

Local Analysis of Selected Health Indicators in Connecticut

Results from the 2011-2015 Connecticut Behavioral Risk Factor Surveillance Survey (BRFSS)

May, 2017



Connecticut Department of Public Health
410 Capitol Avenue,
PO Box 340308, Hartford, CT 06134
www.ct.gov/dph/BRFSS



Raul Pino, MD, MPH
Commissioner





Acknowledgements

Raul Pino, MD, MPH
Commissioner
Connecticut Department of Public Health

Janet Brancifort, MPH
Deputy Commissioner
Connecticut Department of Public Health

Diane Aye, MPH, PhD
CT BRFSS Project Director
Section Chief, Health Statistics and Surveillance
Connecticut Department of Public Health

Carol L. Stone, PhD, MPH, MA, MAS
CT BRFSS Project Coordinator/Principal Investigator
Supervising Epidemiologist, Health Statistics and Surveillance
Connecticut Department of Public Health

Randy ZuWallack, MS
Analyst, ICF International, Inc,
Burlington, Vermont

Gary Archambault, MS
Supervising Epidemiologist, Environmental and Occupational Health
Connecticut Department of Public Health

Xi Zheng, MPH, MS
Epidemiologist, Health Statistics and Surveillance
Connecticut Department of Public Health

Amy Smart, MS
CDC Public Health Associate, Health Statistics and Surveillance
Connecticut Department of Public Health



The CT BRFSS team acknowledges with gratitude the time contributed by over 43,000 citizen volunteers within the State of Connecticut who responded anonymously to the survey during the 2011 to 2015 calendar years. The results presented in this report would not be possible without their participation.



The authors are grateful for feedback within the Connecticut Department of Public Health from Marie-Christin Bournaki, Marianne Buchelli, Mehul Dalal, Maura Downes, Mario Garcia, Monica Jensen, Cindy Kozak, Kathy Kudish, Susan Logan, Lisa McCooey, Christine Parker, Justin Peng, Stephanie Poulin, Dawn Sorosiak, and Barbara Walsh within the Connecticut Department of Public Health. The authors are also grateful for feedback from local health directors within the State, who provided input during development of this report, and especially Leslie Balch, Quinnipiac Valley Health District, Patrick McCormack, Uncas Health District, and Susan Starkey, Northeast Health District. Feedback from Olga Armah, Office of Health Care Access, and Janet Storey, Connecticut Department of Mental Health and Addictions Services are also kindly acknowledged.

This project was supported by the Connecticut Preventive Health and Health Services Block Grant (grant number B01-DP009008), and by Funding Opportunity Number CMS-1G1-14-001 from the U.S. Department of Health and Human Services (HHS), Centers for Medicare and Medicaid Services. The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of HHS or any of its agencies.

Work by C. Stone was supported by the Connecticut State Title V Maternal and Child Health Block Grant (grant number B04MC25330), the Connecticut Behavioral Risk Factor Surveillance System (grant number 5U58SO000003), and the Connecticut Preventive Health and Health Services Block Grant (grant number B01-DP009008). Work on this project by Ms. Xi Zheng was supported by the Connecticut State Innovations Model (SIM) grant.

For questions or comments about this report, please contact:

Carol L. Stone, PhD, MPH, MA, MAS
Supervising Epidemiologist
Health Statistics and Surveillance Section
Connecticut Department of Public Health
Hartford, Connecticut, 06106

Carol.Stone@ct.gov (860-509-7147)

Find more BRFSS factsheets, reports and publications on the Connecticut Department of Public Health BRFSS webpage: <http://www.ct.gov/dph/BRFSS>.

Suggested citation:

Stone, CL, ZuWallack, R, Archambault, G, Zheng, X, (2017) Local Analysis of Selected Health Indicators: Results of the 2011-2015 Behavioral Risk Factor Survey (<http://www.ct.gov/dph/BRFSS>).

Health and Surveillance Section, Connecticut Behavioral Risk Factor Surveillance System,
New, 4-1-17



Table of Contents

Contents

Acknowledgements.....	3
Table of Contents.....	5
Introduction and Methods.....	9
Table 1: Local Area Designations, Connecticut, 2011-2015, combined.....	13
Map 1: Local Area Designations, Connecticut, CT BRFSS, 2011 – 2015, combined.....	14
Description of Health Indicators	15
1. Local Area Priorities	17
Figure 1: Local Area Priority Areas, CT BRFSS, 2011-2015.....	17
2. Health Status Indicators.....	25
Good or Better General Health.....	25
Map 2: Good or Better General Health.....	26
Table 2: Good or Better General Health	27
Figure 2: Good or Better General Health in Bridgeport, New Haven, and Hartford	28
Good Physical Health	29
Map 3: Good Physical Health	30
Table 3: Good Physical Health	30
Figure 3: Good Physical Health in Bridgeport, New Haven, and Hartford.....	32
Good Mental Health	33
Map 4: Good Mental Health	34
Table 4: Good Mental Health.....	34
Figure 4: Good Mental Health in Bridgeport, New Haven, and Hartford	36
Healthy Weight (18.5 – 24.9 kg/m ² Body Mass Index)	37
Map 5: Healthy Weight (18.5 - 24.9 BMI, inclusive)	38
Table 5: Healthy Weight (18.5 - 24.9 BMI, inclusive).....	38
Figure 5: Healthy Weight (BMI 18.5 - 24.9, inclusive) in Bridgeport, New Haven, and Hartford	40
Current Health Care Coverage	41
Map 6: Current Health Care Coverage.....	42



Table 6: Current Health Care Coverage 43

Figure 6: Current Health Care Coverage in Bridgeport, New Haven, and Hartford..... 44

At Least One Personal Doctor 45

Map 7: At Least One Personal Doctor..... 46

Table 7: At Least One Personal Doctor 47

Figure 7: At Least One Personal Doctor in Bridgeport, New Haven, and Hartford..... 48

2. Health Risk Behaviors..... 49

No Leisure Time Physical Activity in Past Month..... 49

Map 8: No Leisure Time Physical Activity in Past Month..... 50

Table 8: No Leisure Time Physical Activity in Past Month 50

Figure 8: No Leisure Time Physical Activity in Past Month in Bridgeport, New Haven, and Hartford 52

Current Cigarette Smoking..... 53

Map 9: Current Cigarette Smoking 54

Table 9: Current Cigarette Smoking 55

Figure 9: Current Cigarette Smoking in Bridgeport, New Haven, and Hartford 56

Ever Used Hookah..... 57

Map 10: Ever Used Hookah..... 58

Table 10: Ever Used Hookah 58

Figure 10: Ever Used Hookah in Bridgeport, New Haven, and Hartford 60

Excessive Alcohol Consumption in Past Month 61

Map 11: Excessive Alcohol Consumption in Past Month..... 62

Table 11: Excessive Alcohol Consumption in Past Month 63

Figure 11: Excessive Alcohol Consumption in Past Month in 64

3. Health Protective Behaviors 65

Routine Check-up in Past Year 65

Map 12: Routine Check-up in Past Year..... 66

Table 12: Routine Checkup in Past Year 67

Figure 12: Routine Check-up in Past Year in Bridgeport, New Haven, and Hartford..... 68

Influenza Vaccination in Past Year 69

Map 13: Influenza Vaccination in Past Year..... 70

Table 13: Influenza Vaccination in Past Year 70

Figure 13: Influenza Vaccination in Past Year in Bridgeport, New Haven, and Hartford..... 72



Ever Had Pneumococcal Vaccination..... 73

 Map 14: Ever Had Pneumococcal Vaccination (65 years old and older) 74

 Table 14: Ever Had Pneumococcal Vaccination (65 years old and older)..... 75

 Figure 14: Ever Had Pneumococcal Vaccination (65 years old and older) in Bridgeport, New Haven, and Hartford..... 76

Ever Had Human Immunodeficiency Virus (HIV) Test 77

 Map 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old) 78

 Table 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old)..... 78

 Figure 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old) in Bridgeport, New Haven, and Hartford 80

4. Chronic Conditions..... 81

 Current Asthma..... 81

 Map 16: Current Asthma..... 82

 Table 16: Current Asthma 82

 Figure 16: Current Asthma in Bridgeport, New Haven, and Hartford 84

 Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD) 85

 Map 17: Ever Diagnosed with COPD 86

 Table 17: Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD) 87

 Figure 17: Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD) in Bridgeport, New Haven, and Hartford 88

 Ever Diagnosed with Arthritis 89

 Map 18: Ever Diagnosed with Arthritis 90

 Table 18: Ever Diagnosed with Arthritis 91

 Figure 18: Ever Diagnosed with Arthritis in Bridgeport, New Haven, and Hartford..... 92

 Ever Diagnosed with Diabetes 93

 Map 19: Ever Diagnosed with Diabetes 94

 Table 19: Ever Diagnosed with Diabetes..... 95

 Figure 19: Ever Diagnosed with Diabetes in Bridgeport, New Haven, and Hartford..... 96

 Ever Diagnosed with Depression 97

 Map 20: Ever Diagnosed with Depression 98

 Table 20: Ever Diagnosed with Depression..... 99

 Figure 20: Ever Diagnosed with Depression in Bridgeport, New Haven, and Hartford..... 100



Ever Diagnosed with Cardiovascular Disease (CVD) 101

 Map 21: Ever Diagnosed with Cardiovascular Disease (CVD) 102

 Table 21: Ever Diagnosed with Cardiovascular Disease (CVD)..... 103

 Figure 21: Ever Diagnosed with Cardiovascular Disease (CVD) in Bridgeport, New Haven, and
 Hartford..... 104

Appendix 1: Reweighting the 2011-2015 CT BRFSS Dataset 105

Appendix 2: Maps of Connecticut..... 119

 Connecticut Towns and Counties 119

 Connecticut Local Areas for Analysis 120

 Connecticut Local Health Districts, 2011 121

 Connecticut Local Health Districts, 2012 122

 Connecticut Local Health Districts, 2013 123

 Connecticut Local Health Districts, 2014 124

 Connecticut Local Health Districts, 2015 125

Endnotes 127



Introduction and Methods

The population for the Connecticut Behavioral Risk Factor Surveillance System (CT BRFSS) consists of the total non-institutionalized English and Spanish-speaking adult population residing in telephone-equipped dwelling units. The survey is voluntary and relies on citizen volunteers. From calendar years 2011 through 2015, combined, the CT BRFSS collected 32,118 landline interviews and 11,051 cell phone interviews, totaling 43,169 anonymous interviews. Of these, town of residence was available for 40,603 interviews. The landline sample was a disproportionate stratified random digit dial (RDD) sample, stratified by geography and listed status. Listed phone numbers were oversampled relative to unlisted numbers at a rate of 1.5 to 1. Within each contacted household, one adult was selected at random to be interviewed. The cell phone sample was an un-stratified RDD sample drawn from dedicated cellular telephone banks with equal probability. An adult contacted by cell phone was eligible to complete the survey if he or she lived in a private residence or college housing either without a landline present, or with a landline but with at least 90 percent of all calls received by cell phone.

Landline and cell phone data from each annual survey year from 2011 through 2015 were combined and weighted by CDC to adjust for differential selection probabilities. The weighted data were then adjusted to the distribution of the Connecticut adult population using iterative proportional fitting, or raking (https://www.cdc.gov/brfss/annual_data/2015/pdf/weighting_the_data_webpage_content.pdf). Raking adjustments were made by telephone type, race/ethnicity, education, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status. This weighting methodology was adopted by CDC in 2011 to accommodate the inclusion of cell phone interviews and to allow for adjustments to more demographics. As a result of these methodological changes, BRFSS data for 2011 and forward are not comparable to BRFSS data prior to 2011.

In response to requests by local health districts in previous years, the CT BRFSS oversampled in selected areas of the state and produced factsheets based on the state weights provided by CDC. These factsheets were produced using weights for state demographic characteristics, as described above. Factsheets using this methodology were produced for the following health districts: Northeast,¹ Eastern Highlands,² North Central,³ Ledge Light,⁴ Naugatuck Valley,⁵ and Torrington Area.⁶ This methodology made the best use of the data available for a survey of modest sample size but produced biased estimates when the local demographics differed significantly from that of the state.



The sample size for the CT BRFSS was increased starting in the 2015 survey year because of increased funding from two grant sources. The Preventive Health and Health Services Block Grant (<https://www.cdc.gov/phhsblockgrant/index.htm>) and Connecticut State Innovations Model grant (SIM; <http://healthreform.ct.gov/ohri/site/default.asp>), both partially funded by the Affordable Care Act (<https://www.hhs.gov/sites/default/files/ppacacon.pdf>), allowed for an increased CT BRFSS sample size from an anticipated 6,700 interviews to over 10,000 interviews. The increased sample size for the CT BRFSS made possible for the first time development of a methodology for the survey that reweights the data specifically to the demographic characteristics of each local area.⁷ It was determined that this methodology would work best with a sample size of responses for each local area that numbered at least 500 interviews. In the future we plan to compare this methodology with the methodology used in the 500 Cities project. The 500 Cities project is a collaboration between CDC, the Robert Wood Johnson Foundation, and the CDC Foundation. <https://www.cdc.gov/500cities/>.

This report describes the results of a reweighting methodology described above on a combined dataset of CT BRFSS data from years 2011 through 2015 to generate local area estimates for all towns or town groupings in Connecticut. The results provide valuable information for local health districts as they prepare community needs assessments and work toward public health accreditation (<http://www.phaboard.org>). The results will also inform public health interventions from state programs within the Connecticut Department of Public Health, and will inform activities of the Connecticut SIM grant.

A set of 53 local area designations were produced from the 169 towns in Connecticut (**Table 1** and **Map 1**). If the town sample size for the combined CT BRFSS dataset from 2011 through 2015 was at least 500 ($n=500$), the town alone represented its own local area. Towns with a sample size less than 500 were combined in collaboration with local health directors so that town groupings were roughly similar in demographic characteristics, and, to the degree possible, contiguous. Although the towns of Greenwich and Windham had a sample size less than 500, there were no comparable surrounding towns to which the towns could be combined, and they were maintained as separate local areas. For the same reason, several other local areas contain towns that are not contiguous. In this case, towns were grouped into local areas of similar economic and demographic development in the state, or Health Reference Groups.⁸

The combined dataset for 2011 through 2015 was reweighted to the adult population of each local area as described,⁷ and more details about the reweighting process for this dataset is found in the **Appendix**. Each health indicator offered annually in the 2011 through 2015 BRFSS surveys was analyzed for a set of 53 locales. Any responses of “Not Known/Not sure” or “Refused” were classified as missing.



A **prevalence estimate** in the population, shown as a percent (%), is a measure of the risk or protection that exists in the population. A high prevalence for negative health indicators, such as risk behaviors and chronic conditions, indicates that the risk is high in the population. A high prevalence for positive health indicators, such as health status and clinical protective behaviors, is indicative of good health. This report shows percent prevalence estimates for each of 53 local areas within Connecticut, and is a measure in the population, regardless of the population's demographics, such as age, sex, race/ethnicity. For instance, towns in Connecticut with a high concentration of older residents will tend to have a higher risk of cancer or arthritis, and areas with a high concentration of younger residents will tend to have a high prevalence of risk behaviors, such as cigarette smoking and a low prevalence of having had a medical well-visit in the past year. Prevalence estimates, with 95% confidence intervals, are shown in this report, and were computed using SAS PROC SURVEYFREQ, which can properly compute variances for complex sampling plans. Some prevalence estimates are reported as positive indicators (Health Status and Health Protective Behaviors), while other prevalence estimates are reported as negative indicators (Health Risk Behaviors and Chronic Conditions). An approximate number of affected adults in each local area can be calculated by multiplying the prevalence estimate by the weighted population in that local area (**Table 1**).

The **coefficient of variation (CV)** for a prevalence estimate is computed as the standard error of the estimate divided by the estimate, and provides a measure of the degree of strength to a prevalence estimate. If the sample size for a prevalence estimate is very low, or if there is a lot of variation in responses that generate the prevalence estimate, then the CV will be high and we will be cautious about the estimate. Conversely, if the sample size for generating a prevalence estimate is high, or if there is little variation in responses, then the CV will be low, indicating that the estimate has high validity and is, therefore, an estimate about which we can be very confident. Generally, reports produced for the CT BRFSS suppress prevalence estimates if the CV is at least 0.15 so that only estimates with the strongest validity are reported.^{9,10,11,12} In this report, we made every effort to produce a prevalence estimate for all local areas, even if the CV was higher than the traditional cut-off. Prevalence estimates with a CV of between 0.15 and 0.20, inclusive, are higher than that generally shown in CT BRFSS reports, and are marked in this report with a single asterisk (*). Prevalence estimates with a CV between 20.1% and 30%, inclusive, are rounded to the nearest five percent, are shown without a confidence interval, and are marked with two asterisks (**) to indicate that caution should be exercised when interpreting these estimates. Prevalence estimates with a CV greater than 30% are suppressed in this report due to poor validity.



Discussion in this report of **significance** reflects statistically significant increases or decreases. All significance testing was conducted using a one-tailed, two-population binomial test for significantly better or worse risk/protection or prevalence ($p < .05$). State maps were created to reflect the percent prevalence of annual core indicators within local areas, as follows:

	Significantly worse than the statewide percent prevalence ($p < 0.05$)		Better than the statewide percent prevalence, but either not statistically significant or testing is not possible
	Worse than the statewide percent prevalence, but either not statistically significant or testing is not possible		Significantly better than the statewide percent prevalence ($p < 0.05$)

In addition, percent prevalence by age and race was conducted in the three local areas with a sample size of at least 1,500, and included local areas 1, 2, and 3, representing the towns of Bridgeport ($n=2,499$), New Haven ($n=1,888$) and Hartford ($n=1,552$), respectively. For each of the towns, percent prevalence values were estimated by three age groups (18-34 years old, 35-64 years old, and 65 years old and older), and by four race/ethnic group (non-Hispanic White, non-Hispanic Black/African American, non-Hispanic Other/Multiple, and Hispanic/Latino). Percent prevalence estimates for the non-Hispanic Other/Multiple race/ethnic group were inconsistent due to a small sample size and were, therefore, not reported in this document.

For more information about the CT BRFSS, please go to <http://www.ct.gov/dph/BRFSS>.



Table 1: Local Area Designations, Connecticut, 2011-2015, combined

Local Area	Towns	Sample Size (n) ¹	Adult Weighted Population Size (N) ²
1	Bridgeport	2,499	105,000
2	New Haven	1,888	90,000
3	Hartford	1,552	85,000
4	Fairfield	1,226	40,000
5	East Windsor, Ellington, Enfield, Somers, Suffield, Windsor Locks	1,031	80,000
6	Manchester, Vernon	951	70,000
7	Bridgewater, Brookfield, New Fairfield, New Milford, Newtown, Roxbury, Sherman, Washington	937	70,000
8	Stamford	904	95,000
9	Meriden, Middletown	888	80,000
10	Hamden	866	45,000
11	Darien, New Canaan, Weston, Westport, Wilton	854	65,000
12	Groton, New London	842	45,000
13	Chester, Colchester, Durham, East Haddam, East Hampton, Haddam, Hebron, Marlborough, Middlefield, Portland	920	65,000
14	Killingly, Plainfield, Putnam, Sterling, Thompson	826	40,000
15	Newington, Wethersfield	818	45,000
16	Ansonia, Derby, Naugatuck, Seymour	808	60,000
17	Easton, Redding, Ridgefield, Trumbull	800	55,000
18	North Haven, Wallingford	800	55,000
19	East Lyme, Ledyard, Waterford	795	40,000
20	Bethlehem, Canaan, Cornwall, Goshen, Harwinton, Kent, Litchfield, Middlebury, Morris, Norfolk, North Canaan, Salisbury, Sharon, Warren	758	40,000
21	Andover, Ashford, Bolton, Chaplin, Columbia, Coventry, Scotland, Tolland	733	40,000
22	West Hartford	725	45,000
23	Branford, East Haven, North Branford	699	55,000
24	Plainville, Southington, Wolcott	690	60,000
25	Bozrah, Lebanon, North Stonington, Salem, Stonington	508	30,000
26	Barkhamsted, Canton, Colebrook, East Granby, Granby, Hartland, New Hartford	688	30,000
27	Mansfield, Stafford, Willington	674	25,000
28	Bethany, Cheshire, Prospect, Woodbridge	674	40,000
29	Norwalk	673	70,000
30	East Hartford, South Windsor	663	60,000
31	Bethel, Cromwell, Glastonbury	658	50,000
32	Waterbury	640	80,000
33	Avon, Simsbury	619	30,000
34	Stratford	596	40,000
35	Monroe, Oxford, Southbury, Woodbury	584	45,000
36	Bristol	581	45,000
37	Beacon Falls, Shelton	572	35,000
38	Orange, West Haven	571	50,000

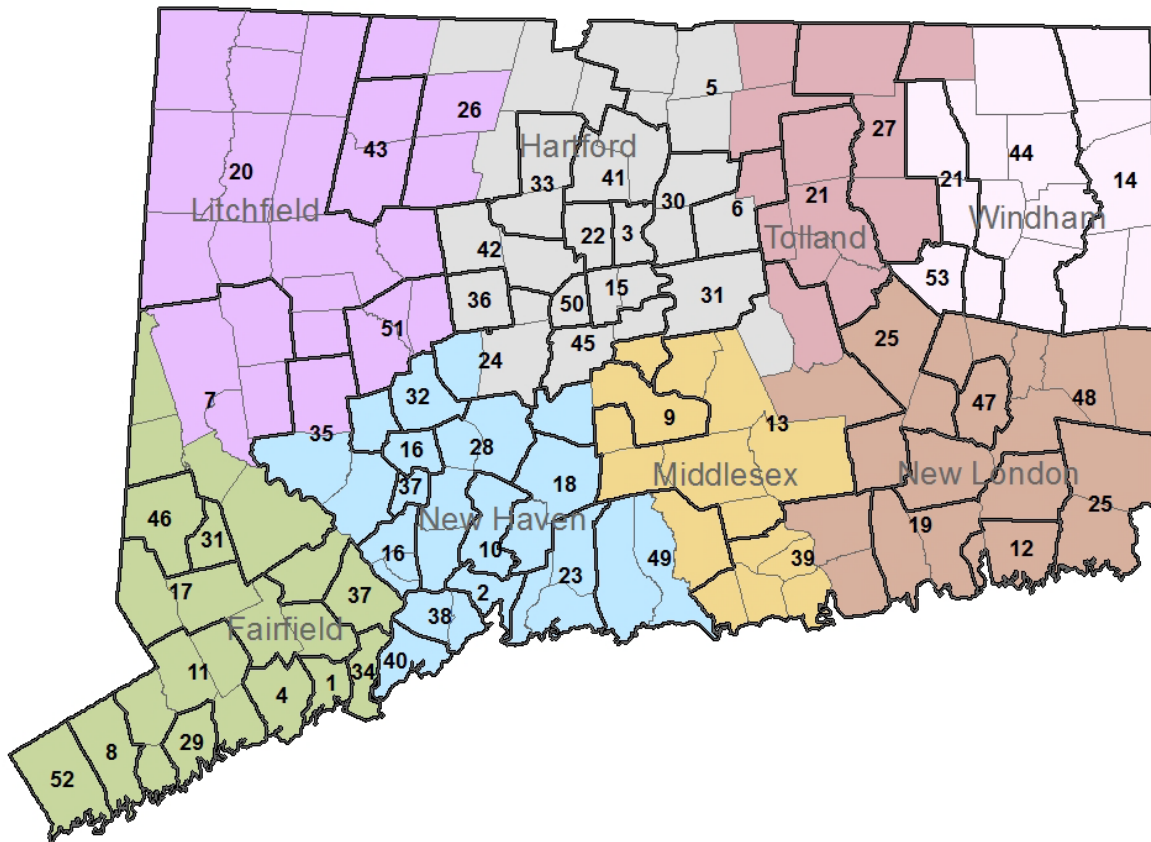


Local Area	Towns	Sample Size (n)	Adult Weighted Population Size (N)
39	Clinton, Deep River, Essex, Lyme, Old Lyme, Old Saybrook, Westbrook	570	40,000
40	Milford	564	40,000
41	Bloomfield, Windsor	561	40,000
42	Burlington, Farmington	558	25,000
43	Torrington, Winchester	553	35,000
44	Brooklyn, Canterbury, Eastford, Hampton, Pomfret, Union, Woodstock	530	20,000
45	Berlin, Rocky Hill	529	30,000
46	Danbury	528	60,000
47	Norwich	524	30,000
48	Franklin, Griswold, Lisbon, Montville, Preston, Sprague, Voluntown	695	35,000
49	Guilford, Killingworth, Madison	509	35,000
50	New Britain	492	55,000
51	Plymouth, Thomaston, Watertown	478	35,000
52	Greenwich	437	45,000
53	Windham	307	15,000

¹ – Sample size (n), number of respondents who participated in the CT BRFSS from 2011-2015, combined.

² – Weighted Adult (18 years old and older) Population Size (N), estimated size of the population, rounded to the nearest 5,000.

Map 1: Local Area Designations, Connecticut, CT BRFSS, 2011 – 2015, combined





Description of Health Indicators

Below is the list of health indicators that were analyzed for local areas of the state, and that appear within this report.

Health Status

Good or Better General Health - Responses of "Good," "Very Good," or "Excellent" to the question, "Would you say that in general your health is (Excellent, Very Good, Good, Fair, Poor)."

Good Physical Health - Responses of less than 14 days to the question, "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

Good Mental Health - Responses of less than 14 days to the question, "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your physical health not good?"

Healthy Weight - Responses of height and weight that, when body-mass index is calculated, is at least 18.5 but less than 25.0 kg/m².

Health Care Coverage - Positive responses to the question, "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, government plans such as Medicare, or Indian Health Service?"

At Least One Personal Doctor - Responses of "Yes, only one" or "More than one" to the question, "Do you have one person you think of as your personal doctor or health care provider?"

Health Risk Behaviors

No Leisurely Physical Activity in Past Month - Negative responses for the question, "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

Current Cigarette Smoking - Responses of smoking cigarettes every day or some days, among those who have smoked at least 100 cigarettes in their life.

Ever Used Hookah - Positive responses to the question, "A water pipe is called a hookah. Have you ever tried smoking tobacco from a hookah in your entire life, even one or two puffs."

Excessive Alcohol Consumption in Past Month - Responses that classify as either heavy drinking or binge drinking. Heavy drinking is defined as at least three drinks daily for men or at least two drinks daily for women. Binge drinking is defined as six or more drinks during one occasion or five or more drinks per occasion for women.

Health Preventive Behaviors

Routine Check-up in Past Year - Responses of "Within the past year" or "within the past 2 years" when asked, "About how long has it been since you last visited a doctor for a routine



checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition."

Influenza Vaccination in Past Year - Positive responses to the question, "During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose?"

Ever Had Pneumococcal Vaccination (65 years and older) - Positive responses to the question, "A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?"

Ever Had Human Immunodeficiency Virus (HIV) Test (18 to 64 years old) - Positive responses to the question, "Not counting tests you may have had as part of blood donation, have you ever been tested for HIV? Include testing fluid from your mouth."

Chronic Conditions

Current Asthma - Positive responses to the questions, "Has a doctor, nurse, or other health professional EVER told you that you had asthma?", and "Do you still have asthma?"

Ever Diagnosed with Arthritis - Positive responses to the question, "Has a doctor, nurse, or other health professional EVER told you that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?"

Ever Diagnosed with Diabetes - Positive responses to the question, "Has a doctor, nurse, or other health professional EVER told you that have diabetes?"

Ever Diagnosed with Depression - Positive response to the question, "Has a doctor, nurse, or other health professional EVER told you that have a depressive disorder (including depression, major depression, dysthymia, or minor depression?"

Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD) - Positive responses to the question, "Has a doctor, nurse, or other health professional EVER told you that you have COPD, emphysema, or chronic bronchitis?"

Ever Diagnosed with Cancer - Positive responses to the questions, "Has a doctor, nurse, or other health professional ever told you that had skin cancer?" or "Has a doctor, nurse, or other health professional ever told you that you had other types of cancer?"

Ever Diagnosed with Cardiovascular Disease (CVD) – Positive responses to any of these three questions: "Has a doctor, nurse, or other health profession ever told you that you had a heart attack, also called a myocardial infarction?"; "Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease?"; or "Has a doctor, nurse, or other health professional ever told you that you had a stroke?"



1. Local Area Priorities

The figures below summarize, for each of the four sections in this report, the degree to which each of the 52 local areas is significantly better than the state ($p < 0.05$; dark green), better than state but not significant (light green), worse than the state but not significant (orange), or significantly worse than the state ($p < 0.05$; red). Details about each health indicator shown in the figures is found within the body of this report.

Figure 1: Local Area Priority Areas, CT BRFSS, 2011-2015

Figure 1A: Health Status Priority Areas

Local Area	General Health	Physical Health	Mental Health	Healthy Weight	Health Care Coverage	Personal Doctor	
1	Red	Orange	Red	Red	Red	Red	Bridgeport
2	Red	Orange	Orange	Orange	Red	Red	New Haven
3	Red	Red	Red	Red	Red	Red	Hartford
4	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Fairfield
5	Dark Green	Orange	Orange	Orange	Light Green	Light Green	
6	Orange	Orange	Orange	Red	Orange	Red	
7	Dark Green	Orange	Light Green	Light Green	Dark Green	Dark Green	
8	Orange	Light Green	Light Green	Dark Green	Red	Red	
9	Red	Red	Red	Red	Orange	Orange	Meriden, Middletown
10	Light Green	Orange	Light Green	Orange	Light Green	Light Green	
11	Dark Green	Dark Green	Dark Green	Dark Green	na	Dark Green	Darien, New Canaan, Weston, Westport, Wilton
12	Orange	Orange	Red	Light Green	Orange	Orange	
13	Dark Green	Light Green	Light Green	Light Green	Light Green	Dark Green	
14	Red	Red	Orange	Red	Light Green	Orange	Killingly, Plainfield, Putnam, Sterling, Thompson
15	Dark Green	Orange	Light Green	Light Green	Light Green	Dark Green	
16	Orange	Orange	Red	Orange	Light Green	Light Green	
17	Dark Green	Dark Green	Dark Green	Dark Green	Light Green	Dark Green	Trumbull, Easton, Redding, Ridgefield
18	Light Green	Orange	Light Green	Orange	Light Green	Dark Green	
19	Dark Green	Light Green	Light Green	Light Green	Light Green	Dark Green	
20	Dark Green	Light Green	Light Green	Light Green	Light Green	Light Green	
21	Dark Green	Orange	Light Green	Orange	Light Green	Dark Green	
22	Dark Green	Dark Green	Light Green	Dark Green	Light Green	Light Green	West Hartford
23	Orange	Orange	Orange	Light Green	Light Green	Light Green	
24	Light Green	Orange	Light Green	Orange	Light Green	Dark Green	
25	Light Green	Orange	Light Green	Light Green	Light Green	Light Green	



Local Area	General Health	Physical Health	Mental Health	Healthy Weight	Health Care Coverage	Personal Doctor	
26	Green	Green	Green	Green	Green	Green	
27	Green	Orange	Green	Green	Green	Orange	
28	Green	Orange	Green	Green	Green	Green	
29	Orange	Orange	Green	Orange	Red	Red	
30	Orange	Green	Green	Orange	Green	Green	
31	Green	Green	Green	Green	Green	Green	Bethel, Cromwell, Glastonbury
32	Red	Red	Red	Red	Red	Red	Waterbury
33	Green	Orange	Green	Green	Green	Green	Avon, Simsbury
34	Green	Orange	Green	Orange	Orange	Green	
35	Green	Orange	Green	Green	Green	Green	
36	Orange	Orange	Orange	Orange	Orange	Green	
37	Green	Orange	Green	Orange	Green	Green	
38	Green	Orange	Red	Red	Orange	Orange	
39	Green	Orange	Green	Green	Green	Green	
40	Green	Orange	Orange	Green	Green	Green	
41	Green	Green	Green	Orange	Green	Green	
42	Green	Orange	Green	Green	Green	Green	Burlington, Farmington
43	Red	Red	Orange	Orange	Orange	Orange	
44	Green	Green	Green	Green	Green	Green	
45	Green	Green	Orange	Green	Green	Green	
46	Green	Orange	Orange	Green	Red	Red	
47	Orange	Orange	Orange	Red	Orange	Orange	
48	Green	Orange	Green	Red	Green	Green	
49	Green	Orange	Green	Green	na	Green	
50	Red	Red	Red	Red	Orange	Red	New Britain
51	Orange	Orange	Orange	Green	Orange	Green	
52	Green	Green	Green	Green	na	Green	Greenwich
53	Red	Red	Orange	Orange	Orange	Red	Windham

na – not available, data suppressed due to low validity.

Among the six health status indicators evaluated in this report, eight local areas were significantly better than the state for at least three of the indicators. These local areas were: 4 - Fairfield; 11 – Darien, New Canaan, Weston, Westport, and Wilton, combined; 17 – Trumbull, Easton, Redding/Georgetown, and Ridgefield, combined; 22 – West Hartford; 31 – Bethel, Cromwell, and Glastonbury, combined; 33 – Avon and Simsbury, combined; 42 – Burlington and Farmington, combined; and 52 – Greenwich.

Among the six health status indicators, eight other local areas were significantly worse than the state for at least three indicators. These local areas were: 1 – Bridgeport; 2 – New Haven; 3 – Hartford; 9 – Meriden and Middletown, combined; 14 - Killingly, Plainfield, Putnam, Sterling, and Thompson, combined; 32 – Waterbury; 50 – New Britain; and 53 – Windham.



Figure 1B: Risk Behaviors Priority Areas

Local Area	Leisure Activity	Cigarette Smoking	Hookah Use	Alcohol Consumption	
1	Red	Red	Orange	Green	Bridgeport
2	Orange	Red	Orange	Light Green	
3	Red	Red	Light Green	Light Green	Hartford
4	Green	Green	Orange	Orange	Fairfield
5	Orange	Orange	Light Green	Orange	
6	Light Green	Red	Light Green	Light Green	
7	Green	Light Green	Orange	Red	
8	Orange	Light Green	Red	Orange	
9	Orange	Red	Orange	Orange	
10	Light Green	Green	Light Green	Light Green	
11	Green	Green	Orange	Red	Darien, New Canaan, Weston, Westport, Wilton
12	Red	Red	Orange	Light Green	Groton, New London
13	Light Green	Green	Light Green	Orange	
14	Orange	Red	Light Green	Orange	
15	Light Green	Green	Light Green	Light Green	
16	Red	Red	Light Green	Light Green	Ansonia, Derby, Naugatuck, Seymour
17	Green	Green	Orange	Orange	Easton, Redding, Ridgefield, Trumbull
18	Light Green	Light Green	Light Green	Light Green	
19	Green	Green	Light Green	Green	East Lyme, Ledyard, Waterford
20	Light Green	Light Green	Light Green	Light Green	
21	Green	Green	Light Green	Orange	Andover, Ashford, Bolton, Chaplin, Columbia, Coventry, Tolland, Scotland
22	Green	Green	Orange	Light Green	West Hartford
23	Orange	Orange	Orange	Orange	
24	Orange	Orange	Light Green	Orange	
25	Green	Light Green	Light Green	Orange	
26	Green	Green	Light Green	Light Green	Barkhamsted, Canton, Colebrook, East Granby, Granby, Hartland, New Hartford
27	Light Green	Light Green	Red	Orange	
28	Green	Green	Orange	Orange	Bethany, Cheshire, Prospect, Woodbridge
29	Orange	Light Green	Orange	Light Green	
30	Orange	Light Green	Light Green	Light Green	
31	Green	Green	Orange	Orange	Bethel, Cromwell, Glastonbury
32	Red	Red	Light Green	Light Green	Waterbury
33	Green	Green	Light Green	Orange	Avon, Simsbury
35	Green	Light Green	Light Green	Light Green	
36	Red	Orange	Light Green	Orange	



Local Area	Leisure Activity	Cigarette Smoking	Hookah Use	Alcohol Consumption
37	Orange	Light Green	Light Green	Light Green
38	Red	Orange	Light Green	Light Green
39	Dark Green	Light Green	Light Green	Orange
40	Dark Green	Orange	Orange	Orange
41	Dark Green	Light Green	Light Green	Dark Green
42	Dark Green	Light Green	Light Green	Orange
43	Orange	Red	Light Green	Light Green
44	Light Green	Orange	Orange	Light Green
45	Light Green	Light Green	Orange	Light Green
46	Orange	Orange	Orange	Orange
47	Orange	Red	Light Green	Light Green
48	Orange	Light Green	Light Green	Red
49	Dark Green	Light Green	Orange	Orange
50	Red	Orange	Orange	Light Green
51	Orange	Red	Light Green	Orange
52	Dark Green	Light Green	Orange	Orange
53	Orange	Orange	Light Green	Light Green

Bloomfield, Windsor

Among the four risk behavior indicators evaluated in this report, 11 local areas were significantly better than the state for at least two of the indicators. These local areas were: 3 – Fairfield; 11 – Darien, New Canaan, Weston, Westport, and Wilton, combined; 17 – Easton, Redding, Ridgefield, Trumbull, combined; 19 – East Lyme, Ledyard, and Waterford, combined; 21 – Andover, Ashford, Bolton, Chaplin, Columbia, Coventry, Tolland, and Scotland, combined; 22 – West Hartford; 26 – Barkhamsted, Canton, Colebrook, East Granby, Granby, Hartland, and New Hartford, combined; 28 – Bethany, Cheshire, Prospect, and Woodbridge, combined; 31 – Bethel, Cromwell, and Glastonbury, combined; 33 – Avon and Simsbury, combined; and 41 – Bloomfield and Windsor, combined.

Among the four risk behavior indicators evaluated in this report, five local areas were significantly worse than the state in at least two of the indicators. These local areas were: 1 – Bridgeport; 3 – Hartford; 16 – Ansonia, Derby, Naugatuck, and Seymour, combined; 12 – Groton and New London, combined; and 32 – Waterbury.



Figure 1C: Preventive Behavior Priority Areas

Local Area	Medical Well-Visit	Influenza Vaccination	Pneumococcal Vaccination (65+ yrs)	HIV/AIDS Test (18-64 yrs)	
1	Orange	Red	Red	Green	Bridgeport New Haven
2	Orange	Red	Red	Green	
3	Orange	Red	Orange	Green	
4	Orange	Light Green	Light Green	Light Green	
5	Light Green	Orange	Light Green	Orange	
6	Orange	Orange	Light Green	Light Green	
7	Light Green	Orange	Orange	Orange	
8	Orange	Orange	Orange	Light Green	
9	Light Green	Light Green	Orange	Green	
10	Light Green	Light Green	Light Green	Green	
11	Light Green	Light Green	Orange	Light Green	
12	Light Green	Orange	Light Green	Green	
13	Orange	Green	Light Green	Red	
14	Orange	Light Green	Light Green	Orange	
15	Light Green	Green	Light Green	Orange	
16	Orange	Red	Orange	Orange	
17	Light Green	Green	Light Green	Orange	
18	Light Green	Light Green	Orange	Orange	
19	Green	Green	Green	Orange	East Lyme, Ledyard, Waterford
20	Light Green	Light Green	Light Green	Red	
21	Light Green	Light Green	Orange	Red	
22	Light Green	Green	Light Green	Orange	
23	Orange	Light Green	Orange	Orange	
24	Light Green	Light Green	Light Green	Red	
25	Light Green	Light Green	Orange	Red	
26	Orange	Light Green	Light Green	Orange	
27	Light Green	Light Green	Orange	Orange	
28	Light Green	Light Green	Green	Orange	
29	Orange	Orange	Orange	Light Green	
30	Orange	Light Green	Light Green	Light Green	
31	Light Green	Light Green	Light Green	Red	
32	Orange	Red	Orange	Green	
33	Light Green	Green	Light Green	Orange	
34	Light Green	Orange	Light Green	Light Green	
35	Light Green	Light Green	Light Green	Orange	
36	Orange	Orange	Orange	Orange	
37	Light Green	Light Green	Light Green	Red	
38	Light Green	Orange	Orange	Green	
39	Light Green	Green	Light Green	Orange	



Local Area	Medical Well-Visit	Influenza Vaccination	Pneumococcal Vaccination (65+ yrs)	HIV/AIDS Test (18-64 yrs)
40	Light Green	Light Orange	Light Green	Light Orange
41	Light Green	Light Green	Light Orange	Light Green
42	Light Green	Light Green	Light Green	Light Orange
43	Light Orange	Light Orange	Light Green	Light Green
44	Light Green	Light Orange	Light Green	Light Orange
45	Light Green	Light Green	Light Orange	Red
46	Red	Light Orange	Light Orange	Light Green
47	Light Green	Light Orange	Light Orange	Light Green
48	Light Green	Light Orange	Light Orange	Red
49	Light Green	Dark Green	Light Orange	Light Orange
50	Light Orange	Light Green	Light Green	Dark Green
51	Light Orange	Light Orange	Light Green	Red
52	Light Green	Light Green	Light Green	Light Orange
53	Light Orange	Light Orange	Light Orange	Dark Green

Among the four preventive health indicators evaluated in this report, only one local area was significantly better than the state for at least two of the indicators. Local area 19, which includes the towns of East Lyme, Ledyard, and Waterford, combined, was significantly better than the state for obtaining a medical well-visit, getting the influenza vaccination, and getting the pneumococcal vaccination.

Among the four preventive health indicators evaluated in this report, two local areas were significantly worse than the state for at least two of the indicators. These local areas were 1 – Bridgeport, and 2 – New Haven, with a significantly lower prevalence of getting the influenza and pneumococcal vaccinations.



Local Area	Asthma	Arthritis	Diabetes	Depression	COPD	CVD	
1	Orange	Green	Orange	Orange	Orange	Orange	
2	Red	Green	Orange	Orange	Orange	Light Green	
3	Red	Light Green	Red	Red	Orange	Orange	Hartford
4	Green	Green	Green	Green	Light Green	Light Green	Fairfield
5	Light Green	Orange	Orange	Orange	Orange	Orange	
6	Orange	Orange	Light Green	Red	Red	Orange	Manchester, Vernon
7	Light Green	Orange	Green	Orange	Light Green	Light Green	
8	Green	Green	Light Green	Light Green	Light Green	Green	Stamford
9	Red	Orange	Orange	Red	Orange	Orange	Meriden, Middletown
10	Orange	Orange	Light Green	Orange	Light Green	Light Green	
11	Green	Light Green	Green	Light Green	Light Green	Light Green	Darien, new Canaan, Weston, Westport, Wilton
12	Orange	Light Green	Light Green	Red	Orange	Light Green	
13	Orange	Light Green	Green	Green	Light Green	Orange	Chester, Cholchester, Durham, East Haddam, East Hampton, Haddam, Hebron, Marlborough, Middlefield, Portland
14	Orange	Red	Red	Orange	Red	Orange	Killingly, Plainfield, Putnam, Sterling, Thompson
15	Light Green	Orange	Light Green	Light Green	Light Green	Orange	
16	Orange	Orange	Red	Light Green	Light Green	Orange	
17	Green	Light Green	Green	Green	Light Green	Light Green	Easton, Redding, Ridgefield, Trumbull
18	Light Green	Light Green	Orange	Light Green	Light Green	Light Green	
19	Orange	Red	Light Green	Light Green	Orange	Orange	
20	Light Green	Orange	Light Green	Light Green	Light Green	Light Green	
21	Orange	Light Green	Light Green	Orange	Light Green	Light Green	
22	Light Green	Light Green	Green	Light Green	Light Green	Light Green	
23	Light Green	Red	Orange	Orange	Orange	Orange	
24	Orange	Orange	Light Green	Orange	Light Green	Orange	
25	Light Green	Orange	Light Green	Light Green	Light Green	Light Green	
26	Orange	Orange	Light Green	Light Green	Light Green	Light Green	
27	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green	
28	Green	Light Green	Light Green	Light Green	Light Green	Light Green	
29	Light Green	Green	Orange	Green	Light Green	Light Green	Norwalk
30	Orange	Light Green	Orange	Light Green	Orange	Light Green	
31	Light Green	Light Green	Green	Light Green	Light Green	Light Green	
32	Orange	Orange	Red	Red	Orange	Orange	Waterbury
33	Light Green	Light Green	Light Green	Light Green	Light Green	Green	



Local Area	Asthma	Arthritis	Diabetes	Depression	COPD	CVD
34	Green	Orange	Green	Green	Green	Green
35	Green	Orange	Green	Green	Green	Orange
36	Orange	Orange	Orange	Red	Orange	Green
37	Green	Red	Green	Orange	Green	Orange
38	Orange	Orange	Orange	Green	Orange	Orange
39	Green	Orange	Dark Green	Green	Green	Green
40	Green	Orange	Green	Orange	Orange	Green
41	Orange	Orange	Red	Green	Green	Green
42	Green	Green	Green	Green	Green	Green
43	Green	Red	Orange	Red	Orange	Orange
44	Orange	Orange	Orange	Orange	Orange	Orange
45	Orange	Green	Green	Green	Green	Green
46	Orange	Green	Orange	Green	Orange	Dark Green
47	Orange	Orange	Orange	Orange	Red	Orange
48	Orange	Orange	Orange	Orange	Red	Green
49	Green	Orange	Green	Green	na	Orange
50	Orange	Green	Orange	Red	Orange	Orange
51	Orange	Orange	Orange	Orange	Green	Green
52	Green	Dark Green	Green	Green	Green	Green
53	Orange	Orange	Orange	Red	Green	Green

Torrington, Winchester

na – not available, data suppressed due to low validity.

