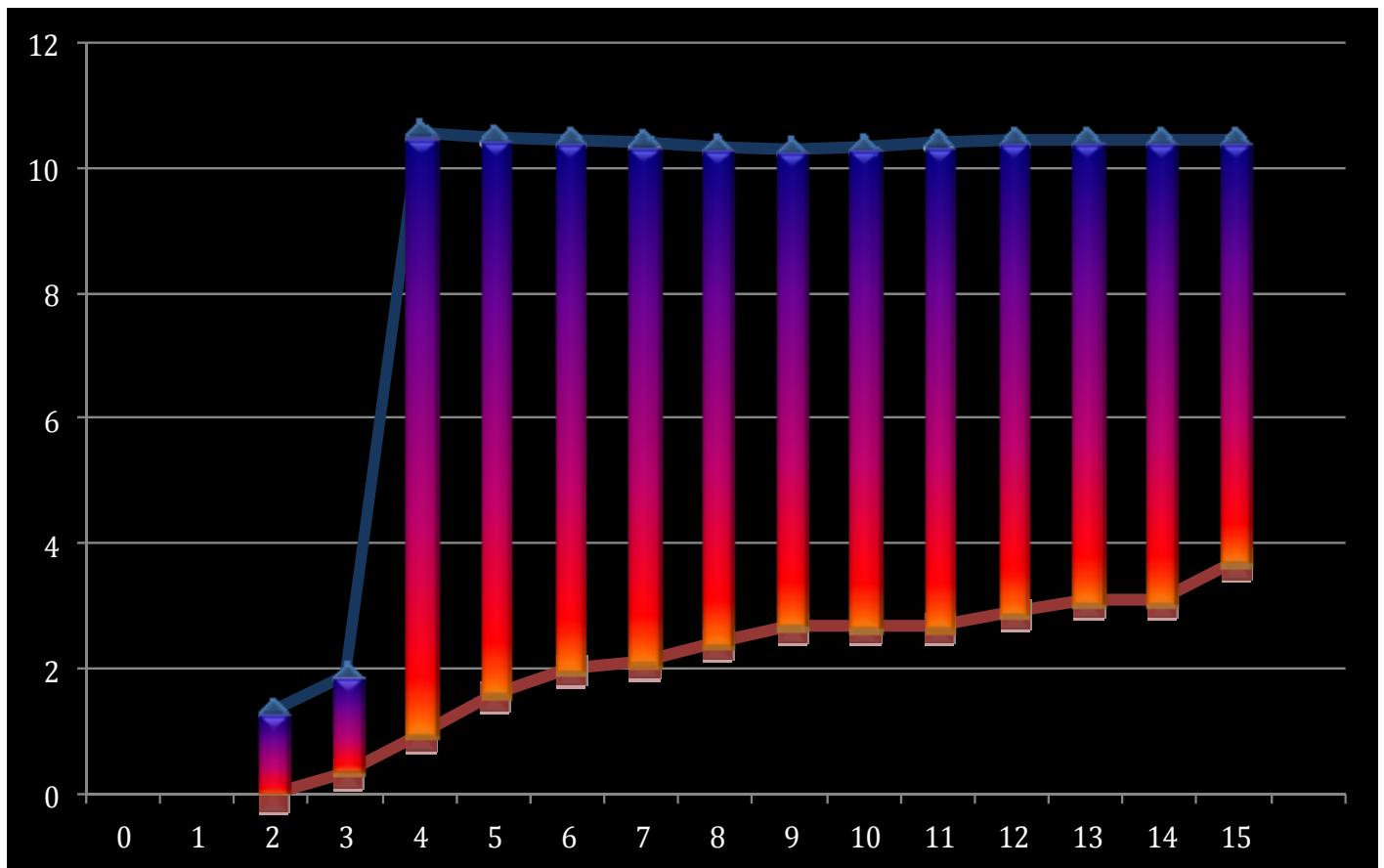# Connecticut Chronic Disease Surveillance Indicators

August 2012

Connecticut Department of Public Health

Connecticut Chronic Disease

Surveillance Indicators

August 2012

State of Connecticut
Department of Public Health
Community Health and Prevention Section
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For more information on chronic diseases in Connecticut and for an electronic version of this document, visit the Connecticut Department of Public Health's website: www.ct.gov/dph.

