for Action (Pull findings from your CHNA)

#### **2. Address health inequities and blunt social influencers of health**

There are many factors that shape and confine health outcomes including obstacles related to accessing care and services, awareness of available resources, and tracking patients as they move to and from points of care. More systemically, racial and economic inequities and other unfavorable environmental conditions provide powerful influencers in limiting individuals and communities from reaching their health potential.

Rationale for Action (Pull findings from your CHNA)

#### **3. Reduce the burden of chronic disease**

Proven interventions can prevent and reduce the effects of chronic and infectious diseases and are aimed at the **six** most common and costly health conditions – tobacco use, high blood pressure, healthcare-associated infections, asthma, unintended pregnancies, and diabetes – these conditions can be countered by proven specific interventions as highlighted by the CDC.

Rationale for Action (Pull findings from your CHNA)

#### **4. Enhance access to and the experience of care**

Access to care is effected by many circumstances including availability of providers and services, ability to schedule and keep appointments, cultural sensitivity of services, and financial means among many other factors. Frequently identified Issues include adult and child mental health and substance abuse services, dental care, and pediatric specialty care.

Improving screening, timely referrals, availability of providers and services, insurance coverage, and public awareness/patient empowerment are essential to reducing access issues.

Rationale for Action (Pull findings from your CHNA)

### **STEP 3 - Selecting your Strategies and Interventions**

**Consider the following tools and approaches:**

- **Outreach** locates populations of interest or populations at risk and provides information about the nature of the concern, what can be done about it, and how to obtain services.
- **Screenings and other Clinical Interventions** identifies individuals or populations with health risk factors or disease conditions and offers services, education or referrals. Can be at an individual level or through clinic and other community-based opportunities to access care and services.
- **Case-finding** locates individuals and families with identified risk factors and connects them to resources.
- **Referral** makes a connection to necessary resources to prevent or resolve problems or concerns. Follow-up assesses outcomes related to the utilization of the resources.
- **Case management** is a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual or family's needs.
- **Health teaching** involves sharing information and experiences through educational activities designed to improve health knowledge, attitudes, behaviors, and skills
- **Collaboration, Coalition–building, and Community Organizing** enhances the capacity to promote and protect health for mutual benefit and a common purpose. This effort involves exchanging information, co-creating activities, and shared resources
- **Internal Policy Reform** are opportunities to improve our policies, practice or workflows to improve access to care
- **Advocacy** is the act of promoting and protecting the health of individuals and communities by collaborating with relevant stakeholders, facilitating access to health and social services, and actively engaging key decision-makers to support and enact public policy to improve community health.
- **Social marketing** is a process that uses marketing principles and techniques to change target audience behaviors to benefit society as well as the individual
- **Community Relations** is a set of opportunities aimed at convening general and targeted populations to meet a purpose or for messaging and engagement including schools, underserved, support groups, etc.
- **Sponsorships and Funding** are any opportunities to support the activities of others that advance a public health goal or interest – in essence this is putting our money where our mouth is including Kids Marathon and PAL activities.
- **Time, Space and Community Health Expertise** are any opportunities to give of our time, expertise or if any of our physical space offerings help meet a need that advances a public health goal or interest

**Consider the following best practices:**

- [What Works for Health | County Health Rankings & Roadmaps](#)
- [Planning for and Selecting High-Impact Interventions \(cdc.gov\)](#)
- [Advancing Health Equity and Preventing Chronic Disease | DNPAO | CDC](#)
- [Rural Health Information Hub](#)

**Step 4 Executing and Evaluation**

## Appendix 10: Age Distribution Trends and Change since 2010

	Year	US	Connecticut	Fairfield County	Hartford County	Litchfield County	Middlesex County	New Haven County	New London County	Tolland County	Windham County
Total Population	2020	326,569,308	3,570,549	944,306	892,153	181,143	162,742	855,733	266,868	150,947	116,657
	2015	303,965,272	3,545,837	939,983	896,943	186,304	165,165	862,224	273,185	151,948	117,470
	2010	303,965,272	3,545,837	905,342	887,976	189,916	164,774	856,688	272,360	151,073	117,708
Percent change since 2010		7.4%	0.7%	4.3%	0.5%	-4.6%	-1.2%	-0.1%	-2.0%	-0.1%	-0.9%
Under 5 years	2020	6.0%	5.1%	5.5%	5.3%	4.1%	4.1%	5.2%	4.9%	4.1%	4.9%
	2015	6.3%	5.3%	5.8%	5.5%	4.3%	4.6%	5.3%	5.1%	4.1%	5.2%
	2010	6.6%	5.8%	6.4%	5.8%	5.0%	5.2%	5.7%	5.6%	4.7%	5.6%
Change since 2010	Point change since 2010	-0.6%	-0.7%	-0.9%	-0.5%	-0.9%	-1.1%	-0.5%	-0.7%	-0.6%	-0.7%
Under 18	2020	22.4%	20.6%	22.5%	21.0%	18.2%	17.7%	20.2%	19.5%	17.3%	19.8%
	2015	23.3%	21.8%	23.8%	22.0%	20.0%	19.7%	21.3%	20.6%	19.0%	21.1%
	2010	24.3%	23.4%	25.2%	23.3%	22.4%	21.7%	22.8%	22.2%	20.8%	23.0%
Change since 2010	Point change since 2010	-1.9%	-2.8%	-2.7%	-2.3%	-4.2%	-4.0%	-2.6%	-2.7%	-3.5%	-3.2%
18 to 44	2020	35.8%	34.0%	33.0%	34.6%	28.6%	31.3%	35.1%	34.1%	40.1%	34.5%
	2015	36.3%	34.4%	33.6%	34.4%	28.7%	31.5%	35.5%	34.6%	39.4%	35.2%
	2010	36.9%	35.1%	34.3%	34.7%	30.5%	33.2%	36.2%	35.8%	40.0%	36.6%
Change since 2010	Point change since 2010	-1.1%	-1.1%	-1.3%	-0.1%	-1.9%	-1.9%	-1.1%	-1.7%	0.1%	-2.1%
45 to 64	2020	25.6%	28.2%	28.6%	27.2%	32.0%	30.7%	27.4%	27.9%	26.7%	29.1%

	Year	US	Connecticut	Fairfield County	Hartford County	Litchfield County	Middlesex County	New Haven County	New London County	Tolland County	Windham County
	2015	26.3%	28.8%	28.5%	28.2%	33.6%	31.7%	28.0%	29.2%	28.2%	29.5%
	2010	25.9%	27.8%	27.1%	27.6%	32.0%	30.4%	27.0%	28.2%	27.7%	27.8%
Change since 2010	Point change since 2010	-0.3%	0.4%	1.5%	-0.4%	0.0%	0.3%	0.4%	-0.3%	-1.0%	1.3%
65 and older	2020	16.0%	17.2%	15.9%	17.1%	21.3%	20.4%	17.4%	18.3%	15.8%	16.6%
	2015	14.1%	15.1%	14.1%	15.3%	17.7%	17.0%	15.2%	15.6%	13.4%	14.1%
	2010	12.7%	13.9%	13.3%	14.3%	15.2%	14.8%	14.1%	13.7%	11.5%	12.4%
Change since 2010	Point change since 2010	3.3%	3.3%	2.6%	2.8%	6.1%	5.6%	3.3%	4.6%	4.3%	4.2%

Source: US Census Bureau, 2010: ACS 5-Year Estimates Subject Tables; 2020: ACS 5-Year Estimates Subject Tables.