Among the seven chronic disease indicators evaluated in this report, six local areas were significantly better than the state for at least two of the indicators. These local areas were: 4– Fairfield; 8 – Stamford; 11 – Darien, New Canaan, Weston, Westport, and Wilton, combined; 13 – Chester, Colchester, Durham, East Haddam, East Hampton, Haddam, Hebron, Marlborough, Middlefield, and Portland, combined; 17 – Easton, Redding, Ridgefield, and Trumbull, combined; and 29 – Norwalk.

Among the seven chronic disease indicators evaluated in this report, six local areas were significantly worse than the state for at least two of the indicators. These local areas were: 3 – Hartford; 6 – Manchester and Vernon, combined; 9 – Meriden and Middletown, combined; 14 – Killingly, Plainfield, Putnam, Sterling, and Thompson, combined; 32 – Waterbury; and 43 – Torrington and Winchester, combined.



2. Health Status Indicators

Good or Better General Health

General self-rated health status is used in many public surveys because of its strong association with mortality,¹³ and its high level of both validity and reliability. In Connecticut during 2013, adults with adverse experiences in childhood were at significantly greater risk of poor or fair general health.¹⁴ Respondents to the CT BRFSS are asked to rate their own general health as excellent, very good, good, fair or poor. In Connecticut during 2015, the state ranked better than most states in the country for its prevalence of adult residents who reported good or better general health,⁹ though within the state during that year, the risk of fair or poor health was greatest among older adults, minority race/ethnic groups, adults with lower income and educational levels, and adults without insurance. Notably, adults with a disability were at risk of fair or poor health that was nearly six times greater than their counterparts without a disability.

The prevalence of adults from 2011-2015, combined, who had good, very good, or excellent health is shown in **Map 2** and **Table 2**, by local area.

In Connecticut during 2011-2015, combined, 85.6% (95% CI: 85.2% – 86.1%) of adult residents reported being in good or better general health. Across the state, the prevalence of good or better general health varied from a low of 72.7% (68.4% - 77.0%) in local area 32: Waterbury, to a high of 94.3% (92.3% - 96.2%) in local area 11: Darien, New Canaan, Weston, Westport, and Wilton. Compared to this statewide prevalence of good or better general health, the percent prevalence was significantly better in 19 of 53 local areas of the state. The prevalence was significantly worse in nine local areas, and among these areas, the worst prevalence of good or better health occurred in local areas 50, 3, and 32, affecting the towns of New Britain, Hartford, and Waterbury.

Percent prevalence estimates of good or better general health by age and race/ethnicity are shown for local area 1: Bridgeport, local area 2: New Haven, and local area 3: Hartford in **Figure 2**. Compared to the overall statewide prevalence, the prevalence of good or better health was significantly worse for:

- Adults at least 45 years old in Bridgeport, Hartford, and New Haven;
- Non-Hispanic Black/African American and Hispanic/Latino adults in all three towns; and
- Non-Hispanic White adults in the Town of Bridgeport.



Map 2: Good or Better General Health
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

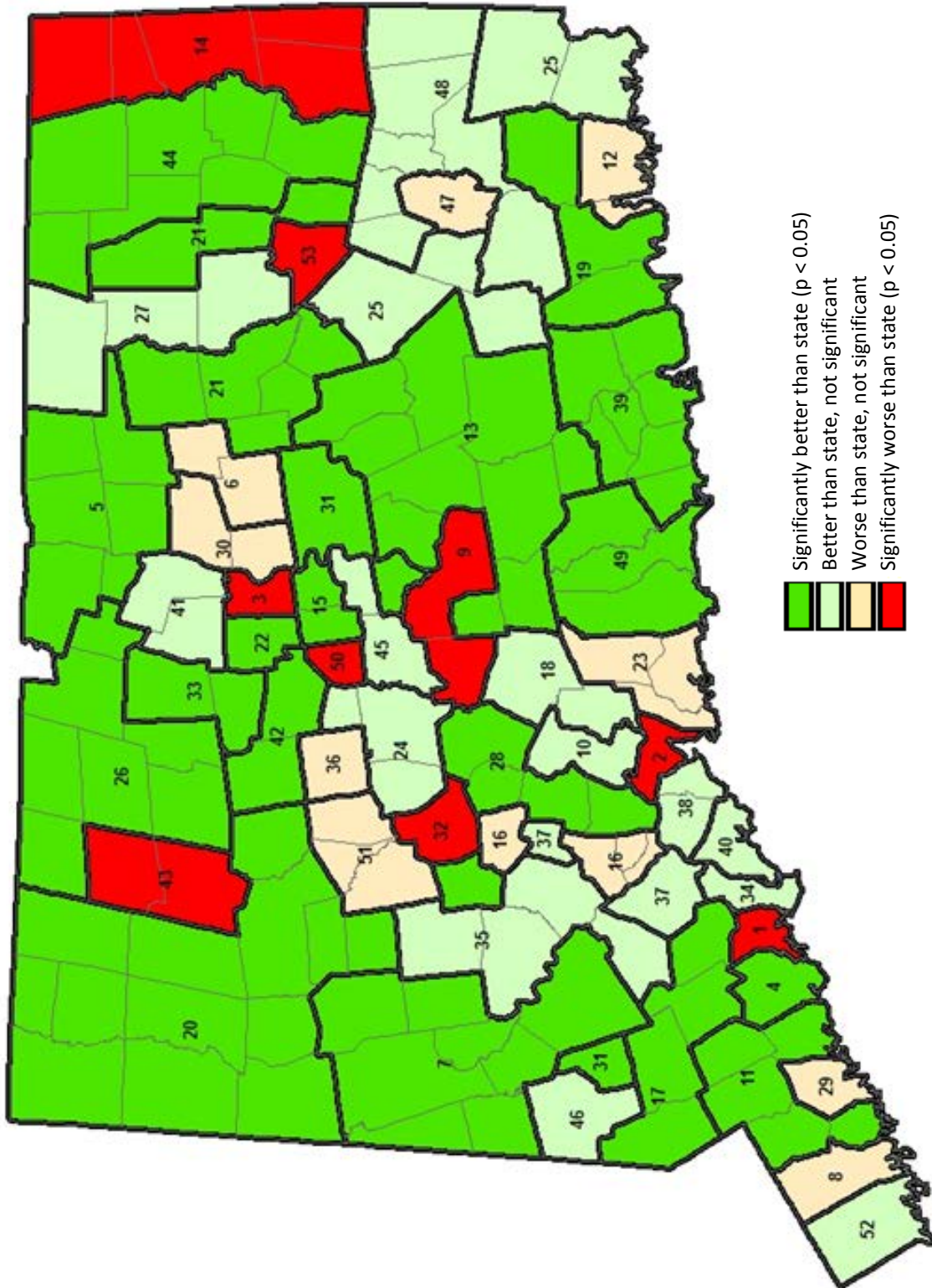




Table 2: Good or Better General Health
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
11 *	94.3	(92.3 - 96.2)
31	93.0	(91.0 - 95.1)
26 *	92.3	(89.4 - 95.2)
28	92.3	(90.1 - 94.6)
22 *	91.7	(89.1 - 94.2)
39 *	91.2	(88.4 - 94.0)
4	91.0	(88.7 - 93.2)
33	91.0	(88.4 - 93.5)
13	90.7	(88.3 - 93.0)
15	90.7	(88.3 - 93.0)
44 *	90.7	(87.5 - 93.8)
49 *	90.7	(87.2 - 94.2)
7	90.5	(88.1 - 92.8)
21 *	90.5	(87.7 - 93.4)
20	90.4	(87.7 - 93.1)
17 *	90.3	(87.2 - 93.3)
42 *	89.7	(86.3 - 93.1)
19	89.2	(86.5 - 91.9)
5	89.1	(86.9 - 91.3)
Better than State, not significant		
52 **	~95	
35	88.7	(85.5 - 92.0)
37 *	88.5	(84.9 - 92.2)
41 *	88.5	(84.8 - 92.2)
18	88.1	(85.2 - 90.9)
24	88.1	(85.3 - 90.9)
48	88.1	(85.0 - 91.1)
27	87.9	(84.4 - 91.4)
25 *	87.8	(84.0 - 91.5)
40	87.7	(84.5 - 91.0)
45 *	87.7	(83.8 - 91.6)
10	87.4	(83.9 - 90.9)
38	86.4	(82.9 - 90.0)
46	86.0	(82.6 - 89.4)
34	85.6	(81.6 - 89.6)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
30	85.3	(81.8 - 88.9)
8	85.2	(81.9 - 88.4)
51	85.2	(81.0 - 89.5)
6	85.0	(82.0 - 88.0)
23	84.9	(81.2 - 88.5)
16	84.1	(80.7 - 87.5)
36	84.1	(80.7 - 87.5)
29	83.8	(80.5 - 87.2)
47	83.4	(79.0 - 87.8)
12	83.0	(79.8, 86.3)

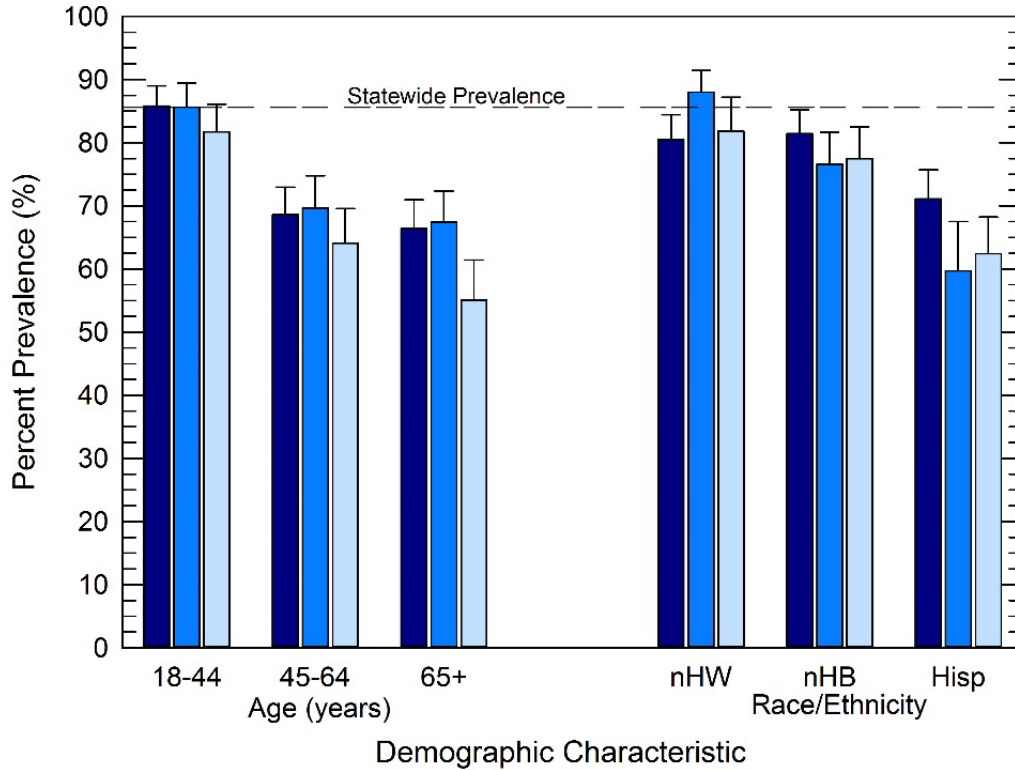
Significantly Worse than State ($p < 0.05$)		
14	81.1	(77.2 - 84.9)
9	80.4	(77.0 - 83.9)
43	80.4	(76.1 - 84.7)
2	78.9	(76.1 - 81.7)
1	78.1	(75.8 - 80.5)
53	77.7	(71.3 - 84.2)
50	76.8	(72.4 - 81.3)
3	72.9	(69.8 - 76.1)
32	72.7	(68.4 - 77.0)

* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 85.6% (95% CI: 85.2% - 86.1%)



Figure 2: Good or Better General Health in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	85.8	68.6	66.4	80.5	81.4	71.1
95% CI	(82.6-89.0)	(64.3-73.0)	(61.9-71.0)	(76.6-84.5)	(77.6-85.2)	(66.5-75.7)
Local Area 2: New Haven	85.6	69.6	67.4	88.0	76.6	59.7
95% CI	(81.7-89.4)	(64.5-74.8)	(62.5-72.4)	(84.6-91.4)	(71.6-81.7)	(51.9-67.5)
Local Area 3: Hartford	81.7	64.1	55.1	81.8*	77.5	62.4
95% CI	(77.3-86.1)	(58.7-69.6)	(48.8-61.4)	(76.4-87.2)	(72.5-82.5)	(56.6-68.3)

*(- 0.15 ≤ CV ≤ 0.20)

Good or better general health is related to quality of life,¹⁵ and public health interventions to reduce disparities in risk behaviors and increase healthy behaviors may help to reduce these disparities in self-reported health.



Good Physical Health

The “Healthy Days Measure” is used to assess health-related quality of life, and together with self-reported general health and good mental health, good physical health is indicative of a high level of quality of life.¹⁶ The Healthy Days Measure has been useful for identifying health disparities and tracking population trends.¹⁷ In Connecticut during 2015, the risk of poor physical health was significantly elevated among adults at least 55 years old, Hispanic/Latino adults, and adults with low income and a low level of educational attainment.⁹ Adults with disabilities were at nearly eight times greater risk for poor physical health.

In the CT BRFSS, this measure defines adults in good physical or mental health if they reported less than 14 days for which their physical or mental health was “not good” (within the past 30 days). The prevalence of adults who had poor physical health, by local area, is reported in **Map 3** and **Table 3**.

In Connecticut during 2011-2015, combined, 84.6% (95% CI: 84.2% – 85.2%) of adult residents were in good physical health. The prevalence of good physical health among local areas of the state varied from a low of 75.7% (70.9% - 80.5%) in local area 43: Torrington and Winchester, combined, to a high of 92.3% (90.2% - 94.3%) in local area 11: Darien, New Canaan, Weston, Westport, and Wilton, combined.

Compared to the statewide prevalence, the prevalence of good physical health was significantly better within six local areas of the state, and was significantly worse in seven local areas.

The prevalence values of good physical health in Bridgeport, New Haven, and Hartford are shown in **Figure 3**. Compared to the statewide prevalence of good or better physical health, the prevalence was significantly worse among:

- Adults at least 45 years old in Bridgeport, Hartford, and New Haven; and
- Hispanic/Latino adults in all three towns.



Map 3: Good Physical Health
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

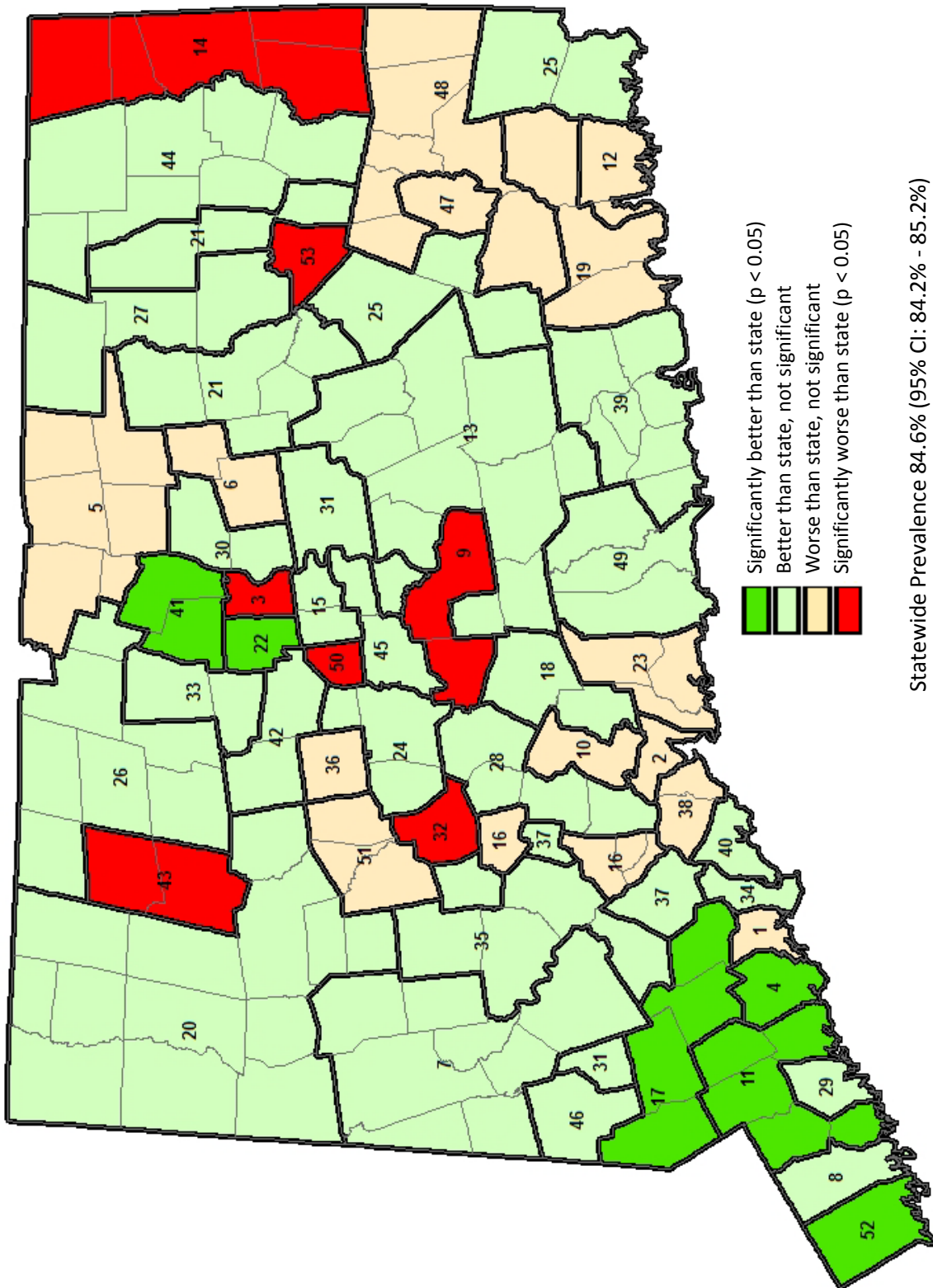




Table 3: Good Physical Health
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State (p < 0.05)		
11	92.3	(90.2 - 94.3)
52 *	90.9	(87.9 - 93.9)
17	89.2	(86.2 - 92.2)
22	89.2	(86.3 - 92.1)
41 *	89.1	(85.4 - 92.8)
4	88.5	(85.9 - 91.0)
Better than State, not significant		
45 *	89	(85.2 - 92.1)
44 *	88.2	(84.8 - 91.7)
26 *	87.8	(84.2 - 91.4)
30	87.8	(84.7 - 90.8)
20	87.6	(84.5 - 90.8)
31	87.6	(84.2 - 91.1)
8	87.4	(84.6 - 90.3)
13	87.4	(84.7 - 90.1)

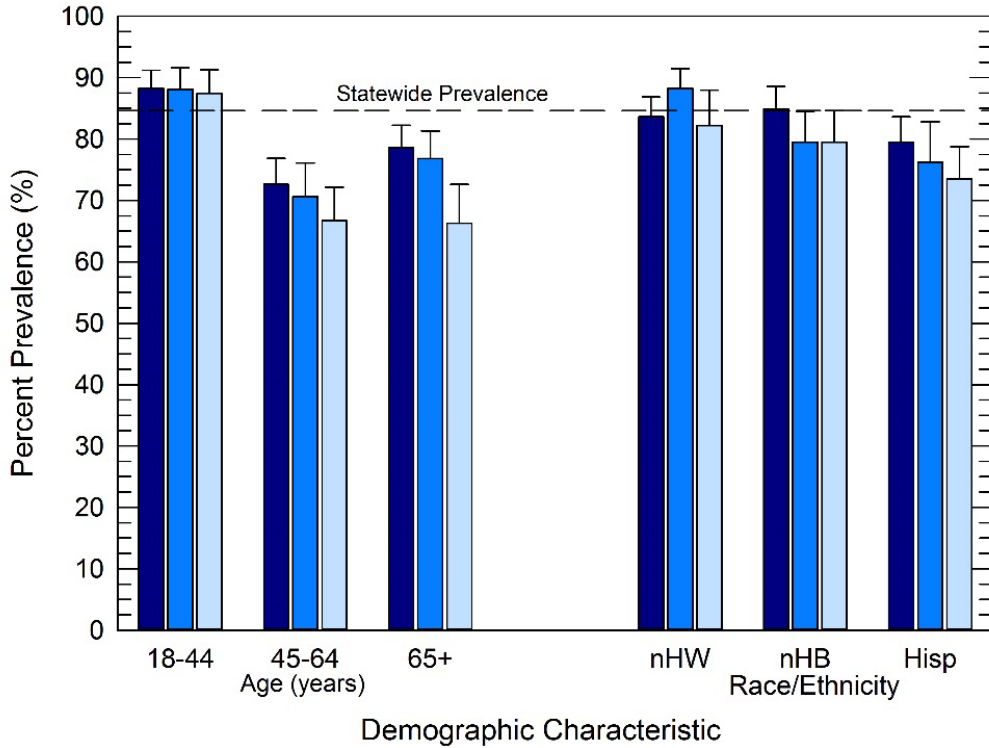
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
21	87.4	(84.2 - 90.6)
28	87.4	(84.1 - 90.7)
35	87.3	(83.9 - 90.7)
7	87.2	(84.6 - 89.8)
15	87.2	(84.2 - 90.2)
39	87.2	(83.9 - 90.5)
42	87.2	(83.7 - 90.7)
49	87.0	(83.2 - 90.8)
34	86.8	(83.1 - 90.5)
25	86.7	(82.9 - 90.5)
46	86.6	(83.1 - 90.2)
18	86.5	(83.3 - 89.7)
40	86.1	(82.9 - 89.4)
27	86.0	(82.3 - 89.8)
24	85.8	(82.7 - 88.9)
33	85.3	(81.6 - 89.0)
37	85.1	(81.0 - 89.1)
29	84.7	(81.2 - 88.2)
12	84.2	(81.0 - 87.4)
10	84.1	(80.2 - 88.1)
51	84.1	(79.9 - 88.3)
36	83.8	(80.2 - 78.3)
48	83.6	(79.8 - 87.4)
19	83.4	(80.0 - 86.9)
5	83.0	(79.9 - 86.0)
47	82.9	(78.5 - 87.3)
1	82.4	(80.2 - 84.6)
6	82.3	(78.9 - 85.7)
16	82.1	(78.7 - 85.6)
2	82.0	(79.4 - 84.7)
23	81.8	(77.9 - 85.6)
38	80.3	(75.7 - 84.9)
Significantly Worse than State (p < 0.05)		
14	80.1	(76.3 - 82.9)
9	79.1	(75.5 - 82.6)
3	78.5	(75.6 - 81.4)
32	78.2	(74.3 - 82.1)
53	76.8	(70.4 - 83.2)
50	76.6	(71.7 - 81.5)
43	75.7	(70.9 - 80.5)

* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 84.6% (95% CI: 84.2% - 85.2%)



Figure 3: Good Physical Health in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	88.2	72.6	78.6	83.6	84.9	79.5
95% CI	(85.2-91.2)	(68.3-76.8)	(75.0-82.3)	(80.4-86.9)	(81.2-88.5)	(75.4-83.6)
Local Area 2: New Haven	88.1	70.6	76.8	88.2	79.5	76.2
95% CI	(84.7-91.6)	(65.1-76.1)	(72.3-81.3)	(85.0-91.5)	(74.5-84.5)	(67.6-82.8)
Local Area 3: Hartford	87.4*	66.7	66.3	82.2*	79.5	73.5
95% CI	(83.6-91.3)	(61.3-72.2)	(60.0-72.6)	(76.4-87.9)	(74.3-84.6)	(68.2-78.7)

* (- 0.15 ≤ CV ≤ 0.20)

As described for good or better general health, self-reported measures of good physical health are related to quality of life, and interventions that increase healthy behaviors and reduce risky behaviors may improve quality of life.¹⁵



Good Mental Health

Combined with the measure of good physical health and good or better general health, good mental health is used for the Healthy Days Measure.^{16,17} The measure of good mental health is defined as adults who report less than 14 days in the past month for which their mental health was “not good.” In Connecticut during 2013, poor or fair mental health was significantly more likely among adults who experienced adverse events during childhood.¹⁴ In the state during 2015, the prevalence of good mental health was significantly worse among younger adults less than 54 years old, women, Hispanic/Latino adults, and adults with lower income and educational level. In addition, adults with a disability were at nearly five times greater risk of reporting poor mental health. The prevalence of adults in Connecticut during 2011-2015 who had good mental health is reported in **Map 4** and **Table 4**, by local area.

In Connecticut during 2011-2015, combined, 84.0% (95% CI: 83.5% – 84.6%) of adult residents were in good mental health. The prevalence of good mental health ranged from a low of 76.0% (71.9% - 90.1%) in local area 12: Groton/New London, to a high of 91.4% (89.2% - 93.7%) in local area 11: Darien, New Canaan, Weston, Westport, and Wilton, combined.

Compared to the statewide prevalence, the percent prevalence of good mental health was significantly better within six local areas of the state, and was significantly worse in eight local areas.

The prevalence of good mental health for Bridgeport, New Haven, and Hartford, by age and race/ethnicity, is shown in **Figure 4**. Compared to the statewide prevalence of good mental health, the prevalence was significantly worse among:

- Adults 18-44 years old and 45-64 years old and older in Bridgeport and Hartford;
- Adults 45-64 years old in all three towns;
- Non-Hispanic White adults in Bridgeport and Hartford; and
- Hispanic/Latino adults in New Haven and Hartford.



Map 4: Good Mental Health
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

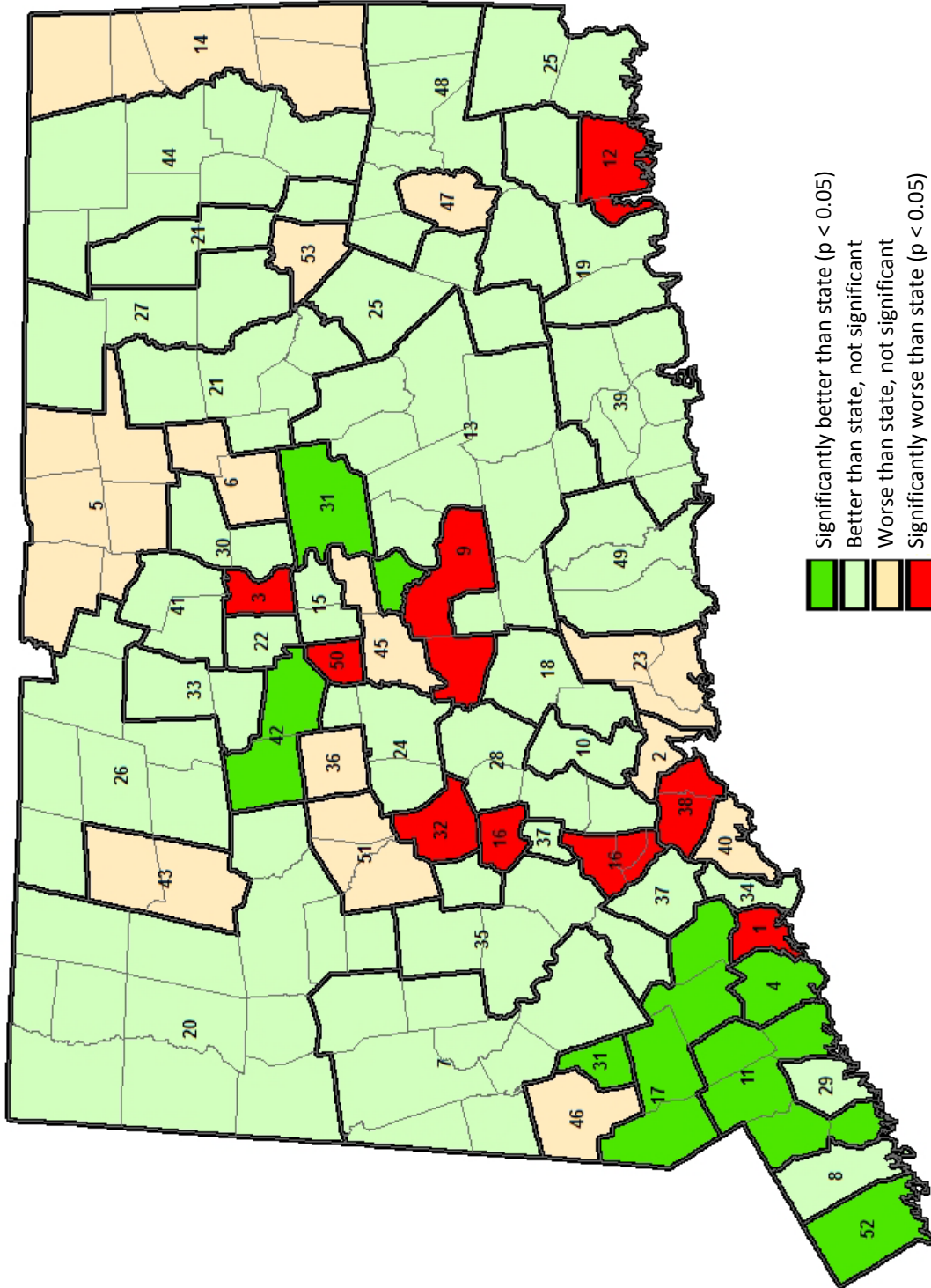




Table 4: Good Mental Health
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State (p < 0.05)		
11	91.4	(89.2 - 93.7)
42 *	90.3	(87.1 - 93.5)
52 *	89.3	(85.1 - 93.4)
17	88.7	(85.7 - 91.6)
4	88.5	(85.6 - 91.3)
31	88.2	(84.9 - 91.5)
Better than State, not significant		
22	87.9	(84.6 - 91.3)
35	87.6	(84.1 - 91.1)
20	87.4	(84.3 - 90.6)
39	87.2	(83.5 - 90.9)
21	87.1	(83.6 - 90.5)
25	87.1	(83.4 - 90.9)
26	87.1	(83.3 - 90.8)
10	86.6	(82.9 - 90.3)
28	86.5	(82.9 - 90.1)
49 *	86.5	(82.5 - 90.6)
15	86.3	(83.0 - 89.7)
24	86.2	(82.8 - 89.7)
37	86.1	(82.1 - 90.1)
8	86.0	(82.8 - 89.1)
41	85.9	(81.8 - 90.0)
48	85.8	(82.2 - 89.4)
33	85.3	(81.5 - 89.1)
13	85.1	(81.8 - 88.3)
30	84.8	(81.2 - 88.4)
18	84.7	(81.3 - 88.2)
29	84.7	(81.3 - 88.1)
19	84.6	(81.1 - 88.2)
34	84.6	(80.5 - 88.6)
44 *	84.5	(79.9 - 89.1)
7	84.2	(81.0 - 87.4)
27	84.2	(80.1 - 88.3)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
47	83.7	(79.0 - 88.5)
5	83.6	(80.5 - 86.8)
14	83.5	(79.8 - 87.1)
45	83.1	(78.1 - 88.0)
43	83.0	(78.8 - 87.2)
46	82.5	(77.9 - 87.2)
40	81.7	(77.3 - 86.0)
2	81.6	(78.8 - 84.3)
6	81.3	(77.8 - 84.8)
23	81.2	(77.0 - 85.4)
53	78.3	(72.0 - 84.5)
51	80.8	(75.2 - 86.3)
36	80.3	(76.0 - 84.5)
Significantly Worse than State (p < 0.05)		
1	80.9	(78.5 - 83.3)
16	79.3	(75.4 - 83.1)
50	78.8	(74.2 - 83.4)
38	78.4	(73.8 - 83.0)
32	77.3	(73.0 - 81.6)
9	76.6	(72.9 - 80.3)
3	76.5	(73.2 - 79.7)
12	76.0	(71.9 - 90.1)

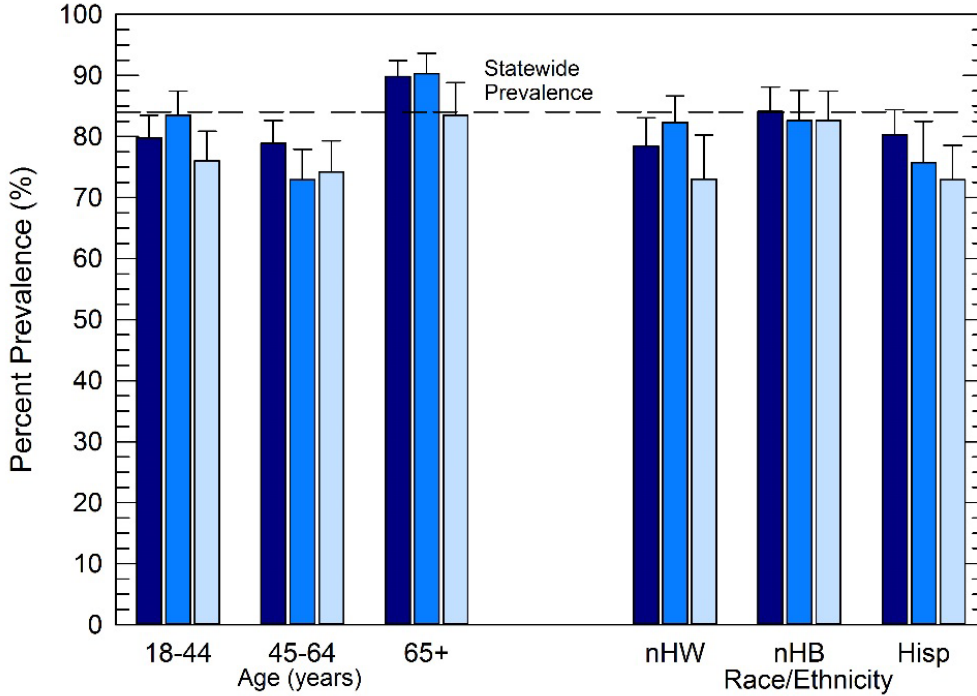
* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 84.0% (95% CI: 83.5% - 84.6%)



**Figure 4: Good Mental Health in Bridgeport, New Haven, and Hartford
By**

Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



Demographic Characteristic

	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	79.8	78.9	89.8	78.4	84.1	80.3
95% CI	(76.1-83.5)	(75.2-82.6)	(87.1-92.4)	(73.7-83.0)	(80.1-88.1)	(76.2-84.4)
Local Area 2: New Haven	83.5	72.9	90.3*	82.3	82.6	75.7
95% CI	(79.5-87.4)	(67.9-77.9)	(87.0-93.6)	(78.0-86.7)	(77.7-87.6)	(68.9-82.5)
Local Area 3: Hartford	76	74.2	83.5*	73.0	82.6	72.9
95% CI	(71.2-80.9)	(69.1-79.3)	(78.2-88.8)	(65.7-80.2)	(77.7-87.4)	(67.2-78.5)

* (0.15 ≤ CV ≤ 0.20)

As described earlier in this report, self-reported measures of good mental health are related to quality of life, and efforts to increase healthy behaviors and reduce risky behaviors may improve quality of life.¹⁵



Healthy Weight (18.5 – 24.9 kg/m² Body Mass Index)

Overweight and obese adults are at risk for developing a wide range of health problems, including high blood pressure, type 2 diabetes, coronary heart disease, certain cancers, strokes and other diseases.¹⁸ During 2015, the risk of adult obesity in Connecticut was significantly less than that across the U.S., and Connecticut ranked among the best ten states in the country for its prevalence of obesity.⁹ Despite these promising figures, the risk of obesity in Connecticut during 2015 had not changed significantly since 2011 and was significantly high for adults at least 35 years old, non-Hispanic Black/African American and Hispanic/Latino adults, adults with lower income and educational levels, and disabled adults.

The CT BRFSS survey asked respondents to provide their height and weight without shoes. A body mass index (BMI) was calculated by dividing their weight in kilograms by the squared value of their height in meters. An adult with a BMI of less than 18.5 kg/m² is considered to be underweight, while an adult with a BMI of at least 25.0 kg/m² is considered overweight and an adult with a BMI of 30 or above is considered obese. Results for healthy weight are shown in **Map 5** and **Table 5**.

Within Connecticut during 2011-2015, combined, the prevalence of adults at a healthy weight was 38.6% (95% CI: 37.9% - 39.3%). Across the state among all local areas, the prevalence of healthy weight ranged from a low of 28.2% (23.4% - 32.9%) in local area 38: Orange and West Haven, combined, to a high of 58.1% (51.9% - 64.4%) in local area 52: Greenwich.

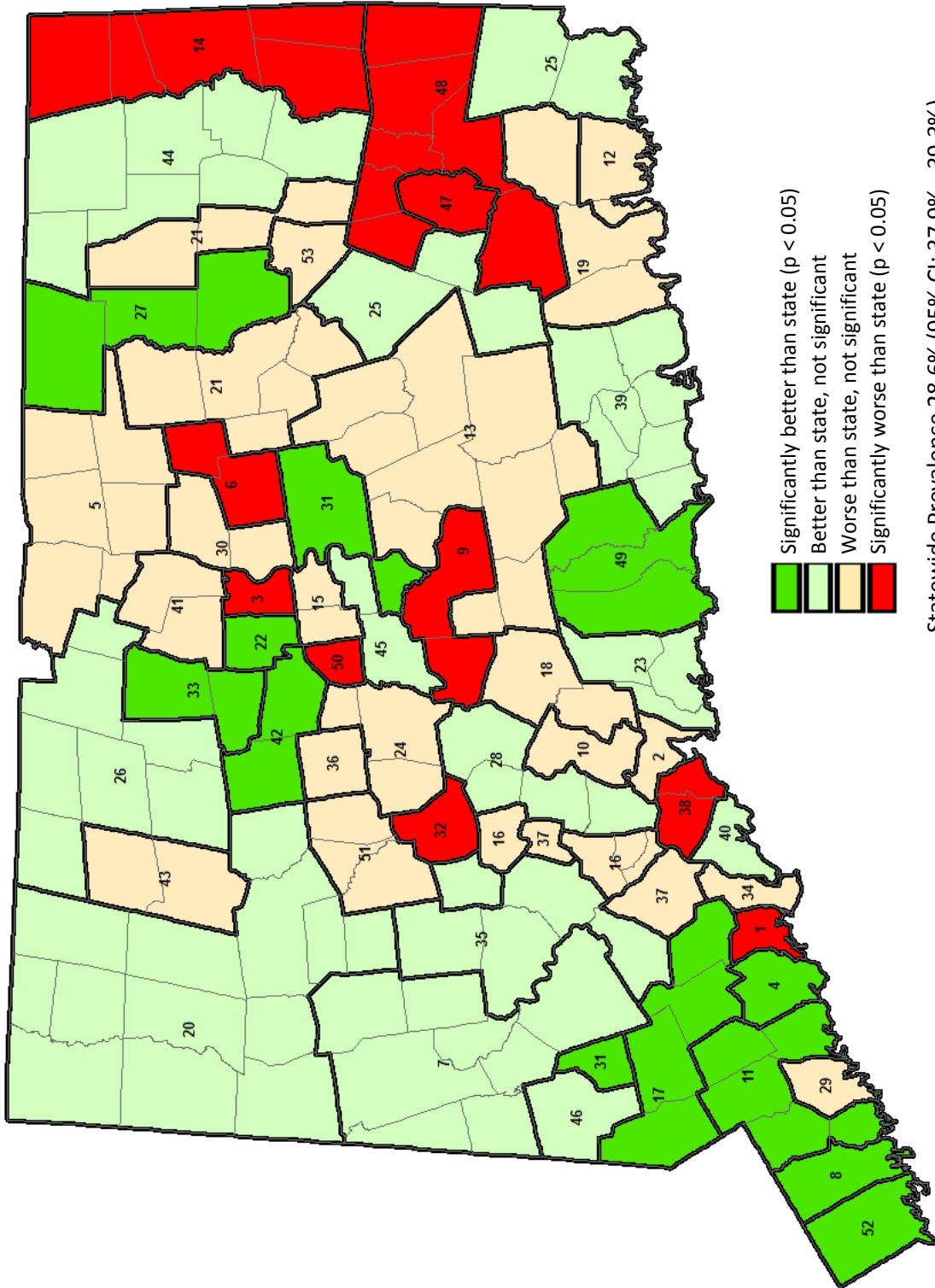
Compared to the statewide value, the percent prevalence of healthy weight among adults was significantly better within eleven local areas of the state, and was significantly worse in ten local areas.

The prevalence values of healthy weight in Bridgeport, New Haven, and Hartford, by age and race/ethnicity, are shown in **Figure 5**. Compared to the statewide prevalence, the prevalence of healthy weight was significantly worse among:

- Adults 18-44 years old in Bridgeport;
- Adults 45-64 years old in Bridgeport, Hartford, and New Haven;
- Adults at least 65 years old in Bridgeport and Hartford;
- Non-Hispanic White adults in Bridgeport; and
- Non-Hispanic Black/African American and Hispanic/Latino adults in all three towns.



Map 5: Healthy Weight (18.5 - 24.9 BMI, inclusive)
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined





**Table 5: Healthy Weight (18.5 - 24.9 BMI, inclusive)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

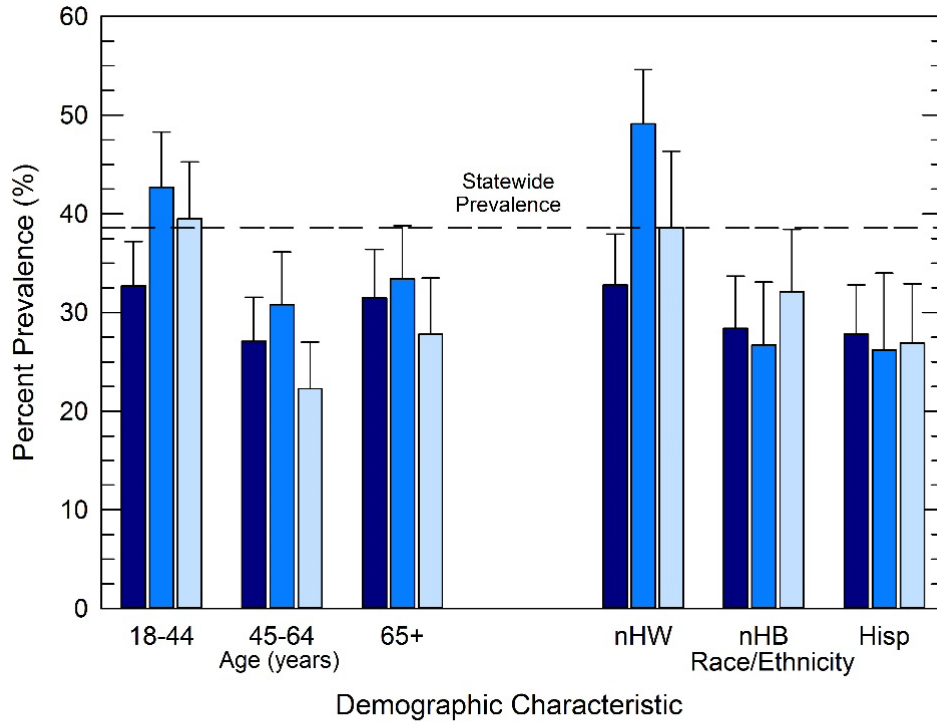
Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
52	58.1	(51.9 - 64.4)
33	50.9	(45.9 - 55.9)
11	50.8	(46.6 - 55.0)
42	47.2	(41.6 - 52.8)
17	46.6	(42.0 - 51.2)
49	46.5	(40.9 - 52.0)
8	46.2	(41.8 - 50.6)
4	46.0	(41.6 - 50.3)
27	45.7	(40.3 - 51.1)
22	45.5	(40.8 - 50.2)
31	43.4	(38.5 - 48.3)
Better than State, not significant		
28	42.6	(37.6 - 47.7)
45	41.9	(35.7 - 48.1)
7	41.8	(37.6 - 45.9)
26	41.3	(36.1 - 46.5)
35	40.7	(35.6 - 45.9)
39	40.3	(35.1 - 45.6)
20	40.3	(35.6 - 45.0)
44	39.6	(33.5 - 45.8)
25	39.2	(33.6 - 44.8)
46	39.2	(33.6 - 44.8)
23	39.1	(33.9 - 44.2)
40	38.9	(33.3 - 44.5)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
12	38.5	(34.0 - 42.9)
15	38.3	(33.4 - 43.2)
2	38.1	(34.4 - 41.8)
30	38.0	(32.6 - 43.3)
18	37.8	(32.8 - 42.9)
13	37.8	(33.6 - 41.9)
21	37.3	(32.3 - 42.3)
51	36.7	(30.6 - 42.7)
29	36.5	(31.6 - 41.5)
37	36.5	(30.7 - 42.3)
19	36.3	(31.6 - 40.8)
53	36.0	(28.4 - 43.6)
5	35.8	(31.8 - 39.7)
24	35.2	(30.4 - 40.0)
36	34.9	(29.4 - 40.3)
43	34.8	(29.5 - 40.1)
10	34.4	(29.4 - 39.5)
16	34.4	(29.7 - 39.0)
34	34.2	(28.5 - 39.8)
41	32.5	(27.0 - 38.0)
Significantly Worse than State ($p < 0.05$)		
3	32.7	(28.9 - 36.4)
50	32.4	(27.0 - 37.8)
9	32.1	(28.0 - 36.2)
6	31.4	(27.3 - 35.4)
32	31.0	(26.2 - 35.8)
1	30.9	(27.9 - 33.8)
14	30.0	(25.4 - 34.7)
48	30.0	(25.1 - 35.0)
47	28.5	(22.7 - 34.2)
38	28.2	(23.4 - 32.9)

Statewide Prevalence = 38.6% (95% CI: 37.9% - 39.3%)



Figure 5: Healthy Weight (BMI 18.5 - 24.9, inclusive) in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	32.7	27.1	31.5	32.8	28.4	27.8
95% CI	(28.2-37.2)	(22.7-31.6)	(26.6-36.4)	(27.6-37.9)	(23.1-33.7)	(22.8-32.8)
Local Area 2: New Haven	42.7	30.8	33.4	49.1	26.7	26.2*
95% CI	(37.1-48.3)	(25.4-36.1)	(28.0-38.8)	(43.6-54.6)	(20.3-33.1)	(18.4-34.0)
Local Area 3: Hartford	39.5	22.3	27.8	38.6	32.1	26.9
95% CI	(33.7-45.2)	(17.6-27.0)	(21.5-32.9)	(30.9-46.4)	(25.8-38.5)	(21.0-33.0)

*(0.15 ≤ CV ≤ 0.20)

Reducing obesity in the U.S. is considered a winnable battle by the CDC,¹⁹ using policy, systems, and environmental initiatives to address obesity. Evidence-based interventions at the community level to reduce obesity are aimed at increasing the availability of healthy foods and beverages, providing safer communities that support physical activity, and community engagement.²⁰



Current Health Care Coverage

People who have access to a personal health care provider or a regular health care setting have better health outcomes.²¹ In 2015, Connecticut ranked among the ten best states in the country for adults 18-64 years old with health care coverage, and its prevalence was significantly greater than the U.S. median.⁹ This age group represents the range of adults at highest risk for lacking health care coverage. In addition, annually from 2011 through 2015, the percent prevalence of adults 18-64 years old without health care coverage decreased significantly in all but one year to a historic low. Despite these statewide advances, the percent prevalence of adults 18-64 years old without coverage was significantly worse among men, adults 18-54 years old, Hispanic/Latino adults, and adults with low income and low educational attainment.