CREDITS AND ACKNOWLEDGMENTS

Connecticut Chronic Disease Surveillance Indicators

June 2012

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INTRODUCTION

The *Connecticut Chronic Disease Surveillance Indicators* document is a compilation of indicators identified by Connecticut Department of Public Health's (DPH) Chronic Disease Epidemiologists as those currently being used to measure the prevalence, incidence, morbidity, and mortality of chronic diseases and their associated risk factors in Connecticut. This work is intended to accomplish the following functions:

- Define the chronic disease surveillance indicators currently used by Connecticut DPH chronic disease programs;
- Encourage the use of consistent chronic disease surveillance measures throughout the state;
- Raise awareness of the chronic disease surveillance data available at the Connecticut DPH;
- Assist DPH's chronic disease programs in identifying potential gaps or redundancies in DPH's chronic disease surveillance systems; and,
- Support the implementation and evaluation of the Connecticut Coordinated Chronic Disease Prevention and Health Promotion Plan strategies. The strategies are:
  - Create a **policy and leadership environment** that supports the inclusion of multiple stakeholders and the promotion of evidence-based strategies to increase health equity.
  - Use **environmental approaches** to promote health and support and reinforce healthful behaviors.
  - Promote **health system interventions** that improve the effective delivery and use of clinical and preventive services and evidence-based management of chronic disease and intermediate risk factors.
  - Improve **community-clinical linkages** to ensure that communities support and clinics refer patients to evidence-based programs that prevent or improve management of chronic diseases.
  - Support an **epidemiology and surveillance** system that gathers, analyzes, and disseminates data and information and conducts evaluation to inform, prioritize, deliver, and monitor programs and population health.

The format used for, and the content contained in, this document were based on the CDC's *Chronic Disease Indicators (CDI)*, available at https://apps.nccd.cdc.gov/cdi/Default.aspx. The *Connecticut Chronic Disease Surveillance Indicators* document will be updated annually.

CONNECTICUT CHRONIC DISEASE SURVEILLANCE INDICATORS, BY GROUP

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Sources‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Asthma	Asthma mortality	2	X	X	X				X	X		X	X	X			X	Vital statistics
	Hospitalization for asthma (primary diagnosis)	2	X	X	X				X	X		X		X			X	CHIME & HIDD
	Emergency Department (ED) visits for asthma (primary diagnosis)	3	X	X	X				X	X		X		X				CHIME
	Current asthma prevalence (adults/children)	3	X	X	X				X									BRFSS
Cancer	Invasive cancer incidence (all sites combined)	6	X	X	X				X	X		X	X				X	CT Tumor Registry
	Cancer mortality (all sites combined)	6	X	X	X				X	X	X	X	X	X	X		X	Vital statistics
	Invasive breast cancer incidence (female)	7	X	X	X				X	X		X	X				X	CT Tumor Registry
	Breast cancer mortality (female)	7	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Invasive cervical cancer (incidence)	8	X	X	X				X	X		X	X				X	CT Tumor Registry
	Cervical cancer mortality	8	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Invasive colorectal cancer incidence	9	X	X	X				X	X		X	X	X			X	CT Tumor Registry
	Colorectal cancer mortality	9	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Invasive lung cancer incidence	10	X	X	X				X	X		X	X				X	CT Tumor Registry
	Lung cancer mortality	10	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Malignant melanoma incidence	11	X	X	X				X	X		X	X				X	CT Tumor Registry

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Cancer, continued	Melanoma mortality	11	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Invasive prostate cancer incidence	12	X	X	X				X	X		X	X				X	CT Tumor Registry
	Prostate cancer mortality	12	X	X	X				X	X	X	X	X	X			X	Vital statistics
	Mammography use among women ≥ 50 years	13	X	X	X	X	X		X					X			X	BRFSS
	Papanicolaou smear use among adult women ≥ 18 years	13	X	X	X	X	X		X					X			X	BRFSS
	Fecal occult blood test among adults ≥ 50 years	14	X	X	X	X	X		X								X	BRFSS
	Sigmoidoscopy/colonoscopy among adults ≥ 50 years	14	X	X	X	X	X		X								X	BRFSS
	Fecal occult blood test or sigmoidoscopy/ colonoscopy among adults ≥ 50 years	15	X	X	X	X	X		X					X	X		X	BRFSS
Cardiovascular Disease	Disease of the heart mortality	18	X	X	X				X	X	X	X	X				X	Vital statistics
	Major cardiovascular disease mortality	18	X	X	X				X	X	X	X	X				X	Vital statistics
	Major cardiovascular disease years of potential life lost (YPLL) before 75 years of age (premature mortality)	19		X	X				X	X	X	X						Vital statistics
	Hospitalization with major cardiovascular disease	19	X	X	X				X	X		X						HIDD
	Cerebrovascular disease (stroke) mortality	20	X	X	X				X	X	X	X	X	X	X		X	Vital statistics

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Cardiovascular Disease (CVD), continued	Stroke YPLL before 75 years of age (premature mortality)	20		X	X				X	X	X	X						Vital statistics
	Hospitalization with stroke	21	X	X	X				X	X		X					X	HIDD
	Stroke prevalence among adults ≥ 18 years	21	X	X	X	X	X		X									BRFSS
	Heart failure mortality	22	X	X	X				X	X	X	X	X				X	Vital statistics
	Heart failure YPLL before 75 years of age (premature mortality)	22		X	X				X	X	X	X						Vital statistics
	Hospitalization with congestive heart failure	23	X	X	X				X	X		X		X			X	HIDD
	Coronary heart disease mortality	23	X	X	X				X	X	X	X	X	X	X		X	Vital statistics
	Coronary heart disease YPLL before 75 years of age (premature mortality)	24		X	X				X	X	X	X						Vital statistics
	Hospitalization with coronary heart disease	24	X	X	X				X	X		X						HIDD
	Angina/coronary heart disease prevalence among adults ≥ 18 years	25	X	X	X	X	X		X									BRFSS
	High blood pressure awareness among adults ≥ 18 years	25	X	X	X	X	X		X					X			X	BRFSS
	Taking medicine for high blood pressure control among adults ≥ 18 years	26	X	X	X	X	X		X					X			X	BRFSS