During 2011-2015, respondents to the CT BRFSS were asked if they have any kind of health care coverage, including health insurance, prepaid plans, or government plans such as Medicare. Results for adults of all ages, by local area, are shown in **Map 6** and **Table 6**.

Within Connecticut during 2011-2015, combined, the prevalence of adults with health care coverage was 90.5% (95% CI: 90.0% - 90.9%). Among all local areas of the state, the range of prevalence values ranged from a low of 75.6% (72.7% - 78.4%) in local area 1: Bridgeport, to a high of 95.1% (93.3% - 97.0%) in the local area 4: Fairfield. Percent prevalence of health care coverage was high in many local areas of the state, and the low number of responses among adults without health care coverage made it difficult to obtain prevalence estimates with strong validity. Due to this difficulty, local areas 11, 49, and 52 estimates were suppressed.

Compared to the statewide value, the percent prevalence of adults with health care coverage was significantly better in three local areas, and significantly worse in seven local areas across the state.

The prevalence values of health care coverage in Bridgeport, New Haven, and Hartford, by age and race/ethnicity are shown in **Figure 6**. Compared to the statewide prevalence, the prevalence of health care coverage was significantly worse among:

- Ages less than 45 years old in Bridgeport, Hartford, and New Haven; and
- Non-Hispanic Black/African American and Hispanic/Latino adults in all three towns.



Map 6: Current Health Care Coverage
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

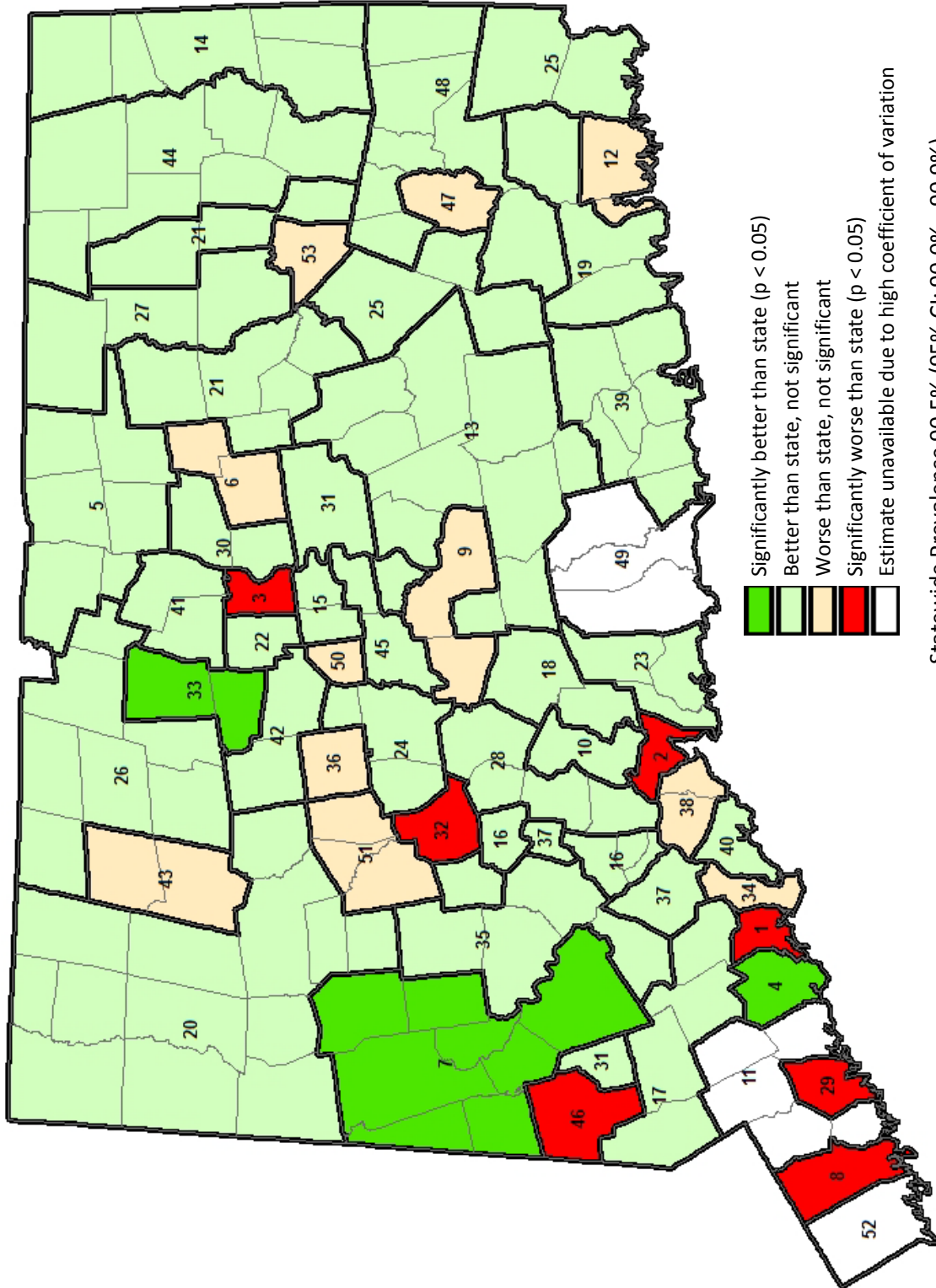




Table 6: Current Health Care Coverage
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
4	95.1	(93.3 - 97.0)
33	93.9	(91.6 - 96.2)
7	93.2	(91.2 - 95.3)
Better than State, not significant		
10 **	~95	
13 **	~95	
15 **	~95	
17 **	~95	
18 **	~95	
19 **	~95	
21 **	~95	
22 **	~95	
23 **	~95	
24 **	~95	
25 **	~95	
26 **	~95	
27 **	~95	
28 **	~95	
31 **	~95	
35 **	~95	
37 **	~95	
39 **	~95	
40 **	~95	
41 **	~95	
42 **	~95	
44 **	~95	
45 **	~95	
48 **	~95	
5	92.9	(90.6 - 95.2)
20	92.7	(90.1 - 95.2)
14	91.5	(88.7 - 94.2)
30	90.9	(87.5 - 94.3)
16	90.5	(87.6 - 93.4)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
36 *	90.0	(86.8 - 93.3)
34 **	~90	
47 **	~90	
51 **	~90	
6	89.9	(87.0 - 92.7)
12	88.8	(85.7 - 91.9)
9	87.8	(84.6 - 90.9)
43 *	87.5	(83.7 - 91.3)
50 *	87.4	(83.1 - 91.6)
38 *	86.7	(82.4 - 91.0)
53 **	~85	
Significantly Worse than State ($p < 0.05$)		
32	85.4	(81.9 - 89.0)
29	85.3	(81.5 - 89.1)
2	83.4	(80.5 - 86.3)
46	82.6	(78.4 - 86.8)
3	82.3	(79.3 - 85.4)
8	80.3	(76.4 - 84.2)
1	75.6	(72.7 - 78.4)

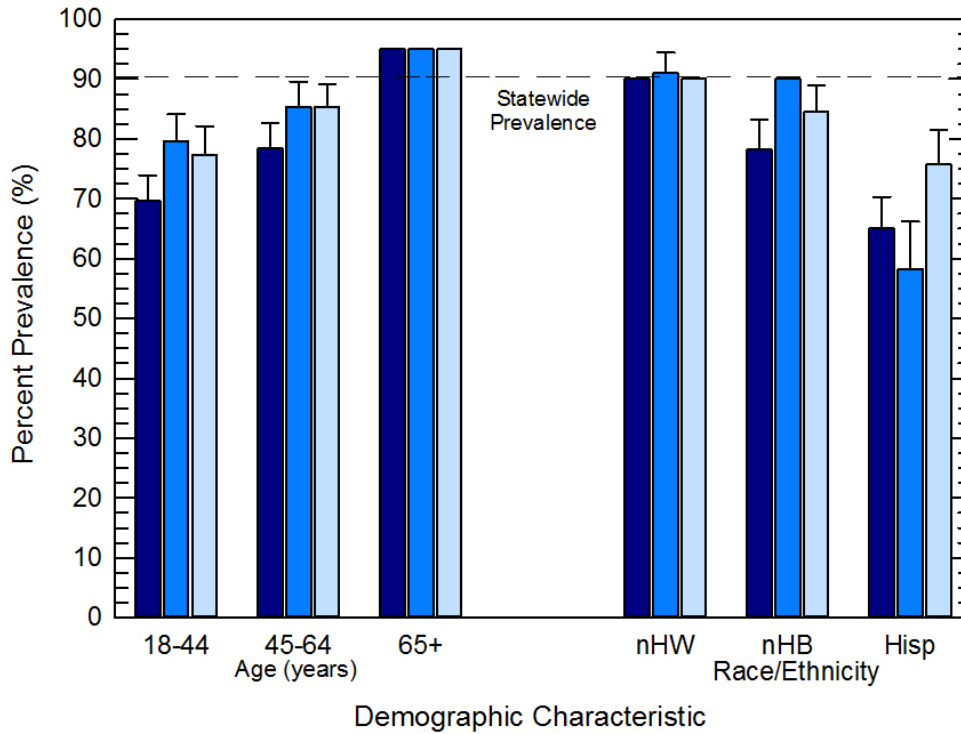
* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Estimates for local areas 11, 49, and 52 were not available due to very high coefficient of variation (CV > 0.30).

Statewide Prevalence = 90.5% (95% CI: 90.0% - 90.9%)



Figure 6: Current Health Care Coverage in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	69.6	78.5	~95**	~90**	78.2	65
95% CI	(65.3-74.0)	(74.3-82.6)			(73.1-83.2)	(56.8-67.4)
Local Area 2: New Haven	79.7	85.4	~95**	91.1*	~90	58.3
95% CI	(75.3-84.1)	(81.2-89.6)		(87.8-94.5)		(50.4-66.2)
Local Area 3: Hartford	77.3	85.4	~95**	~90**	84.5	75.7
95% CI	(72.4-82.1)	(81.7-89.2)			(80.1-89.0)	(69.9-81.5)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

In response to passage of the Affordable Care Act, Connecticut established Access Health CT for individuals interested in obtaining health care coverage (<https://www.accesshealthct.com/AHCT/LandingPageCTHIX>). The portal helps all Connecticut adult residents obtain the coverage they need for medical care.



At Least One Personal Doctor

Health care coverage is an important first step in appropriate access to care. Even with health care coverage, however, access to care is necessary for good health and wellbeing, and patient centered medical homes provide continuous, informed care to patients.²² In 2015, Connecticut ranked within the best ten states in the country for the prevalence of adults with at least one personal doctor.⁹ Despite this strong value, the percent prevalence was significantly worse than the statewide value among adults 18-34 years old, men, Hispanic/Latino adults, and adults of low income. Of particular note, adults without health care coverage were at four times greater risk of lacking at least one personal doctor.

Respondents to the CT BRFSS were asked if they have at least one doctor or healthcare professional that they consider their personal doctor. Results are shown in **Map 7** and **Table 7**.

Statewide in Connecticut during 2011-2015, combined, the percent prevalence of adults with at least one personal doctor was 85.1% (95% CI: 84.6% - 85.7%). Across all local areas of the state, the prevalence of having at least one personal doctor ranged from a low of 70.6% (67.6% - 73.6%) in local area 1: Bridgeport, to a high of 93.2% (90.8% - 95.7%) in local area 15: Newington and Wethersfield, combined.

Compared to the statewide value, the percent prevalence of adults with at least one personal doctor was significantly better in 16 local areas of the state, and significantly worse in ten local areas.

The prevalence values of having at least one personal doctor in Bridgeport, New Haven, and Hartford, by age and race/ethnicity, are shown in **Figure 7**. Compared to the statewide prevalence, the prevalence of having at least one personal doctor was significantly worse among:

- Adults less than 45 years old in Bridgeport, Hartford, and New Haven;
- Adults 45-64 years old in Bridgeport;
- Non-Hispanic Black/African American in Bridgeport and New Haven; and
- Hispanic/Latino in all three towns.



Map 7: At Least One Personal Doctor
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

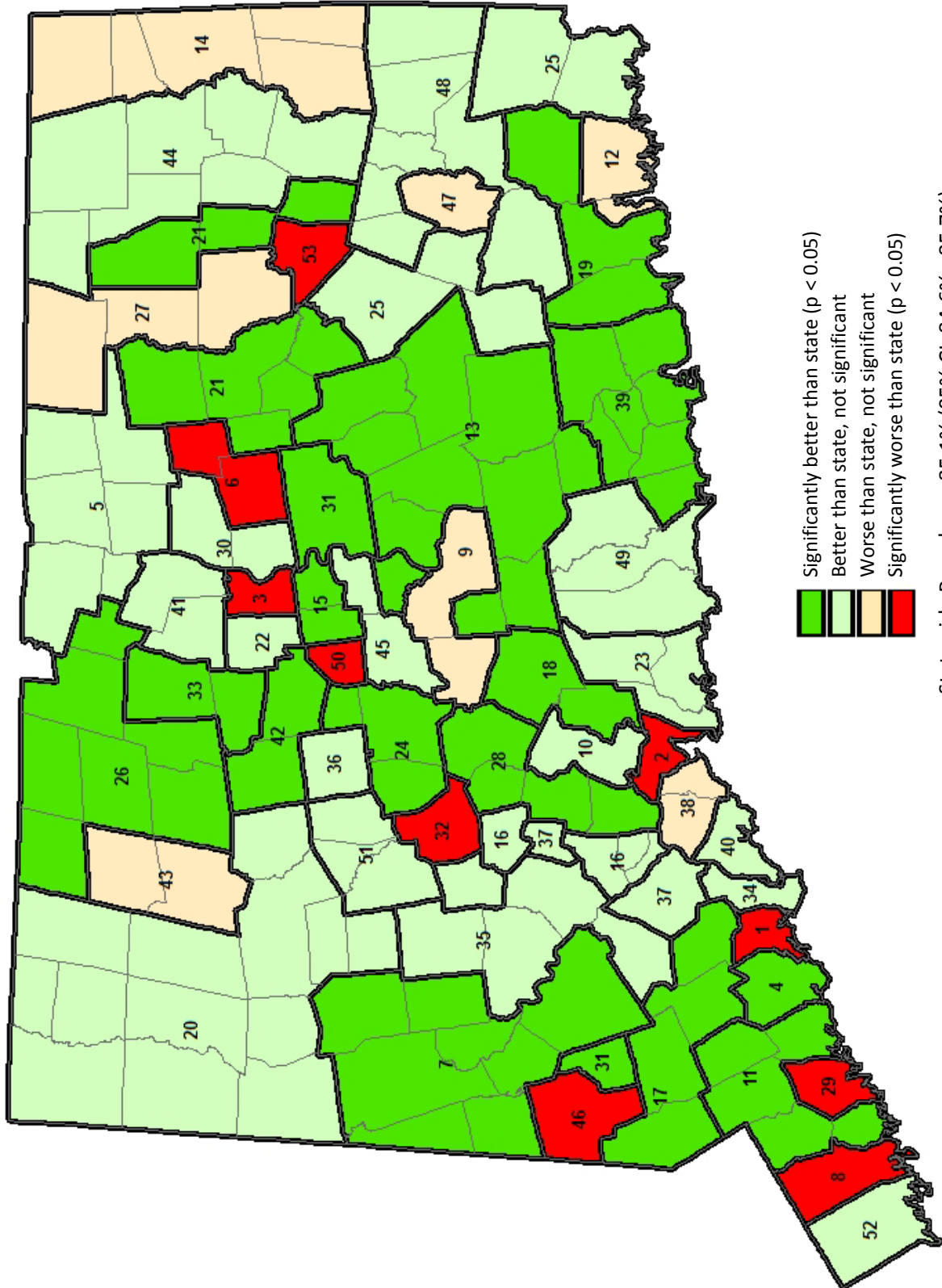




Table 7: At Least One Personal Doctor
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State (p < 0.05)		
15 *	93.2	(90.8 - 95.7)
17 *	92.2	(89.8 - 94.6)
13	91.9	(89.7 - 94.1)
21 *	91.9	(88.8 - 95.0)
24 *	91.5	(88.6 - 94.3)
39 *	91.5	(88.2 - 94.7)
11	91.1	(88.8 - 93.5)
28 *	91.0	(88.0 - 94.0)
7 *	90.9	(88.2 - 93.7)
31 *	90.7	(87.5 - 94.0)
19 *	90.5	(87.5 - 93.6)
26 *	90.5	(87.0 - 94.0)
42 *	90.3	(87.3 - 93.3)
18 *	90.1	(86.8 - 93.4)
4	90.0	(87.4 - 92.7)
33	89.7	(86.7 - 92.7)
Better than State, not significant		
35 **	~95	
45 **	~95	
52 **	~95	
41 **	~90	
44 **	~90	
49 **	~90	
51 **	~90	
37 *	89.5	(85.4 - 93.6)
25 *	89.3	(85.7 - 92.9)
23	88.3	(84.9 - 91.7)
10 *	88.0	(84.0 - 92.1)
5	87.5	(84.6 - 90.4)
34 *	87.5	(83.5 - 91.4)
36 *	87.5	(83.7 - 91.3)
48 *	87.3	(83.3 - 91.3)
20	87.0	(83.6 - 90.5)
30 *	87.0	(83.0 - 91.0)
16	86.4	(82.9 - 89.8)
40 *	86.3	(82.1 - 90.6)
22	86.0	(82.6 - 89.5)

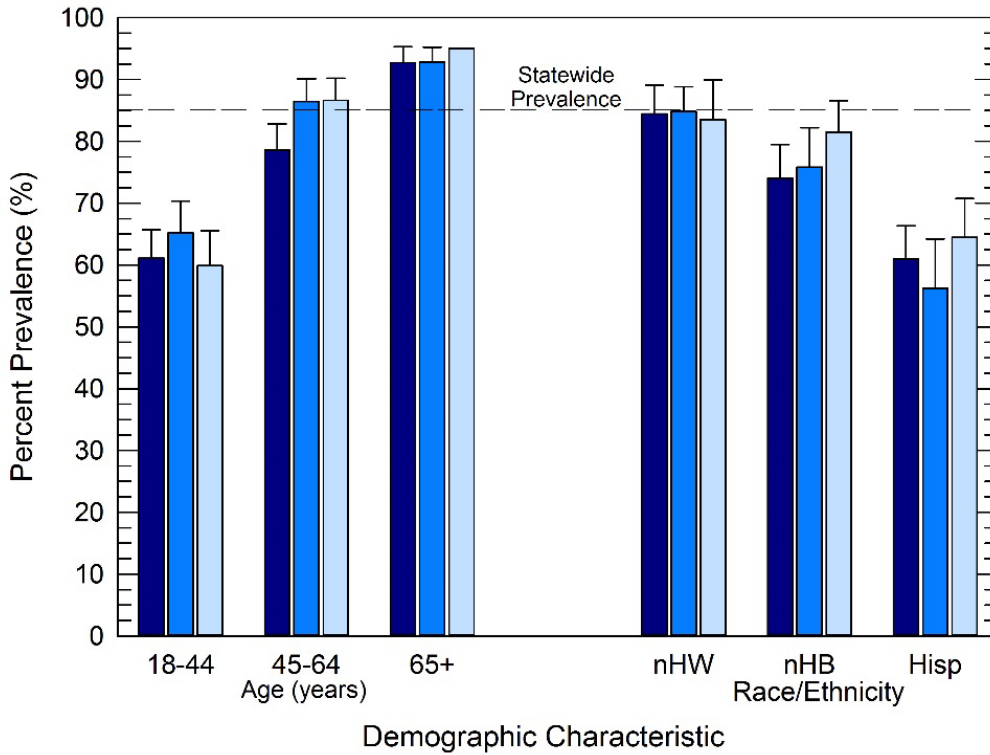
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
27	84.9	(81.0 - 88.8)
9	84.5	(81.0 - 88.0)
14	83.8	(79.8 - 87.9)
43	83.0	(78.5 - 87.5)
38	82.8	(78.3 - 87.3)
12	82.3	(78.7 - 86.0)
47	80.6	(75.0 - 86.3)
Significantly Worse than State (p < 0.05)		
6	79.9	(76.0 - 83.9)
29	79.6	(75.5 - 83.7)
50	78.9	(73.7 - 84.1)
32	77.1	(72.7 - 81.5)
8	76.6	(72.7 - 80.5)
53	75.4	(68.5 - 82.3)
46	75.3	(70.3 - 80.4)
2	74.6	(71.2 - 78.0)
3	72.5	(68.9 - 76.2)
1	70.6	(67.6 - 73.6)

* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 85.1% (95% CI: 84.6% - 85.7%)



Figure 7: At Least One Personal Doctor in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	61.1	78.6	92.7*	84.4*	74.0	61.0
95% CI	(56.5-65.7)	(74.4-82.8)	(90.1-95.3)	(79.7-89.1)	(68.5-79.5)	(55.6-66.3)
Local Area 2: New Haven	65.2	86.4	92.8*	84.8	75.8	56.2
95% CI	(60.0-70.3)	(82.7-90.1)	(90.4-95.2)	(80.8-88.8)	(69.4-82.2)	(48.2-64.2)
Local Area 3: Hartford	59.9	86.8	~95**	83.5*	81.5	64.5
95% CI	(54.3-65.6)	(83.2-90.4)		(77.1-89.9)	(76.5-86.6)	(58.3-70.8)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

Patient-centered medical home is an evidence-based approach to health care that has promise for providing quality health care with lower overall costs, and states such as Connecticut are passing legislation encouraging this practice.²³ Community-based resources and tools for creating patient-centered medical homes include training for health care professionals and activities needed to establish team-based care.²⁴



2. Health Risk Behaviors

No Leisure Time Physical Activity in Past Month

Regular physical exercise has been shown to prevent certain chronic diseases, just as a sedentary lifestyle is a risk factor for a variety of obesity, bone and joint diseases, depression, and chronic diseases.²⁵ Physical activity also improves mental health and prolongs quality of life.²⁶ During 2015, the prevalence of adults lacking recreational physical activity in Connecticut was significantly less than the U.S. overall prevalence,⁹ and the state ranked better than most other states. Despite these encouraging values statewide, the prevalence of having no leisure physical activity in the past month was significantly worse for adults at least 55 years old, women, minority racial/ethnic groups, and adults with lower incomes and educational levels.

Adults in the CT BRFSS were asked to report whether they had participated in any physical activities or exercises such as running, calisthenics, golf, gardening or walking, other than for their job in the past 30 days. **Map 8** and **Table 8** show the prevalence of adults who did *not* engage in any leisure or recreational physical activity among all local areas of the state.

Overall in Connecticut during 2011-2015, combined, the risk of getting no leisurely physical activity was 23.2% (95% CI: 22.6% - 23.8%). Across all local areas, the range of prevalence varied from a low of 6.6% (4.8% - 8.3%) in local area 11: Darien, New Canaan, Weston, Westport, and Wilton, to a high of 35.7% (32.0% - 39.4%) in local area 3: Hartford.

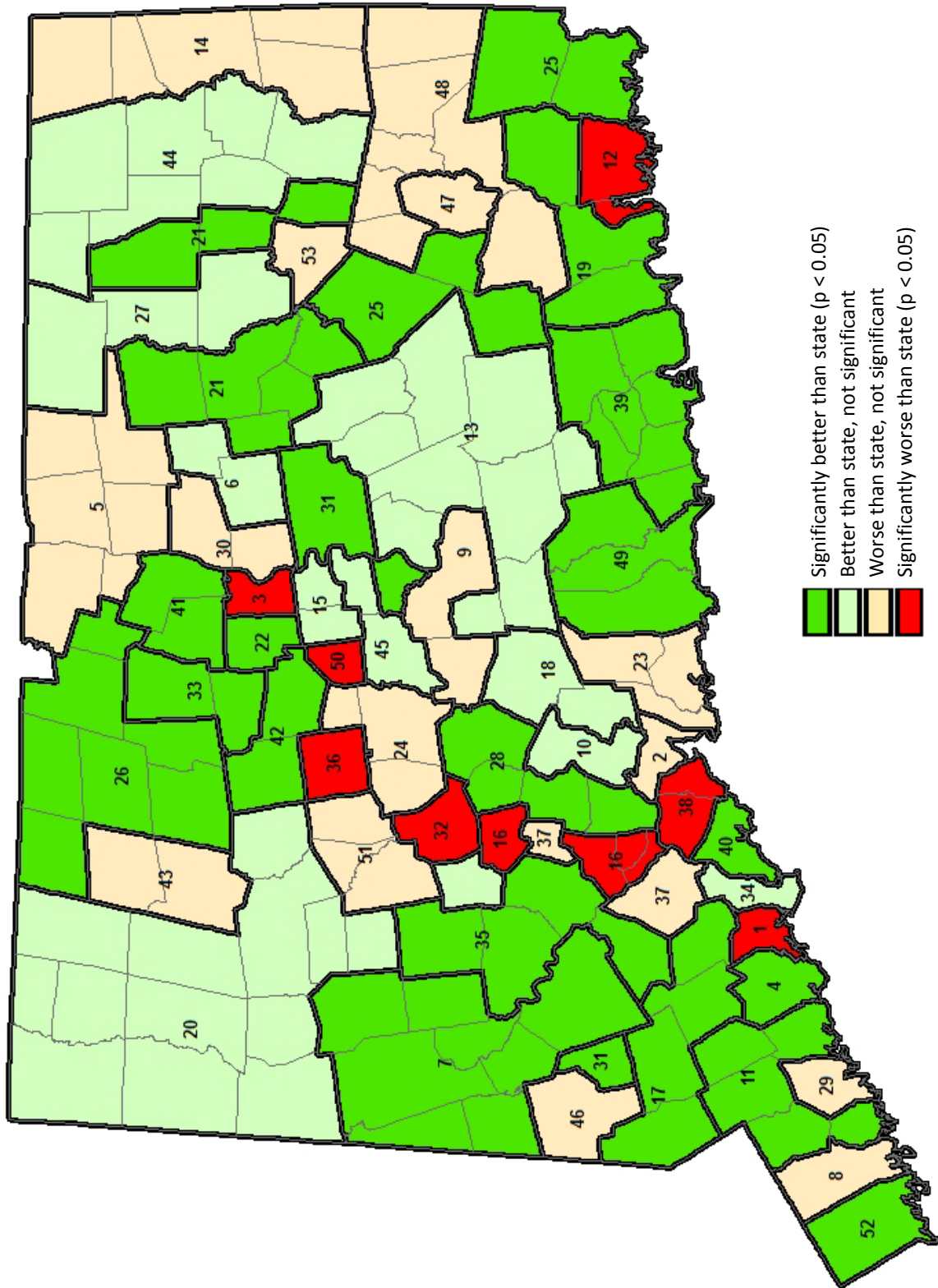
Compared to the state risk of getting no leisurely physical activity, the risk was significantly better in 19 local areas, and significantly worse in eight local areas of the state.

The prevalence values of adults who did not engage in leisurely physical activity in the past month within Bridgeport, New Haven, and Hartford are shown in **Figure 8**, by age and race/ethnicity. Compared to the statewide prevalence, the risk of having no recreational physical activity in the past month was significantly greater among:

- Adults 18-64 years in Bridgeport and Hartford;
- Adults at least 65 years old in Bridgeport, Hartford, and New Haven;
- Non-Hispanic White adults in Bridgeport; and
- Non-Hispanic Black/African American and Hispanic/Latino adults in all three towns.



**Map 8: No Leisure Time Physical Activity in Past Month
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**





**Table 8: No Leisure Time Physical Activity in Past Month
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State (<i>p</i> < 0.05)		
11	6.6	(4.8 - 8.3)
52 *	11.9	(7.8 - 15.9)
4	14.5	(11.8 - 17.3)
33	15.0	(11.6 - 18.4)
26	15.5	(11.5-19.4)
17	15.7	(12.3-19.0)
19	16.1	(12.7-19.4)
49	16.2	(11.9-20.5)
25	16.3	(12.2 -20.4)
21	16.4	(12.7-20.1)
22	16.5	(12.8-20.1)
42	16.5	(12.5-20.6)
7	16.7	(13.7 - 19.6)
31	16.8	(13.1 - 20.6)
35	17.0	(13.4 - 20.6)
28	17.4	(13.6 - 21.2)
39	18.0	(13.8 - 22.2)
41	18.1	(13.8 - 22.4)
40	18.5	(14.5 - 22.5)
Better than State, not significant		
15	20	(15.9 - 23.5)
20	20.4	(16.6 - 24.1)
13	20.5	(17.0 - 24.0)
44	20.6	(15.8 - 25.4)
10	21.5	(17.3 - 25.8)
27	21.5	(17.1 - 26.0)
6	21.9	(18.2 - 25.6)
18	22.2	(18.1 - 26.2)
34	22.8	(18.0 - 27.6)
45	23.2	(18.0 - 28.4)

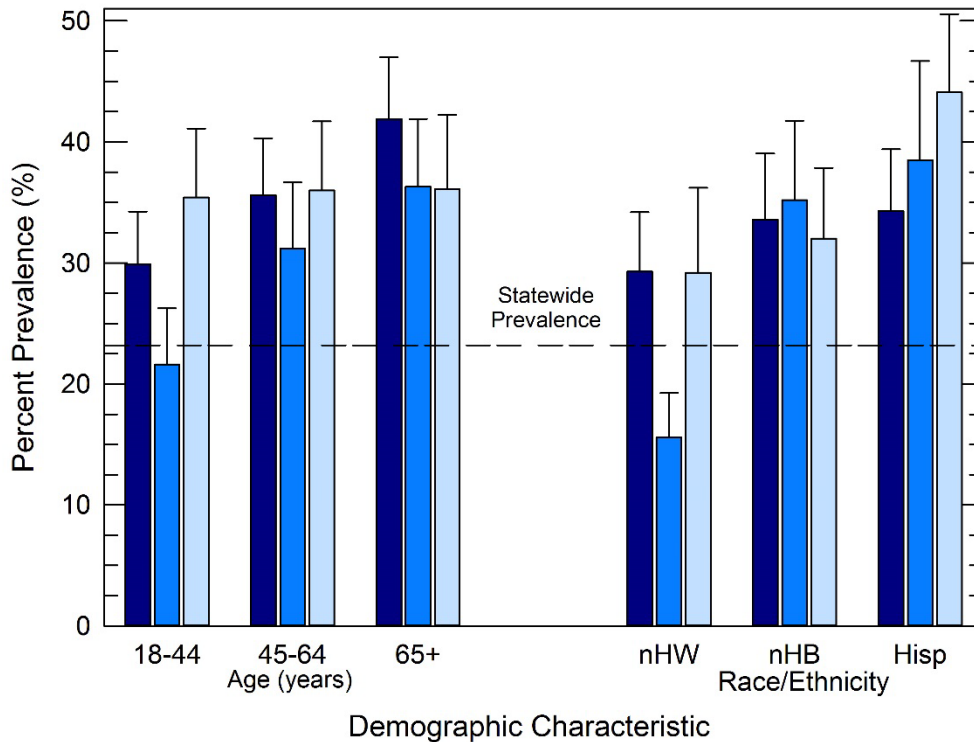
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
37	23.3	(18.3 - 28.2)
43	24.0	(19.4 - 28.7)
29	24.1	(19.8 - 28.4)
48	24.2	(19.5 - 28.9)
24	24.4	(20.3 - 28.5)
23	24.6	(20.1 - 29.0)
46	24.7	(19.9 - 29.4)
14	25.1	(21.0 - 29.3)
5	25.4	(21.8 - 29.0)
9	25.4	(21.7 - 29.1)
30	25.4	(20.8 - 30.0)
2	26.2	(22.9 - 29.4)
8	26.2	(22.1 - 30.3)
51	26.4	(21.0 - 31.8)
47	28.5	(22.7 - 34.4)
53	31.0	(23.6 - 38.3)
Significantly Worse than State (<i>p</i> < 0.05)		
12	29.0	(24.7 - 33.2)
36	29.1	(24.2 - 33.9)
16	29.5	(25.3 - 33.8)
38	29.8	(24.6 - 35.0)
32	30.7	(25.9 - 35.4)
50	30.9	(25.6 - 36.2)
1	33.3	(30.3 - 36.2)
3	35.7	(32.0 - 39.4)

* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 23.2% (95% CI: 22.6% - 23.8%)



Figure 8: No Leisure Time Physical Activity in Past Month in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	29.9	35.6	41.9	29.3	33.6	34.3
95% CI	(25.6-34.3)	(30.9-40.3)	(36.8-47.0)	(24.4-34.2)	(28.1-39.0)	(29.2-39.4)
Local Area 2: New Haven	21.6	31.2	36.3	15.6	35.2	38.5
95% CI	(16.9-26.2)	(25.8-36.7)	(30.7-41.9)	(12.0-19.3)	(28.6-41.7)	(30.3-46.7)
Local Area 3: Hartford	35.4	36	36.1	29.2	32.0	44.1
95% CI	(29.7-41.1)	(30.3-41.7)	(30.0-42.3)	(21.2-35.2)	(26.1-37.8)	(37.6-50.5)

The CDC considers obesity related to a lack of physical activity a winnable battle,¹⁹ and strategies are underway across the country to increase physical activity. Community-based strategies to encourage an active lifestyle are focused on informational interventions, behavioral and social change strategies, and environmental and policy changes.^{27,28}



Current Cigarette Smoking

According to the Surgeon General, smoking is the number one preventable cause of death in the U.S.²⁹ It is detrimental to nearly every organ in the body and causes poorer overall health. Smokers are more likely to develop lung cancer, stroke and heart disease when compared to non-smokers. In Connecticut during 2013, cigarette smoking in adulthood was strongly associated with adverse childhood experiences.¹⁴ Across the state in 2015, the prevalence of cigarette smoking was significantly less than the nation, and Connecticut was ranked among the four best states in the country for cigarette smoking.⁹ Further, cigarette smoking among adult residents in Connecticut has decreased significantly since 2011, attributable to a significant decrease from years 2014 to 2015. Despite this strong standing, the risk of cigarette smoking was significantly worse for adults less than 54 years old, men, adults with lower income or educational attainment, adults with a disability, and adults who lack health care coverage.

Current cigarette smoking includes those who smoke every day or most days. Results for 2011-2015, combined for all local areas in Connecticut are shown in **Map 9** and **Table 9**.

In Connecticut during 2011-2015, combined, the statewide risk of cigarette smoking was 15.3% (95% CI: 14.8% - 15.8%). Across all local areas, the prevalence ranged from a low of 5.5% (3.4% - 7.5%) in local area 11: Darien, New Canaan, Weston, Westport, and Wilton, to a high of 23.5% (20.1% - 26.8%) in local area 3: Hartford.

Compared to the statewide risk of cigarette smoking, the risk was significantly worse in 12 local areas of the state, and significantly better in 13 local areas.

The percent prevalence values of current cigarette smoking in Bridgeport, New Haven, and Hartford are shown by age and race/ethnicity in **Figure 9**. Compared to the statewide prevalence, the risk of current cigarette smoking was significantly worse among:

- Adult 18-54 years old in Bridgeport, Hartford, and New Haven;
- Non-Hispanic White adults in Bridgeport and Hartford;
- Non-Hispanic Black/African American adults in New Haven and Hartford; and
- Hispanic/Latino adults in all three towns.



Map 9: Current Cigarette Smoking
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

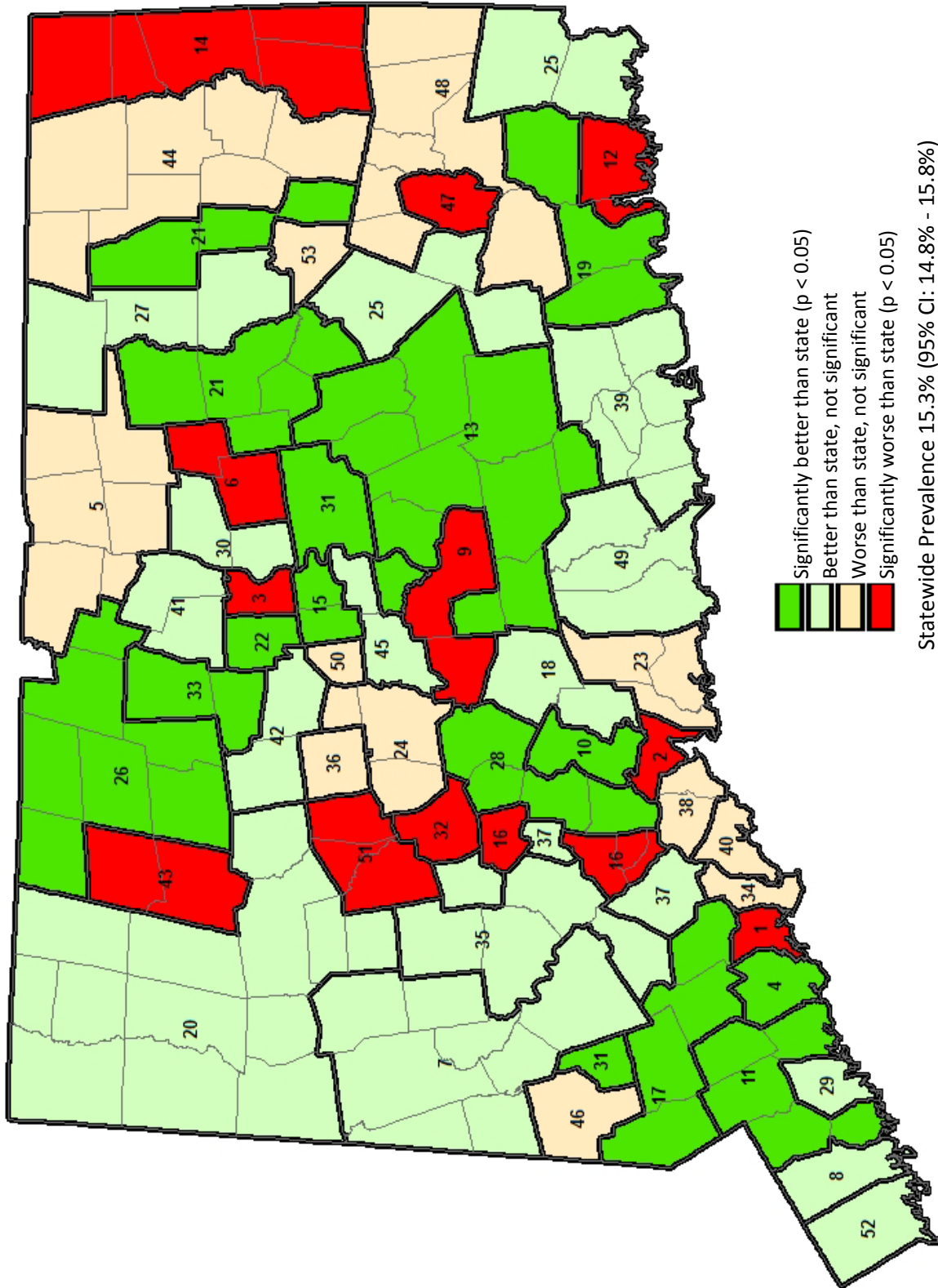




Table 9: Current Cigarette Smoking
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
11 *	5.5	(3.4 - 7.5)
22 *	6.9	(4.5 - 9.3)
28	8.9	(6.3 - 11.6)
15 *	9.1	(6.2 - 12.0)
33	9.2	(6.6 - 11.8)
31 *	9.2	(6.1 - 12.3)
19 *	9.6	(6.7 - 12.6)
17 *	9.7	(6.5 - 12.9)
26 *	10.7	(7.2 - 14.2)
10 *	11.1	(7.6 - 14.6)
21	11.2	(8.1 - 14.4)
4	11.3	(8.5 - 14.2)
13	11.7	(8.9 - 14.4)
Better than State, not significant		
49 **	~5	
52 **	~10	
41 *	11.0	(7.2 - 14.9)
42 *	11.3	(7.4 - 15.1)
20	11.9	(8.6 - 15.3)
39 *	12.0	(8.3 - 15.7)
29	12.1	(8.7 - 15.4)
35 *	12.4	(8.5 - 16.2)
27	12.4	(8.8 - 16.1)
7	12.6	(9.7 - 15.4)
8	12.9	(9.8 - 16.0)
30	13.1	(9.7 - 16.5)
18	13.2	(9.8 - 16.6)
25	13.9	(10.0 - 17.9)
37	14.1	(10.0 - 18.1)
45 *	15.3	(10.6 - 19.9)

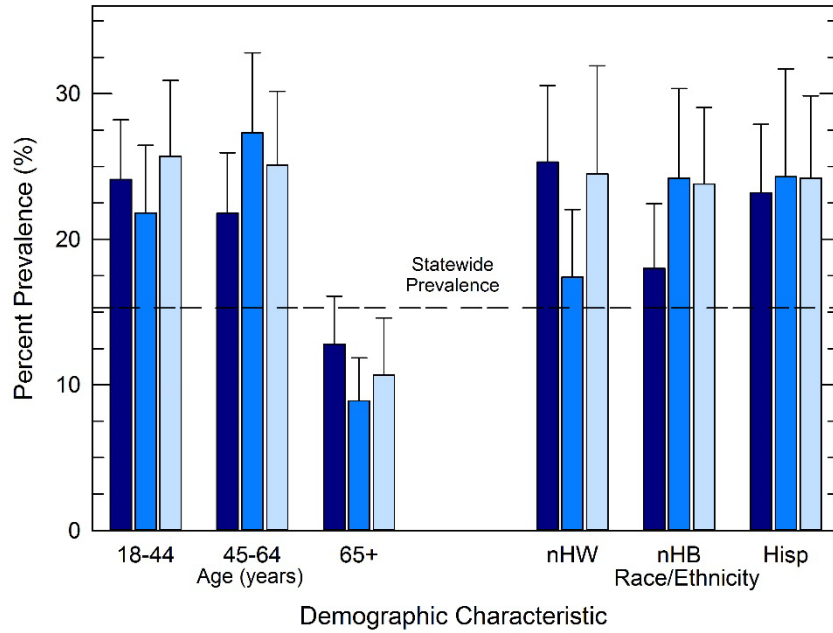
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
34	15.8	(11.4 - 20.2)
24	15.8	(12.0 - 19.6)
44	16.1	(11.5 - 20.8)
46	16.1	(11.7 - 20.5)
48	16.6	(12.5 - 20.7)
23	16.6	(12.7 - 20.5)
5	16.9	(13.6 - 20.2)
38	18.4	(13.9 - 22.9)
40	19.3	(14.6 - 24.1)
36	20.2	(15.6 - 24.8)
50	20.4	(15.8 - 24.9)
53 *	21.1	(14.7 - 27.5)
Significantly Worse than State ($p < 0.05$)		
9	20.4	(16.9 - 23.9)
32	21.0	(17.0 - 25.1)
14	21.1	(16.9 - 25.3)
43	21.1	(16.3 - 25.8)
2	21.5	(18.3 - 24.7)
6	21.9	(18.0 - 25.8)
1	21.9	(19.2 - 24.6)
51	22.4	(16.9 - 28.0)
16	22.6	(18.6 - 26.7)
12	23.4	(19.4 - 27.3)
3	23.5	(20.1 - 26.8)
47	27.0	(21.0 - 33.0)

* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 15.3% (95% CI: 14.8% - 15.8%)



Figure 9: Current Cigarette Smoking in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	24.1	21.8	12.8	25.3	18.0	23.2
95% CI	(20.0-28.2)	(17.7-26.0)	(9.5-16.1)	(20.1-30.6)	(13.5-22.4)	(18.5-27.9)
Local Area 2: New Haven	21.8	27.3	8.9*	17.4	24.2	24.3*
95% CI	(17.2-26.5)	(21.8-32.8)	(5.9-11.8)	(12.8-22.1)	(18.0-30.3)	(16.9-31.7)
Local Area 3: Hartford	25.7	25.1	10.7	24.5*	23.8	24.2
95% CI	(20.5-30.9)	(20.0-30.1)	(6.8-14.6)	(17.1-31.9)	(18.6-29.1)	(18.5-29.8)

* (0.15 ≤ CV ≤ 0.20)

Tobacco use is considered a winnable battle by the CDC,¹⁹ and strategies are underway nationwide to reduce its use. Tobacco use is also part of the 6|18 Initiative by the CDC to reduce its use in the country.³⁰ Many state and community-based interventions are available to reduce cigarette smoking, and they include promoting tobacco use cessation, preventing initiation of cigarette smoking, and making societal shifts in attitudes.^{31,32} Some strategies involve public policies (<https://betobaccofree.hhs.gov/laws>).

In 2015, the cost of a pack of cigarettes in Connecticut averaged \$9.52, a price among the highest in the country,³³ and some believe that the high cost of cigarettes is the single most effective way to decrease their use.³⁴ Aggressive social media campaigns, such as those distributed by the CDC,³⁵ and easy access to cessation programs in Connecticut (<https://www.quitnow.net/connecticut>) are other active strategies being used to reduce cigarette smoking in Connecticut. More information by the Tobacco Cessation and Prevention program within the Connecticut Department of Public Health can be viewed at <http://www.ct.gov/dph/tobacco>.



Ever Used Hookah

Although cigarette smoking in the United States has been steadily declining, use of alternative tobacco products has become more prevalent in recent years.³⁶ The health effects of non-cigarette tobacco are often perceived as less harmful than traditional cigarettes, particularly in younger age groups, yet nicotine exposure during adolescence may have long-lasting adverse effects on the developing adolescent brain.³⁷ The negative health risks associated with hookahs, or water pipes, are well-established, and for some, this type of tobacco use is associated with increased risk for cigarette use.³⁸ Hookahs deliver a small mixture of shredded flavored tobacco through a mouth piece attached to a rubber hose. Hookah lounges have increased during the past decade within Connecticut, attracting young adults.

The CT BRFSS survey asked respondents if they had ever used hookahs. Results for all local areas of the state are shown in **Map 10** and **Table 10**.

Within Connecticut during 2011-2015, combined, the overall statewide prevalence of adult residents who had ever tried hookah was 11.7% (95% CI: 11.2% - 12.3%). Across all local areas, the percent prevalence was lowest in local area 20: Bethlehem, Canaan, Cornwall, Goshen, Harwinton, Kent, Litchfield, Middlebury, Morris, Norfolk, North Canaan, Salisbury, Sharon, and Warren, combined, with a prevalence of 8.5% (5.4% - 11.6%). The risk of ever using hookah was highest in local areas 8: Stamford, and 27: Mansfield, Stafford, and Willington, combined, where the percent prevalence was 16.5% (13.1% - 20.0%) and 17.0% (12.5% - 21.5%), respectively. These two local areas were at significantly greater risk of ever using hookah, compared to the state.

The percent prevalence values of ever using hookah in the towns of Bridgeport, New Haven, and Hartford, by age and race/ethnicity, are shown in **Figure 10**. It was not possible to obtain valid estimates of hookah use among adults at least 65 years old, and results among adults 45-64 years old are of limited validity. This indicates that hookah use is relatively recent in the state of Connecticut and is currently most common among young adults. Among those demographics for which estimates have strong validity, and compared to the overall state risk, the risk of ever using hookah was significantly worse among:

- Adults 18-44 years old in Bridgeport and New Haven; and
- Non-Hispanic White adults in New Haven.



Map 10: Ever Used Hookah
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

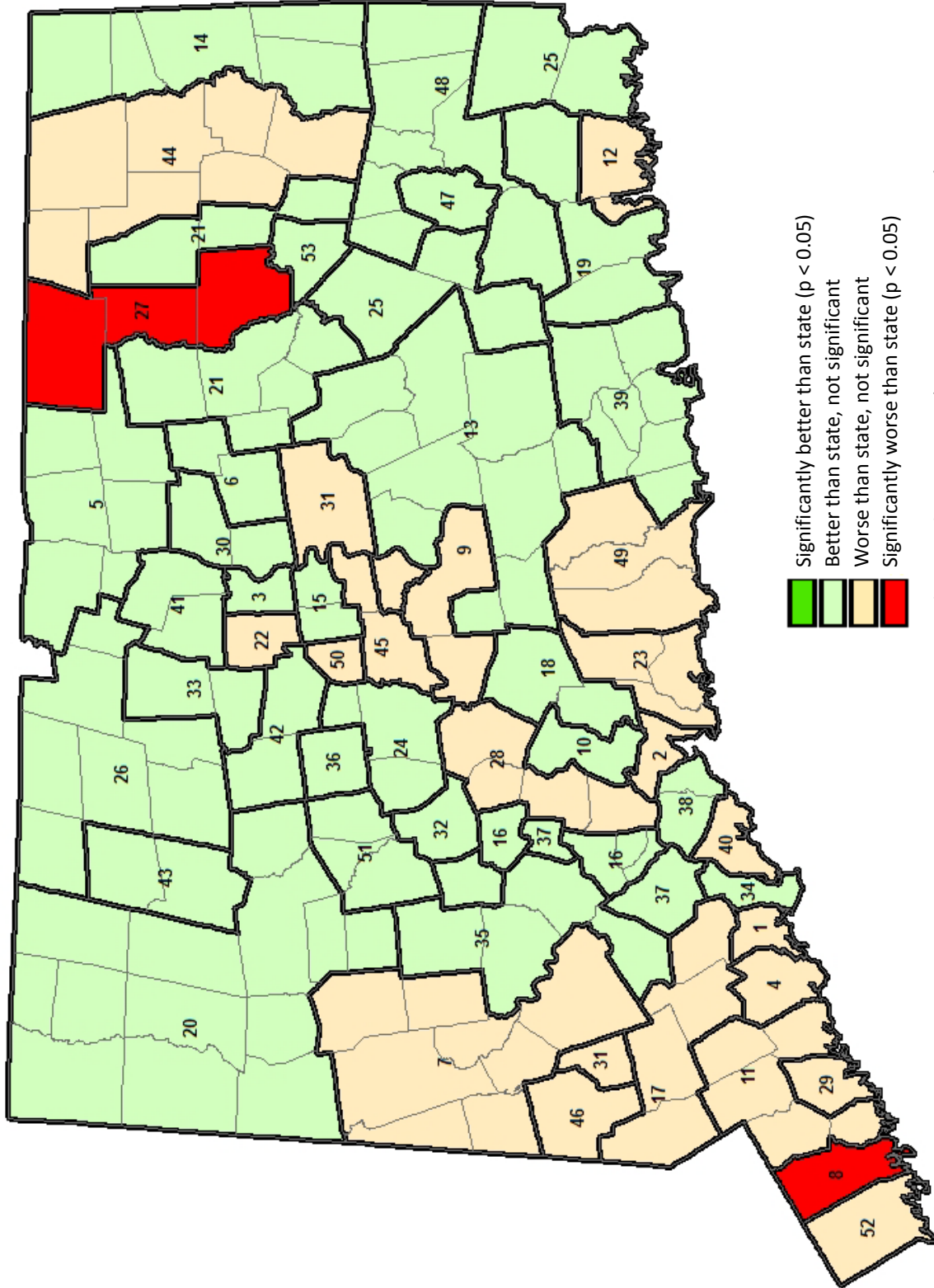




Table 10: Ever Used Hookah
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
none		
Better than State, not significant		
19 **		~5
47 **		~5
20 *	8.5	(5.4 - 11.6)
25 *	8.8	(5.5 - 12.2)
18 *	9.1	(5.6 - 12.6)
16 *	9.1	(6.1 - 12.1)
21 *	9.4	(6.1 - 12.7)
38 *	9.5	(5.9 - 13.2)
5	9.7	(7.0 - 12.4)
14 *	9.8	(6.6 - 13.0)
41 **		~10
3	10.0	(7.5 - 12.4)
37 **		~10
53 **		~10
15 *	10.0	(6.6 - 13.4)
51 **		~10
48 **		~10
26 *	10.2	(6.6 - 13.8)
35 *	10.2	(6.7 - 13.7)
6	10.3	(7.4 - 13.2)
34 *	10.6	(6.9 - 14.3)
13	10.6	(7.6 - 13.5)
42 *	10.7	(6.9 - 14.4)
39 *	11.0	(6.9 - 15.1)
33 *	11.0	(7.5 - 14.6)
43 *	11.1	(7.2 - 15.0)
10 *	11.3	(7.4 - 15.2)
32 *	11.3	(7.9 - 14.6)
30 *	11.4	(7.4 - 15.3)
24 *	11.5	(7.8 - 15.3)
36 *	11.7	(7.9 - 15.5)

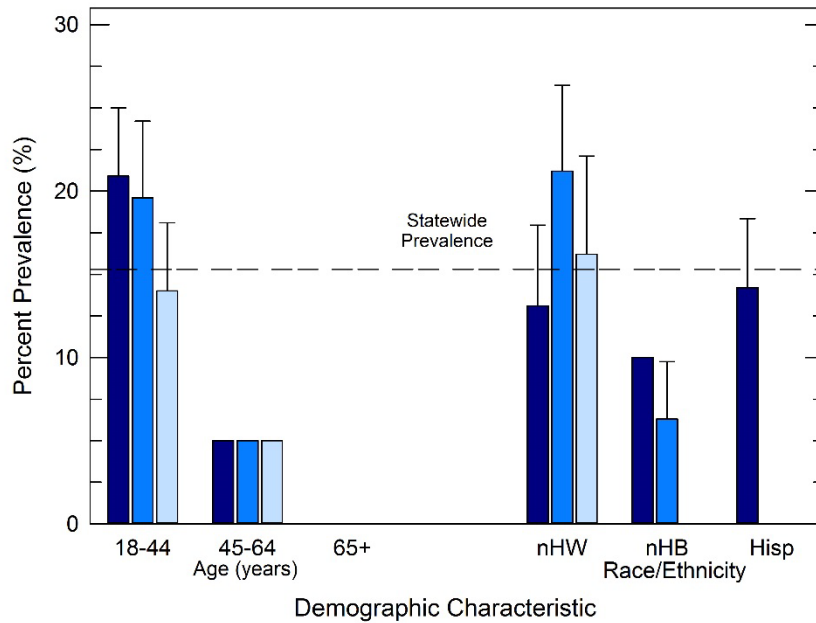
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
44 *	12.0	(7.3 - 16.7)
31	12.0	(8.5 - 15.6)
40 *	12.1	(7.9 - 16.4)
17	12.4	(9.1 - 15.8)
49 *	12.4	(8.0 - 16.8)
4	12.4	(9.1 - 15.7)
50 *	12.6	(8.6 - 16.6)
28 *	12.6	(8.7 - 16.6)
9	12.6	(9.4 - 15.9)
7	12.6	(9.6 - 15.6)
29	13.2	(9.7 - 16.7)
1	13.3	(10.8 - 15.7)
11	13.3	(10.2 - 16.4)
45 *	13.5	(8.2 - 18.7)
2	13.8	(10.9 - 16.7)
22	13.9	(10.4 - 17.4)
23 *	14.6	(10.2 - 18.9)
12	14.7	(11.1 - 18.2)
46 *	16.0	(11.2 - 20.7)
52 *	17.2	(11.8 - 22.7)
Significantly Worse than State ($p < 0.05$)		
8	16.5	(13.1 - 20.0)
27	17.0	(12.5 - 21.5)

* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 11.7% (95% CI: 11.2% - 12.3%)



Figure 10: Ever Used Hookah in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	20.9	~5**	na	13.1*	~10**	14.2
95% CI	(16.8-25.0)			(8.2-17.9)	(2.8-9.7)	(10.1-18.4)
Local Area 2: New Haven	19.6	~5**	na	21.2	6.3*	na
95% CI	(15.0-24.2)			(16.0-26.3)	(2.8-9.7)	
Local Area 3: Hartford	14.0	~5**	na	16.2*	na	na
95% CI	(9.9-18.1)			(10.3-22.1)		

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30) na – data suppressed to limited validity

In 2011, hookah lounges in Connecticut were operating in at least three towns within the state,³⁹ and a recent search on the internet at the time of this report reveals at least seven lounges, located in Fairfield, Manchester, Milford, New Britain, New Haven West Hartford, and West Haven. Although legislative action of alternate tobacco products, such as e-cigarettes and vaping, exist in the state (<https://www.jud.ct.gov/lawlib/law/smoking.htm>), similar legislation about hookah lounges has been limited to local ordinances. In 2014, state legislation was proposed to regulate hookah lounges (Substitute House Bill No. 5151). Updates and additional information can be found at <http://www.ct.gov/Tobacco>.



Excessive Alcohol Consumption in Past Month

Excessive alcohol consumption is associated with numerous health problems,⁴⁰ including liver disease, neurological damage and alcohol poisoning, and can lead individuals to engage in risky and violent behaviors.⁴¹ In Connecticut during 2015, the risk of excessive drinking did not differ from the national risk, though the state ranked among the worse in the country for its prevalence of excessive alcohol consumption.⁹ Further, although the state experienced a significant decrease in excessive alcohol consumption from 2013 to 2014, the overall change from 2011 to 2015 was not significant.

In the CT BRFSS, respondents were asked if they had consumed alcohol in past 30 days, and, if they responded positively, they were asked about frequency of alcohol consumption during the past month and the amount of alcohol consumed. The prevalence of adults who engaged in excessive drinking, defined as either binge drinking or heavy drinking (see **Description of Health Indicators**, page 15) in the past month, is shown in **Map 11** and **Table 11** for each local area of the state.

Overall in Connecticut during 2011-2015, combined, the risk of excessive alcohol use was 18.9% (95% CI: 18.3% - 19.5%). Compared to the statewide risk of excessive alcohol drinking, the risk was significantly better in three local areas: 41: Bloomfield/Winsor; 19: East Lyme, Ledyard, and Waterford; and 1: Bridgeport.

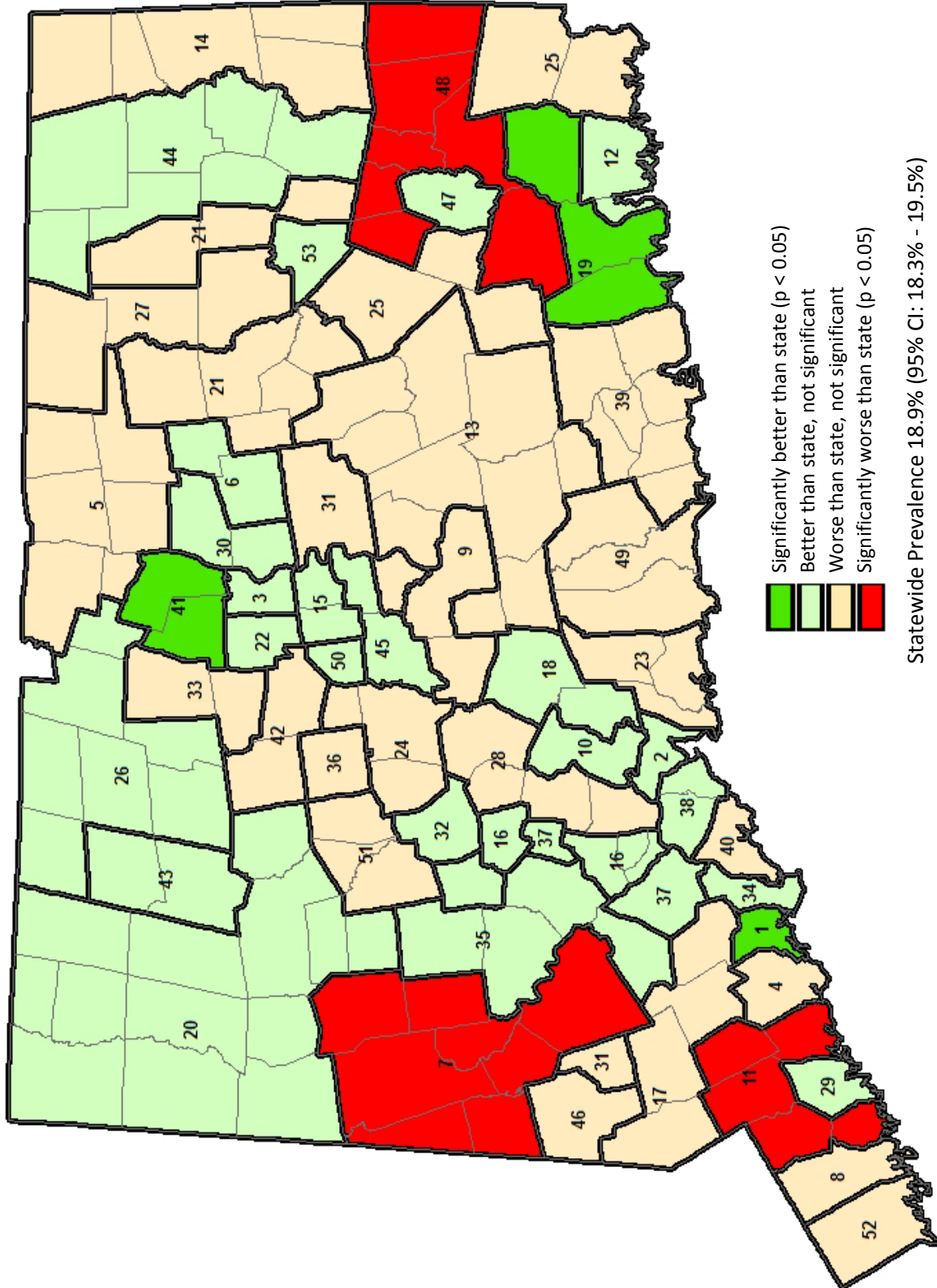
The risk of excessive alcohol drinking was significantly worse in three local areas:

- 23.7% (20.0% - 27.3%) in local area 11: Darien, New Canaan, Weston, Westport and Wilton, combined;
- 24.8% (9.8% - 29.8%) in local area 48: Franklin, Griswold, Lisbon, Montville, Preston, Sprague, and Voluntown, combined; and
- 25.1% (21.2% - 29.1%) in local area 7: Bridgewater, Brookfield, New Fairfield, New Milford, Newtown, Roxbury, Sherman, and Washington, combined.

The prevalence values of excessive alcohol consumption in Bridgeport, New Haven, and Hartford, by age and race/ethnicity, are shown in **Figure 11**. Compared to the statewide risk, the risk of excessive alcohol consumption in these three towns was not significantly greater for any age or race/ethnicity group, indicating that excessive alcohol consumption was of higher prevalence in other areas of the state. Within these three towns, excessive alcohol consumption decreased with age and was more prevalent among non-Hispanic White adults.



**Map 11: Excessive Alcohol Consumption in Past Month
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**





**Table 11: Excessive Alcohol Consumption in Past Month
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
41 *	13.5	(9.4 - 17.5)
19	13.6	(10.4 - 16.9)
1	15.6	(13.2 - 18.1)
Better than State, not significant		
44 *	14.2	(9.7 - 18.8)
47 *	14.5	(9.5 - 19.5)
38	15.0	(10.9 - 19.0)
10	15.2	(10.9 - 19.4)
3	15.4	(12.4 - 18.3)
18	15.6	(11.6 - 19.7)
34	15.6	(11.4 - 19.8)
30	16.1	(11.7 - 20.4)
2	16.2	(13.3 - 19.1)
20	16.4	(12.6 - 20.1)
26	16.6	(12.7 - 20.6)
22	16.9	(13.2 - 20.6)
16	17.0	(13.3 - 20.7)
37	17.1	(12.4 - 21.8)
53 *	17.2	(10.7 - 23.8)
6	17.3	(13.8 - 20.8)
45	17.9	(12.7 - 23.1)
50	18.2	(13.6 - 22.9)
15	18.3	(14.0 - 22.6)
43	18.5	(13.9 - 23.1)
35	18.6	(14.1 - 23.1)
29	18.7	(14.9 - 22.4)
32	18.7	(14.5 - 22.9)
12	18.9	(15.2 - 22.5)

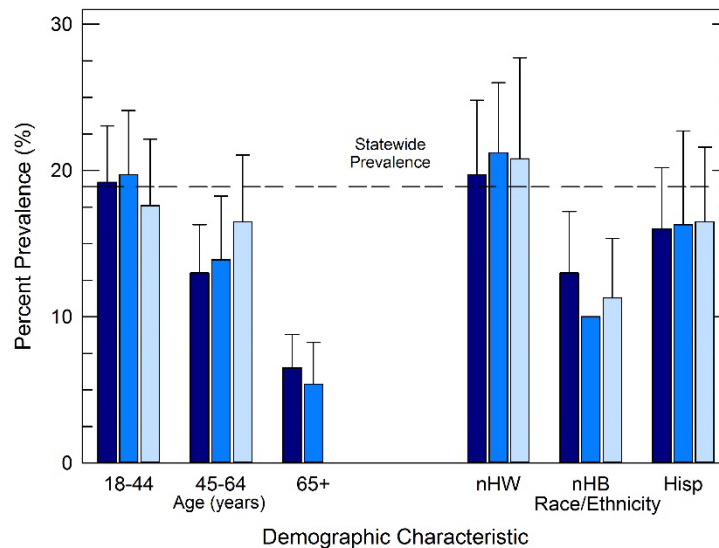
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
14	19.1	(14.9 - 23.2)
28	19.1	(14.8 - 23.5)
23	19.8	(15.2 - 24.3)
8	19.9	(16.4 - 23.5)
9	20.0	(16.4 - 23.5)
13	20.0	(16.5 - 23.4)
39	20.2	(15.6 - 24.9)
17	20.3	(16.5 - 24.1)
25	20.3	(15.8 - 24.8)
5	20.6	(17.1 - 24.2)
46	20.7	(15.9 - 25.5)
40	21.0	(15.9 - 26.1)
31	21.1	(16.9 - 25.3)
33	21.2	(17.0 - 25.4)
27	21.5	(16.7 - 26.3)
49	22.1	(17.3 - 26.9)
24	22.2	(17.8 - 26.6)
42	22.3	(17.3 - 27.3)
21	22.4	(17.9 - 26.8)
4	22.6	(18.7 - 26.4)
36	22.6	(17.8 - 27.4)
52	22.8	(17.1 - 28.5)
51	25.1	(19.2 - 31.1)
Significantly Worse than State ($p < 0.05$)		
11	23.7	(20.0 - 27.3)
48	24.8	(19.8 - 29.8)
7	25.1	(21.2 - 29.1)

* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 18.9% (95% CI: 18.3% - 19.5%)



Figure 11: Excessive Alcohol Consumption in Past Month in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	19.2	13.0	6.5*	19.7	13.0*	16.0
95% CI	(15.4-23.1)	(9.7-16.3)	(4.2-8.8)	(14.6-24.8)	(8.8-17.2)	(11.8-20.2)
Local Area 2: New Haven	19.7	13.9*	5.4*	21.2	~10**	16.3*
95% CI	(15.3-24.1)	(9.5-18.2)	(2.6-8.3)	(16.4-26.0)		(10.0-22.8)
Local Area 3: Hartford	17.6	16.5	na	20.8*	11.3*	16.5*
95% CI	(13.1-22.2)	(12.0-21.1)		(13.9-27.7)	(7.2-15.3)	(11.4-21.6)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30) na – data suppressed due to limited validity

Motor vehicle accidents due to alcohol-impaired driving is considered a winnable battle by the CDC,¹⁹ and strategies such as alcohol road checkpoints, zero tolerance for young drivers, and ignition interlocks for DUI (driving under the influence) offenders are some strategies to reduce excessive alcohol consumption.⁴² Alcohol Screening and Brief Intervention (ASBI), a strategy described by the Community Prevention Guide,⁴³ is an evidence-based health care strategy for reducing excessive alcohol consumption,⁴⁴ and it is being used within the state during routine medical well-visits.⁴⁵ The Connecticut Department of Mental Health and Addictions Services (DMHAS) is also working with partners across the state to disseminate a similar evidence-based strategy called Screening, Brief Intervention, and Referral to Treatment (SBIRT) at colleges and federally qualified health care centers (J. Storey, DMHAS, *personal communication*). The strategy is also being implemented in the adolescent population and infused into medical training at the University of Connecticut School of Medicine.

In Connecticut during 2015, laws changed to require all drivers with a DUI charge to use a breathalyzer on their car.⁴⁶ Taxation is another strategy to reduce excessive alcohol consumption;⁴⁷ the current excise tax on liquor in Connecticut is \$5.40 per gallon, at roughly the median rate of all states in the country.⁴⁸



3. Health Protective Behaviors

Routine Check-up in Past Year

Routine check-ups are important for disease prevention and age-appropriate screening.⁴⁹ They are an important mechanism for identifying chronic conditions in the early stages, which allows patients and doctors more options for treatment before a condition worsens. Recommendations differ on the frequency of routine check-ups, but many emphasize that annual physical exams for healthy adults are beneficial.^{50,51} Annual physical exams are especially important for adults with existing health conditions or adults with a strong family history of health conditions. Within Connecticut during 2015, the prevalence of having a routine check-up in the past year was significantly better than the U.S., and the state ranked better than most other states in the country.⁹ Despite these promising figures, the prevalence of having a routine check-up in the past year within Connecticut was significantly worse among adults 18-34 years old, men, Hispanic/Latino adults, and, importantly, adults lacking health care coverage.

Respondents to the CT BRFSS were asked how long it had been since they last visited a doctor for a routine check-up. The question was asked of all adults, regardless of their health status. The prevalence of adults who had a check-up in the previous year for years 2011-2015, combined, is shown in **Map 12** and **Table 12** for all local areas of the state.

In Connecticut during 2011-2015, combined, the prevalence of adult residents who had a routine check-up in the past year was 86.8% (95% CI: 86.4% - 87.3%). The prevalence of having a check-up in the past year was 90.4% (87.5% - 93.3%) in local area 19: East Lyme, Ledyard, and Waterford, combined, a value significantly better than the statewide prevalence. The prevalence of having a check-up in the past year was significantly worse in local area 46: Danbury, in which the prevalence was 81.7% (77.2% - 86.2%).

The prevalence values of having a routine check-up in the past year within Bridgeport, New Haven, and Hartford are shown in **Figure 12**, by age and race/ethnicity. The prevalence of having a check-up in the past year was significantly worse among:

- Adults 18-44 years old in Bridgeport, Hartford, and New Haven;
- Adults 45-64 years old in Bridgeport and Hartford; and
- Hispanic/Latino adults in Bridgeport and New Haven.



Map 12: Routine Check-up in Past Year
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

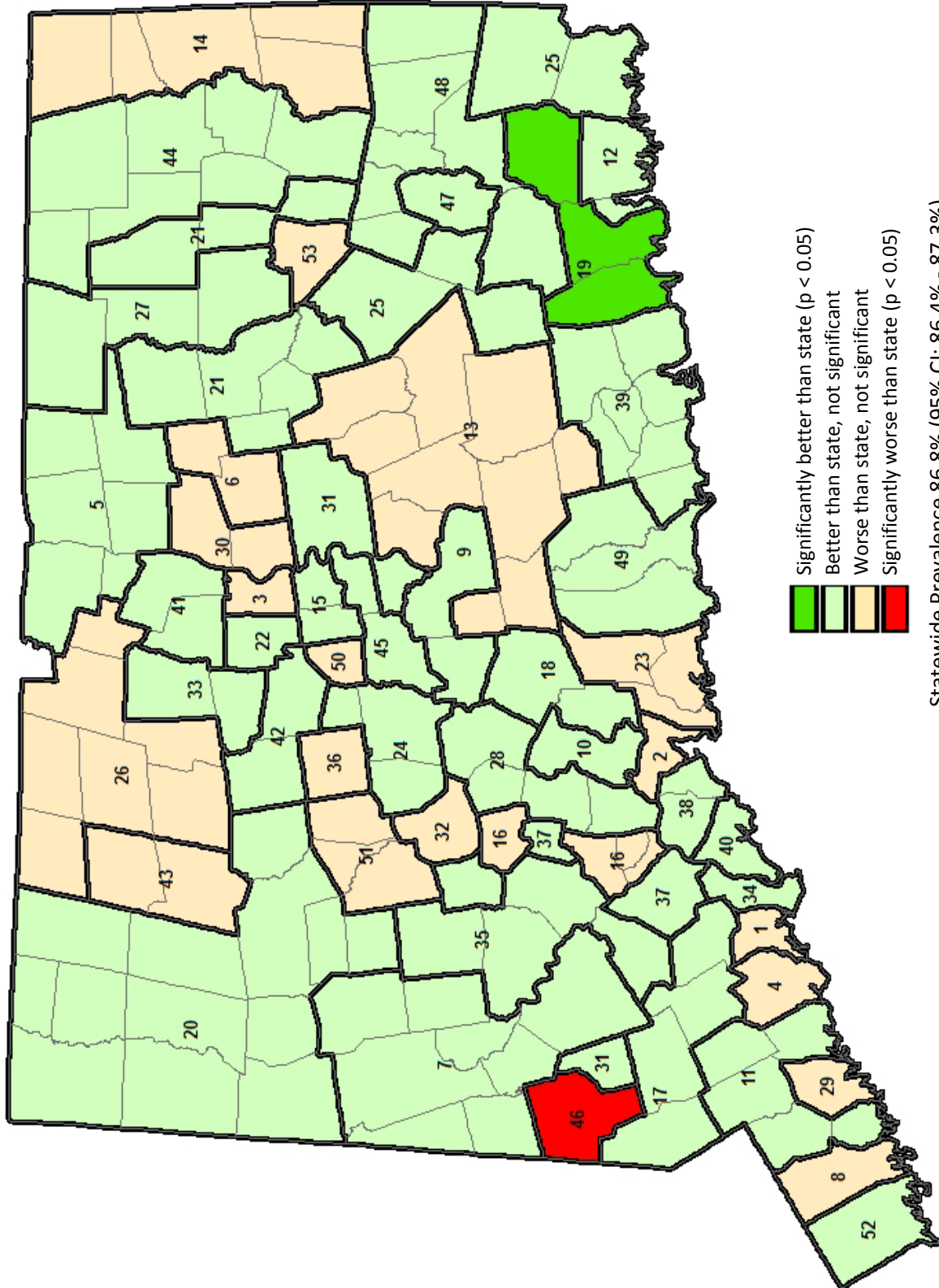




Table 12: Routine Checkup in Past Year
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
19 *	90.4	(87.5 - 93.3)
Better than State, not significant		
31 *	90.0	(86.9 - 93.0)
41 **	~90	
45 **	~90	
12	89.8	(87.0 - 92.6)
15	89.2	(86.1 - 92.3)
9	89.0	(86.2 - 91.8)
42 *	89.0	(85.5 - 92.4)
24	88.8	(85.7 - 91.8)
22	88.7	(85.6 - 91.7)
44 *	88.7	(84.9 - 92.6)
5	88.5	(85.7 - 91.2)
25 *	88.5	(84.9 - 92.1)
35 *	88	(85.0 - 91.9)
52 *	88.4	(84.5 - 92.4)
49 *	88.3	(84.5 - 92.0)
28	87.9	(84.6 - 91.2)
18	87.7	(84.5 - 90.8)
20	87.7	(84.6 - 90.9)
39 *	87.6	(83.9 - 91.4)
17	87.4	(84.4 - 90.3)
37 *	87.2	(82.9 - 91.4)
38 *	87.2	(83.3 - 91.1)
27	87.1	(83.5 - 90.7)
34 *	87.0	(83.0 - 91.1)
48	87.0	(83.2 - 90.8)
11	86.9	(83.9 - 89.8)
47 *	86.9	(82.0 - 91.8)
7	86.8	(84.0 - 89.6)
10 *	86.8	(82.9 - 90.7)
21	86.8	(83.2 - 90.5)
33	86.8	(83.4 - 90.3)
40	86.8	(83.0 - 90.6)

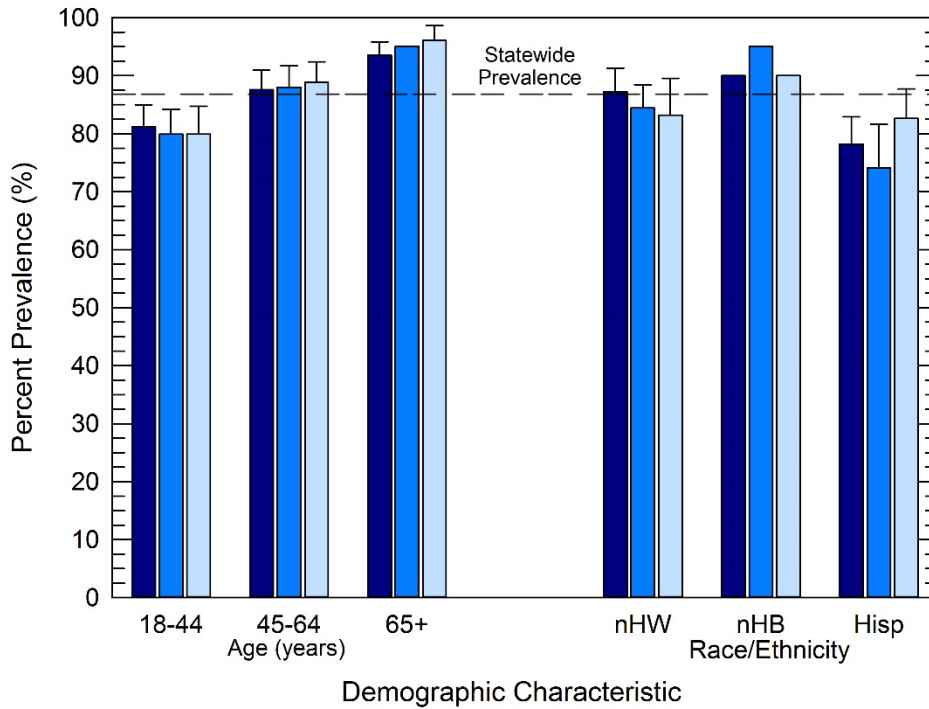
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
30	86.2	(82.2 - 90.2)
26	86.0	(82.2 - 89.9)
23	85.9	(82.0 - 89.7)
16	85.8	(82.2 - 89.3)
36	85.6	(81.6 - 89.5)
13	85.5	(82.4 - 88.5)
50	85.1	(81.1 - 89.2)
4	85.0	(81.7 - 88.3)
1	84.8	(82.4 - 87.2)
3	84.7	(81.7 - 87.7)
14	84.7	(80.8 - 88.6)
51 *	84.6	(79.7 - 89.5)
2	84.2	(81.4 - 87.0)
6	84.2	(80.8 - 87.5)
29	84.0	(80.4 - 87.6)
8	83.7	(80.3 - 87.0)
32	82.4	(78.4 - 86.4)
43	82.3	(77.9 - 86.7)
53 *	82.0	(75.7 - 88.3)
Significantly Worse than State ($p < 0.05$)		
46	81.7	(77.2 - 86.2)

* (0.15 ≤ CV ≤ 0.20)
 ** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 86.8% (95% CI: 86.4% - 87.3%)



**Figure 12: Routine Check-up in Past Year in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined**



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	81.2	87.6	93.5	87.2*	~90**	78.2
95% CI	(77.5-85.0)	(84.2-90.9)	(91.1-95.8)	(83.1-91.3)		(73.5-82.9)
Local Area 2: New Haven	79.9	88.0*	~95**	84.4	~95**	74.1
95% CI	(75.6-84.2)	(84.3-91.7)		(80.4-88.4)		(66.6-81.6)
Local Area 3: Hartford	79.9	88.8*	96.1*	83.2*	~90**	82.6
95% CI	(75.1-84.7)	(85.2-92.4)	(93.5-98.6)	(76.9-89.6)		(77.5-87.7)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

Adult annual physical check-ups are an important way to obtain health screenings and referrals to treatment. Clinical best practice describes the screening topic for each annual check-up, according to age (18-39 years old, 40-64 years old, and 65 years old and older) and sex (male and female).⁵² During the adult annual physical exam, these schedules, recommended by the American Academy of Family Physicians,⁵³ may include screening for many chronic condition, such as depression, high blood pressure, asthma, diabetes or pre-diabetes, high cholesterol, cancer, and/or sexually transmitted diseases.⁵⁴ Preventive care or treatment may also be offered for those positively screened conditions, as well as for counseling for weight and healthy eating, tobacco use, excessive alcohol consumption, and prevention of sexually transmitted diseases. Adult annual physical check-ups are highly recommended for all women of reproductive age to provide preconception care before pregnancy, an activity especially important for women in Connecticut.⁵⁵



Influenza Vaccination in Past Year

The influenza (flu) virus can cause serious infections, hospitalizations and even death in some susceptible individuals.⁵⁶ Seasonal flu vaccines are recommended by the Advisory Committee on Immunization Practices through CDC for everyone over six months of age.⁵⁷ Within Connecticut during 2015, the percent prevalence of adults who received the influenza vaccination in the past year was significantly better than the U.S., and the state ranked within the best ten states in the country for having had the influenza vaccine.⁹ In addition, the prevalence of adults who received the vaccine in the past year increased significantly from 2011-2015, with significant annual increases between 2013-2014 and most recently from 2014-2015. Despite these strong results, the prevalence of having had the influenza vaccination in the past year was significantly worse among young adults (18-34 years old), men, non-Hispanic Black/African American adults, and adults with lower income and educational levels. Notably, the prevalence of having had the influenza vaccination in the past year was also significantly worse among adults who lacked health care coverage.

Respondents to the CT BRFSS were asked if they had received the seasonal flu vaccine in the past year, either as a shot or nasal spray mist. Results for all local areas of the state are shown in **Map 13** and **Table 13**.

In 2011 – 2015, combined, 41.9% (95% CI: 41.2% - 42.6%) of Connecticut adults received an influenza vaccination in the past year. The prevalence of receiving the vaccination was significantly better than the state in eight local areas, and the best prevalence was in local area 19: East Lyme, Ledyard, and Waterford, combined with a prevalence of 50.8% (46.0% - 55.6%). Compared to the statewide prevalence, the prevalence of receiving the vaccination was significantly worse in five local areas, and the worst prevalence was in local area 1: Bridgeport, with a prevalence of 30.5% (27.7% - 33.3%).

The prevalence values for receiving the influenza vaccination in the past year within Bridgeport, New Haven, and Hartford are shown in **Figure 13**. Compared to the statewide value, the percent prevalence of adults who received the influenza vaccine in the past year was significantly worse among:

- Young adults (18-44 years old) in Bridgeport, Hartford, and New Haven;
- non-Hispanic Black/African American adults in Bridgeport; and
- Hispanic/Latino adults in all three towns.