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
CVD, continued	Cholesterol screening among adults ≥ 18 years	26	X	X	X	X	X		X					X			X	BRFSS
	High blood cholesterol awareness among adults ≥ 18 years	27	X	X	X	X	X		X									BRFSS
	Heart attack/ myocardial infarction prevalence among adults ≥ 18 years	27	X	X	X	X	X		X									BRFSS
	Prevalence of recognition of signs and symptoms of heart attack among adults ≥ 18 years	28	X	X	X	X	X		X					X				BRFSS
	Prevalence of recognition of signs and symptoms of stroke among adults ≥ 18 years	29	X	X	X	X	X		X					X				BRFSS
	Prevalence of recognition of signs and symptoms of heart attack and knowing to call 911 among adults ≥ 18 years	30	X	X	X	X	X		X					X				BRFSS
	Prevalence of recognition of signs and symptoms of stroke and knowing to call 911 among adults ≥ 18 years	31	X	X	X	X	X		X					X				BRFSS
Diabetes	Diabetes mortality	34	X	X	X				X	X	X	X	X					Vital statistics
	Diabetes YPLL before 75 years of age (premature mortality)	34		X	X				X	X	X	X						Vital statistics
	Hospitalization with diabetes	35	X	X	X				X	X		X	X					HIDD
	Diabetes-related mortality	35	X	X	X				X	X	X	X		X			X	Vital statistics

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Diabetes, continued	Diabetes-related hospitalization	36	X	X	X				X	X		X					X	HIDD
	Diabetes-related hospitalization with nontraumatic lower-extremity amputation	36	X	X	X				X	X		X		X			X	HIDD
	Diabetes prevalence among adults ≥ 18 years	37	X	X	X	X	X		X								X	BRFSS
	Prediabetes prevalence among adults ≥ 18 years	37	X	X	X	X	X		X									BRFSS
	Tested for high blood sugar or diabetes in past 3 years among adults ≥ 18 years without diabetes	38	X	X	X	X	X		X									BRFSS
	Dilated eye examination among adults ≥ 18 years with diabetes	38	X	X	X	X	X		X					X			X	BRFSS
	Foot examination among adults ≥ 18 years with diabetes	39	X	X	X	X	X		X					X			X	BRFSS
	Influenza vaccination among adults ≥ 18 years with diabetes	39	X	X	X	X	X		X								X	BRFSS
	Pneumococcal vaccination among adults ≥ 18 years with diabetes	40	X	X	X	X	X		X								X	BRFSS
	Self blood glucose monitoring among adults ≥ 18 years with diabetes	40	X	X	X	X	X		X					X			X	BRFSS
	2 or more A1c tests among adults ≥ 18 years with diabetes	41	X	X	X	X	X		X					X				BRFSS

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Diabetes, continued	Visiting a health professional for diabetes at least once in the last year among adults ≥ 18 years with diabetes	41	X	X	X	X	X		X									BRFSS
	Attended self-management education among adults ≥ 18 years with diabetes	42	X	X	X	X	X		X					X				BRFSS
	Self-exam of feet among adults ≥ 18 years with diabetes	42	X	X	X	X	X		X									BRFSS
	Prevalence of smoking among adults ≥ 18 years with diabetes	43	X	X	X	X	X		X									BRFSS
	Prevalence of obesity among adults ≥ 18 years with diabetes	43	X	X	X	X	X		X									BRFSS
	Prevalence of overweight or obesity among adults ≥ 18 years with diabetes	44	X	X	X	X	X		X									BRFSS
	Prevalence of leisure time physical inactivity among adults ≥ 18 years with diabetes	44	X	X	X	X	X		X									BRFSS
	High blood pressure among adults ≥ 18 years with diabetes	45	X	X	X	X	X		X									BRFSS
	High blood cholesterol among adults ≥ 18 years with diabetes	45	X	X	X	X	X		X									BRFSS
	Proportion of adult (≥ 18 years) smokers with diabetes who have made a quit attempt	46	X	X	X	X	X		X									BRFSS