Map 13: Influenza Vaccination in Past Year
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

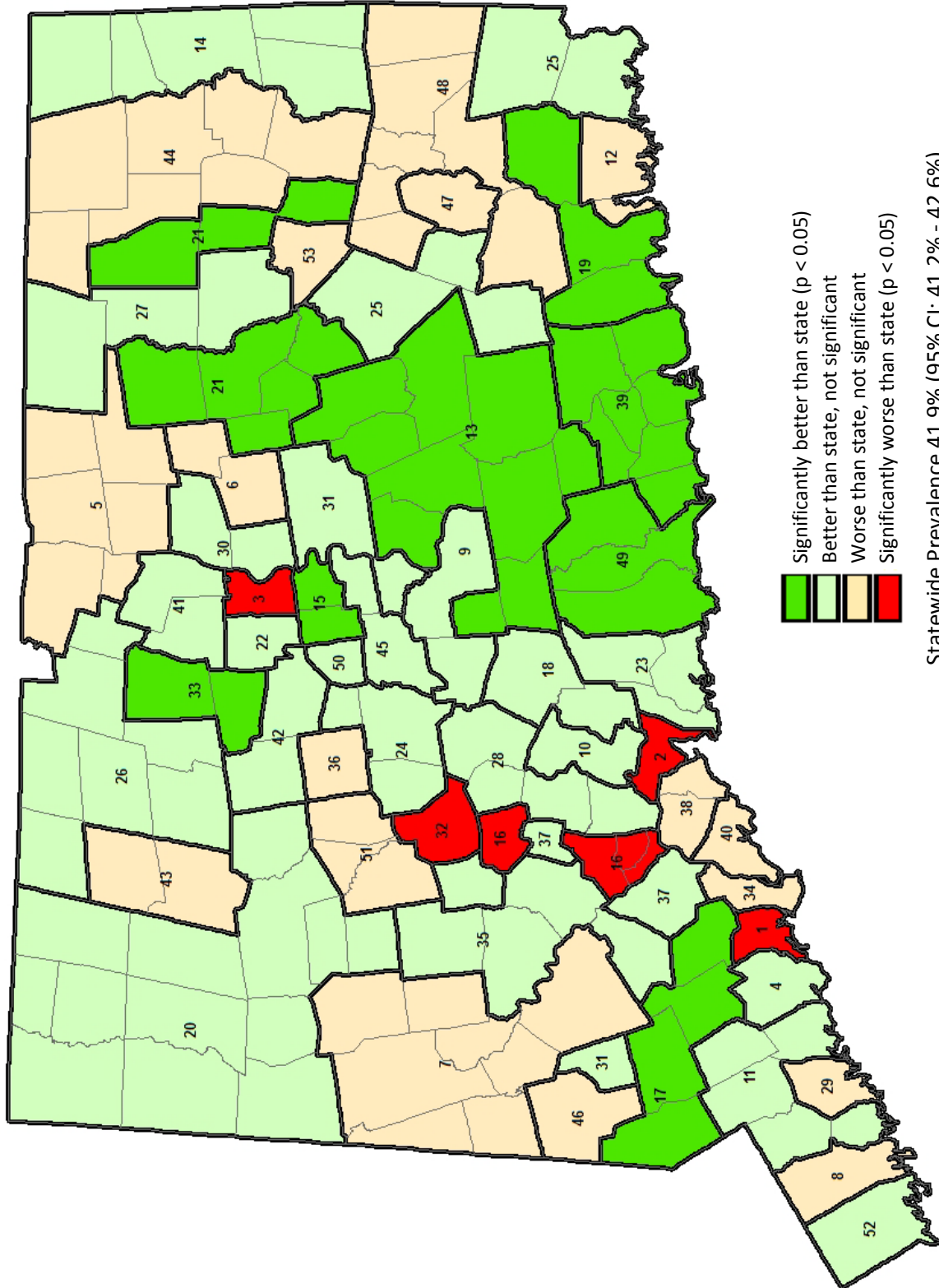




Table 13: Influenza Vaccination in Past Year
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
19 *	50.8	(46.0 - 55.6)
22	50.6	(45.8 - 55.3)
15	49.9	(44.9 - 55.0)
49 *	48.7	(43.2 - 54.3)
39 *	48.4	(43.0 - 53.8)
33	48.3	(43.2 - 53.3)
13	47.8	(43.5 - 52.0)
17	47.6	(43.0 - 52.2)
Better than State, not significant		
11	46.8	(42.6 - 51.1)
4	46.6	(42.2 - 51.0)
10 *	46.5	(41.2 - 51.8)
42 *	46.5	(40.9 - 52.1)
31 *	46.3	(41.3 - 51.2)
35 *	46.2	(41.0 - 51.4)
52 *	45.3	(39.0 - 51.6)
28	45.1	(40.0 - 50.1)
24	45.0	(40.2 - 49.8)
18	44.8	(39.8 - 49.7)
30	44.8	(39.4 - 50.1)
45	44.8	(38.7 - 50.8)
20	44.5	(39.6 - 49.4)
23	44.5	(39.4 - 49.6)
14	44.0	(39.1 - 49.1)
25 *	43.8	(38.2 - 49.3)
21	43.7	(38.7 - 48.7)
41	43.6	(37.8 - 49.4)
9	43.5	(39.2 - 47.7)
26	43.5	(38.4 - 48.7)
37 *	43.5	(37.7 - 49.4)
27	42.7	(37.3 - 48.0)
50	41.9	(36.2 - 47.5)

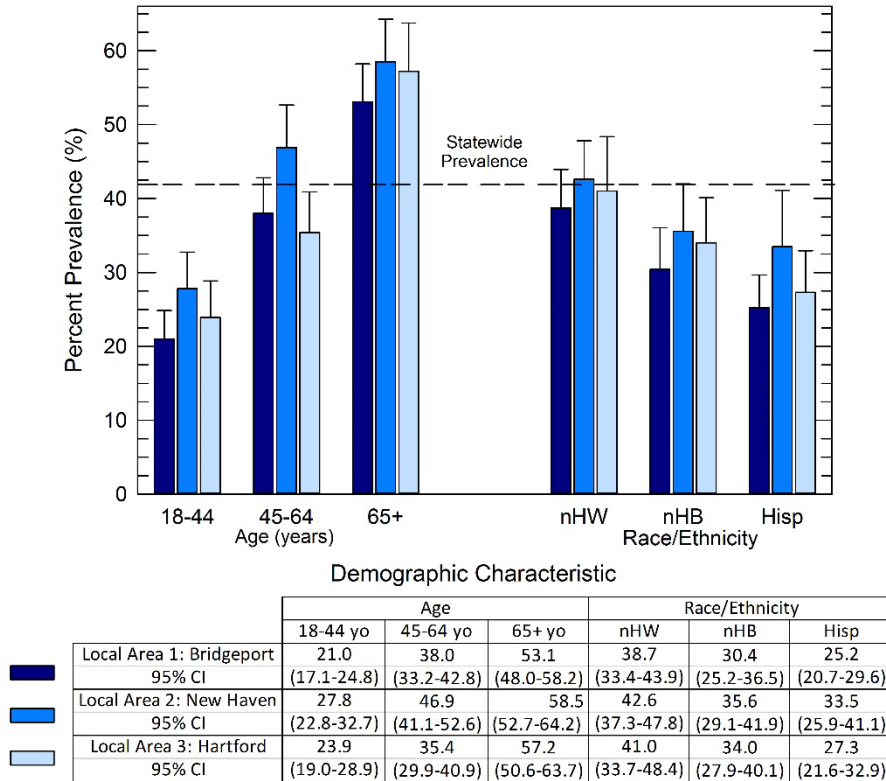
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
7	41.8	(37.8 - 45.9)
44 *	41.7	(35.6 - 47.9)
40	41.5	(35.9 - 47.1)
5	41.3	(37.4 - 45.2)
36	41.3	(36.0 - 46.6)
6	41.2	(37.1 - 45.4)
34 *	41.2	(35.5 - 46.9)
38 *	41.0	(35.6 - 46.4)
48	40.8	(35.6 - 46.1)
51 *	40.0	(34.1 - 46.0)
47 *	39.8	(33.4 - 46.2)
8	38.9	(34.6 - 43.2)
29	38.9	(34.0 - 43.8)
12	38.8	(34.4 - 43.1)
46	38.3	(33.0 - 43.7)
53 *	37.8	(30.3 - 45.3)
43	37.2	(31.9 - 42.4)
Significantly Worse than State ($p < 0.05$)		
2	37.3	(33.8 - 40.8)
16	36.5	(32.0 - 40.9)
32	32.8	(28.2 - 37.5)
3	31.9	(28.5 - 35.4)
1	30.5	(27.7 - 33.3)

* ($0.15 \leq CV \leq 0.20$)

Statewide Prevalence = 41.9% (95% CI: 41.2% - 42.6%)



Figure 13: Influenza Vaccination in Past Year in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



Although Connecticut ranks high among all states in the country for its prevalence of adults receiving the influenza vaccine in the past year, the prevalence is less than 50%, leaving adults with conditions that preclude the vaccine at risk for the ailment and its possible complications. The prevalence of receiving a vaccination increased steadily during the prior decade among younger adults, but did not increase significantly among older adults 65 years and older.⁵⁸

Evidence-based community strategies include: Improving access to vaccinations with vaccination programs at popular venues, home visits, and reducing out-of-pocket expenses; increasing community demand for vaccinations with reminder and incentive systems and vaccination requirements; and encouraging providers and health care systems to regularly administer vaccinations.⁵⁹ One strategy for providers is called AFIX (Assessment, Feedback, Incentives, Exchange),⁶⁰ which allows local health care providers to increase immunization coverage within their practices. Other strategies for health care providers includes use of standing orders for the vaccine and offering the vaccination to patients without an appointment.⁶¹ More active recruitment among the public may also help the public overcome negative perceptions about the influenza vaccination.⁶² The Connecticut Department of Public Health monitors weekly trends in influenza infections.⁶³



Ever Had Pneumococcal Vaccination (65 years and older)

Pneumonia is a lung infection that can be caused by viruses, bacteria or fungi. It is the leading cause of death of children under five years old worldwide. One type of pneumonia is preventable with two types of pneumococcal vaccine.⁶⁴ Pneumococcal vaccinations are recommended for children under two years of age, adults 19-64 years old who smoke tobacco, adults at least 65 years old, and all adults with existing medical conditions.⁶⁵ Within Connecticut during 2015, the prevalence of adults 65 years old and older who had ever received a pneumococcal vaccination was not significantly different from the U.S., and the state ranked 25th among all states in the country for its prevalence.⁹ Further, although the prevalence among older Connecticut adults of ever having a pneumococcal vaccination has increased since 2013, the increase has not been significant.

Respondents to the CT BRFSS in 2011 – 2015 were asked if they had ever received a pneumococcal vaccination. The results for adults 65 years and older in all local areas of the state are shown in **Map 14** and **Table 14**.

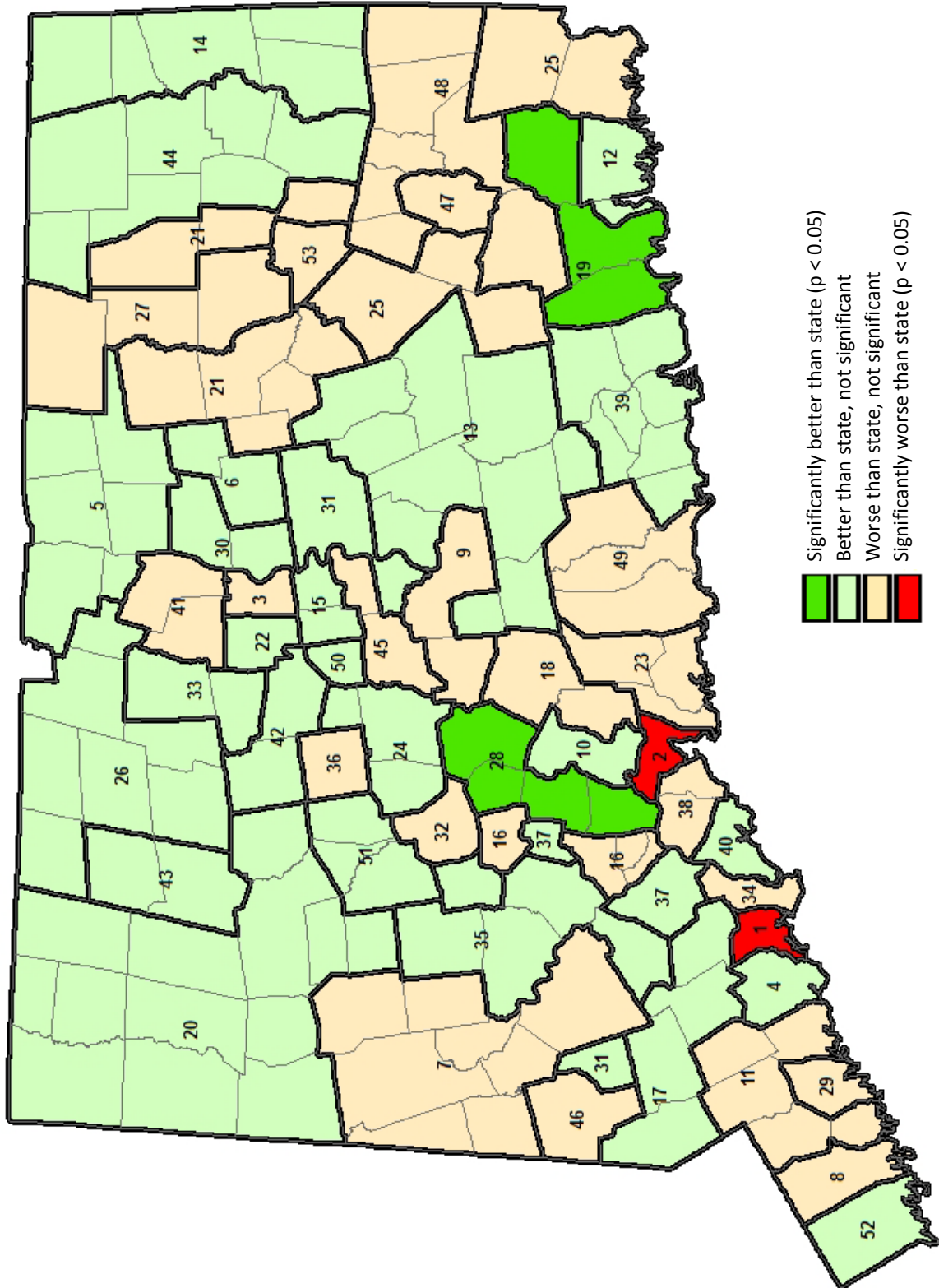
Statewide in 2011-2015, combined, the prevalence of adults at least 65 years old who had ever had a pneumococcal vaccination was 70.1% (95% CI: 69.0% - 71.2%). Compared to the statewide value, the percent prevalence of ever having had a pneumococcal vaccination among adults at least 65 years old was significantly better in local area local area 28: Bethany, Cheshire, Prospect, and Woodbridge, combined, and local area 19: East Lyme, Ledyard, and Waterford, combined, with prevalence values of 82.9% (76.7% - 89.1%) and 78% (72.5 - 83.5%), respectively. The percent prevalence was significantly worse in local area 2: New Haven and local area 1: Bridgeport, with prevalence values of 63.0% (57.5% - 68.5%) and 56.2% (51.0% - 61.5%), respectively.

The prevalence values among adults 65 years and older of ever having the pneumococcal vaccination within the towns of Bridgeport, New Haven, and Hartford are shown in **Figure 14**. Compared to the statewide prevalence, the prevalence of ever having had the pneumococcal vaccination among adults 65 years and older was significantly worse among:

- All adults of this age group in Bridgeport, Hartford, and New Haven;
- Non-Hispanic Black/African American adults Bridgeport, Hartford, and New Haven; and
- Hispanic adults in Bridgeport.



**Map 14: Ever Had Pneumococcal Vaccination (65 years old and older)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**





**Table 14: Ever Had Pneumococcal Vaccination (65 years old and older)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
28 *	82.9	(76.7 - 89.1)
19	78.0	(72.5 - 83.5)
Better than State, not significant		
22 *	77.6	(70.2 - 85.0)
39 *	76.9	(69.3 - 84.4)
33 *	76.7	(69.5 - 83.9)
35	76.2	(69.8 - 82.6)
40 *	75.9	(68.2 - 83.6)
44 *	75.7	(66.9 - 84.5)
26 *	75.4	(67.7 - 83.0)
30 *	75.3	(68.0 - 82.6)
24	75.1	(68.8 - 81.5)
14 *	75.0	(67.6 - 82.5)
12	74.9	(67.7 - 82.1)
6	74.7	(68.7 - 80.7)
10	74.4	(67.5 - 81.3)
52 *	73.9	(65.1 - 82.6)
4	73.4	(67.2 - 79.7)
20	73.3	(67.1 - 79.6)
43	73.0	(65.3 - 80.6)
17	72.9	(65.1 - 80.8)
42 *	72.4	(63.8 - 81.1)
51 *	72.2	(62.4 - 82.1)
5	72.0	(66.4 - 77.7)
13	71.8	(64.7 - 78.9)
50 *	71.8	(61.4 - 82.1)
37	71.4	(63.3 - 79.5)
15	71.3	(63.7 - 79.0)
31	70.3	(63.1 - 77.5)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
27	70.0	(61.5 - 78.5)
41 *	69.9	(60.3 - 79.5)
32	69.8	(61.5 - 78.2)
18	69.6	(61.8 - 77.4)
49	69.6	(61.3 - 77.9)
7	69.5	(62.8 - 76.3)
36 *	69.3	(60.2 - 78.4)
11	68.9	(62.1 - 75.6)
9	68.8	(61.4 - 76.2)
23	67.0	(59.2 - 74.8)
48	66.9	(58.4 - 75.3)
46 *	66.8	(56.9 - 76.8)
21	66.5	(57.6 - 75.5)
38	66.5	(58.2 - 74.7)
47 *	66.5	(56.4 - 76.6)
3	65.9	(59.7 - 72.2)
16	65.4	(56.8 - 74.0)
25	65.3	(55.7 - 74.8)
53 **	~65	
29	64.6	(55.7 - 73.6)
34	64.3	(54.6 - 74.0)
8	63.7	(56.1 - 71.2)
45	63.4	(53.8 - 73.0)
Significantly Worse than State ($p < 0.05$)		
2	63.0	(57.5 - 68.5)
1	56.2	(51.0 - 61.5)

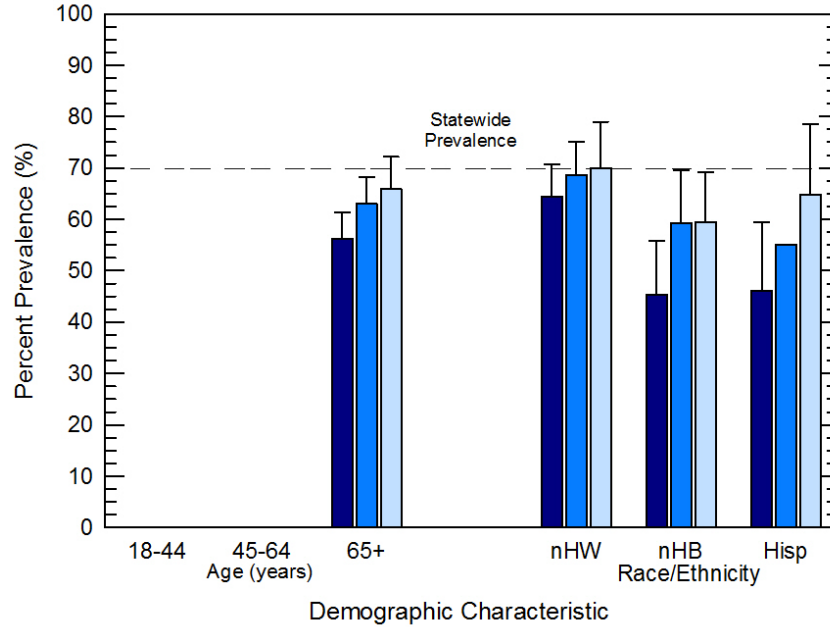
* (0.15 ≤ CV ≤ 0.20)

** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 70.1% (95% CI: 69.0% - 71.2%)



Figure 14: Ever Had Pneumococcal Vaccination (65 years old and older) in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport			56.2	64.4	45.3	46.0*
95% CI			(51.0-61.4)	(58.1-70.7)	(34.8-55.8)	(32.3-59.6)
Local Area 2: New Haven			63.0	68.6	59.2	~55**
95% CI			(57.7-68.2)	(62.2-75.1)	(48.9-69.5)	
Local Area 3: Hartford			65.9	69.9*	59.4	64.8*
95% CI			(59.5-72.2)	(60.8-79.0)	(49.6-69.1)	(51.0-78.5)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

Within Connecticut from 2000-2010, vaccination coverage for pneumococcal disease increased among adults 65 years old and older at a modest rate of 0.3% annually.⁵⁸ Further, throughout the previous decade, the prevalence of older adults who reported not knowing if they had ever had the pneumococcal vaccination was about 4-5%. Whereas strategies identified to increase vaccination coverage for influenza are focused on the entire adult population,⁵⁹ similar strategies to increase vaccination coverage for pneumococcal disease need to be focused on older adults. Patient reminders and recall systems are among evidence-based strategies to increase vaccination rates.⁶⁶ In addition, factsheets for the general public, and public service campaigns, such as those produced by the National Foundation for Infectious Diseases,⁶⁷ may also increase awareness among older adults.



Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old)

Over one million Americans are living with the Human Immunodeficiency Virus (HIV), and of these, about one in eight are not aware they are infected.⁶⁸ The group most affected by HIV is men who have sex with men, although heterosexuals and drug users can also be affected. It is recommended that all people 15-64 years old be screened for HIV/AIDS, as well as adults at risk for the disease, such as men having sex with men, and those having unprotected sex.⁶⁹ This recommendation became effective in 2006.⁷⁰ Within Connecticut during 2015, the prevalence of ever having had an HIV test was significantly worse for adults at least 55 years old, non-Hispanic White adults, and adults with incomes of at least \$35,000.⁹ Of Connecticut residents screened for HIV, half were screened within a private clinical setting.

Respondents to the CT BRFSS were asked if they had ever been tested for HIV, not including testing while donating blood. Results for all local areas of Connecticut are shown in **Map 15** and **Table 15**.

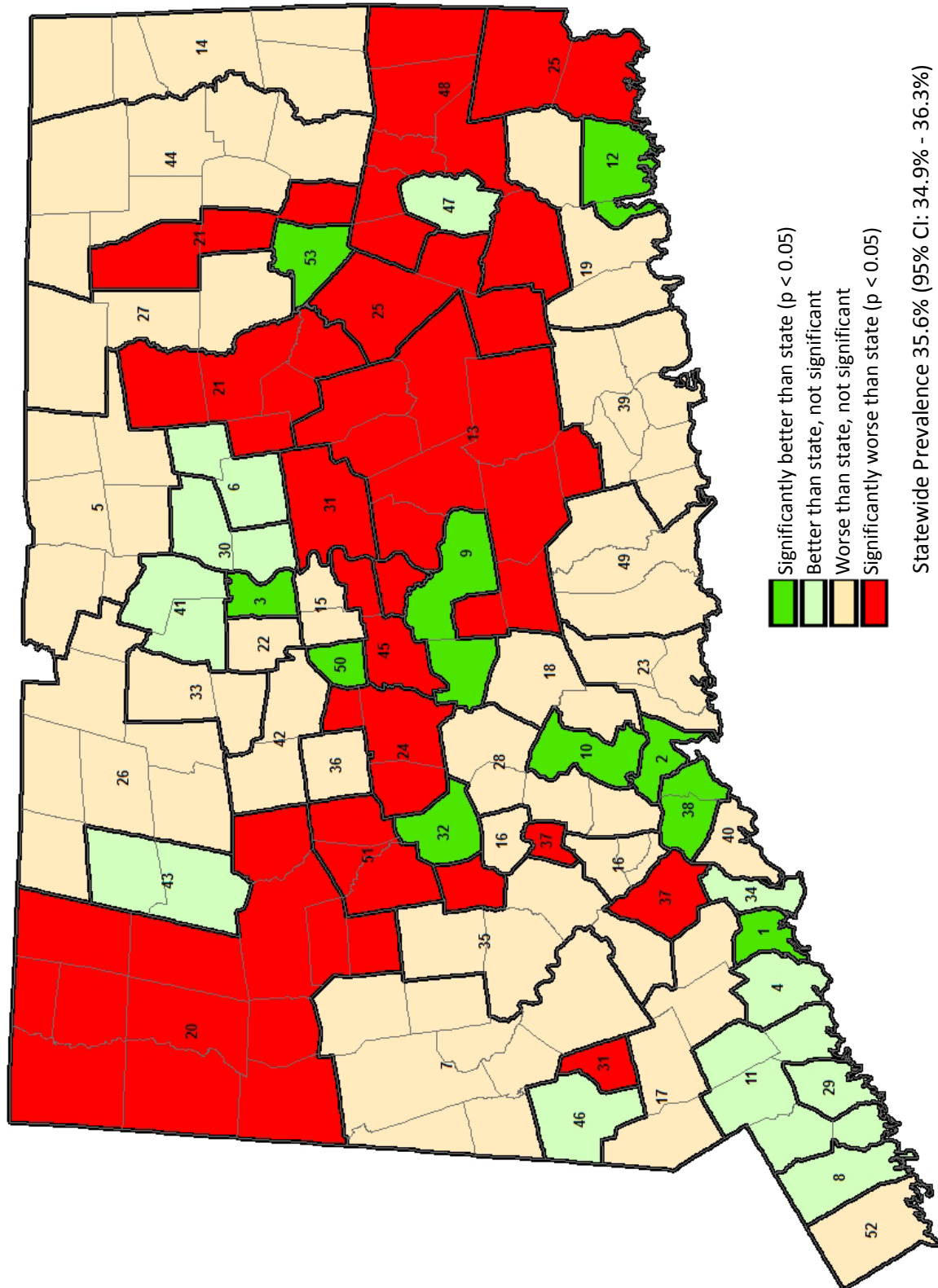
Statewide during 2011-2015 combined, the prevalence of adults 18-64 years old who ever had an HIV/AIDS test was 35.6% (95% CI: 34.9% - 36.3%). Compared to the statewide value, the percent prevalence of ever having had an HIV/AIDS test was significantly better in ten local areas, while the prevalence was significantly worse in another ten local areas of the state. The prevalence of ever having an HIV test was best in local area 3: Hartford, with a prevalence of 56.1% (52.1% - 60.1%). The prevalence of ever having an HIV test was worst in local area 20: Bethlehem, Canaan, Cornwall, Goshen, Harwinton, Kent, Litchfield, Middlebury, Morris, Norfolk, North Canaan, Salisbury, Sharon, and Warren, combined, with a prevalence of 24.2% (19.7% - 28.6%).

The prevalence values among adults 18-64 years old in Bridgeport, New Haven, and Hartford who ever had an HIV test are shown in **Figure 15**. Compared to the overall state prevalence, the prevalence was significantly worse among:

- Adults at least 65 years old in Bridgeport, Hartford, and New Haven;
- Non-Hispanic Black/African American adults in Bridgeport, Hartford, and New Haven; and
- Hispanic adults in Bridgeport.



**Map 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**





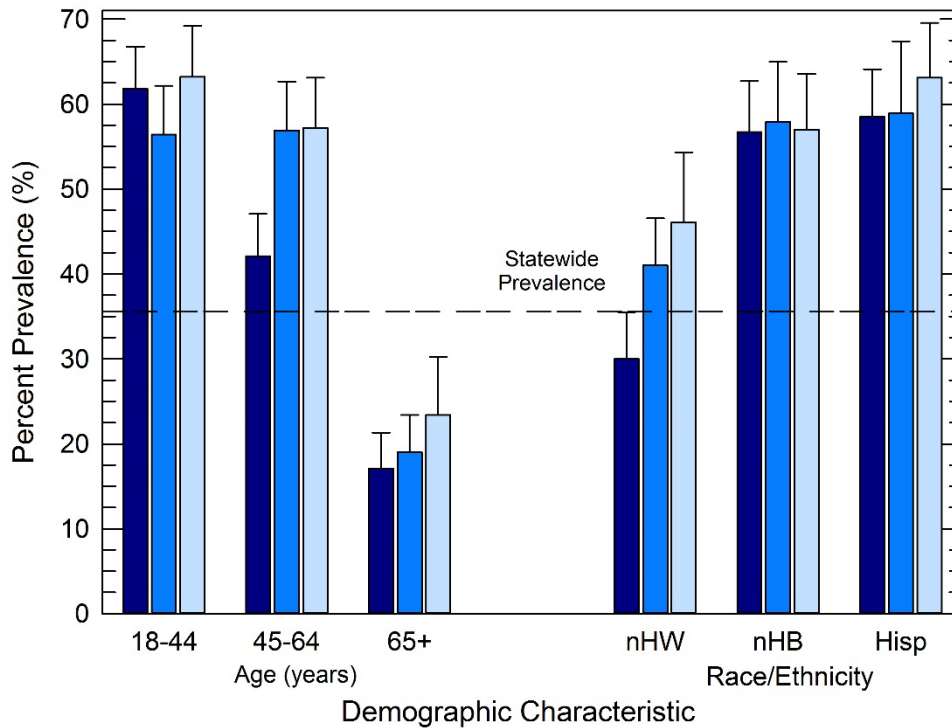
**Table 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval	Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)			Worse than State, not significant		
3	56.1	(52.1 - 60.1)	52	35.4	(28.9 - 41.9)
2	51.5	(47.6 - 55.3)	22	35.1	(30.4 - 39.8)
1	50.0	(46.7 - 53.3)	27	34.8	(29.4 - 40.2)
10	46.6	(41.0 - 52.1)	49	33.9	(28.2 - 39.6)
32	46.3	(41.1 - 51.6)	16	33.7	(28.9 - 38.4)
50	46.1	(40.1 - 52.0)	36	33.7	(28.4 - 38.9)
12	45.9	(41.2 - 50.6)	26	33.5	(28.2 - 38.7)
53	45.3	(37.2 - 53.5)	14	33.2	(28.3 - 38.1)
38	42.1	(36.4 - 47.8)	28	33.2	(28.2 - 38.3)
9	41.6	(37.1 - 46.0)	33	33.2	(28.4 - 38.1)
Better than State, not significant			5	32.9	(28.8 - 37.0)
8	40.4	(35.9 - 44.9)	15	32.2	(27.2 - 37.3)
29	39.7	(34.6 - 44.8)	23	32.0	(26.9 - 37.1)
6	39.1	(34.5 - 43.6)	42	31.9	(26.3 - 37.4)
47	38.5	(31.6 - 45.5)	35	31.7	(26.4 - 36.9)
41	38.3	(32.2 - 44.4)	17	31.5	(27.1 - 36.0)
11	38.1	(33.7 - 42.4)	7	31.1	(27.1 - 35.1)
46	37.7	(32.1 - 43.4)	18	31.1	(26.1 - 36.2)
34	37.5	(31.7 - 43.4)	40	31.1	(25.6 - 36.7)
4	37.4	(32.9 - 42.0)	39	30.9	(25.5 - 36.4)
30	36.9	(31.4 - 42.4)	44	30.5	(24.2 - 36.7)
43	35.9	(30.2 - 41.5)	19	30.4	(25.8 - 35.1)
			Significantly Worse than State ($p < 0.05$)		
			31	29.8	(25.1 - 34.4)
			13	29.3	(25.2 - 33.4)
			37	28.4	(22.6 - 34.1)
			24	28.3	(23.7 - 32.9)
			25	27.8	(22.6 - 33.1)
			48	27.8	(22.7 - 32.9)
			51	27.7	(22.0 - 33.5)
			21	27.2	(22.4 - 32.1)
			45	25.8	(20.1 - 31.5)
			20	24.2	(19.7 - 28.6)

Statewide Prevalence = 35.6% (95% CI: 34.9% - 36.3%)



Figure 15: Ever Had Human Immunodeficiency Virus (HIV) Test (18-64 years old) in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	61.8	42.1	17.1	30.0	56.7	58.5
95% CI	(56.8-66.7)	(37.1-47.0)	(12.9-21.3)	(24.5-35.5)	(50.7-62.7)	(52.9-64.1)
Local Area 2: New Haven	56.4	56.9	19.0	41.0	57.9	58.9
95% CI	(50.6-62.1)	(51.1-62.6)	(14.6-23.4)	(35.4-46.5)	(50.8-64.9)	(50.4-67.4)
Local Area 3: Hartford	63.2	57.2	23.4*	46.1	57.0	63.1
95% CI	(57.2-69.2)	(51.3-63.1)	(16.5-30.2)	(37.8-54.2)	(50.4-63.5)	(56.6-69.5)

* (0.15 ≤ CV ≤ 0.20)

Prevention of new HIV/AIDS cases is considered a winnable battle by CDC,¹⁹ with identified community strategies such as: Educating all adults about the threat of HIV and how to prevent it; improving data monitoring, dissemination, and feedback; maximizing the proportion of people with HIV who have suppressed viral load; and expanding targeted efforts to prevent HIV infection with evidence-based approaches for persons living with HIV.⁷¹ A new preventive strategy called HAART (highly active antiretroviral therapy) promises to reduce transmission of HIV to sex partners by as much as 96%.⁷² Resources within the state are available through the Connecticut Department of Public Health.⁷³



4. Chronic Conditions

Current Asthma

Asthma is a chronic lung disease that causes the airways to become inflamed or swollen, with symptoms of shortness of breath, coughing, and/or wheezing.⁷⁴ Four thousand people die in the U.S. each year due to asthma related causes.⁷⁵ In Connecticut during 2015, the risk of having current asthma was significantly greater than the U.S., and the state ranked among the ten worst states in the country for current asthma.⁹ Current asthma in Connecticut during 2015 was significantly worse for women, non-Hispanic Black/African American adults, adults with lower income and educational levels, and disabled adults.

Respondents to the CT BRFSS were asked if, they had ever been told by a doctor or health professional that they had asthma, and, among those who had ever been diagnosed with asthma, whether or not they still had asthma. Results for 2011-2015, combined, are shown for all local areas of the state in **Map 16** and **Table 16**.

Overall in the state from 2011-2015, combined, the risk of having current asthma was 9.8% (95% CI: 9.4% - 10.2%) among Connecticut adult residents.

Compared to the state prevalence value, the risk of having current asthma was significantly better in five local areas, with the lowest risk in local area 8: Stamford, with a prevalence of 4.5% (3.0% - 6.1%). The prevalence of current asthma was significantly worse in 2: New Haven; 3: Hartford; and 9: Meriden and Middletown, combined, with prevalence values of 13.2% (10.7% - 15.6%), 14.2% (11.7% - 16.7%), and 15.0% (11.8% - 18.1%), respectively.

The risk of current asthma for Bridgeport, New Haven, and Hartford, by age and race/ethnicity are shown in **Figure 16**. Compared to the statewide risk, the risk of current asthma was significantly worse among:

- Adults 45-64 years old in New Haven and Hartford;
- Non-Hispanic Black/African American adults in New Haven and Hartford; and
- Hispanic/Latino adults in New Haven and Hartford.



Map 16: Current Asthma
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

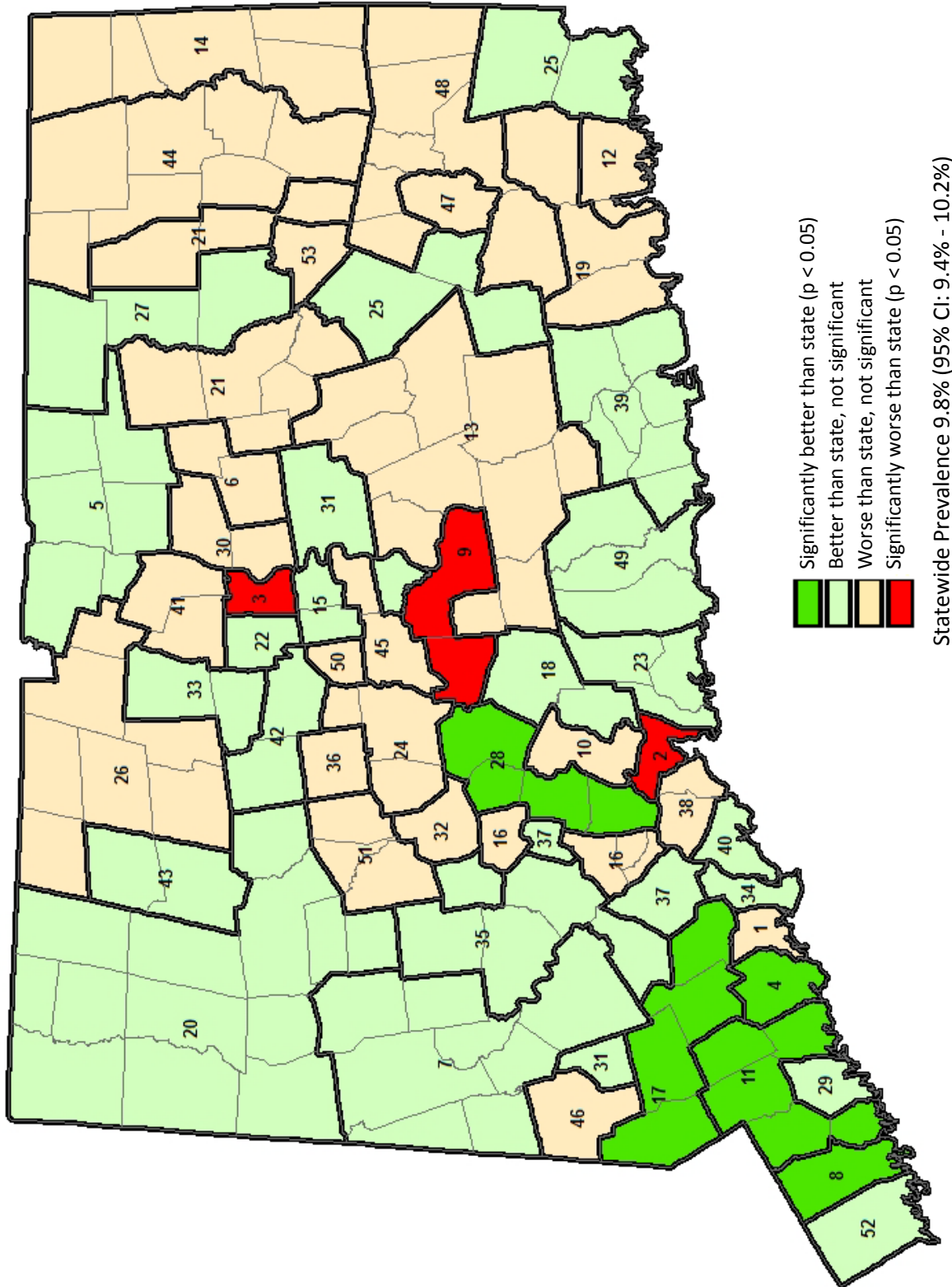




Table 16: Current Asthma
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
8 *	4.5	(3.0 - 6.1)
28 *	5.7	(3.5 - 7.8)
11 *	5.9	(3.8 - 7.9)
17 *	6.4	(4.5 - 8.4)
4 *	6.9	(4.8 - 9.1)
Better than State, not significant		
25 **		~5
37 **		~5
52 **		~5
35 *	7.2	(4.5 - 10.0)
34 *	7.4	(4.8 - 10.1)
42 *	7.4	(4.6 - 10.3)
7	7.5	(5.3 - 9.7)
31 *	7.5	(5.1 - 10.0)
29 *	7.9	(5.4 - 10.4)
20 *	8.0	(5.5 - 10.5)
43 *	8.1	(5.5 - 10.7)
39 *	8.2	(5.2 - 11.2)
33 *	8.3	(5.7 - 11.0)
22	8.5	(6.1 - 11.0)
40 *	8.8	(5.6 - 12.0)
15 *	9.0	(6.1 - 11.9)
49 *	9.1	(5.7 - 12.5)
5	9.4	(7.2 - 11.7)
18 *	9.4	(6.6 - 12.2)
27 *	9.4	(6.2 - 12.5)
23 *	9.6	(6.7 - 12.6)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
21 *	9.9	(7.0 - 12.8)
41 **		~10
45 *	10.0	(6.3 - 13.6)
46 **		~10
51 *	10.1	(6.7 - 13.5)
16	10.2	(7.6 - 12.8)
38 *	10.6	(7.2 - 13.9)
36	10.8	(7.6 - 13.9)
30	10.9	(7.8 - 14.1)
1	11.0	(9.2 - 12.8)
48 *	11.2	(7.9 - 14.5)
47 *	11.4	(7.3 - 15.4)
10	11.5	(8.2 - 14.9)
19	11.5	(8.6 - 14.5)
24	11.6	(8.3 - 14.8)
12	11.9	(8.9 - 15.0)
14	12.2	(9.0 - 15.4)
26 *	12.2	(8.4 - 16.0)
6	12.7	(9.9 - 15.6)
32	12.8	(9.5 - 16.0)
50	12.8	(9.0 - 16.5)
44 *	13.2	(9.0 - 17.4)
53 *	14.4	(9.5 - 19.4)
13	13.4	(10.2 - 16.6)
Significantly Worse than State ($p < 0.05$)		
2	13.2	(10.7 - 15.6)
3	14.2	(11.7 - 16.7)
9	15.0	(11.8 - 18.1)

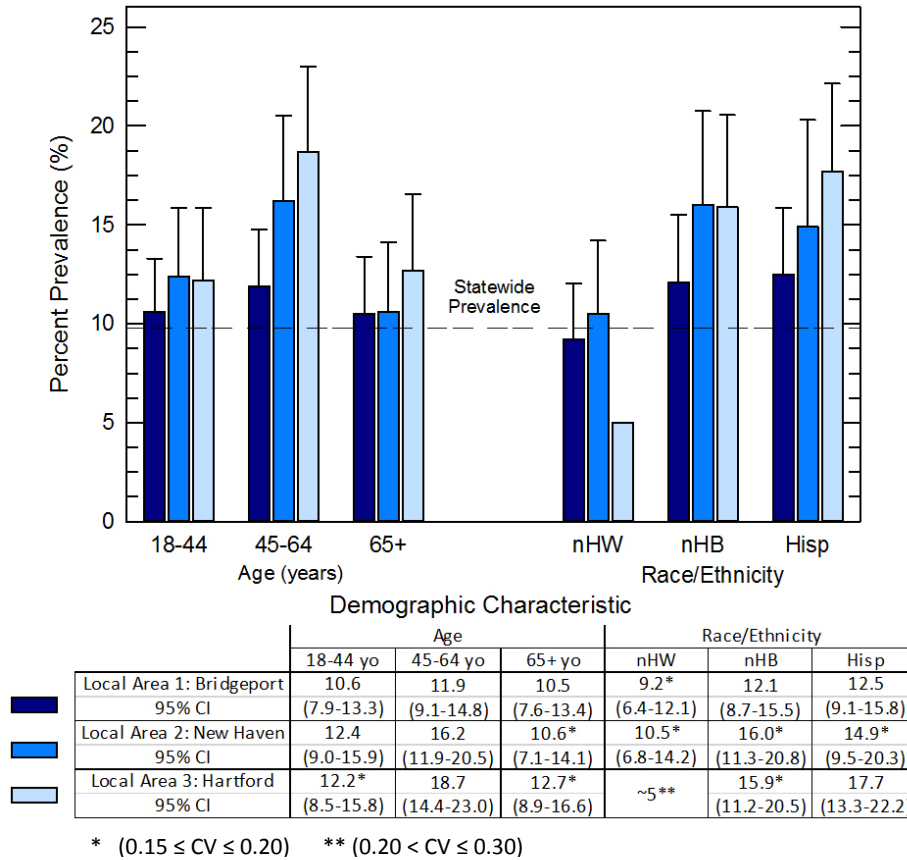
* (0.15 ≤ CV ≤ 0.20)

** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 9.8% (95% CI: 9.4% - 10.2%)



**Figure 16: Current Asthma in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined**



Deaths due to asthma are preventable with proper treatment.⁷⁴ Asthma is part of the 6|18 Initiative by CDC,³⁰ with strategies among providers such as: Promoting evidence-based medical management; promoting strategies that improve access and adherence to asthma medications and devices; expanding access to intensive self-management education for individuals whose asthma is not well-controlled; and expanding access to home visits to improve self-management education and reduce home asthma triggers.⁷⁶ Within the Connecticut Department of Public Health, resources are available for preparing personalized asthma control action plans,⁷⁷ and an evidenced-based home visiting program called “Putting on AIRS” is available through the state program to local communities.⁷⁸ This free program conducts a home assessment to identify and eliminate environmental factors that trigger asthma, and to provide education to people with asthma and their families. Medical management of asthma is also a focus for quality of care measures of the Connecticut SIM grant (http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/report/qc_report_11102016_final.pdf).



Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD)

Chronic Obstructive Pulmonary Disease (COPD) is a lung disease that includes two main conditions: emphysema and chronic bronchitis.⁷⁹ The term COPD is used because many sufferers have both conditions. The disease causes irreversible damage to the lungs and airways, which causes less air to flow to the lungs. Whereas asthma is reversible, COPD cannot be reversed, and there is no cure, though early detection is linked to better outcomes.⁸⁰ Cigarette smoking is the primary cause of COPD, though genetics and other pollutants in the air may also contribute. In Connecticut during 2015, the risk of COPD was significantly worse among older adults, women, adults with lower income and educational levels, and adults with a disability.

Respondents to the CT BRFSS were asked if they were ever told by a doctor or health care professional that they had COPD, emphysema or chronic bronchitis. Results during 2011-2015 for adults in all local areas are shown in **Map 17** and **Table 17**.

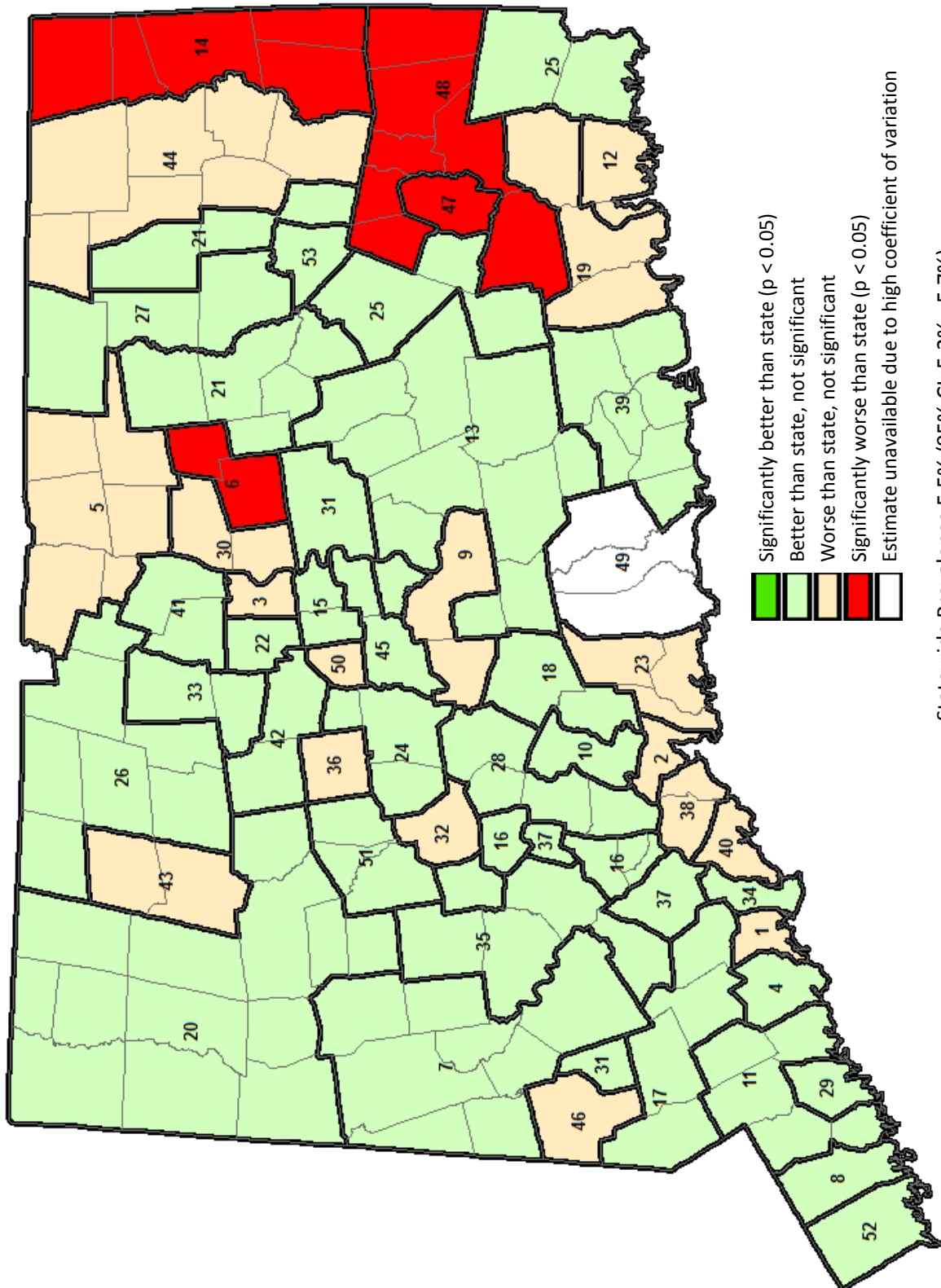
Overall in Connecticut during 2011-2015, combined, the risk of being diagnosed with COPD was 5.5% (95% CI: 5.2% - 5.7%). Compared to the statewide prevalence, the risk of being diagnosed with COPD was significantly worse in four local areas. Local area 6: Manchester and Vernon, combined; local area 47: Norwich; local area 48: Sprague, Lisbon, Griswold, Montville, Franklin, Voluntown, and Preston, combined; and local area 14: Killingly, Plainfield, Putnam, Sterling, and Thompson, combined had significantly greater risks for COPD. The highest risk of COPD was observed in local area 14: Thompson, Putnam, Killingly, Plainfield, and Sterling, combined, with a risk of 9.4% (6.8% - 11.9%). There were no local areas with significantly better risks of COPD. Due to a very low prevalence in the state, local area 49: Guilford, Killingworth, and Madison, combined, did not have sufficient sample size to provide a valid estimate of COPD.

Risks of COPD in Bridgeport, New Haven, and Hartford are shown in **Figure 17**, by age and race/ethnicity. Compared to the statewide prevalence, the risk of COPD was significantly worse among:

- Adults 46-64 years old in Bridgeport, Hartford, and New Haven; and
- Adults at least 65 years old in Bridgeport, Hartford, and New Haven.



Map 17: Ever Diagnosed with COPD
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined





**Table 17: Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval	Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)			Worse than State, not significant		
none			30 *	5.6	(3.5 - 7.8)
Better than State, not significant			2	5.8	(4.3 - 7.4)
8 *	2.9	(1.8 - 3.9)	23 *	5.8	(4.0 - 7.6)
29 *	4.3	(2.6 - 5.9)	19 *	6.0	(4.1 - 8.0)
31 *	4.6	(2.9 - 6.3)	1	6.2	(4.8 - 7.5)
13 *	4.8	(3.1 - 6.5)	3	6.2	(4.6 - 7.8)
18 *	4.8	(3.1 - 6.5)	5 *	6.4	(4.5 - 8.3)
24 *	4.8	(3.0 - 6.5)	9	6.4	(4.6 - 8.2)
21 *	4.9	(3.2 - 6.6)	36 *	6.5	(4.3 - 8.8)
11 **		~5	38 *	6.6	(4.1 - 9.1)
4 **		~5	50 *	6.7	(4.4 - 8.9)
7 **		~5	40 *	6.8	(4.5 - 9.1)
10 **		~5	12	6.9	(5.0 - 8.8)
15 **		~5	46 *	7.0	(4.4 - 9.5)
17 **		~5	32	7.7	(5.5 - 10.0)
20 **		~5	44 **		~10
22 **		~5	43 *	9.0	(5.7 - 12.2)
25 **		~5	Significantly Worse than State ($p < 0.05$)		
26 **		~5	6	8.3	(6.2 - 10.4)
27 **		~5	47 *	9.1	(6.0 - 12.3)
28 **		~5	48 *	9.2	(6.4 - 12.1)
33 **		~5	14	9.4	(6.8 - 11.9)
34 **		~5			
35 **		~5			
37 **		~5			
39 **		~5			
41 **		~5			
42 **		~5			
45 **		~5			
51 **		~5			
52 **		~5			
53 **		~5			
16 *	5.5	(3.7 - 7.2)			

Statewide Prevalence = 5.5% (95% CI: 5.2% - 5.7%)

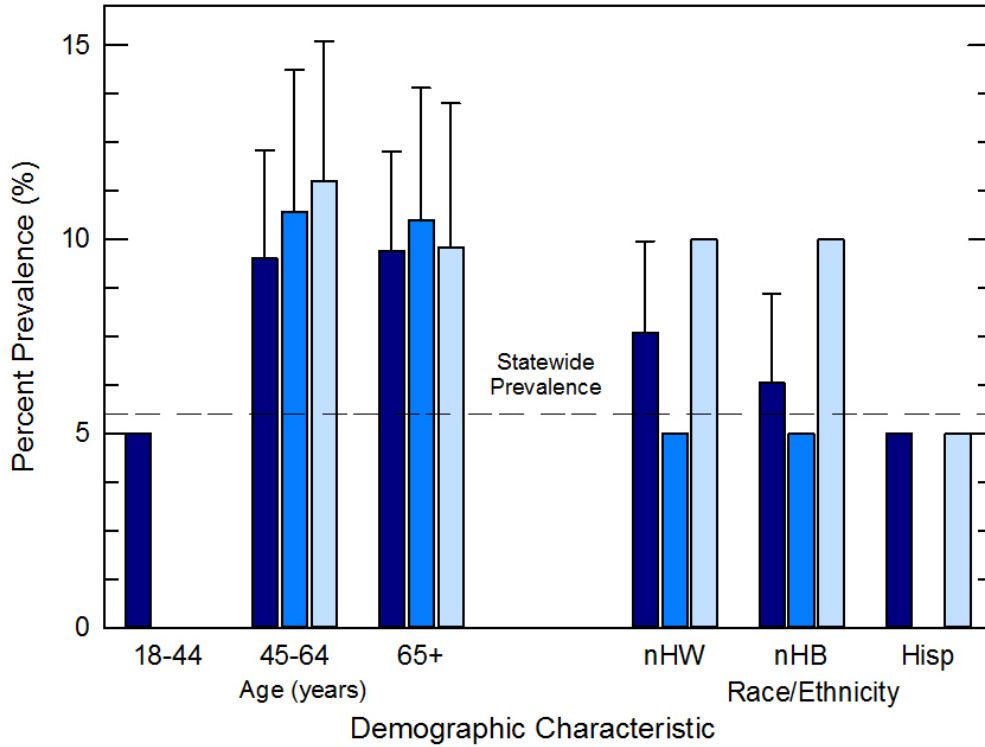
* (0.15 ≤ CV ≤ 0.20)

** (0.20 < CV ≤ 0.30)

An estimate for local area 49 was not available due to very high coefficient of variation (CV > 0.30).



Figure 17: Ever Diagnosed with Chronic Obstructive Pulmonary Disease (COPD) in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	~5**	9.5*	9.7	7.6*	6.3*	~5**
95% CI		(6.7-12.3)	(7.1-12.2)	(5.2-9.9)	(4.0-8.6)	
Local Area 2: New Haven	na	10.7*	10.5	~5**	~5**	na
95% CI		(7.0-14.3)	(7.1-13.9)			
Local Area 3: Hartford	na	11.5	9.8*	~10**	~10**	~5**
95% CI		(7.9-15.1)	(6.1-13.5)			

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30) na – data suppressed due to limited validity

Although COPD is low in prevalence within Connecticut, it is a debilitating disease. Advocacy for COPD occurs within Connecticut,⁸¹ the American Lung Association, Connecticut chapter (<http://www.lung.org/about-us/local-associations/connecticut.html>), and more broadly through the COPD Foundation (<http://www.copdfoundation.org>). Nationally, a strategic framework to address the public health effects of COPD has been developed,⁸² and includes a set of four goals aimed at increasing understanding of the burden of the disease, its risk factors, and development of programs and policies to better treat and prevent the disease.



Ever Diagnosed with Arthritis

Arthritis covers over 100 rheumatic conditions that affect the joints and the connective tissues.⁸³ It is the most common cause of disability in the U.S. The risk of developing arthritis symptoms increases with age.⁸⁴ In addition, there is some evidence that having arthritis can increase the risk of falls and associated injuries.⁸⁵ In Connecticut during 2015,⁹ the risk of arthritis was better than most states in the U.S., although the risk was great among older adults, women, non-Hispanic White and non-Hispanic Black/African American adults, adults with lower income and educational levels, and adults with a disability.

Respondents to the CT BRFSS were asked if they were ever told they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Results for 2011-2015, combined, are shown for all local areas of the state in **Map 18** and **Table 18**.

Overall in the state from 2011-2015, combined, the risk of ever being diagnosed with arthritis was 23.9% (95% CI: 23.4% - 24.4%). Compared to this statewide risk, the risk of ever having arthritis was significantly better in six local areas of the state. Local areas 1: Bridgeport and 8: Stamford, had the lowest risk of arthritis, with prevalence values of 18.2% (16.2% - 20.2%) and 18.2% (15.2% - 21.1%), respectively. The risk of ever having arthritis was significantly worse in five local areas of the state, and the highest risk was in local area 43: Torrington and Winchester, combined, with a risk of 32.9% (28.0% - 37.9%).

The risks of ever having arthritis in Bridgeport, New Haven, and Hartford area shown in **Figure 18**, by age and race/ethnicity. Compared to the statewide risk, the risk of arthritis was significantly worse among:

- Adults 45-64 years old in Bridgeport, Hartford, and New Haven;
- Adults 65 years old and older in Bridgeport, Hartford, and New Haven; and
- Non-Hispanic White adults in Bridgeport.



Map 18: Ever Diagnosed with Arthritis
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

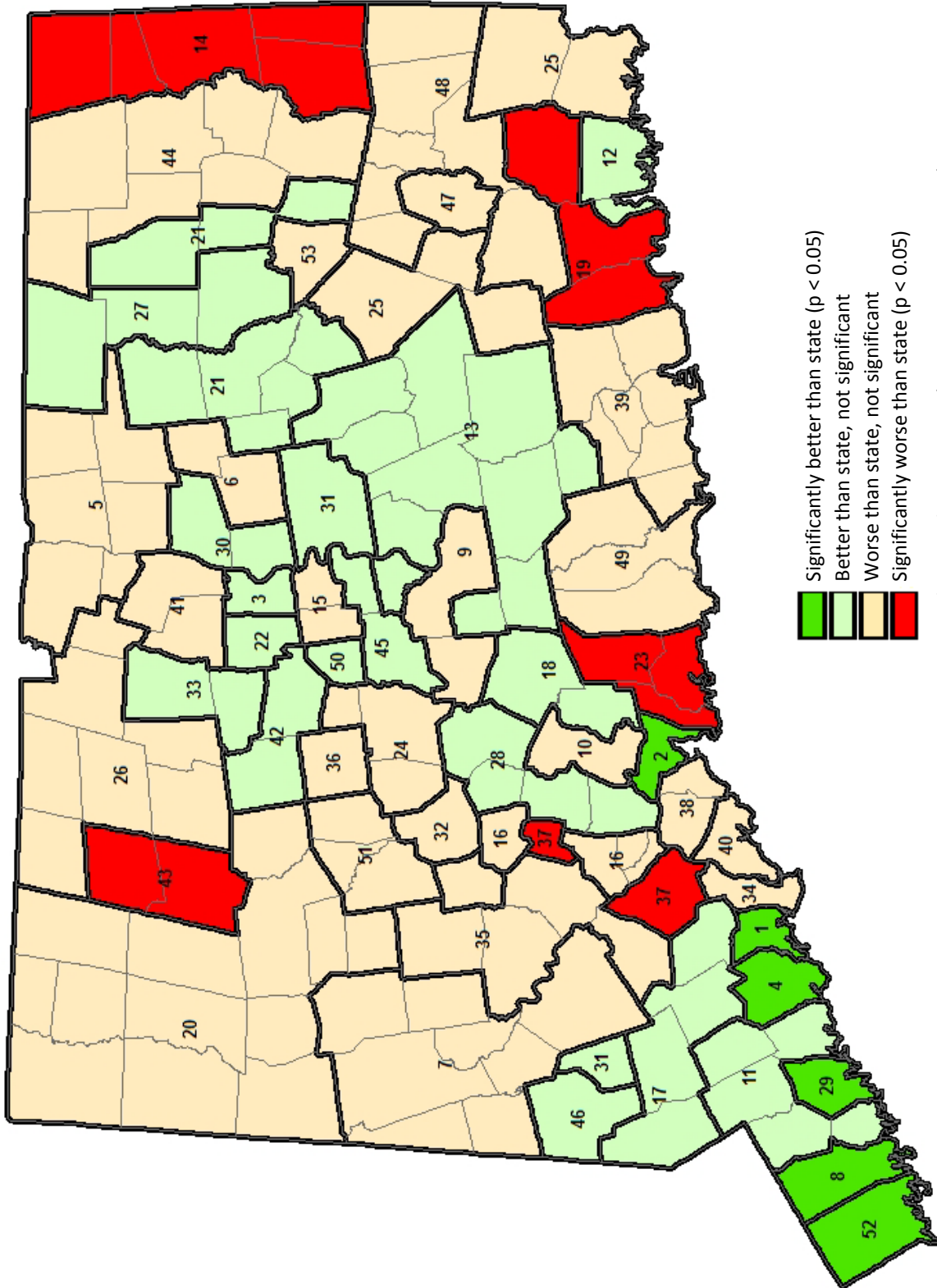




Table 18: Ever Diagnosed with Arthritis
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
1	18.2	(16.2 - 20.2)
8	18.2	(15.2 - 21.1)
52	18.9	(14.7 - 23.1)
4	19.2	(16.4 - 22.0)
29	19.2	(15.7 - 22.7)
2	19.3	(16.9 - 21.7)
Better than State, not significant		
30	20.7	(16.9 - 24.5)
11	21.2	(18.0 - 24.5)
22	21.3	(17.9 - 24.6)
27	21.5	(17.7 - 25.3)
3	21.6	(18.9 - 24.2)
28	22.3	(18.4 - 26.2)
12	22.5	(19.1 - 25.9)
31	22.5	(19.0 - 26.1)
50	22.5	(18.1 - 26.8)
17	22.7	(19.1 - 26.3)
18	22.7	(19.1 - 26.3)
46	22.8	(18.5 - 27.0)
42	22.9	(18.6 - 27.3)
33	23.0	(19.1 - 26.8)
21	23.6	(19.7 - 27.5)
13	23.8	(20.6 - 27.0)
45	23.8	(19.2 - 28.3)

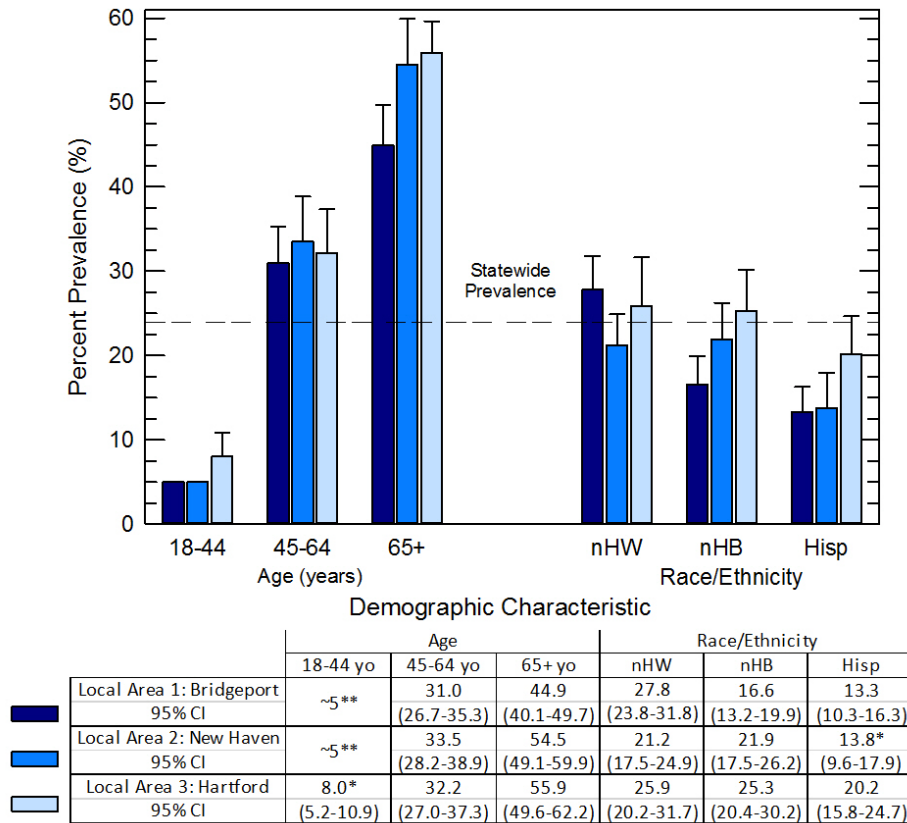
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
10	24.0	(20.1 - 28.0)
32	24.2	(20.4 - 28.0)
41	24.2	(19.8 - 28.6)
34	24.6	(20.3 - 29.0)
53	24.7	(18.5 - 30.8)
16	24.9	(21.3 - 28.6)
38	24.9	(20.6 - 29.2)
20	25.1	(21.3 - 28.9)
7	25.3	(22.2 - 28.5)
40	25.3	(21.1 - 29.4)
51	25.5	(20.6 - 30.4)
5	25.7	(22.5 - 28.9)
6	25.8	(22.5 - 29.1)
26	25.8	(21.7 - 30.0)
9	26.1	(22.7 - 29.5)
25	26.7	(21.9 - 31.4)
49	27.7	(23.1 - 32.3)
36	27.9	(23.6 - 32.2)
47	27.9	(22.4 - 33.4)
24	28.0	(24.1 - 31.9)
15	28.1	(24.0 - 32.1)
35	28.4	(24.1 - 32.7)
48	28.7	(24.3 - 33.1)
39	28.8	(24.4 - 33.1)
44	29.8	(24.4 - 35.1)
Significantly Worse than State ($p < 0.05$)		
19	28.6	(24.6 - 32.6)
14	30.2	(25.9 - 34.4)
23	30.5	(26.2 - 34.8)
37	32.1	(27.0 - 37.2)
43	32.9	(28.0 - 37.9)

* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 23.9% (95% CI: 23.4% - 24.4%)



**Figure 18: Ever Diagnosed with Arthritis in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined**



* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

Age is a strong risk factor for arthritis, but modifiable risk factors are also associated with arthritis and include: excess weight, damage to joints, infection in the joints, and certain occupations that involve repeated joint movement.⁸⁶ Adults with arthritis are over two times more likely to receive injuries from falls.⁸⁷ A national public health agenda for addressing arthritis includes: Expanded self-management education for people who suffer from arthritis; low-impact exercise for people with arthritis in the hip and knee; adopt policies to reduce joint injuries; and promote weight management.⁸⁸



Ever Diagnosed with Diabetes

Diabetes is a disease characterized by high levels of blood sugar. It can lead to serious health problems, such as heart disease, stroke, kidney disease, blindness, lower-extremity amputation, and dental issues.⁸⁹ Diabetes affects over 29 million people in the U.S. Those over 60 years of age, African-Americans and Hispanics, and groups of low socioeconomic status are at higher risk for diabetes.⁹⁰ Within Connecticut during 2015, the risk of ever having diabetes was significantly better than the U.S., and Connecticut ranked better than most states in the country for diabetes risk.⁹

Respondents to the CT BRFSS were asked if they had ever been told by a doctor or health care professional that they had diabetes. Women with diabetes only during pregnancy were not classified as having diabetes. Both type 1 and type 2 diabetes were included. Results for ever having diabetes are shown for all local areas in **Map 19 and Tables 19**.

Statewide in Connecticut during 2011-2015, combined, the risk of ever being diagnosed with diabetes was 9.1% (95% CI: 8.7% - 9.4%) among adult residents. Compared to the statewide Connecticut value, the risk of ever being diagnosed with diabetes was significantly better in eight local areas, with the lowest risk in local area 11: Darien, New Canaan, Weston, Westport, and Wilton, combined, with a risk of 2.9% (1.8% - 4.1%). The risk of ever having diabetes was significantly worse in five local areas of the state, with the highest risk in local area 32: Waterbury, with a risk of 15.9% (12.6% - 19.3%).

The prevalence values of ever having diabetes in Bridgeport, New Haven, and Hartford are shown in **Figure 19**, by age and race/ethnicity. Compared to the statewide risk, the risk of ever having diabetes was significantly worse among:

- Adults 45-64 years old in Bridgeport, Hartford, and New Haven;
- Adults 65 years old and older in Bridgeport, Hartford, and New Haven;
- Non-Hispanic White adults in Bridgeport;
- Non-Hispanic Black/African American adults in Bridgeport, Hartford, and New Haven; and
- Hispanic/Latino adults in Hartford.



Map 19: Ever Diagnosed with Diabetes
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

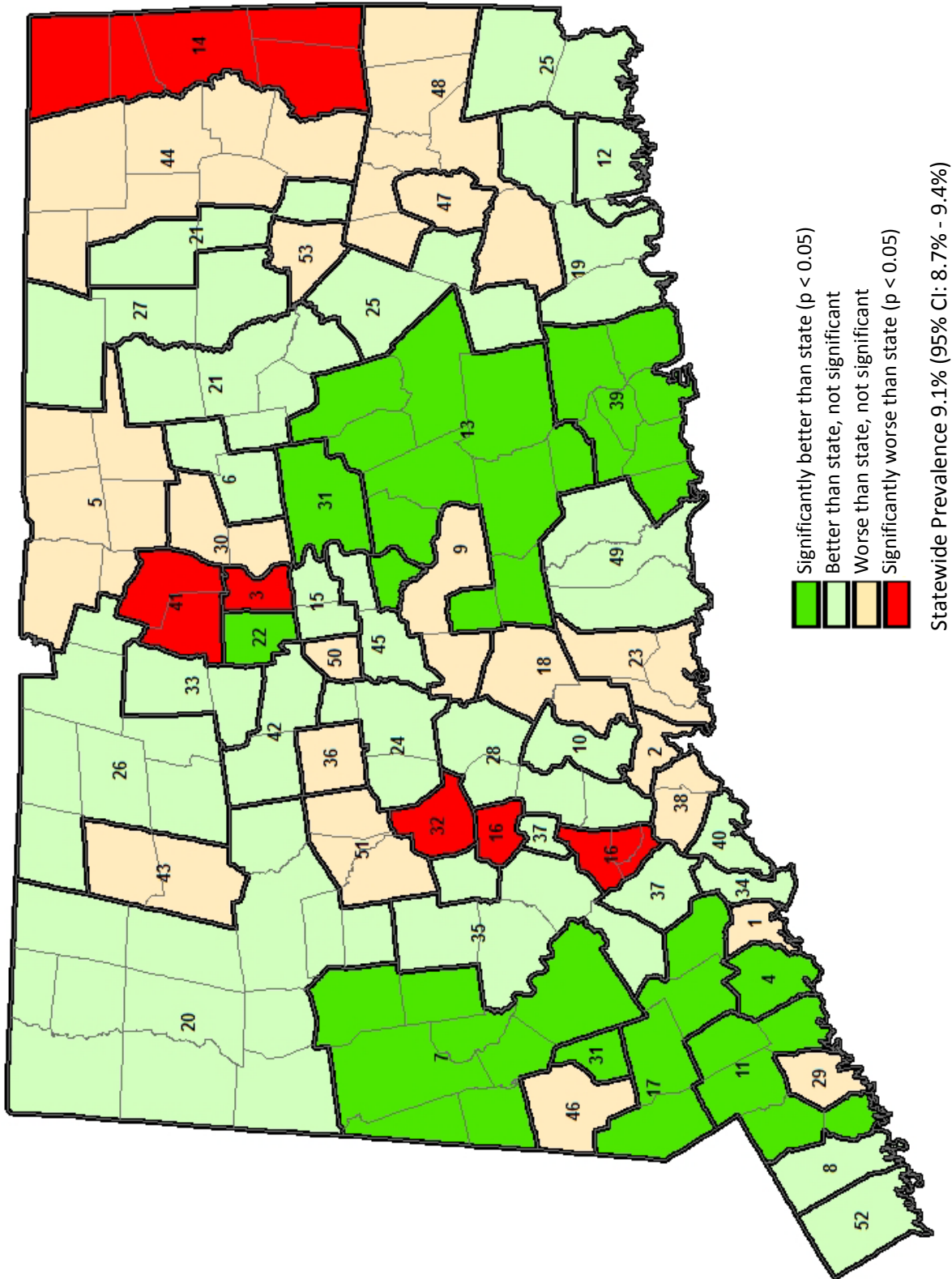




Table 19: Ever Diagnosed with Diabetes
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State (p < 0.05)		
11 *	2.9	(1.8 - 4.1)
31 *	3.9	(2.4 - 5.4)
17 *	5.2	(3.3 - 7.0)
22 *	5.4	(3.7 - 7.2)
39 *	5.5	(3.7 - 7.4)
4 *	5.8	(4.0 - 7.6)
7	6.8	(5.1 - 8.6)
13	6.9	(5.1 - 8.6)
Better than State, not significant		
49 **		~5
52 **		~5
26 *	7.1	(4.8 - 9.4)
28 *	7.2	(4.9 - 9.5)
27 *	7.3	(4.7 - 9.9)
24	7.5	(5.5 - 9.6)
25 *	7.5	(4.9 - 10.1)
45 *	7.5	(4.6 - 10.4)
20	7.6	(5.4 - 9.8)
40 *	7.6	(5.1 - 10.0)
21 *	7.7	(5.3 - 10.1)
8 *	7.9	(5.6 - 10.2)
12	7.9	(5.9 - 9.9)
34 *	7.9	(5.6 - 10.3)
42 *	7.9	(5.3 - 10.6)
19 *	8.0	(5.6 - 10.3)
33 *	8.0	(5.5 - 10.4)
35 *	8.1	(5.5 - 10.6)
15	8.3	(6.1 - 10.5)
37 *	8.3	(5.7 - 10.9)
10	8.7	(6.1 - 11.2)
6	8.8	(6.7 - 11.0)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
9	9.4	(7.2 - 11.5)
18	9.5	(7.2 - 11.8)
5	9.5	(7.4 - 11.6)
38 *	9.6	(6.8 - 12.5)
51 *	9.8	(6.3 - 13.3)
2	9.9	(8.1 - 11.7)
53 **		~10
30	10.3	(7.3 - 13.3)
46 *	10.5	(7.2 - 13.8)
36	10.6	(7.9 - 13.3)
48	10.6	(7.7 - 13.6)
1	10.8	(9.2 - 12.3)
29	11.0	(8.0 - 14.0)
47 *	11.1	(7.6 - 14.7)
43	11.1	(7.9 - 14.4)
23	11.1	(8.1 - 14.0)
44 *	11.7	(7.9 - 15.5)
50	12.3	(9.0 - 15.6)
Significantly Worse than State (p < 0.05)		
16	12.5	(9.6 - 15.3)
3	13.2	(11.0 - 15.4)
41	13.3	(9.6 - 17.0)
14	13.9	(10.6 - 17.1)
32	15.9	(12.6 - 19.3)

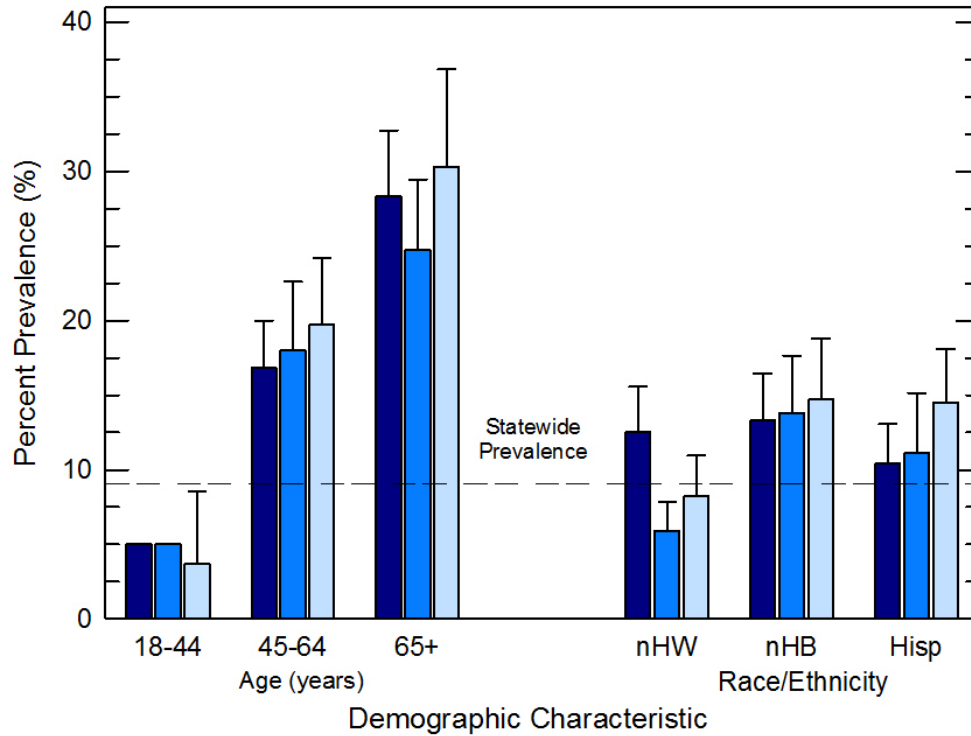
* (0.15 ≤ CV ≤ 0.20)

** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 9.1% (95% CI: 8.7% - 9.4%)



Figure 19: Ever Diagnosed with Diabetes in Bridgeport, New Haven, and Hartford By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	~5**	16.8	28.3	12.5	13.3	10.4
95% CI		(13.6-20.0)	(23.8-32.7)	(9.4-15.5)	(10.1-16.4)	(7.7-13.0)
Local Area 2: New Haven	~5**	18.0	24.7	5.9*	13.8	11.1*
95% CI		(13.4-22.6)	(19.9-29.4)	(4.0-7.9)	(9.9-17.6)	(7.0-15.1)
Local Area 3: Hartford	3.7*	19.7	30.3	8.2*	14.7	14.5
95% CI	(1.7-5.7)	(15.2-24.2)	(32.7-45.8)	(5.5-11.0)	(10.6-18.8)	(10.9-18.1)

* (0.15 ≤ CV ≤ 0.20) ** (0.20 < CV ≤ 0.30)

Diabetes control and prevention is part of the 6|18 Initiative by CDC.³⁰ The condition is also a focus of the SIM grant within Connecticut. At the national level, strategies to address diabetes include: Empowering patients with tools and resources, investing in opportunities to combat diabetes, creating partnerships to combat diabetes, and engaging communities to address diabetes and reduce health disparities.⁹¹ National strategies exist to reduce disparities in diabetes.⁹² Strategies underway within Connecticut include: Referrals to diabetes self-management education centers, referrals to community-based self-management programs, and diabetes prevention programs for individuals at risk for diabetes.⁹³



Ever Diagnosed with Depression

Depression is a common and serious illness that can take several forms, with symptoms such as persistent feelings of sadness, anxiety, “emptiness,” and hopelessness, as well as fatigue, irritability and restlessness.⁹⁴ Some forms of depression develop under unique circumstances; others occur in episodes or may be longer-term. Depression is often misconstrued as a sign of weakness, especially among men, and if left untreated, can have tragic consequences, including suicide.

Within Connecticut during 2015, the risk of ever having depression was significantly less than in the U.S., and Connecticut ranked among the best states in the country for risk of depression.⁹ Despite this positive result, the risk of ever having depression was significantly greater among women, Hispanic/Latino and non-Hispanic White adults, and adults with low income and educational levels. Among disabled adults, the risk of ever having depression was four times greater than among adults without a disability.

Respondents to the CT BRFSS were asked if they were ever told by a doctor or health care professional that they had a depressive disorder, including depression, major depression, dysthymia, or minor depression. Results for 2011-2015, combined, are shown for all local areas of Connecticut in **Map 20** and **Table 20**.

Statewide in 2011-2015 combined, the risk of being diagnosed with depression was 17.2% (95% CI: 16.6% - 17.7%). Compared to the statewide value, the risk of ever having depression was significantly better in four local areas, with the lowest risk in local area 4: Fairfield, which had a risk of 11.4% (8.8% - 13.9%). The risk of having depression was significantly worse in nine local areas of the state, and the highest risk was in local area 53: Windham, with a risk of 29.5% (22.8% - 36.4%).

The prevalence values for ever having depression in Bridgeport, New Haven, and Hartford, are shown in **Figure 20**, by age and race/ethnicity. Compared to the statewide risk of ever having depression, the risk was significantly greater among:

- Adults 18-44 years old in Hartford;
- Adults 45-64 in New Haven and Hartford;
- Non-Hispanic White adults in Bridgeport, Hartford, and New Haven; and
- Hispanic/Latino adults in New Haven and Hartford.



Map 20: Ever Diagnosed with Depression
 By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

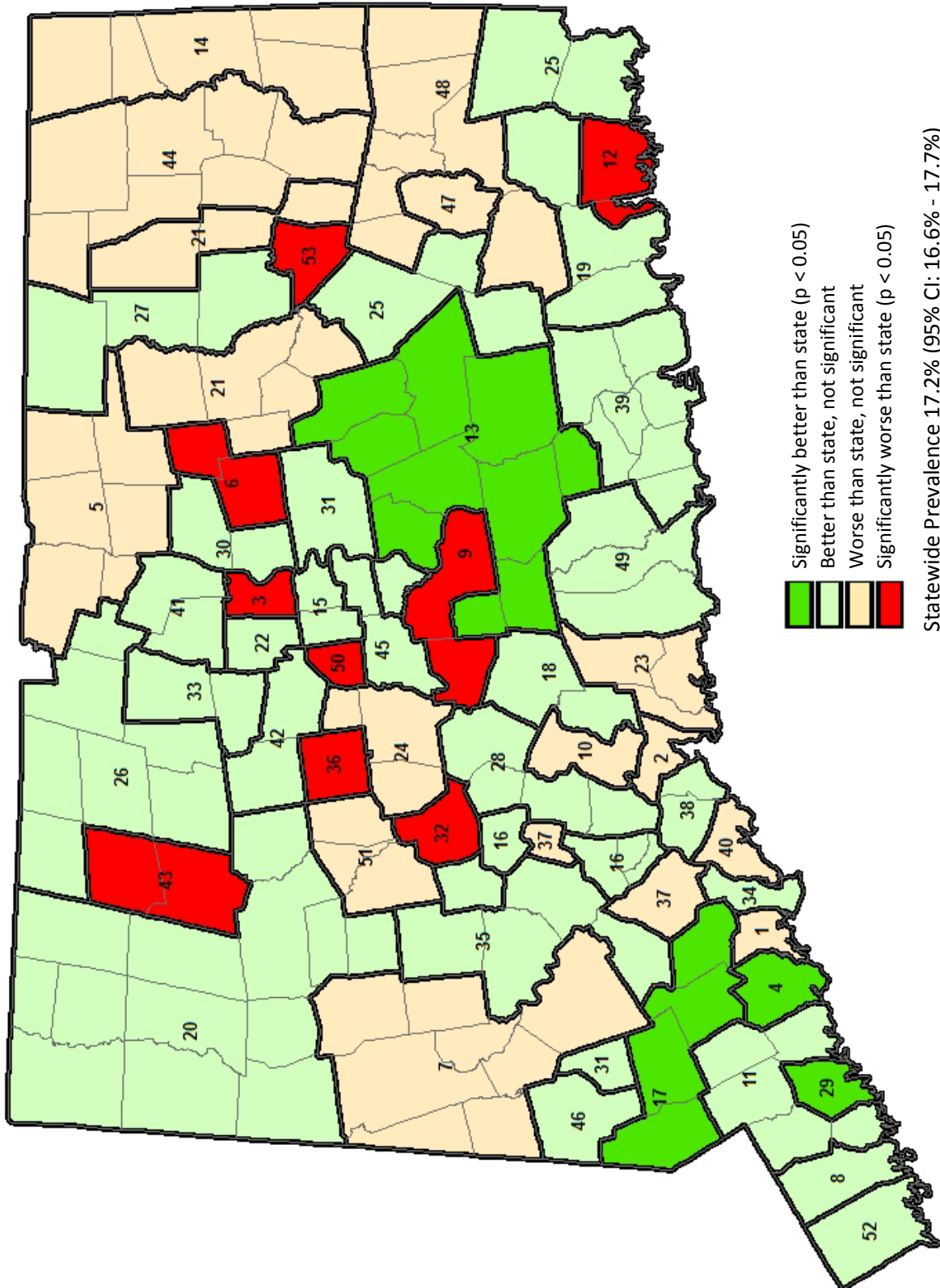




Table 20: Ever Diagnosed with Depression
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
4	11.4	(8.8 - 13.9)
17	13.1	(10.3 - 15.9)
29	13.1	(10.1 - 16.1)
13	13.4	(10.8 - 16.1)
Better than State, not significant		
52 *	13.0	(8.8 - 17.3)
35	13.6	(10.0 - 17.3)
25	13.8	(9.8 - 17.9)
34	13.8	(10.1 - 17.5)
8	14.0	(11.1 - 17.0)
11	14.0	(11.2 - 16.9)
20	14.4	(11.3 - 17.5)
22	14.4	(11.2 - 17.6)
30	14.6	(11.5 - 17.8)
31	14.8	(11.5 - 18.0)
42	14.9	(11.1 - 18.7)
28	15.1	(11.7 - 18.5)
16	15.2	(12.1 - 18.2)
45	15.2	(10.8 - 19.7)
33	15.5	(12.2 - 18.8)
41	15.5	(11.4 - 19.5)
18	15.6	(12.0 - 19.3)
15	16.0	(12.5 - 19.5)
26	16.0	(12.2 - 19.9)
39	16.0	(12.2 - 19.8)
38	16.5	(12.7 - 20.2)
46	16.6	(12.5 - 20.6)
27	16.9	(13.0 - 20.8)
49	16.9	(12.7 - 21.1)
19	17.1	(13.7 - 20.6)

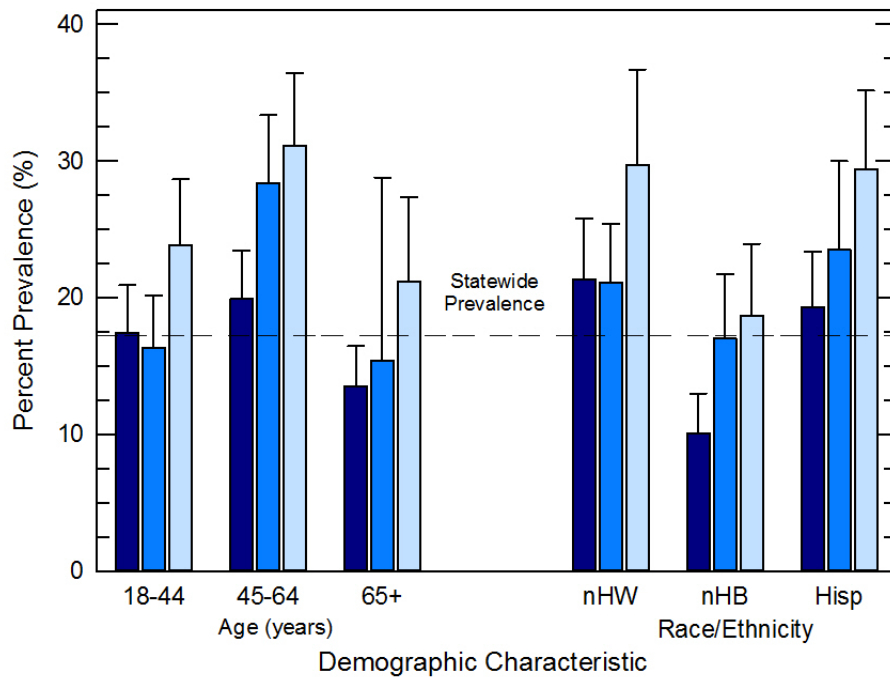
Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
37	17.4	(12.9 - 21.9)
7	17.5	(14.4 - 20.5)
10	17.5	(13.6 - 21.3)
21	17.5	(13.6 - 21.5)
1	17.6	(15.3 - 19.9)
40	18.0	(13.8 - 22.2)
44	18.5	(13.9 - 23.2)
48	18.5	(14.6 - 22.5)
51	18.5	(13.6 - 23.5)
5	18.9	(15.7 - 22.2)
24	19.2	(15.4 - 23.1)
2	19.3	(16.6 - 22.1)
47	20.0	(14.9 - 25.1)
23	20.2	(16.2 - 24.3)
14	20.7	(16.7 - 24.7)
Significantly Worse than State ($p < 0.05$)		
32	22.0	(18.0 - 25.9)
50	22.6	(18.0 - 27.3)
12	22.8	(19.0 - 26.6)
36	23.0	(18.6 - 27.4)
6	23.5	(19.9 - 27.1)
3	25.6	(22.3 - 28.9)
43	25.9	(21.1 - 30.7)
9	26.7	(23.0 - 30.5)
53	29.6	(22.8 - 36.4)

* (0.15 ≤ CV ≤ 0.20)

Statewide Prevalence = 17.2% (95% CI: 16.6% - 17.7%)



**Figure 20: Ever Diagnosed with Depression in Bridgeport, New Haven, and Hartford
By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined**



	Age			Race/Ethnicity		
	18-44 yo	45-64 yo	65+ yo	nHW	nHB	Hisp
Local Area 1: Bridgeport	17.4	19.9	13.5	21.3	10.1	19.3
95% CI	(13.9-20.9)	(16.4-23.5)	(10.5-16.4)	(16.8-25.8)	(7.2-13.0)	(15.3-23.4)
Local Area 2: New Haven	16.3	28.4	15.4	21.1	17.0	23.5
95% CI	(12.4-20.1)	(23.4-33.3)	(11.6-19.2)	(16.8-25.4)	(12.3-21.7)	(17.0-30.0)
Local Area 3: Hartford	23.8	31.1	21.2	29.7	18.7	29.4
95% CI	(18.9-28.6)	(25.8-36.5)	(15.1-27.4)	(22.7-36.7)	(13.4-23.9)	(23.8-35.0)

Depression is a focus of the SIM grant within Connecticut. Medication and therapy has been proven effective in treating major depression,⁹⁵ and screening for depression is now best practice for annual checkups. Depression is the strongest risk factor for suicide, and within Connecticut, a suicide prevention plan has been developed, with activities that include: Integrate and coordinate suicide prevention activities across multiple sectors and settings; develop, implement and monitor effective programs that promote wellness and prevent suicide and related behaviors; promote suicide prevention as a core component of health care services; promote efforts to reduce access to lethal means of suicide among individuals with identified suicide risk; and increase the timeliness and usefulness of state and national surveillance systems relevant to suicide prevention and improve the ability to collect, analyze and use this information for action.⁹⁶ The Office of Injury Prevention within the Connecticut Department of Public Health also has a program to reduce suicide and self-inflicted injury.⁹⁷ In addition, community-level strategies are available to reduce the stigma of depression among men.⁹⁸



Ever Diagnosed with Cardiovascular Disease (CVD)

Cardiovascular disease (CVD), commonly known as heart disease, encompasses several heart conditions. It is the leading cause of death for men and women and for people of most racial/ethnic groups in the United States. The most common heart disease is coronary heart disease.⁹⁹ Adults who suffer from coronary heart disease have plaque build-up in their coronary arteries, which reduces the flow of oxygen to the heart. This can lead to angina, characterized by chest pain or pressure, as well as heart attacks.¹⁰⁰ During 2015, Connecticut ranked better than most states in the country for CVD among adults at least 45 years old.⁹ Despite this promising statistic, the risk of CVD was worse among adults at least 55 years old, men, and adults of lower income and educational levels. The risk of CVD was four times worse among adults with disabilities, compared to adults without a disability.

Respondents to the CT BRFSS were asked if they were ever told by a doctor or health care professional that they had a heart attack or myocardial infarction, angina or coronary heart disease, or stroke. Results for all local areas, by age and race/ethnicity, are presented in **Map 21** and **Table 21**.