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Nutrition, Physical Activity, & Obesity	Fruit and vegetable consumption among adults ≥ 18 years	48	X	X	X	X	X		X							X	X	BRFSS
	Fruit and vegetable consumption (youth)	48	X	X	X			X	X							X	X	CSHS YBC
	Obesity among adults ≥ 18 years	49	X	X	X	X	X		X					X	X	X	X	BRFSS
	Overweight or obesity among adults ≥ 18 years	49	X	X	X	X	X		X							X	X	BRFSS
	Obesity (youth)	50	X	X	X			X	X					X	X	X	X	CSHS YBC
	Overweight (youth)	50	X	X	X			X	X							X		CSHS YBC
	Recommended physical activity among adults ≥ 18 years	51	X	X	X	X	X		X					X	X	X	X	BRFSS
	Recommended physical activity (youth)	51	X	X	X			X	X					X	X	X	X	CSHS YBC
	Leisure time physical activity among adults ≥ 18 years	52	X	X	X	X	X		X					X		X		BRFSS
	Television viewing (youth)	52	X	X	X			X	X					X		X	X	CSHS YBC
Tob. & Alc. Use	Alcohol use among adults ≥ 18 years	54	X	X	X	X	X		X									BRFSS
	Alcohol use (youth)	54	X	X	X			X	X								X	CSHS YBC
	Heavy alcohol consumption among adults ≥ 18 years	55	X	X	X	X	X		X					X			X	BRFSS
	Binge drinking among adults ≥ 18 years	55	X	X	X	X	X		X					X	X		X	BRFSS

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Tobacco & Alcohol Use, continued	Binge drinking (youth)	56	X	X	X			X	X					X	X		X	CSHS YBC
	Age of Initiation - Alcohol use (youth)	56	X	X	X			X	X									CSHS YBC
	Cigarette smoking among adults ≥ 18 years	57	X	X	X	X	X		X					X	X	X	X	BRFSS
	Cigarette smoking (youth)	57	X	X	X			X	X					X	X	X	X	CSHS YTC
	Smokeless tobacco use (youth)	58	X	X	X			X	X					X		X	X	CSHS YTC
	Recent smoke exposure in a room (youth)	58	X	X	X			X	X							X		CSHS YTC
	Recent smoke exposure in a car (youth)	59	X	X	X			X	X							X		CSHS YTC
	Recent smoke exposure at school (youth)	59	X	X	X			X	X							X		CSHS YTC
	Recent smoke exposure in a public place (youth)	60	X	X	X			X	X							X		CSHS YTC
	Live with someone who smokes cigarettes (youth)	60	X	X	X			X	X							X		CSHS YTC
	Recent smoke exposure at home (youth)	61	X	X	X			X	X							X		CSHS YTC

Group	Indicator Title	Page	Socio-Demographic Variables*						Geographic Coverage					National Framework†				Data Source‡
			Age	Gender	Race/Ethnicity	Education	HH Income	Grade	State	County	Health District	Town	Geocoded	HP 2020	Ntl Prev Strat	Winnable Btls	CDI	
Self-Rated Health Status	Fair or poor health status among adults ≥ 18 years	64	X	X	X	X	X		X					X	X		X	BRFSS
	Fair or poor health status (youth)	64	X	X	X			X	X					X	X			CSHS YBC
	Poor physical health among adults ≥ 18 years	65	X	X	X	X	X		X					X			X	BRFSS
	Poor mental health among adults ≥ 18 years	65	X	X	X	X	X		X					X			X	BRFSS
	Inability to do usual activities among adults ≥ 18 years	66	X	X	X	X	X		X					X			X	BRFSS
Social	Current lack of health insurance among adults ≥ 18 years	68	X	X	X	X	X		X					X			X	BRFSS
	Population by ethnicity	68	X	X	X				X	X		X		X				Census/ ACS
	Population by race	69	X	X	X				X	X		X		X				Census/ ACS
	Per capita income	69			X				X	X		X		X				ACS
	Educational attainment	70	X	X	X				X	X		X		X				ACS
	People living in poverty	70	X	X	X	X			X	X		X		X			X	ACS

*Education = Educational Attainment among adults; HH Income = Annual Household Income; Grade = current grade in school among middle school and high school students

†HP 2020 = Health People 2020 Objective; Ntl Prev Strat = National Prevention Strategy Key Indicator; Winnable Btls = Centers for Disease Control and Prevention (CDC) Winnable Battles; CDI = CDC Chronic Disease Indicator

‡ACS = American Community Survey; BRFSS = Behavioral Risk Factor Surveillance System; CSHS YBC = CT School Health Survey Youth Behavior Component; CSHS YTC = CT School Health Survey Youth Tobacco Component; HIDD = Acute Care Hospital Inpatient Discharge Database

Connecticut Chronic Disease Surveillance Indicators

Asthma Indicators

ASTHMA INDICATORS

ASTHMA MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code J45-J46 as the underlying cause of death among residents during a calendar year
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by Connecticut Department of Public Health
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective RD-1), CDC Chronic Disease Indicator (CDI)