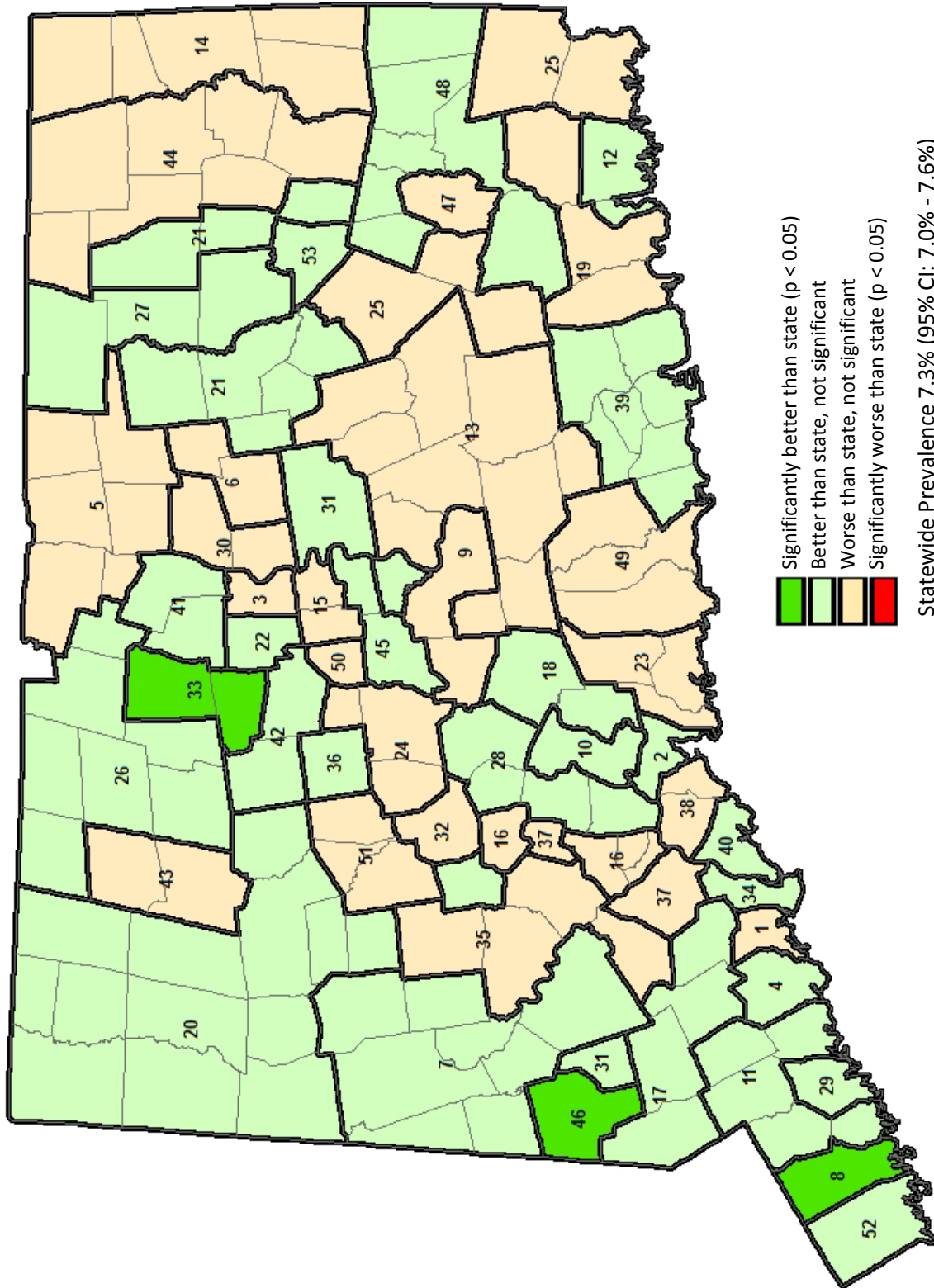
Statewide in Connecticut during 2011-2015, combined, the risk of ever having CVD was 7.3% (95% CI: 7.0% – 7.6%). Compared to the statewide value, the risk of ever having CVD was significantly better in three local areas of the state (local area 8: Stamford; local area 33: Avon and Simsbury, combined; and local area 46: Danbury). In these areas, the risk of CVD ranged from 4.7% (2.9% - 6.5%) to 4.9% (3.2% - 6.6%). The risk of CVD was not significantly worse in any local area.

The risk values for CVD in Bridgeport, New Haven, and Hartford, by age and race/ethnicity, are shown in **Figure 21**. Compared to the statewide risk of CVD, the risk was significantly worse among:

- Adults 45-64 years old in Bridgeport, Hartford, and New Haven;
- Adults at least 65 years old in Bridgeport, Hartford, and New Haven; and
- Non-Hispanic White adults in Bridgeport.



**Map 21: Ever Diagnosed with Cardiovascular Disease (CVD)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**





**Table 21: Ever Diagnosed with Cardiovascular Disease (CVD)
By Local Areas within Connecticut, CT BRFSS 2011-2015, combined**

Local Area	Percent Prevalence (%)	95% Confidence Interval
Significantly Better than State ($p < 0.05$)		
33 *	4.7	(3.0 - 6.5)
46 *	4.7	(2.9 - 6.5)
8 *	4.9	(3.2 - 6.6)
Better than State, not significant		
41 **	~5	
42 **	~5	
52 **	~5	
53 **	~5	
31 *	5.2	(3.3 - 7.1)
10 *	5.4	(3.3 - 7.5)
17 *	5.5	(3.8 - 7.1)
11	5.9	(4.3 - 7.6)
4	6.1	(4.4 - 7.7)
26 *	6.1	(4.0 - 8.2)
7	6.2	(4.5 - 7.9)
27 *	6.2	(4.2 - 8.2)
39 *	6.2	(4.2 - 8.2)
2	6.3	(5.0 - 7.6)
45 *	6.3	(3.8 - 8.7)
22	6.5	(4.6 - 8.3)
36 *	6.5	(4.5 - 8.5)
18	6.6	(4.9 - 8.3)
12	6.7	(5.0 - 8.5)
20	6.7	(4.8 - 8.5)
40 *	6.8	(4.7 - 8.9)
48 *	7.0	(4.9 - 9.0)
28 *	7.1	(4.7 - 9.6)
34 *	7.1	(4.8 - 9.4)
21 *	7.2	(4.9 - 9.6)
29 *	7.3	(4.9 - 9.7)

Local Area	Percent Prevalence (%)	95% Confidence Interval
Worse than State, not significant		
1	7.4	(6.1 - 8.7)
5	7.6	(5.6 - 9.7)
47 *	7.7	(5.1 - 10.3)
9	7.8	(5.9 - 9.8)
37 *	7.9	(5.3 - 10.4)
6	8.0	(6.2 - 9.9)
13	8.0	(6.0 - 10.0)
15 *	8.0	(5.5 - 10.5)
23	8.0	(5.7 - 10.3)
38 *	8.1	(5.6 - 10.5)
19	8.2	(6.0 - 10.4)
30 *	8.2	(5.8 - 10.7)
32	8.2	(6.2 - 10.3)
49 *	8.4	(5.3 - 11.6)
3	8.6	(6.9 - 10.4)
14	8.6	(6.2 - 10.9)
16	8.6	(6.3 - 10.9)
44 *	8.6	(5.4 - 11.8)
24	8.8	(6.4 - 11.2)
35 *	8.9	(6.3 - 11.6)
51 *	9.0	(5.9 - 12.1)
25 *	10.1	(7.0 - 13.2)
43 *	10.2	(6.8 - 13.6)
50 *	10.3	(7.1 - 13.5)
Significantly Worse than State ($p < 0.05$)		
none		

* (0.15 ≤ CV ≤ 0.20)

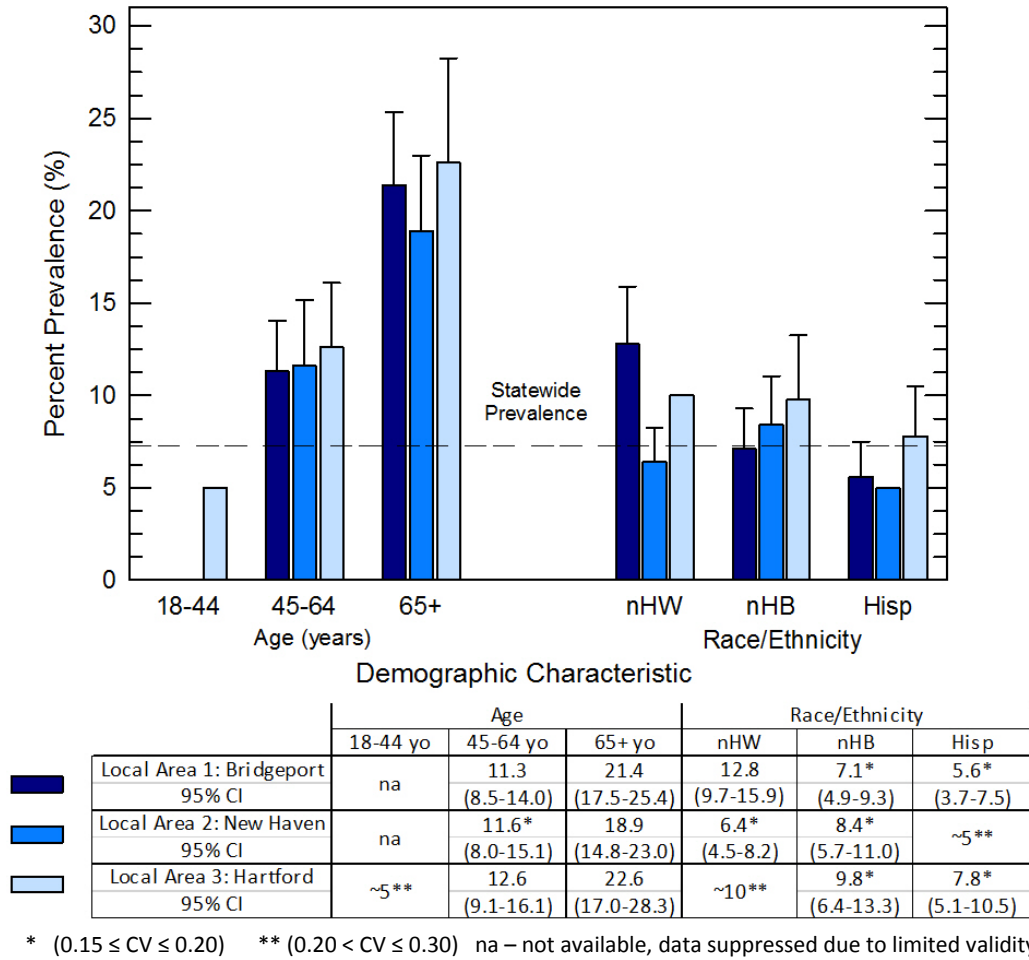
** (0.20 < CV ≤ 0.30)

Statewide Prevalence = 7.3% (95% CI: 7.0% - 7.6%)



Figure 21: Ever Diagnosed with Cardiovascular Disease (CVD) in Bridgeport, New Haven, and Hartford

By Age and Race/Ethnicity, CT BRFSS 2011-2015, combined



Cardiovascular disease can be prevented by remaining physically active and eating a healthy and well-balanced diet.¹⁰¹ Other evidence-based strategies include aspirin therapy, blood pressure control, cholesterol management, smoking cessation, and aspirin therapy for select individuals.¹⁰² One recommended community-based strategy involves self-measured blood pressure monitoring programs that teach patients how to monitor their own blood pressure at home so they and their health care providers can make treatment decisions that better control blood pressure and reduce the risks of cardiovascular disease. In addition, some community-based pharmacists in higher-risk communities are trained to provide individualized medication therapy management (MTM) for their clients with high blood pressure (and other chronic diseases). Cardiovascular disease is monitored within the Connecticut Department of Public Health by the Heart Disease and Stroke Surveillance Program.¹⁰³



Appendix 1: Reweighting the 2011-2015 CT BRFSS Dataset

Connecticut BRFSS 2011-2015 Weighting

The weighting for combining the five years of data was based on local-area adjustments to the state-wide BRFSS data. For the year 2011-2015, there were 40,346 respondents who reported the town in which they reside. This sample was assigned to a locale, one or more towns grouped together. The combined samples for each locale were weighted to match the population. The total sample size by year and locale is provided in **Table 1**.

Combining 2011-2015 BRFSS

The first step in the weighting was to combine the 2011-2015 statewide BRFSS samples into one sample. As each is weighted to the state population, we created a 5-yr weighted average. The weight for each year is based on the effective sample size. This weight serves two purposes, first it ensures that the respondent weights for each year will be on the same scale, regardless of sample size. For instance, in 2015 ($n = 11,315$), the sample size was much larger than in 2011 ($n = 6,400$), resulting in weights that average 70% larger in 2011 than 2015. This adjustment ensures the average weight is equal across years. The second reason for this adjustment is to minimize the impact of weight variability within any one year. The weighting effects for these five years range from 2.05 in 2012 to 2.23 in 2013. The weighting adjustment increases the weight in years where the weighting effect is lower and reduces the weight for years where it is higher.

Weight Trimming

Prior to calibrating the combined sample to the population for each locale, extreme weights that exceed $Q3+3*IQR$ were trimmed, where $Q3$ is the third quartile and IQR is the interquartile range, $IQR = Q3-Q1$. The trimming was conducted separately for each locale. **Table 2** includes the results of the weight trimming.



Table I
CT BRFSS Sample size By Locale and Survey Year

Locale	Survey Year					
	Total	2011	2012	2013	2014	2015
Total	40,346	6,400	8,213	7,245	7,173	11,315
1 - Bridgeport	2,499	324	453	470	357	895
2 - New Haven	1,888	346	325	298	308	611
3 - Hartford	1,552	228	314	308	238	464
4 - Fairfield	1,226	180	242	216	166	422
5 - Suffield/Somers/Windsor Locks/E Windsor/Ellington/Enfield/	1,031	123	227	223	151	307
6 - Manchester/Vernon	951	87	183	264	144	273
7 - Washington/Newtown/Bridgewater/Roxbury/Brookfield/ N Fairfield/N Milford/Sherman	937	136	182	141	155	323
8 - Stamford	904	125	161	151	162	305
9 - Meriden/Middletown	888	140	211	146	126	265
10 - Hamden	866	105	128	106	322	205
11 - Westport/Weston/Darien/N Canaan/Wilton	854	152	164	135	132	271
12 - Groton/N London	842	175	287	95	130	155
13 - Chester/Colchester/Durham/E Haddam/E Hampton/ Haddam/Hebron/ Marlborough/Middlefield/Portland	920	115	156	188	149	312
14 - Thompson/Putnam/Killingly/Plainfield/Sterling	826	117	111	364	81	153
15 - Newington/Wethersfield	818	356	114	94	83	171
16 - Naugatuck/Seymour/Ansonia/Derby	808	77	345	81	118	187
17 - Trumbull/Easton/Redding/Ridgefield	800	115	153	147	131	254
18 - Wallingford/N Haven	800	105	132	111	250	202
19 - E Lyme/Waterford/Ledyard	795	84	324	96	112	179
20 - Salisbury/NCanaan/Canaan/Norfolk/Cornwall/Goshen/ Kent/Warren/Litchfield/Harwinton/Morris/Bethlehem/ Middlebury/ Sharon	758	98	265	100	111	184
21 - Tolland/Ashford/Bolton/Coventry/Chaplin/Andover/ Columbia/Scotland	733	79	113	298	78	165
22 - West Hartford	725	161	137	127	114	186
23 - N Branford/E Haven/Branford	699	107	169	109	90	224
24 - Southington/Plainville/Wolcott	690	104	137	104	120	225
25 - Lebanon/Bozrah/Salem/Stonington/N Stonington	508	67	108	81	128	124
26 - Colebrook/Hartland/Barkhamsted/Granby/E Granby/N Hartford/Canton	688	68	123	72	300	125
27 - Willington/Mansfield/Stafford	674	69	104	264	87	150
28 - Cheshire/Prospect/Woodbridge/Bethany	674	169	111	76	144	174
29 - Norwalk	673	98	125	119	133	198
30 - E Hartford/S Windsor	663	131	144	105	104	179
31 - Glastonbury/Cromwell/Bethel	658	90	121	123	115	209
32 - Waterbury	640	86	127	117	105	205
33 - Avon/Simsbury	619	186	96	67	129	141
34 - Stratford	596	81	113	103	87	212
35 - Woodbury/Southbury/Oxford/Monroe	584	103	131	89	91	170
36 - Bristol	581	136	100	110	77	158
37 - Shelton/Beacon Falls	572	56	270	60	58	128
38 - Orange/W Haven	571	102	100	99	114	156
39 - Old Saybrook/Deep River/Clinton/Old Lyme/Essex/Westbrook/Lyme	570	81	127	98	98	166
40 - Milford	564	89	113	90	87	185
41 - Windsor/Bloomfield	561	114	90	92	88	177
42 - Burlington/Farmington	558	117	70	50	208	113
43 - Winchester/Torrington	553	59	169	75	103	147
44 - Union/Woodstock/Eastford/Pomfret/Hampton/ Canterbury/Brooklyn	530	58	59	230	67	116
45 - Rocky Hill/Berlin	529	226	68	60	57	118
46 - Danbury	528	94	84	99	94	157
47 - Norwich	524	48	79	61	231	105
48 - Sprague/Lisbon/Griswold/Montville/Franklin/ Voluntown/Preston	695	106	87	93	291	118
49 - Guilford/Madison/Killingworth	509	52	108	92	90	167
50 - New Britain	492	116	68	65	82	161
51 - Thomaston/Plymouth/Watertown	478	66	160	70	70	112
52 - Greenwich	437	56	90	67	72	152
53 - Windham	307	37	35	146	35	54



Table 2
Weight Trimming Results

Locale	First Quartile (Q1)	Third Quartile (Q3)	Inter-quartile Range (IQR)	Maximum Weight	Number responses trimmed
1	10.95	50.87	39.92	170.63	98
2	9.11	60.4	51.3	214.29	47
3	10.99	78.01	67.03	279.09	23
4	10.04	47.19	37.15	158.62	39
5	33.63	91.51	57.88	265.15	19
6	25.77	78.79	53.02	237.85	21
7	45.15	103.97	58.82	280.44	18
8	42.05	109.27	67.23	310.96	26
9	41.51	114.57	73.06	333.75	15
10	9.03	57.02	47.99	200.97	22
11	39.85	90.59	50.75	242.83	17
12	21.53	73.56	52.04	229.67	25
13	34.83	91.82	56.99	262.78	20
14	14.02	60.71	46.69	200.78	19
15	12.41	60.87	48.46	206.25	13
16	27.01	94.79	67.78	298.12	19
17	28.28	89.6	61.31	273.54	15
18	19.6	88.79	69.18	296.34	12
19	20.82	64.94	44.13	197.32	20
20	27.33	73.14	45.81	210.58	23
21	17.75	67.31	49.56	215.98	17
22	27.4	77.42	50.03	227.51	10
23	30.87	92.99	62.12	279.35	16
24	42.54	96.22	53.67	257.24	15
25	22.75	79.55	56.8	249.94	6
26	10.3	60.87	50.56	212.56	10
27	15.38	66.34	50.95	219.2	18
28	31.04	90.38	59.34	268.4	14
29	48	116.99	69	323.98	17
30	36.36	95.34	58.98	272.26	14
31	35.56	88.79	53.23	248.49	18
32	50	140.57	90.57	412.29	13
33	29.72	74.13	44.4	207.34	10
34	19.71	75.2	55.5	241.69	15
35	35.83	91.02	55.19	256.57	17
36	37.83	97.85	60.02	277.91	15
37	21.11	70.33	49.22	218	18
38	35.78	110.47	74.69	334.55	12
39	30.63	72.01	41.37	196.12	18
40	38.76	100.55	61.79	285.92	15
41	27	86.13	59.13	263.51	16
42	14.79	64.66	49.87	214.28	7
43	27.34	87.2	59.86	266.8	12
44	13.18	53.91	40.74	176.12	20
45	13.12	64.66	51.54	219.29	11
46	49.63	123.08	73.45	343.41	8
47	11.34	75.87	64.53	269.46	8
48	13.45	70.9	57.45	243.25	7
49	34.44	82.2	47.75	225.46	11
50	40.91	113.69	72.78	332.04	9
51	33.6	87.65	54.05	249.81	12
52	36.87	88.79	51.92	244.56	8
53	13.18	58.96	45.78	196.31	5



Raking

The final step in the weighting is calibrating the weights to benchmark demographic distributions for each locale. The targets were based on:

- Age (18-24 years old, 25-34 years old, 35-44 years old, 45-54 years old, 55-64 years old, 65-74 years old, and 75 years and older), by gender;
- Race (Hispanic/Latino, non-Hispanic White, non-Hispanic Black/African American, and non-Hispanic Other/Multiple);
- Marital status (married, never married, and widowed/divorced/separated), by gender;
- Educational attainment (less than high school, high school graduate, some college/technical school, and college graduate or more); and
- Tenure (own home, and do not own home).

There were some limitations in developing the population totals for the demographic distributions. The limitations resulted in demographic distributions constructed from the 2010-2014 American Community Survey Summary Files and the 2010 Decennial Census Summary File 1. First, in developing the demographic distributions, tenure (home owner, non-owner) was only available for the total population (including children). Second, the American Community Survey (ACS) Summary Files obtained from the U.S. Census Bureau included Group Quarters (GQ) population.

Three sets of population counts were used to create the demographic distributions. Regardless of the source of the distributions, all counts were scaled to the 2010-2014 ACS adult (18 years and older) population living in households. The population controls used in the weighting are shown in **Tables 3-8**. The population counts were derived from these three sources:

ACS 2010-2014 Total Population—the total population includes the group quarters (GQ) population. For small areas, this can drastically change the demographic distributions. For instance, the University of Connecticut in Locale 12 (Willington/Mansfield/Stafford) skews the distribution toward 18-24 because of the student population. People who live in group quarters are screened out of the BRFSS surveys. Therefore the BRFSS is a sample from the household population.

ACS 2010-2014 Non-institutional Civilian Population—the benefit of these population counts is that prisons, hospitals, and other institutions are not included in the population counts. However, other group quarters, including college dormitories are still included in the counts. Further, the demographic distributions are only available for race, age, and gender and educational attainment. Marital status and tenure distributions were not available. Further, the educational attainment is based on 25 and over population.



Census 2010 Household Population—the benefit of these counts is that all group quarters are excluded from the population counts. However, these counts are older than the ACS data and may not reflect population growth and/or demographic shifts. Further, marital status is not available from the 2010 Census.

Whenever possible, the ACS 2010-2014 non-institutional civilian population for age, gender, race and educational attainment, was used. For locales where the non-institutional group quarters population was greater than 3%, the non-institutional civilian population was compared with the 2010 Census household population for the age/gender and race distributions. This occurred in 10 locales: 2, 3, 4, 9, 10, 12, 27, 38, 50, and 53. When the distributions looked different, we used the 2010 Census distributions to eliminate the impact of the group quarters population (e.g. college dorms). Locale 50 was the only locale where the non-institutional civilian population distributions from the ACS 2010-2014 were used. The 2010 Census was used for the other nine locales. Marital Status was not used in the weighting for these locales.

As mentioned, one of the limitations with the non-institutional civilian population was that educational attainment was only available for 25 years old and older population. Therefore, a dimension was developed that crossed age with educational attainment: 18-24 years old, 25 years old and older with less than high school, 25 years old and older with a high school degree, 25 years old and older with some college, and 25 years old and older with a college degree. Some locales, however, had very few 18-24 year olds and didn't meet the collapsing threshold (see below). For these locales, the 18 years and older educational attainment for the total population (including group quarters) was used. This was the case in about half the locales: 13, 15, 18, 20, 23, 24, 25, 26, 29, 30, 31, 34, 35, 37, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 51, and 52. The group quarters population was less than 3% of the total population all these areas except Locale 48, in which 3.6% of the total population represented group quarters.

Collapsing

Age by gender groups were collapsed if there were fewer than 25 respondents in any particular cell or sample. All other demographic distributions were collapsed if there were fewer than 30 respondents. Race groups had the additional criteria of being at least 5% of the population. When a race group did not meet the minimum, the cell was collapsed to 'Other.' When no race groups met the minimum criteria, race was not used in the weighting. The collapsed demographic distributions are presented in **Tables 3-8**.



Weight Trimming

The weight trimming was integrated with the raking process using Izrael et al.'s (2009) rake and trim algorithm.¹⁰⁴

Weights were trimmed using the global high cap value (GHCV) method. This method reduces large weights and increases small weights when they exceed the global lower or upper bounds (on the basis of factors of the average weight). The weights are constrained from increasing or decreasing beyond the individual lower or upper bounds. For example, a weight can't increase more than four times its input weight.

Imputation

Missing values for the weighting variables were imputed. Age and race/ethnicity were imputed as the modal value for each local of residence. Marital status, tenure and educational attainment are imputed using a hot-deck algorithm. This algorithm jointly imputes marital status, tenure and educational attainment from the same respondent if all are missing. Age, race/ethnicity, gender and local were used to determine nearest neighbors.



Table 3
Age and Gender Collapsed Adult Population Totals

Locale	Gender	18-24	25-34	35-44	45-54	55-64	65-74	75+	Total
1	Male		20353	9055	8084	6564	3309	2319	49684
	Female		20887	9879	9420	7733	4200	3677	55797
2	Male		18885	7695	6653	4894	2739	1907	42773
	Female		20083	8418	7594	5960	3709	3360	49125
3	Male		15811	7203	7040	5059	2677	1650	39439
	Female	7471	9975	8028	8025	6082	3474	2800	45855
4	Male		3715	3990	4632	3253	1818	1659	19067
	Female		4041	4369	4976	3528	2181	2482	21577
5	Male		10201	6469	8811	6355	4103	2769	38708
	Female		10202	6596	9581	6524	4515	4205	41622
6	Male		11781	5207	5560	5131	2845	2292	32815
	Female		11798	5222	5807	6088	3591	3339	35844
7	Male		7765	5578	9377	6878	4058	2680	36337
	Female		6744	6303	9618	6588	4434	3374	37061
8	Male		17442	9494	8394	6396	3390	2625	47741
	Female	4857	10466	8571	9138	6887	4478	4722	49120
9	Male		12101	7157	7880	5976	3118	2414	38645
	Female		12804	7501	8136	6570	3699	4014	42724
10	Male		6206	3574	3812	3282	1708	1778	20359
	Female		6864	3912	4426	3886	2239	3082	24410
11	Male		4196	5697	8473	6690	3587	2708	31351
	Female		4905	6776	9533	6469	3601	3369	34653
12	Male	3209	5078	3870	4101	3359	1789	1452	22859
	Female		8058	3788	4261	3602	2166	2244	24119
13	Male	6919		5791	8093	6155	3988	1777	32723
	Female		6633	6144	8275	6295	3685	2601	33632
14	Male		5610	3843	4676	3384	1836	1503	20852
	Female		5349	3916	4578	3742	2166	1737	21489
15	Male		5200	3650	4098	3545	2412	2160	21065
	Female		4993	3864	4560	4474	3105	3440	24436
16	Male		9045	5106	5988	5452	2302	1937	29830
	Female		8374	5340	6309	5462	3136	3006	31627
17	Male		4771	4354	6841	5429	3131	2598	27124
	Female		4730	4953	7343	5377	3288	3716	29408
18	Male		6256	4304	5535	4688	2921	2335	26039
	Female		6611	4117	5874	5002	3079	3364	28047
19	Male		4079	2930	3887	4365	2435	1825	19521
	Female		3887	3218	4502	4190	2743	2239	20780
20	Male		3146	2668	3976	4216	2675	1704	18385
	Female		3258	2896	4156	4277	2607	2183	19377
21	Male		4084	2874	4365	4089	2279	1029	18721
	Female		4046	3315	4701	3828	2147	1317	19353
22	Male	2054	3762	3697	4290	3772	2052	1857	21485
	Female		6028	4434	4811	4444	2332	3604	25652
23	Male		6780	4127	5523	5215	3264	2433	27341
	Female		6501	4196	6245	5644	3838	3806	30231
24	Male		7493	4656	6301	5518	3421	2263	29651
	Female		6259	5041	6202	5890	3684	3914	30991
25	Male		2900	2286	3383	2970	1767	1091	14397
	Female			5111	3673	2853	2035	1772	15444
26	Male			5222	3813	3303	1813	1133	15284
	Female		2902	2792	3872	3336	1729	1584	16215
27	Male	2616	1759	1805	2475	1978	1062	755	12451
	Female		3673	1934	2550	2008	1095	1079	12339
28	Male		3927	2760	4658	3762	2058	1220	18385
	Female		3510	3537	4854	3977	2483	2226	20587



29	Male		10435	6508	6574	5319	2898	2230	33965
	Female		9450	6441	6756	6176	3547	3434	35803
30	Male		7941	5170	5778	4545	2360	2140	27934
	Female		7956	5427	6532	5186	2883	3028	31012
31	Male		5549	4547	5576	4768	2506	1695	24640
	Female		4947	4632	6617	4976	2743	2536	26452
32	Male	5846	7057	7009	7377	5661	3187	2033	38170
	Female	5775	8319	7399	7549	6206	3608	3568	42425
33	Male		2554	2423	3591	3132	1533	1246	14479
	Female		2809	2672	4083	3184	1798	1773	16318
34	Male		4916	3344	4009	3246	2046	1761	19322
	Female		4841	3923	4230	3730	2577	2777	22078
35	Male		4031		8586	4821	2585	2208	22231
	Female		3875	3945	5143	5050	3097	3327	24438
36	Male		6774	4018	4930	3519	1957	1669	22868
	Female		6218	3889	4934	3837	2500	2976	24355
37	Male			6465	3892	3637	2059	1289	17342
	Female		4109	3114	4064	3588	2405	2083	19363
38	Male		7226	4383	5104	3911	2035	1814	24472
	Female		7154	4611	5412	4397	2432	2826	26832
39	Male		3426	2746	4262	4134	3023	1966	19557
	Female			6058	4324	4824	3265	2784	21255
40	Male		5084	3593	4479	3466	1957	1409	19988
	Female		4786	3649	4801	3721	2713	2501	22171
41	Male		4943		6027	3277	2332	1578	18157
	Female		4850	2897	4013	4338	2733	2273	21105
42	Male		2718	2439	2714	2570	1473	986	12900
	Female		2832	2480	2841	2640	1610	1279	13682
43	Male		4215	2969	3839	3428	3251		17701
	Female		4497		6726	3509	2247	2196	19175
44	Male		2308		4232	2364	2017		10921
	Female		2387	1922	2471	2223	1374	1030	11405
45	Male			5929	3172	2949	2837		14887
	Female		3685	2260	3285	3189	1886	1789	16095
46	Male		10296	6257	5615	4176	4074		30419
	Female		10032	5477	5596	4729	2944	2647	31425
47	Male		5114		5578	1958	2105		14755
	Female		4666	2848	2612	2807	1235	1771	15939
48	Male		4359	2935	3854	3507	1967	1261	17882
	Female		4022	3316	3798	3504	2125	1666	18429
49	Male			4758	4246	3443	2640	1525	16612
	Female			5362	4610	3981	2810	2108	18872
50	Male		9988	3785	4391	3758		3119	25041
	Female		10573	4354	4350	3935	2281	2582	28075
51	Male		4095	2331	3608	2952	2664		15650
	Female		4186	2672	3744	3094	1972	1582	17251
52	Male			8435	5487	3613	2086	1844	21465
	Female			8743	5893	3698	2652	2493	23478
53	Male		3199		3979			1118	8296
	Female		2990		2918	1352	1529		8789



Table 4
Collapsed Race Adult Population Totals

Locale	Hispanic	Non-Hispanic White	Non-Hispanic Black	Other	Grand Total
1	37867	26294	25612	15708	105481
2	21233	33883	23296	13487	91898
3	34936	16196	20456	13706	85294
4		35801		4843	40644
5		71499		8831	80330
6		50681	4972	13006	68659
7		66304		7094	73398
8	24846	51190	7130	13695	96861
9	13568	55671		12129	81369
10		30206		14563	44769
11		59340		6664	66004
12	7212	31356	3521	4889	46978
13					66355
14		39566		2775	42341
15		37588		7913	45501
16	7506	48576		5375	61457
17		50352		6180	56532
18		46917		7169	54086
19		34761		5540	40301
20		35751		2011	37762
21					38074
22	4078	36526		6532	47137
23		51301		6271	57572
24		55982		4660	60642
25					29841
26					31499
27		20612		4178	24790
28		34429		4543	38972
29	14358	41164	8334	5912	69768
30	10753	33009	7680	7503	58946
31		43526		7566	51092
32	23559	38631		18405	80595
33		27523		3274	30797
34	5122	28679		7599	41400
35		43241		3428	46669
36	4037	40244		2942	47223
37		33478		3227	36705
38		33006	6625	11673	51304
39					40812
40		37135		5024	42159
41		18134	16259	4869	39262
42		23296		3286	26582
43		32256		4620	36876
44		21383		943	22326
45		26694		4288	30982
46	14348	37665		9830	61844
47		20314		10380	30694
48		31945		4366	36311
49					35484
50	17265	28020		7831	53116
51					32901
52		35805		9138	44943
53		10561		6524	17085



Table 5
Collapsed Adult Educational Attainment by Age

Locale	18-24 years old	25 years old and older				Grand Total
		Less Than High School	High School Degree	Some College	College Degree	
1	16998	22536	28323	22949	14675	105481
2	13782	13584	22808	15095	26630	91898
3	14020	21088	21663	17639	10883	85294
4	3321	1458	5396	6810	23660	40644
5	8499	5210	23172	21705	21745	80330
6	7659	4662	16657	17401	22280	68659
7	7288		17608	16648	31853	73398
8	10565	11095	18085	17422	39695	96861
9	8783	9028	24141	20210	19207	81369
10	5551				39218	44769
11	5139		6116	7313	47436	66004
12	6412	4759	12469	11357	11981	46978
14	4376	4359	14642	11813	7151	42341
16	7039	5853	20079	15156	13330	61457
17	4622		9991	10098	31820	56532
19	3574		11812	10529	14386	40301
21	3649		10948	10025	13452	38074
22	4524		9556	7459	25597	47137
27	4926		7120	5477	7267	24790
28	3507		9133	7434	18899	38972
32	11621	14003	24932	18898	11140	80595
33	2242		3628	5640	19288	30797
36	4819	4580	15464	12206	10153	47223
38	5758	5260	14514	12523	13249	51304
46	8082	9302	16181	11584	16695	61844
50	9174	8948	16226	10587	8181	53116
53	2890	2858	5101	3586	2651	17085



Table 6
Collapsed Educational Attainment—Total Adult Population

Locale	Less Than High School Degree	High School Degree	Some College	College Degree	Grand Total
13	3301	18113	18461	26480	66355
15		15857	12343	17301	45501
18		20501	14332	19253	54086
20		11837	10798	15127	37762
23	5044	19026	15814	17688	57572
24	5014	19109	18452	18067	60642
25		10216	7621	12004	29841
27		7244	12305	5241	24790
28		11530	8810	18633	38972
29	7929	17460	17143	27235	69768
30	7491	17831	17337	16287	58946
31		14041	12647	24404	51092
34		17456	11850	12093	41400
35		13926	11837	20906	46669
37		13581	10462	12662	36705
39		13215	10882	16715	40812
40		14379	11648	16132	42159
41		13471	12043	13748	39262
42		6470	6529	13583	26582
43	5064	13771	10749	7292	36876
44		9041	6744	6541	22326
45		10145	8480	12357	30982
47	4393	11247	9256	5799	30694
48	3964	14355	11107	6885	36311
49		7075	8246	20162	35484
51	2999	10908	10613	8382	32901
52		9627	6904	28412	44943



Table 7. Collapsed Adult Marital Status Population Totals

Locale	Married	Never Married	Widowed/Divorced/Separated	Grand Total
1	37083	47252	21145	105481
2				91898
3				85294
4				40644
5	41407	22962	15960	80330
6	32564	22341	13754	68659
7	46221	15821	11357	73398
8	48245	31778	16838	96861
9				81369
10				44769
11	47225	10106	8673	66004
12				46978
13	42651	12967	10737	66355
14	22045	11214	9082	42341
15	25162	11446	8893	45501
16	30661	18334	12461	61457
17	37299	9918	9316	56532
18	30938	13322	9826	54086
19	23442	8838	8021	40301
20	23288	7540	6933	37762
21	24878	7551	5645	38074
22	25649	12756	8731	47137
23	29410	15326	12836	57572
24	34222	13850	12570	60642
25	18170	5885	5786	29841
26	20345	5668	5486	31499
27				24790
28	23453	9208	6311	38972
29	34665	21626	13477	69768
30	28956	17391	12600	58946
31	30265	11352	9475	51092
32	30700	32112	17783	80595
33	20730	5130	4937	30797
34	21630	11100	8669	41400
35	29164	8885	8620	46669
36	22856	13568	10799	47223
37	21010	8643	7052	36705
38				51304
39	24683	7685	8445	40812
40	22541	10640	8978	42159
41	19002	11738	8523	39262
42	16464	5776	4342	26582
43	18816	9012	9047	36876
44	13478	4727	4122	22326
45	17643	7099	6240	30982
46	29661	20383	11799	61844
47	12816	10142	7736	30694
48	19873	9170	7268	36311
49	23528	5960	5996	35484
50	19589	22457	11070	53116
51	18926	7943	6032	32901
52	28426	9277	7240	44943
53				17085

**Table 8. Tenure Adult Population Total**

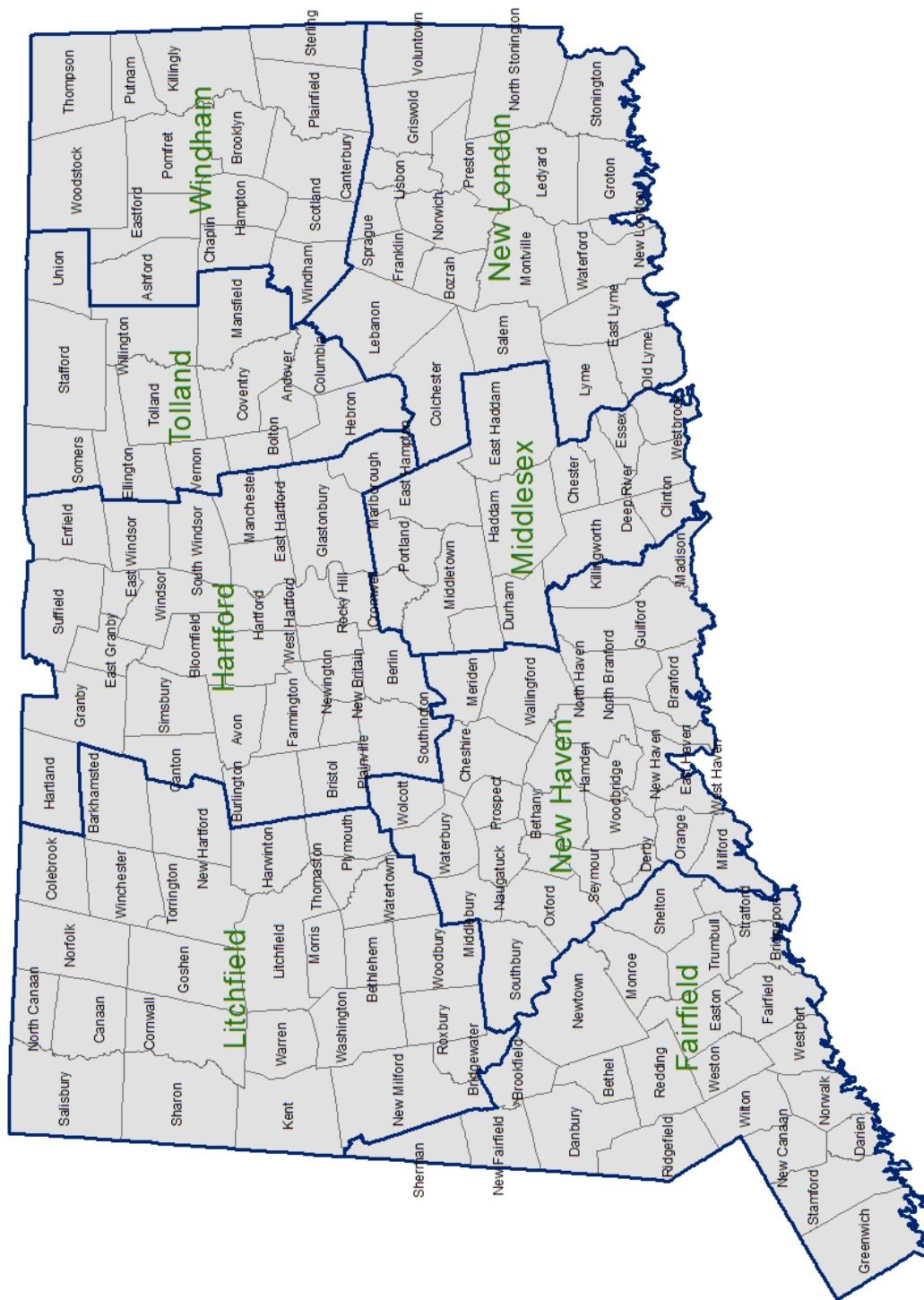
Locale	Owner	Non-owner	Grand Total
1	44258	61223	105481
2	30695	61203	91898
3	21425	63869	85294
4	34650	5994	40644
5	63452	16878	80330
6	39982	28677	68659
7	64543	8855	73398
8	54250	42611	96861
9	49412	31957	81369
10	31151	13618	44769
11	58260	7744	66004
12	21766	25212	46978
13	59017	7338	66355
14	31359	10982	42341
15	38484	7017	45501
16	41481	19976	61457
17	51107	5425	56532
18	45249	8837	54086
19	33738	6563	40301
20	32269	5493	37762
21	34823	3251	38074
22	36407	10730	47137
23	44274	13298	57572
24	51111	9531	60642
25	25138	4703	29841
26	28327	3172	31499
27	17486	7304	24790
28	35600	3372	38972
29	45576	24192	69768
30	42224	16722	58946
31	43047	8045	51092
32	39021	41574	80595
33	27315	3482	30797
34	34533	6867	41400
35	41981	4688	46669
36	33676	13547	47223
37	31229	5476	36705
38	32755	18549	51304
39	34504	6308	40812
40	34280	7879	42159
41	31518	7744	39262
42	22199	4383	26582
43	25346	11530	36876
44	19255	3071	22326
45	24976	6006	30982
46	37343	24501	61844
47	17174	13520	30694
48	29746	6565	36311
49	32020	3464	35484
50	21985	31131	53116
51	28269	4632	32901
52	32559	12384	44943
53	8131	8954	17085





Appendix 2: Maps of Connecticut

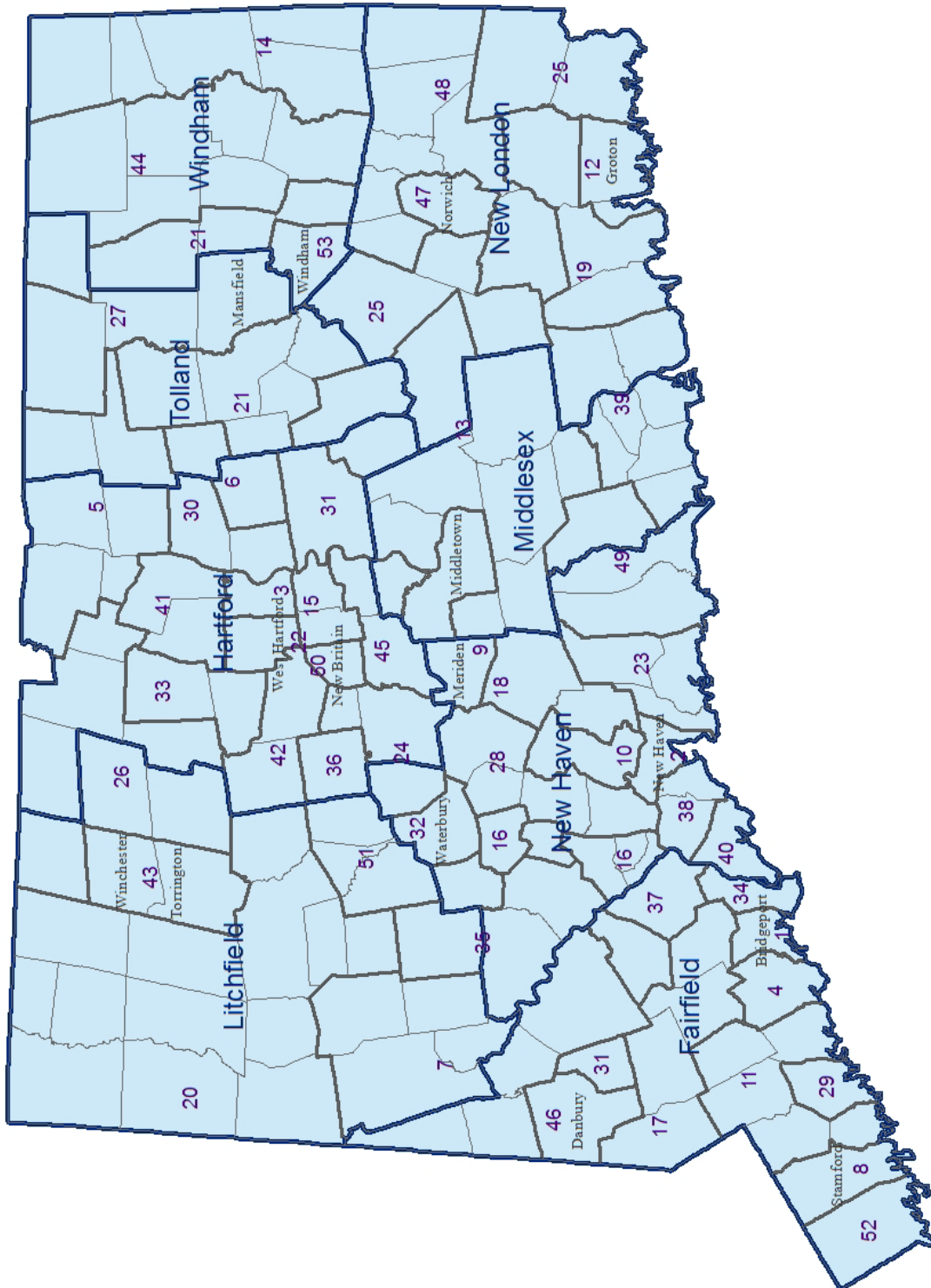
Connecticut Towns and Counties





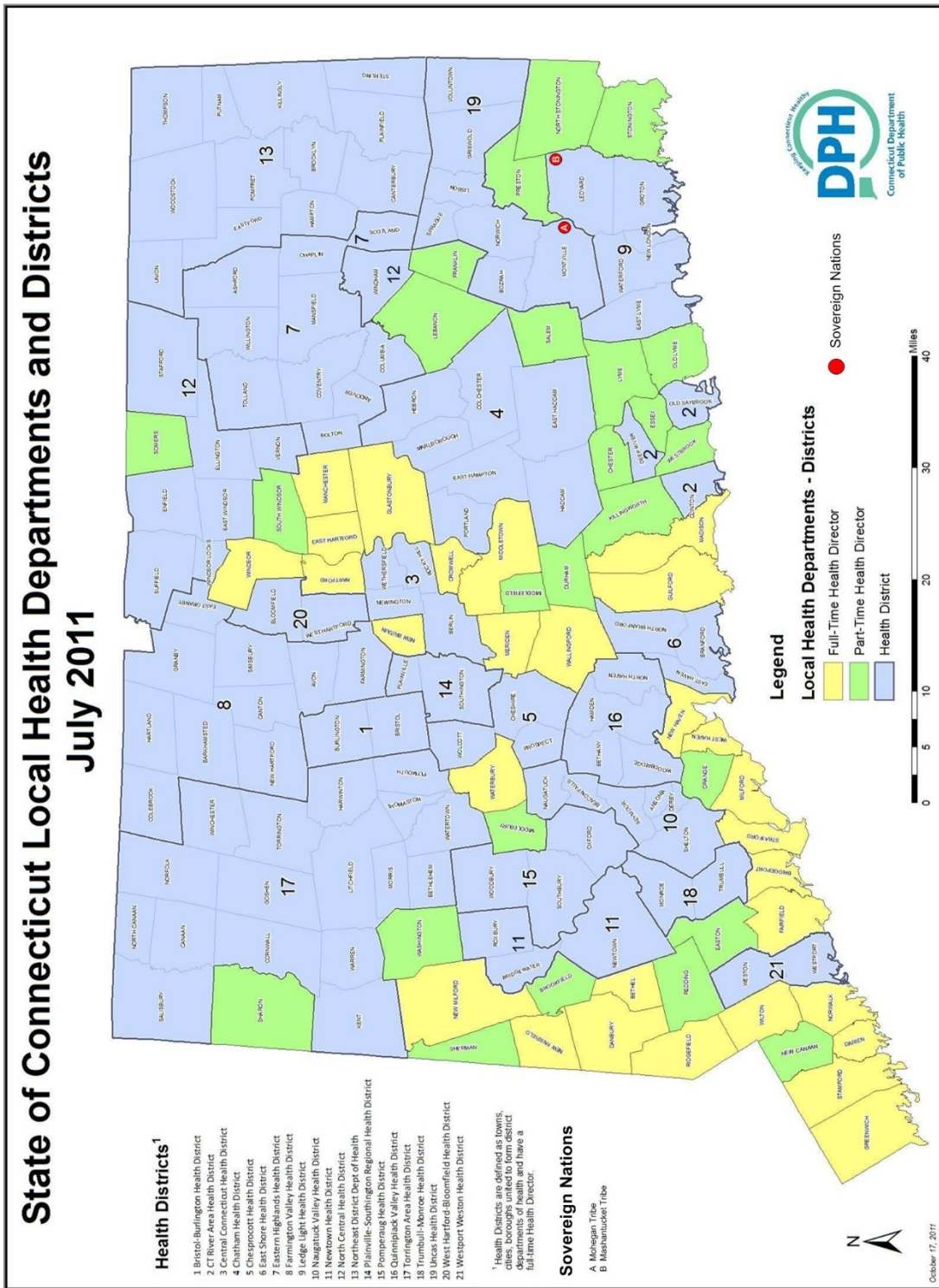
Connecticut Local Areas for Analysis

For list of towns and local area designations, please see **Methodology Section** (pages 16-17).