HOSPITALIZATION FOR ASTHMA (PRIMARY DIAGNOSIS)	
Population:	All resident persons
Numerator:	Events of hospitalization with a principal diagnosis of International Classification of Diseases (ICD)-9-CM code 493 among residents during the calendar year of hospital admission.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of hospitalizations. Annual hospitalization rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval
Socio-Demographic Variables:	Age, gender, race and ethnicity
Geographic Coverage:	State, county, and town
Data Source:	CHIME (numerator) and population created by Connecticut Department of Public Health (denominator). HIDD data may also be used for the numerator.
Notes:	Additional information available includes month, day of week, quarter of year, destination, category of payment, mean length of stay, mean charges per stay, and total charges per year.
Website(s):	
National Framework:	Healthy People 2020 (Objective RD-2), CDI

EMERGENCY DEPARTMENT (ED) VISITS FOR ASTHMA (PRIMARY DIAGNOSIS)	
Population:	All resident persons
Numerator:	ED visits with a principal diagnosis of International Classification of Diseases (ICD)-9-CM code 493 among residents during the calendar year of ED admission.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of hospitalizations. Annual hospitalization rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity
Geographic Coverage:	State, county, and town
Data Source:	CHIME (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Additional information available includes month, day of week, quarter of year, destination, category of payment, mean length of stay, mean charges per stay, and total charges per year
Website(s):	
National Framework:	Healthy People 2020 (Objective RD-3)

CURRENT ASTHMA PREVALENCE (ADULTS/CHILDREN)	
Population:	All resident persons
Numerator:	Affirmative responses of a sample population to specific questions in the Behavioral Risk Factor Surveillance System (BRFSS) survey and the Random Child Selection and Childhood Asthma Prevalence modules. Data are weighted.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual prevalence estimate presented as a percent of the state population with 95% confidence interval
Socio-Demographic Variables:	Age group, gender, and race and ethnicity prevalence estimates based on three-year averages
Geographic Coverage:	State
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020

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[i] The official Connecticut state, county and town populations are estimated at the calendar year midpoint (July 1) each year. These July 1 estimates are to calculate the denominators for birth, death, and other population-based rates at the state level. The denominators used to calculate the race-specific rates used to monitor many health indicators are *bridged* population estimates (see Glossary).

Connecticut Chronic Disease Surveillance Indicators

Cancer Indicators

CANCER INDICATORS

INVASIVE CANCER INCIDENCE (ALL SITES COMBINED)	
Population:	All resident persons
Numerator:	New (incident) cases of invasive cancer diagnosed in CT residents in a given calendar year. International Classification of Diseases for Oncology, 3rd edition (ICD-O-3) codes: C000-C809, behavior code 3 (all malignant neoplasms); and C670-C679, behavior code 2 (in situ bladder tumors).
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, gender, and race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative
Notes:	Years available: 1973-2009
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	CDC Chronic Disease Indicator (CDI)

CANCER MORTALITY (ALL SITES COMBINED)	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-10 codes C00–C97 as the underlying or contributing (any mentioned) cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-1), National Prevention Strategy, CDI

INVASIVE BREAST CANCER INCIDENCE (FEMALE)	
Population:	All female residents
Numerator:	New (incident) cases of invasive breast cancer diagnosed in CT resident females in a given calendar year. ICD-O-3 codes: C500-C509, behavior code 3 (invasive breast cancer), excluding histology codes 9590-9989.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	CDI

BREAST CANCER MORTALITY (FEMALE)	
Population:	All female residents
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code C50 as the underlying cause of death among female residents during a calendar year.
Denominator:	Midyear female resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-3), CDI

INVASIVE CERVICAL CANCER INCIDENCE	
Population:	All female residents
Numerator:	New (incident) cases of invasive cervical cancer diagnosed in CT resident females in a given calendar year. ICD-O-3 codes: C530-C539, behavior code 3 (invasive cervical cancer), excluding histology codes 9590-9989.
Denominator:	Midyear female resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	Healthy People 2020 (Objective C-10), CDI

CERVICAL CANCER MORTALITY	
Population:	All female residents
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code C53 (ICD-9 code 180) as the underlying cause of death among female residents during a calendar year.
Denominator:	Midyear female resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-4), CDI

INVASIVE COLORECTAL CANCER INCIDENCE	
Population:	All resident persons
Numerator:	New (incident) cases of invasive colorectal cancer diagnosed in CT residents in a given calendar year. ICD-O-3 codes: C180-C209 and C260, behavior code 3 (invasive colorectal cancer), excluding histology codes 9590-9989.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, gender, and race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	Healthy People 2020 (Objective C-9), CDI

COLORECTAL CANCER MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-10 codes C18–C21 as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-5), CDI

INVASIVE LUNG CANCER INCIDENCE	
Population:	All resident persons
Numerator:	New (incident) cases of invasive lung cancer diagnosed in CT residents in a given calendar year. ICD-O-3 codes: C340-C349, behavior code 3 (invasive cancer of the bronchus and lung), excluding histology codes 9590-9989. May also exclude mesothelioma, histology codes 9050-9055.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, gender, and race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	CDI

LUNG CANCER MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code C34 (bronchus and lung) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-2), CDI

MALIGNANT MELANOMA INCIDENCE	
Population:	All resident persons
Numerator:	New (incident) cases of malignant melanoma of skin diagnosed in CT residents in a given calendar year. ICD-O-3 codes: C440-C449, behavior code 3 and histologic types 8720–8790 (malignant melanoma of the skin).
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, gender, and race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	CDI

MELANOMA MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code C43 (ICD-9 code 172) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-8), CDI

INVASIVE PROSTATE CANCER INCIDENCE	
Population:	All male residents
Numerator:	New (incident) cases of invasive prostate cancer diagnosed in CT resident males in a given calendar year. ICD-O-3 codes: C619, behavior code 3 (invasive prostate cancer), excluding histology codes 9590-9989.
Denominator:	Midyear male resident population for the same calendar year[i]
Measures:	Annual number of incident cases. Annual incidence rate — crude and age-adjusted — with 95% confidence interval. Rates are standardized by the direct method to the year 2000 standard U.S. population based on single years of age from the Census P25-1130 series estimates (seer.cancer.gov/StdPopulations).
Socio-Demographic Variables:	Age, race and ethnicity; aggregation of years and/or suppression of sparse cells may be required where numbers are small.
Geographic Coverage:	State, county and town level data are available; aggregation of years and/or suppression of sparse cells may be required where numbers are small. Geocoded data may be released with appropriate approvals.
Data Source:	Numerator: cancer incidence data from Connecticut Tumor Registry Denominator: population estimates from the U.S. Census Bureau or suitable alternative.
Notes:	Years available: 1973-2009.
Website(s):	www.ct.gov/dph/TumorRegistry
National Framework:	CDI

PROSTATE CANCER MORTALITY	
Population:	All male residents
Numerator:	Deaths with International Classification of Diseases (ICD)-10 code C61 (ICD-9 code 185) as the underlying cause of death among male residents during a calendar year.
Denominator:	Midyear male resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval
Socio-Demographic Variables:	Age, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData
National Framework:	Healthy People 2020 (Objective C-7), CDI

MAMMOGRAPHY USE AMONG WOMEN ≥ 50 YEARS	
Population:	Resident females aged ≥ 50 years
Numerator:	Female respondents aged ≥ 50 years who report having had a mammogram within the previous 2 years.
Denominator:	Female respondents aged ≥ 50 years who report ever having or never having had a mammogram (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 2) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective C-17), CDI

PAPANICOLAOU SMEAR USE AMONG ADULT WOMEN ≥ 18 YEARS	
Population:	Resident females aged ≥ 18 years without a hysterectomy
Numerator:	Female respondents aged ≥ 18 years who do not report having had a hysterectomy and who report having had a Papanicolaou (Pap) smear within the previous 3 years.
Denominator:	Female respondents aged ≥ 18 years who do not report having had a hysterectomy and who report ever having or never having had a Pap smear (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 3) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective C-15), CDI

FECAL OCCULT BLOOD TEST AMONG ADULTS ≥ 50 YEARS	
Population:	Resident persons aged ≥ 50 years
Numerator:	Respondents aged ≥ 50 years who report having had a fecal occult blood test (FOBT) within the previous year.
Denominator:	Respondents aged ≥ 50 years who report ever having or never having an FOBT (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 2) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	National Prevention Strategy, CDI

SIGMOIDOSCOPY/COLONOSCOPY AMONG ADULTS ≥ 50 YEARS	
Population:	Resident persons aged ≥ 50 years
Numerator:	Respondents aged ≥ 50 years who report having had either a sigmoidoscopy or colonoscopy exam within the previous 5 years.
Denominator:	Respondents aged ≥ 50 years who report ever having or never having either a sigmoidoscopy or colonoscopy (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 2) — with 95% confidence interval
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	National Prevention Strategy, CDI

FECAL OCCULT BLOOD TEST OR SIGMOIDOSCOPY/COLONOSCOPY AMONG ADULTS ≥ 50 YEARS	
Population:	Resident persons aged ≥ 50 years
Numerator:	Respondents aged ≥ 50 years who report having either a fecal occult blood test (FOBT) within the previous year or a sigmoidoscopy or colonoscopy exam within the previous 5 years.
Denominator:	Respondents aged ≥ 50 years who report ever having or never having an FOBT and who report ever having or never having either a sigmoidoscopy or colonoscopy (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 2) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective C-16), National Prevention Strategy, CDI

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[i] The official Connecticut state, county and town populations are estimated at the calendar year midpoint (July 1) each year. These July 1 estimates are to calculate the denominators for birth, death, and other population-based rates at the state level. The denominators used to calculate the race-specific rates used to monitor many health indicators are *bridged* population estimates (see Glossary).