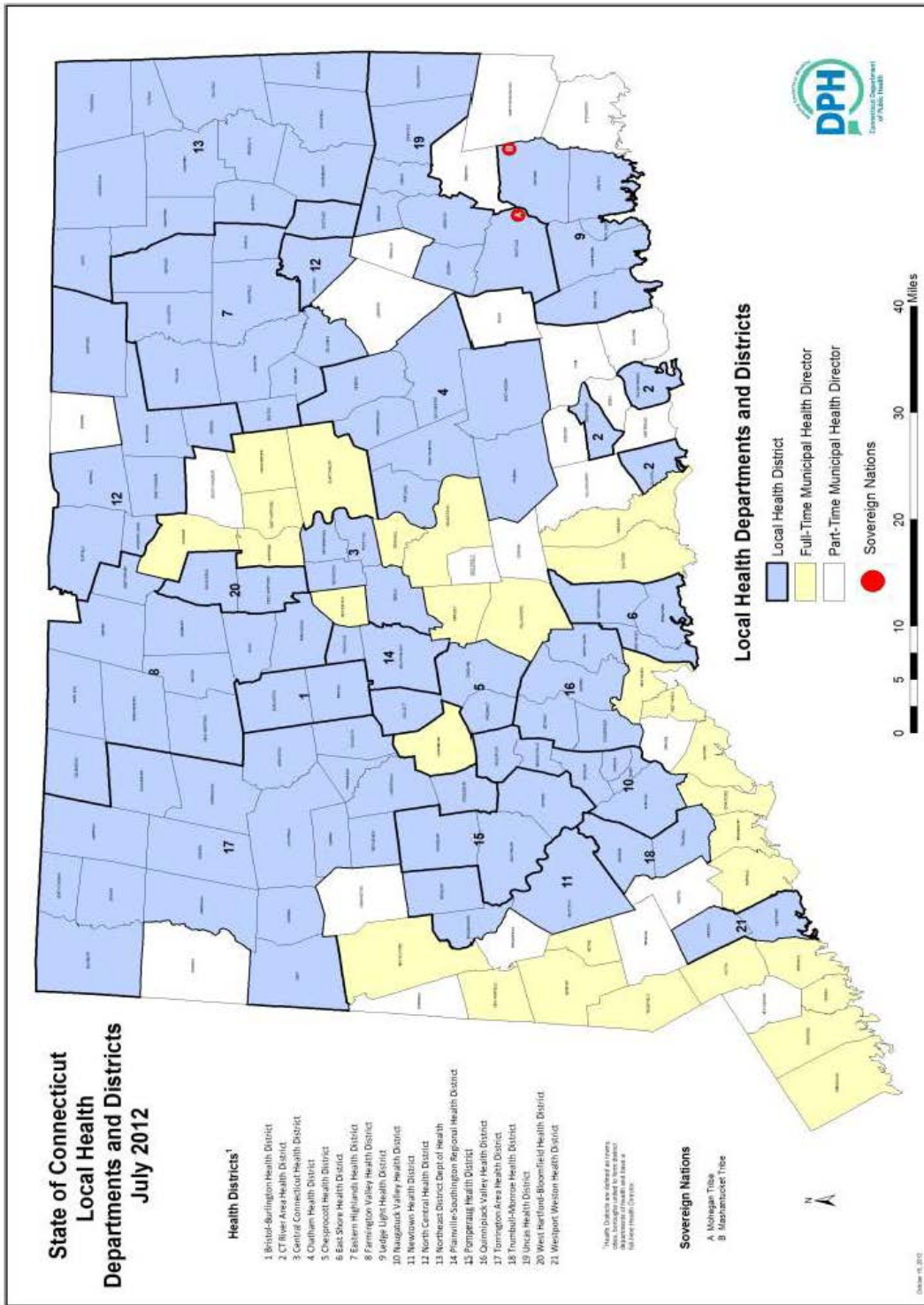


Connecticut Local Health Districts, 2011



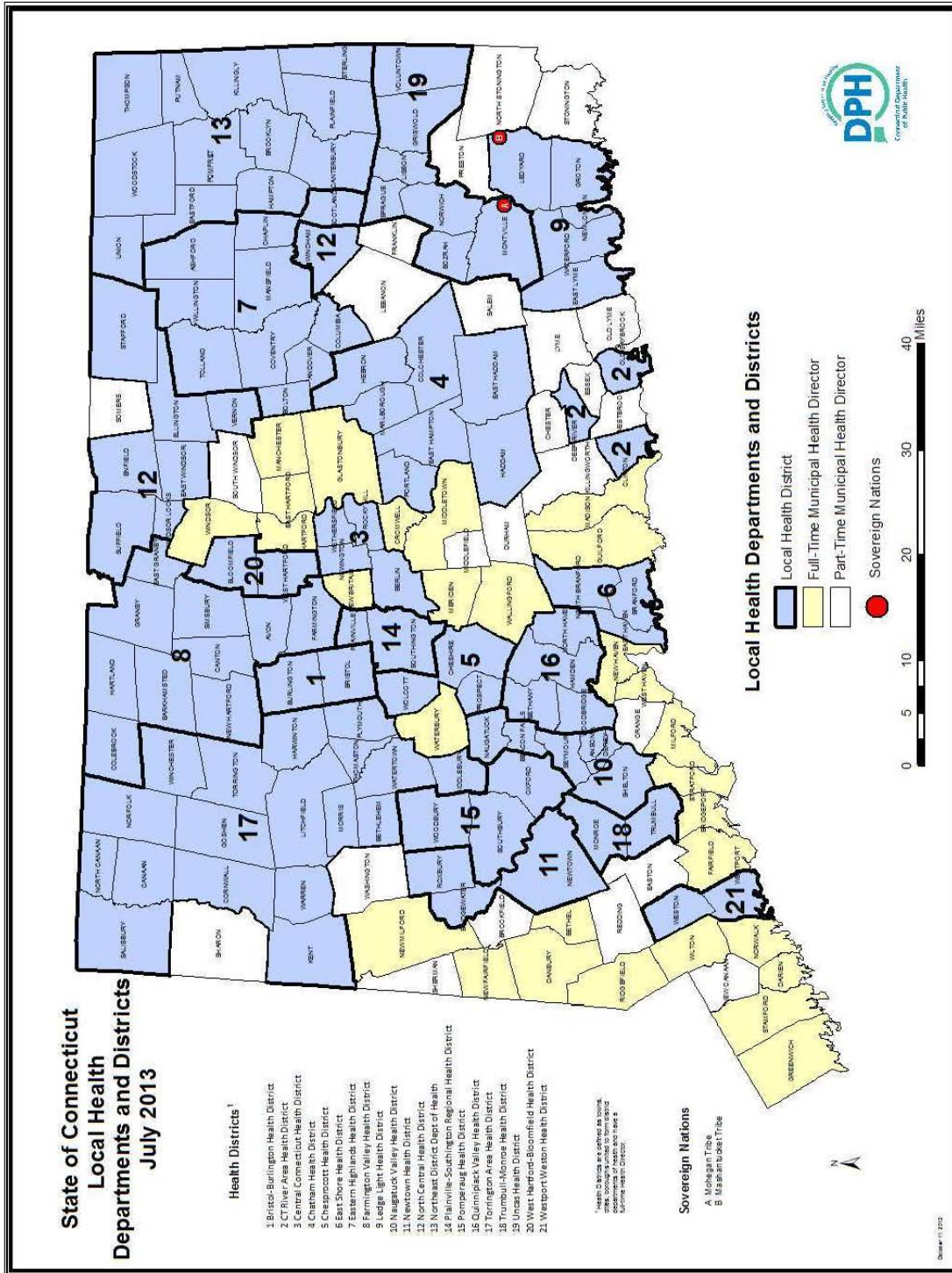


Connecticut Local Health Districts, 2012



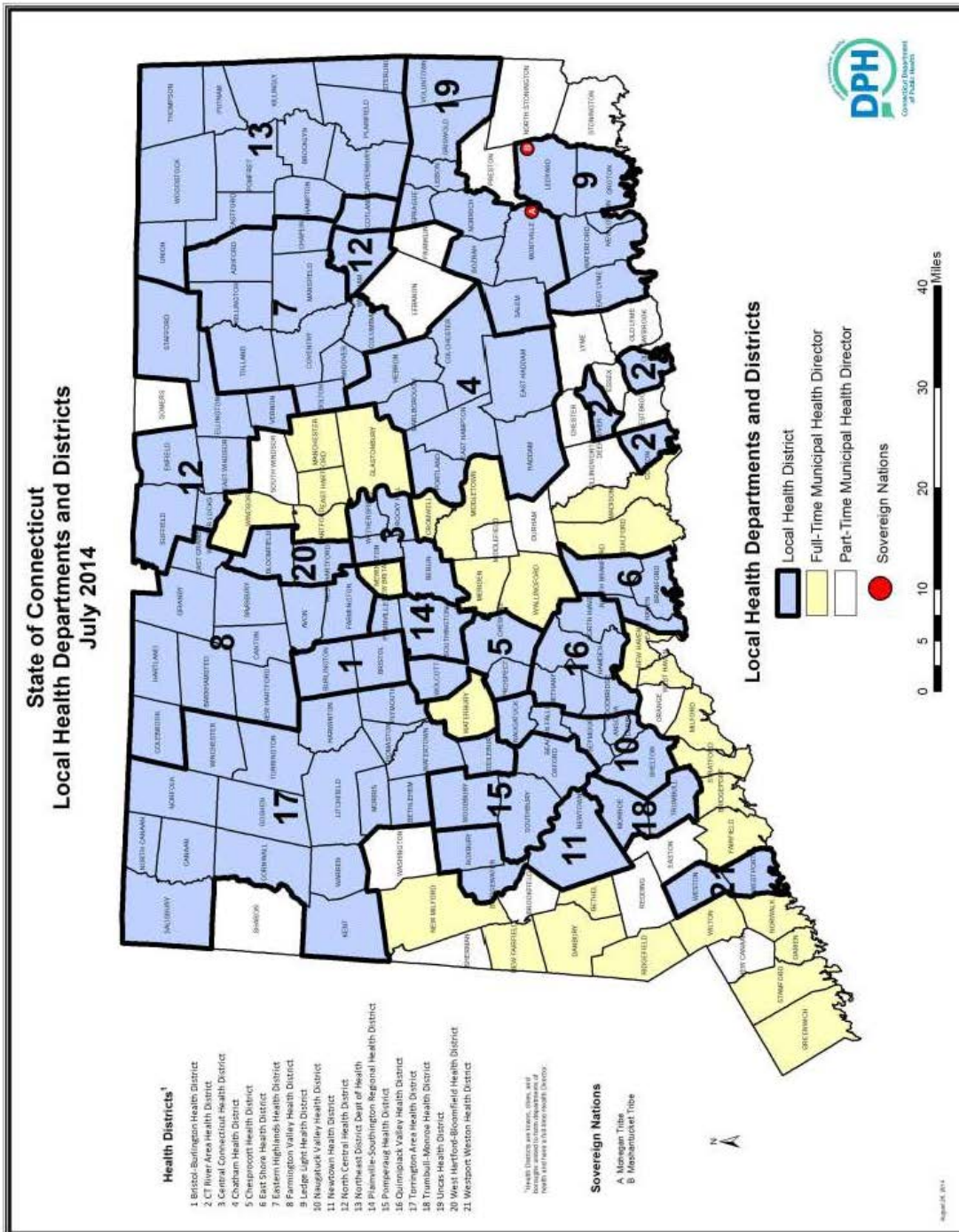


Connecticut Local Health Districts, 2013



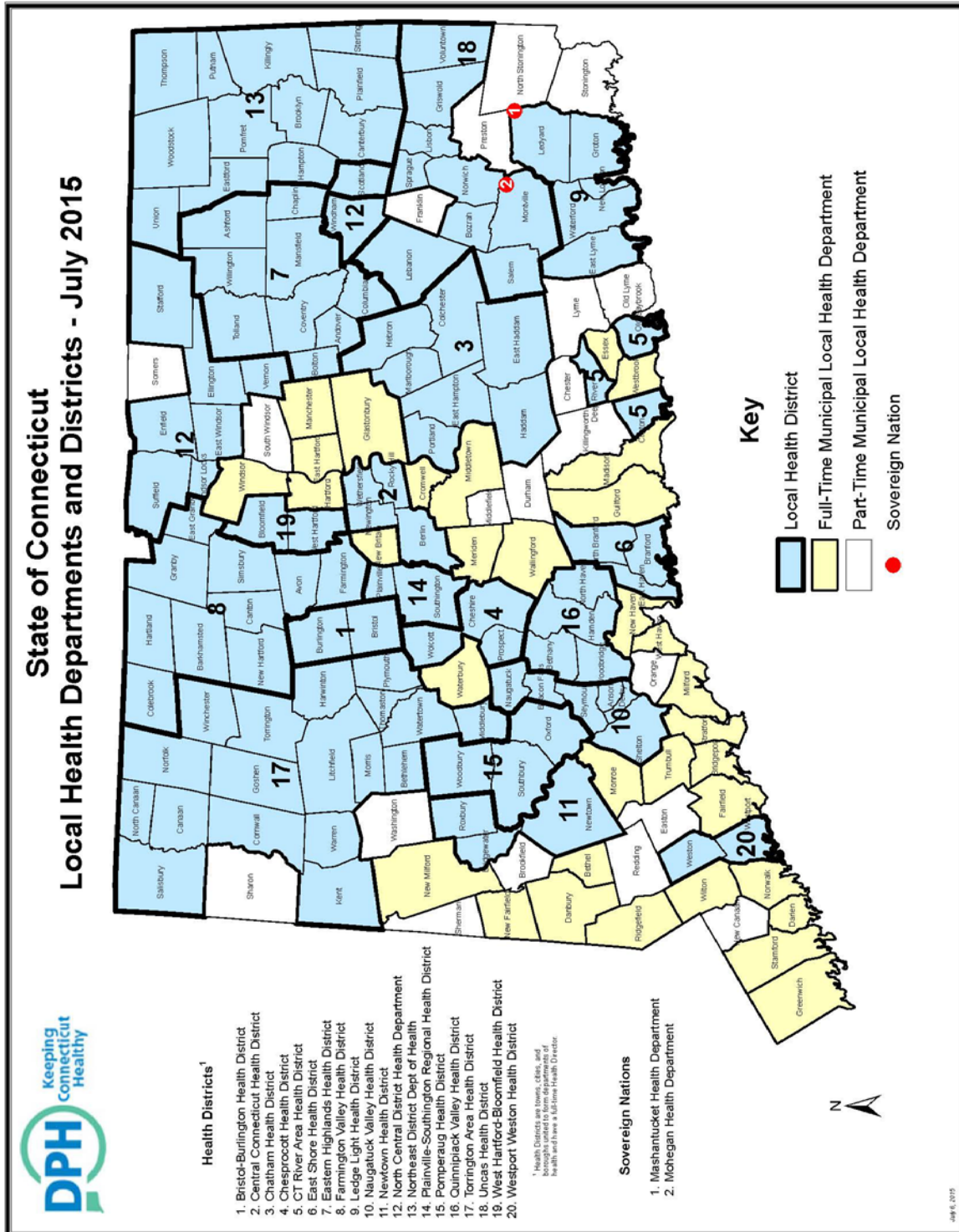


Connecticut Local Health Districts, 2014





Connecticut Local Health Districts, 2015







Endnotes

- ¹ Connecticut Department of Public Health (2015) Behavioral health risks among Northeast District (NDDH) adults (2011-2013), Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/nddh_brfss_factsheet_2011-2013.pdf, accessed on March 9, 2017.
- ² Connecticut Department of Public Health (2015) Behavioral health risks among Eastern Highlands Health District adults (2011-2013), Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/ehhd_brfss_factsheet_2011-2013.pdf, accessed on March 9, 2017.
- ³ Connecticut Department of Public Health (2015) Behavioral health risks among North Central Health District adults (2011-2013), Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/nchd_brfss_factsheet_2011-2013.pdf, access on March 9, 2017.
- ⁴ Connecticut Department of Public Health (2014) Behavioral health risks among Ledge Light Health District adults in 2012, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/LLHD_BRFSS_factsheet2013.pdf, accessed on March 9, 2017.
- ⁵ Connecticut Department of Public Health (2014) Behavioral health risks among Naugatuck Valley Health District adults in 2012, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/NVHD_BRFSS_factsheet2013.pdf, accessed on March 9, 2017.
- ⁶ Connecticut Department of Public Health (2014) Behavioral health risks among Torrington Area Health District adults in 2012, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/TAHD_BRFSS_factsheet2013.pdf, accessed on March 9, 2017.
- ⁷ Stone, C, ZuWallack, R, Nguyen, T (2016) Results of a pilot post-BRFSS (Behavioral Risk Factor Surveillance System) survey in Hartford, Connecticut, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/post-brfss_survey_pilot_hartford_ct.pdf, accessed on March 9, 2017.
- ⁸ Finison, LJ (2007) Community health data scan for Connecticut, Connecticut Health Foundation, Hartford, Connecticut.
<http://www.cthealth.org/wp-content/uploads/2011/04/health-data-scan-report.pdf>, accessed on March 21, 2017.
- ⁹ Zheng, X, Stone, C (2017) Health Indicators and Risk Factors in Connecticut: 2015, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfss2015_ct_report.pdf, accessed on March 9, 2017.
- ¹⁰ Stone, C, Brackney, M (2016) Health Indicators and Risk Factors in Connecticut, 2014, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfss2014_ct_report.pdf, accessed on March 9, 2017.
- ¹¹ Connecticut Department of Public Health (2015) Health Indicators and Risk Factors in Connecticut, 2013, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfss2013_ct_report.pdf, accessed on March 9, 2017.



- ¹² Connecticut Department of Public Health (2014) Health Indicators and Risk Factors in Connecticut, 2012, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfss2012_ct_report.pdf, accessed on March 9, 2017.
- ¹³ DeSalvo, Karen B, Bloser, N, Reynolds, K, He, Jiang, Muntner, P (2006) Mortality Prediction with a Single General Self-Rated Health Question. *Journal of General Internal Medicine* 21(3):267-275.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1828094/pdf/jqi0021-0267.pdf>, accessed on March 11, 2017.
- ¹⁴ Stone, CL (2013) Association between number of adverse events in childhood and adult risk behaviors and poor health outcomes. Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/ACEs_Risk_Outcomes_BRFSS_July_2013.pdf, accessed on March 11, 2017.
- ¹⁵ Centers for Disease Control and Prevention (2013) CDC Health disparities and inequalities report – United States 2013. MMWR Supplement 62(3).
<https://www.cdc.gov/mmwr/pdf/other/su6203.pdf>, accessed on March 9, 2017.
- ¹⁶ CDC: HRQOL-14 “Healthy Days Measure,” Centers for Disease Control and Prevention.
https://www.cdc.gov/hrqol/hrqol14_measure.htm, accessed on March 9, 2017.
- ¹⁷ Centers for Disease Control and Prevention (2000) Measuring Healthy Days: Population Assessment of Health-Related Quality of Life, Atlanta, Georgia.
<http://www.cdc.gov/hrqol/pdfs/mhd.pdf>, accessed on March 9, 2017.
- ¹⁸ Centers for Disease Control and Prevention: Adult Overweight and Obesity: Causes and Consequences, Atlanta, Georgia
<http://www.cdc.gov/obesity/adult/causes/index.html>, accessed on March 9, 2017.
- ¹⁹ Centers for Disease Control and Prevention (2016) Winnable Battles. Atlanta, Georgia.
<https://www.cdc.gov/winnablebattles/index.html>, accessed on March 11, 2017.
- ²⁰ Centers for Disease Control and Prevention (2009) Recommended community strategies and measurements to prevent obesity in the United States, MMWR Recommendations and Reports 58(RR-7), Atlanta, Georgia.
<https://www.cdc.gov/mmwr/pdf/rr/rr5807.pdf>, accessed on March 9, 2017.
- ²¹ Gutkin, Cal (2009) Outliers: extended families, better health outcomes. Why everyone should have a family doctor. *Canadian Family Physician* 55 (7):768.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2718612/pdf/0550768.pdf>, accessed on March 10, 2017.
- ²² Williams JW, Jackson GL, Powers BJ, et al. The patient-centered medical home. Closing the quality gap: revisiting the state of the science. Evidence Report No. 208. AHRQ Publication No. 12-E008-EF. Rockville, MD: Agency for Healthcare Research and Quality; 2012.
https://www.cdc.gov/dhds/pubs/docs/science_in_brief_pcmh_evidence.pdf, accessed on March 10, 2017.
- ²³ Centers for Disease Control and Prevention (2013) State Law Factsheet: A summary of state patient-centered medical home laws, December 2013, Atlanta, Georgia.
https://www.cdc.gov/dhds/pubs/docs/state_law_fs_medical_home_laws.pdf, accessed on March 10, 2017.



- ²⁴ Centers for Disease Control and Prevention (2015) Accountable and Coordinated Care, Atlanta, Georgia
<https://www.cdc.gov/stltpublichealth/program/resources/accountable.html>, accessed on March 10, 2017.
- ²⁵ Warburton, DE, Nichol, CW, Bredlin, SSD (2006) Health Benefits of Physical Activity: The Evidence. *Canadian Medical Association Journal* 174(6):801-809.
<http://www.cmaj.ca/content/174/6/801.full.pdf>, accessed on March 10, 2017.
- ²⁶ American Heart Association (2015) Physical activity improves quality of life, Dallas, Texas.
http://www.heart.org/HEARTORG/HealthyLiving/PhysicalActivity/FitnessBasics/Physical-activity-improves-quality-of-life_UCM_307977_Article.jsp#.WMLTG_YiyM8, accessed on March 10, 2017.
- ²⁷ Centers for Disease Control and Prevention (2000) Community Guide: Physical Activity, Atlanta, Georgia
https://www.thecommunityguide.org/topic/physical-activity?field_recommendation_tid=7476&items_per_page=5, accessed on March 10, 2017.
- ²⁸ Kahn, EM, Ramsey, LT, Brownson, RC, Heath, GW, Howze, EH, Powell, KH, Stone, EJ, Rajab, MW, Corso, SC, and the Task Force on Community Preventive Services (2002) The effectiveness of interventions to increase physical activity: A systematic review. *Am J Prev Med* 2002;22(4S):73–107.
<https://www.thecommunityguide.org/sites/default/files/publications/pa-ajpm-evrev.pdf>, accessed on March 10, 2017.
- ²⁹ Public Health Service (2014) The health consequences of smoking – 50 years of progress: A report of the Surgeon General. U.S. Department of Health and Human Services, Atlanta, Georgia.
<http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf>, accessed on March 10, 2017.
- ³⁰ Center for Disease Control and Prevention (2017) The 6 | 18 Initiative: Accelerating evidence into action, Atlanta, Georgia.
<https://www.cdc.gov/sixeighteen/>, accessed on March 11, 2017.
- ³¹ Centers for Disease Control and Prevention (2014) Best practices for comprehensive tobacco cessation programs, Atlanta, Georgia.
https://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf, accessed on March 10, 2017.
- ³² Pierce, JP, White, VM, Emery, SL (2011) What public health strategies are needed to reduce smoking initiation? *Tobacco Control* 2012;21:258e264.
<http://tobaccocontrol.bmj.com/content/tobaccocontrol/21/2/258.full.pdf>, accessed on March 10, 2017.
- ³³ Fair Reporters (2015) Prices of cigarettes by state.
<http://fairreporters.net/health/prices-of-cigarettes-by-state/>, accessed on March 11, 2017.
- ³⁴ Cripe, N (2017) Increasing the cost of cigarettes is the best way to reduce smoking, News Sentinel, Fort Wayne, Indiana.
<http://news-sentinel.com/opinion/your-voice/Increasing-the-cost-of-cigarettes-is-the-best-way-to-reduce-smoking>, accessed on March 11, 2017.
- ³⁵ Centers for Disease Control and Prevention (2017) Tips from former smokers, Atlanta, Georgia.
<https://www.cdc.gov/tobacco/campaign/tips/resources/videos/index.html>, accessed on March 11, 2017.



- ³⁶ O'Connor, RJ (2012) Non-cigarette tobacco products: What have we learned and where are we headed? *Tob Control*. 2012 March ; 21(2): 181–190.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3716250/pdf/nihms-493215.pdf>, accessed on March 11, 2017.
- ³⁷ Schivo, M, Avdalovic, MV, Murin, S. (2014) Non-cigarette tobacco and the lung. *Clin Rev Allergy Immunol*. 2014 Feb;46(1):34-53.
- ³⁸ American Lung Association (2007) An emerging deadly trend: Waterpipe tobacco use.
http://www.lungusa2.org/embargo/slati/Trendalert_Waterpipes.pdf, accessed on March 11, 2017.
- ³⁹ Kasprak, J (2011) Hookah lounges, OLR Research Report (2011-R-0118), Connecticut General Assembly, Hartford, Connecticut.
<https://www.cga.ct.gov/2011/rpt/2011-R-0118.htm>, accessed on March 11, 2017.
- ⁴⁰ Centers for Disease Control and Prevention (2016) Alcohol and public health: Frequently asked questions.
<http://www.cdc.gov/alcohol/faqs.htm>, accessed on March 11, 2017.
- ⁴¹ Centers for Disease Control and Prevention: Fact Sheets- Binge drinking.
<http://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm>
- ⁴² Centers for Disease Control and Prevention (2016) Protecting people from motor vehicle-related deaths and injuries: Keeping people safe on the road – every day. Atlanta, Georgia.
<https://www.cdc.gov/winnablebattles/motorvehicleinjury/index.html>, accessed on March 11, 2017.
- ⁴³ Centers for Disease Control and Prevention (2012) Community Prevention Guide: Excessive alcohol consumption, Atlanta, Georgia.
<https://www.thecommunityguide.org/topic/excessive-alcohol-consumption>, accessed on March 11, 2017.
- ⁴⁴ U.S. Office of Disease Prevention and Health Promotion (2013) Evidence-based resource summary: Preventing excessive alcohol consumption: electronic screening and brief interventions (e-SBI).
<https://www.healthypeople.gov/2020/tools-resources/evidence-based-resource/preventing-excessive-alcohol-consumption-electronic>, accessed on March 11, 2017.
- ⁴⁵ Smart, A (2017) Alcohol screening and brief intervention, Connecticut, 2014. Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfssct_asbi_2014.pdf, accessed on March 25, 2017.
- ⁴⁶ Dhanoa, F (2015) Connecticut's new liquor laws are now in effect, Patch.com, Shelton, Connecticut.
<http://patch.com/connecticut/shelton/connecticuts-new-liquor-laws-are-now-effect-0>, accessed on March 11, 2017.
- ⁴⁷ Chaloupka, FJ, Grossman, M, Saffer, H (2002) The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Research and Health* Vol. 26 (1):22-34.
<https://pubs.niaaa.nih.gov/publications/arh26-1/22-34.pdf>, accessed on March 11, 2017.
- ⁴⁸ Tax Rates.org (2017) Excise tax rates by state,
<http://www.tax-rates.org/taxtables/excise-tax-by-state>, accessed on March 11, 2017.



- ⁴⁹ Centers for Disease Control and Prevention: Regular check-ups are important.
<http://www.cdc.gov/family/checkup/>
- ⁵⁰ Blackwelder, R (2015) Leader Voices Blog: Annual exams? Tailor visit frequency to patients' needs. American Academy of Family Physicians, Sunday Jan 18, 2015, Leewood, Kansas.
http://blogs.aafp.org/cfr/leadervoices/entry/annual_exams_tailor_visit_frequency, accessed on March 11, 2017.
- ⁵¹ Barron J (2012) Annual Physical – Futile or not? The Baseline of Health Foundation.
<https://jonbarron.org/natural-health/annual-physical-exam-benefits>, accessed on March 11, 2017.
- ⁵² U.S. National Library of Medicine (2015) Medline Plus: Physical exam frequency.
<https://medlineplus.gov/ency/article/002125.htm>, accessed on March 11, 2017.
- ⁵³ American Academy of Family Physicians (2017) Summary of Recommendations for Clinical Preventive Services, Leewood, Kansas.
http://www.aafp.org/dam/AAFP/documents/patient_care/clinical_recommendations/cps-recommendations.pdf, accessed on March 12, 2017.
- ⁵⁴ Office of the Associate Director of Policy-Prevention (2015) CDC Prevention Checklist: Preventive care, everyone needs an ounce of prevention. Centers for Disease Control and Prevention, Atlanta, Georgia.
<https://www.cdc.gov/prevention>, accessed on March 12, 2017.
- ⁵⁵ Stone, CL (2016) Association between pregnancy planning and health behaviors: Results from the Behavioral Risk Factor Surveillance System (BRFSS) in seven states, 2013, Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/brfss_pregnancy_planning_and_health_behaviors.pdf, accessed on March 12, 2017.
- ⁵⁶ Centers for Disease Control and Prevention: Influenza (Flu), Key facts about seasonal flu vaccine.
<http://www.cdc.gov/flu/protect/keyfacts.htm>
- ⁵⁷ American Council on Immunization Practices (2016) Prevention and control of seasonal influenza with vaccines recommendations of the Advisory Committee on Immunization Practices — United States, 2016–17 Influenza Season. Centers for Disease Control and Prevention, Atlanta, Georgia. *MMWR Recommendations and Reports* 65(5).
<https://www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6505.pdf>, accessed on March 12, 2017.
- ⁵⁸ Stone, CL (2015) Trends in influenza and pneumococcal vaccination among adults in Connecticut, years 2001-2010. Connecticut Department of Public Health, Hartford, Connecticut.
http://www.ct.gov/dph/lib/dph/hisr/pdf/flu_vaccine_technical_report_2001-2010.pdf, accessed on March 12, 2017.
- ⁵⁹ Community Preventive Services Taskforce (2013) The Community Guide: Increasing appropriate immunization. Centers for Disease Control and Prevention, Atlanta, Georgia.
<https://www.thecommunityguide.org/sites/default/files/assets/What-Works-Vaccines-factsheet-and-insert.pdf>, accessed on March 12, 2017.



- ⁶⁰ Centers for Disease Control and Prevention: Immunization strategies for healthcare practices and providers. <https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/strat.pdf>, accessed on March 12, 2017.
- ⁶¹ Oliverez, M: Strategies For Increasing Flu Vaccination Rates. Capture Billing.com, South Riding, Virginia. <http://www.capturebilling.com/strategies-for-increasing-flu-vaccination-rates>, accessed on March 12, 2017.
- ⁶² Rand Health (2011) Research highlights: Seasonal flu vaccination: Why don't more Americans get it? Rand Corporation, Santa Monica, California. http://www.rand.org/content/dam/rand/pubs/research_briefs/2011/RAND_RB9572.pdf, accessed on March 12, 2017.
- ⁶³ Connecticut Department of Public Health (2017) Influenza Surveillance and Statistics, Hartford, Connecticut. <http://www.ct.gov/dph/cwp/view.asp?a=3136&q=410788>, accessed on March 14, 2017.
- ⁶⁴ Centers for Disease Control and Prevention (2016) Pneumonia. <http://www.cdc.gov/pneumonia>, accessed on March 14, 2017.
- ⁶⁵ Centers for Disease Control and Prevention (2016) Vaccines and Preventable Diseases: Pneumococcal Vaccination. <http://www.cdc.gov/VACCINES/vpd-vac/pneumo/default.htm#vacc>, accessed on March 14, 2017.
- ⁶⁶ Community Preventive Services Task Force (2015) Increasing Appropriate Vaccination: Client Reminder and Recall Systems, The Community Guide, Centers for Disease Control and Prevention, Atlanta, Georgia. <https://www.thecommunityguide.org/sites/default/files/assets/Vaccination-Client-Reminders.pdf>, accessed on March 14, 2017.
- ⁶⁷ National Foundation for Infectious Diseases (2016) Adult Vaccination.org, Bethesda, Maryland. http://www.adultvaccination.org/pneumococcal_vaccine_vaccination_adult_immunization.htm, accessed on March 14, 2017.
- ⁶⁸ AIDS.gov (2016) AIDS 101: HIV in the United States. U.S. Secretary's Minority AIDS Initiative Fund. <http://aids.gov/hiv-aids-basics/hiv-aids-101/statistics/#ref2>, accessed on March 14, 2017.
- ⁶⁹ U.S. Preventive Services Task Force (2013) Human Immunodeficiency Virus (HIV) Infection: Screening, Rockville, Maryland <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/human-immunodeficiency-virus-hiv-infection-screening>, accessed on March 14, 2017.
- ⁷⁰ Branson, BM, Handsfield, HH, Lampe, MA, Janssen, RS, Taylor, AW, Lyss, SB, Clark, JE (2006) Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings, *MMWR Recommendations and Reports* 55(RR14);1-17. <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>, accessed on March 14, 2017.
- ⁷¹ Centers for Disease Control and Prevention (2015) Winnable Battles 2010-2015 Progress Report: HIV Infection, Atlanta, Georgia. <https://www.cdc.gov/winnablebattles/targets/pdf/hiv-winnablebattles-progressreport.pdf>, accessed on March 14, 2017.



- ⁷² Centers for Disease Control and Prevention (2017) Prevention Benefits of HIV Treatment, Atlanta, Georgia. <https://www.cdc.gov/hiv/research/biomedicalresearch/tap/index.html>, accessed on March 14, 2017.
- ⁷³ Connecticut Department of Public Health (2016) AIDS and HIV, Hartford, Connecticut. http://www.ct.gov/dph/cwp/view.asp?a=3135&q=387010&dphNav_GID=1601, accessed on March 14, 2017.
- ⁷⁴ National Heart, Lung and Blood Institute (2014) What Is Asthma? National Institutes of Health, Bethesda, Maryland. <http://www.nhlbi.nih.gov/health/health-topics/topics/asthma>, accessed on March 14, 2017.
- ⁷⁵ Centers for Disease Control and Prevention. Breathing Easier. http://www.cdc.gov/asthma/pdfs/breathing_easier_brochure.pdf
- ⁷⁶ National Asthma Education and Prevention Program Expert Panel Report 3 (2007) Guidelines for the diagnosis and management of asthma. National Institutes of Health, Bethesda, Maryland. <https://www.nhlbi.nih.gov/files/docs/guidelines/asthsumm.pdf>, accessed on March 14, 2017.
- ⁷⁷ Connecticut Department of Public Health (2016) Asthma Action Plan, Hartford, Connecticut <http://www.ct.gov/dph/cwp/view.asp?a=3137&q=397020>, accessed on March 14, 2017.
- ⁷⁸ Connecticut Department of Public Health (2017) Asthma: Regional activities: Home-based asthma management education & environmental assessment, Hartford, Connecticut. <http://www.ct.gov/dph/cwp/view.asp?a=3137&q=401328>, accessed on March 14, 2017.
- ⁷⁹ National Heart, Lung and Blood Institute. "What Is COPD?" 5 June 2012. <http://www.nhlbi.nih.gov/health/health-topics/topics/copd>, accessed on March 14, 2017.
- ⁸⁰ Mann, D (2014) Is it asthma or COPD? Everyday Health, Inc, New York, New York. <http://www.everydayhealth.com/asthma/is-it-asthma-or-copd.aspx>, accessed on March 14, 2017.
- ⁸¹ Jacobson, E (2015) Research report: Chronic obstructive pulmonary disease, Connecticut General Assembly, Office of Legislative Research, Hartford, Connecticut. <https://www.cga.ct.gov/2015/rpt/pdf/2015-R-0127.pdf>, accessed on March 14, 2017.
- ⁸² National Center for Chronic Disease Prevention and Health Promotion (2011) Public health strategic framework for COPD prevention, Centers for Disease Control and Prevention, Atlanta, Georgia. https://www.cdc.gov/copd/pdfs/framework_for_copd_prevention.pdf, accessed on March 14, 2017.
- ⁸³ Centers for Disease Control and Prevention (2017) Arthritis basics, Atlanta, Georgia. <http://www.cdc.gov/arthritis/basics.htm>, accessed on March 14, 2017.
- ⁸⁴ Centers for Disease Control and Prevention (2017) Arthritis, Quick Stats, Atlanta, Georgia. <http://www.cdc.gov/arthritis/press/quickstats.html>, accessed on March 14, 2017.
- ⁸⁵ Barbour, KE, Stevens, JA, Helmick, CG, Luo, Y-H, Murphy, LB, Hootman, JM, Theis, K, Anderson, LA, Baker, NA, Sugerman, DE (2014) Falls and Fall Injuries Among Adults with Arthritis - United States, 2012. *MMWR* 63(17):379-383. <https://www.cdc.gov/mmwr/pdf/wk/mm6317.pdf>, accessed on March 14, 2017.



- ⁸⁶ Centers for Disease and Control (2016) Arthritis: Risk factors, Atlanta, Georgia.
<https://www.cdc.gov/arthritis/basics/risk-factors.htm>, accessed on March 14, 2017.
- ⁸⁷ Barbour, KE, Stevens, JA, Helmick, CG, Luo, L-H, Murphy, LB, Hootman, JM, Theis, K, Anderson, LA, Baker, NA, Sugerman, DE (2014) Falls and fall injuries among adults with arthritis — United States, 2012. *MMWR Weekly* 63(17): 379-383.
<https://www.cdc.gov/mmwr/pdf/wk/mm6317.pdf>, accessed on March 14, 2017.
- ⁸⁸ Centers for Disease Control and Prevention (2010) A national public health agenda for osteoarthritis.
<https://www.cdc.gov/arthritis/publications/pdf/agenda-osteoarthritis.pdf>, accessed on March 25, 2017.
- ⁸⁹ Centers for Disease Control and Prevention: Diabetes Report Card 2012.
<http://www.cdc.gov/diabetes/pubs/pdf/diabetesreportcard.pdf>, accessed on March 15, 2017.
- ⁹⁰ Centers for Disease Control and Prevention: The National Program to Eliminate Diabetes-Related Disparities in Vulnerable Populations.
<http://www.cdc.gov/diabetes/prevention/pdf/vulnerablepopulationsfactsheet.pdf>, accessed on March 15, 2017.
- ⁹¹ Centers for Disease Control and Prevention (2012) Diabetes: Report Card, Atlanta, Georgia.
<https://www.cdc.gov/diabetes/pubs/pdf/diabetesreportcard.pdf>, accessed on March 15, 2017.
- ⁹² Centers for Disease Control and Prevention: The national program to eliminate diabetes-related disparities in vulnerable populations, Atlanta, Georgia.
<https://www.cdc.gov/diabetes/prevention/pdf/vulnerablepopulationsfactsheet.pdf>, accessed on March 15, 2017.
- ⁹³ Connecticut Department of Public Health (2016) Diabetes information for health professionals, Hartford, Connecticut.
<http://www.ct.gov/dph/cwp/view.asp?a=3137&Q=586096&PM=1>, accessed on March 15, 2017.
- ⁹⁴ National Institute of Mental Health (2016) Depression, National Institute of Mental Health, Bethesda, Maryland.
<https://www.nimh.nih.gov/health/topics/depression/index.shtml>, accessed March 15, 2017.
- ⁹⁵ Centers for Disease Control and Prevention (2016) Mental Health: Depression, Atlanta, Georgia.
<http://www.cdc.gov/mentalhealth/basics/mental-illness/depression.htm>, accessed March 15, 2017.
- ⁹⁶ Connecticut Department of Mental Health Addiction Services and the Connecticut Department of Children and Families: State of Connecticut suicide prevention plan 2020, Hartford, Connecticut.
<http://www.preventsuicidect.org/files/2015/04/Suicide-Prevention-Plan-2010.pdf>, accessed on March 15, 2017.
- ⁹⁷ Connecticut Department of Public Health (2016) Suicide and self-inflicted injury prevention program, Hartford, Connecticut.
<http://www.ct.gov/dph/cwp/view.asp?a=3137&q=567816>, accessed on March 15, 2017.
- ⁹⁸ Wellpoint Foundataion (2008) Men get depression. Men get depression national education outreach campaign.
<http://mengetdepression.com/>, accessed on March 25, 2017.
- ⁹⁹ Centers for Disease Control and Prevention: Heart Disease Fact Sheet, Atlanta, Georgia.
http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/docs/fs_heart_disease.pdf, accessed on March 15, 2017.



-
- ¹⁰⁰ National Heart, Lung and Blood Institute (2016) What is coronary heart disease? Bethesda, Maryland. <http://www.nhlbi.nih.gov/health/health-topics/topics/cad>, accessed on March 15, 2017.
- ¹⁰¹ American Heart Association (2017) Preventing heart disease – at any age, Dallas, Texas. https://www.heart.org/HEARTORG/GettingHealthy/Preventing-Heart-Disease---At-Any-Age_UCM_442925_Article.jsp, accessed on March 15, 2017.
- ¹⁰² Centers for Disease Control and Prevention (2011) Million hearts: Strategies to reduce the prevalence of leading cardiovascular disease risk factors --- United States, 2011, *MMWR* 60(36):1248-1251. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6036a4.htm>, accessed on March 15, 2017.
- ¹⁰³ Connecticut Department of Public Health (2016) Heart disease and stroke monitoring system, Hartford, Connecticut. <http://www.ct.gov/dph/cwp/view.asp?a=3132&q=388110%20%20%20>, accessed on March 15, 2017.