Connecticut Chronic Disease Surveillance Indicators

Cardiovascular Disease Indicators

Includes high blood pressure and high cholesterol indicators

CARDIOVASCULAR DISEASE INDICATORS

DISEASES OF THE HEART MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 codes: 390-398, 402, 404-429; ICD-10 codes: I00–I09, I11, I13, I20–I51 (ICD-9 codes 390–398, 402, 404, 410–429) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	CDC Chronic Disease Indicator (CDI)

MAJOR CARDIOVASCULAR DISEASE MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 codes : 390-459.9 (1989 to 1998); ICD-10 codes: I00-I78.9 (1999 to present) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	CDI

MAJOR CARDIOVASCULAR DISEASE YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE 75 YEARS OF AGE (PREMATURE MORTALITY)	
Population:	All resident persons
Numerator:	
Denominator:	
Measures:	Sum of age-specific years of life lost figures over all age groups up to 75 years due to deaths with International Classification of Diseases (ICD)-10 codes I00-I78 as an underlying cause of death among residents during a calendar year. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977). Single-, 3-, and 5-year estimates are available.
Socio-Demographic Variables:	Gender, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level.
Data Source:	Death certificate data from the DPH Office of Vital Statistics
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	Healthy People 2020

HOSPITALIZATION WITH MAJOR CARDIOVASCULAR DISEASE	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with principal diagnosis of International Classification of Diseases (ICD)-9-CM code 390-459 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/HeartStrokeData
National Framework:	

CEREBROVASCULAR DISEASE (STROKE) MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 codes: 430-438 (1989 to 1998); ICD-10 codes: I60-69 (1999 to present) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	Healthy People 2020 (Objective HDS-3), National Prevention Strategy, CDI

STROKE YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE 75 YEARS OF AGE (PREMATURE MORTALITY)	
Population:	All resident persons
Numerator:	
Denominator:	
Measures:	Sum of age-specific years of life lost figures over all age groups up to 75 years due to deaths with International Classification of Diseases (ICD)-10 codes I60-I69 as an underlying cause of death among residents during a calendar year. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977). Single-, 3-, and 5-year estimates are available.
Socio-Demographic Variables:	Gender, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level
Data Source:	Death certificate data from the DPH Office of Vital Statistics
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	

HOSPITALIZATION WITH STROKE	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with principal diagnosis of International Classification of Diseases (ICD)-9-CM code 430-434 and 436-438 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/HeartStrokeData
National Framework:	CDI

STROKE PREVALENCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional that they had a stroke.
Denominator:	Respondents aged ≥ 18 years (excluding unknowns and refusals)
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov.dph/BRFSS
National Framework:	

HEART FAILURE MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 code: 428.0 (1989 to 1998); ICD-10 code: 150.0 (1999 to present) as the underlying or contributing (any mentioned) cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	CDI

HEART FAILURE YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE 75 YEARS OF AGE (PREMATURE MORTALITY)	
Population:	All resident persons
Numerator:	
Denominator:	
Measures:	Sum of age-specific years of life lost figures over all age groups up to 75 years due to deaths with International Classification of Diseases (ICD)-10 code I50.0 as an underlying cause of death among residents during a calendar year. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977). Single-, 3-, and 5-year estimates are available.
Socio-Demographic Variables:	Gender, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level.
Data Source:	Death certificate data from the DPH Office of Vital Statistics
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	

HOSPITALIZATION WITH CONGESTIVE HEART FAILURE	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with principal diagnosis of International Classification of Diseases (ICD)-9-CM code 428.0 and 428.2-428.4 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/HeartStrokeData
National Framework:	Healthy People 2020 (Objective HDS-24), CDI

CORONARY HEART DISEASE MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 codes 402,410-414, 429.2 (1989 to 1998); ICD-10 codes: I11, I20-25 (1999 to present) as the underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	Healthy People 2020 (Objective HDS-2), National Prevention Strategy, CDI

CORONARY HEART DISEASE YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE 75 YEARS OF AGE (PREMATURE MORTALITY)	
Population:	All resident persons
Numerator:	
Denominator:	
Measures:	Sum of age-specific years of life lost figures over all age groups up to 75 years due to deaths with International Classification of Diseases (ICD)-10 codes I11, I20-I25 as an underlying cause of death among residents during a calendar year. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977). Single-, 3-, and 5-year estimates are available.
Socio-Demographic Variables:	Gender, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level.
Data Source:	Death certificate data from the DPH Office of Vital Statistics
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/HeartStrokeData
National Framework:	

HOSPITALIZATION WITH CORONARY HEART DISEASE	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with principal diagnosis of International Classification of Diseases (ICD)-9-CM code 402, 410-414, and 429.2 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/HeartStrokeData
National Framework:	

ANGINA/CORONARY HEART DISEASE PREVALENCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional that they had angina or coronary heart disease.
Denominator:	Respondents aged ≥ 18 years (excluding unknowns and refusals)
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	

HIGH BLOOD PRESSURE AWARENESS AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional of having high blood pressure.
Denominator:	Respondents aged ≥ 18 years (excluding unknowns and refusals)
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-5), CDI

TAKING MEDICINE FOR HIGH BLOOD PRESSURE CONTROL AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report taking medicine for high blood pressure.
Denominator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional of having high blood pressure (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-11), CDI

CHOLESTEROL SCREENING AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having their cholesterol checked within the previous 5 years.
Denominator:	Respondents aged ≥ 18 years who report having or not having their cholesterol checked within the previous 5 years (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-6), CDI

HIGH BLOOD CHOLESTEROL AWARENESS AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional of having high blood pressure
Denominator:	Respondents aged ≥ 18 years (excluding unknowns and refusals)
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	

HEART ATTACK/MYOCARDIAL INFARCTION PREVALENCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having been told by a doctor, nurse, or other health professional that they had a heart attack, also called a myocardial infarction
Denominator:	Respondents aged ≥ 18 years (excluding unknowns and refusals)
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/bdph/BRFSS
National Framework:	

PREVALENCE OF RECOGNITION OF SIGNS AND SYMPTOMS OF HEART ATTACK AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who correctly responded to all questions: "Which of the following do you think is a symptom of a heart attack? Pain or discomfort in the jaw, neck, or back; feeling weak, lightheaded, or faint; chest pain or discomfort; sudden trouble seeing in one or both eyes; pain or discomfort in the arms or shoulder; and shortness of breath."
Denominator:	Respondents aged ≥ 18 years who had correct and incorrect responses to all heart attack signs and symptoms questions (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Analysis can also be performed for each individual sign/symptom. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-16)

PREVALENCE OF RECOGNITION OF SIGNS AND SYMPTOMS OF STROKE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who correctly responded to all questions: "Which of the following do you think is a symptom of a stroke? Sudden confusion or trouble speaking; sudden numbness or weakness of face, arm, or leg, especially on one side; sudden trouble seeing in one or both eyes; sudden chest pain or discomfort; sudden trouble walking, dizziness, or loss of balance; and severe headache with no known cause."
Denominator:	Respondents aged ≥ 18 years who had correct and incorrect responses to all stroke signs and symptoms questions (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Analysis can be performed for each individual sign/symptom. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-17)

PREVALENCE OF RECOGNITION OF SIGNS AND SYMPTOMS OF HEART ATTACK AND KNOWING TO CALL 911 AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who correctly responded to all questions: "Which of the following do you think is a symptom of a heart attack? Pain or discomfort in the jaw, neck, or back; feeling weak, lightheaded, or faint; chest pain or discomfort; sudden trouble seeing in one or both eyes; pain or discomfort in the arms or shoulder; and shortness of breath" and reported that the first thing they would do if they thought someone was having a heart attack or stroke was call 911.
Denominator:	Respondents aged ≥ 18 years who had correct and incorrect responses to all heart attack signs and symptoms questions and response to heart attack or stroke question (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used to estimate. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-16)

PREVALENCE OF RECOGNITION OF SIGNS AND SYMPTOMS OF STROKE AND KNOWING TO CALL 911 AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who correctly responded to all questions: "Which of the following do you think is a symptom of a stroke? Sudden confusion or trouble speaking; sudden numbness or weakness of face, arm, or leg, especially on one side; sudden trouble seeing in one or both eyes; sudden chest pain or discomfort; sudden trouble walking, dizziness, or loss of balance; and severe headache with no known cause" and reported that the first thing they would do if they thought someone was having a heart attack or stroke was call 911.
Denominator:	Respondents aged ≥ 18 years who had correct and incorrect responses to all heart attack signs and symptoms questions and response to heart attack or stroke question (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/HeartStrokeData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective HDS-17)

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[i] The official Connecticut state, county and town populations are estimated at the calendar year midpoint (July 1) each year. These July 1 estimates are to calculate the denominators for birth, death, and other population-based rates at the state level. The denominators used to calculate the race-specific rates used to monitor many health indicators are *bridged* population estimates (see Glossary).

Connecticut Chronic Disease Surveillance Indicators

Diabetes Indicators

DIABETES INDICATORS

DIABETES MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 code: 250 (1989 to 1998); ICD-10 codes E10–E14 (1999 to present) as an underlying cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/DiabetesData
National Framework:	

DIABETES YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE 75 YEARS OF AGE (PREMATURE MORTALITY)	
Population:	All resident persons
Numerator:	
Denominator:	
Measures:	Sum of age-specific years of life lost figures over all age groups up to 75 years due to deaths with International Classification of Diseases (ICD)-10 codes E10–E14 as an underlying cause of death among residents during a calendar year. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977). Single-, 3-, and 5-year estimates are available.
Socio-Demographic Variables:	Gender, race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level.
Data Source:	Death certificate data from the DPH Office of Vital Statistics
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/DiabetesData
National Framework:	

HOSPITALIZATION WITH DIABETES	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with principal diagnosis of International Classification of Diseases (ICD)-9-CM code 250 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/DiabetesData
National Framework:	

DIABETES-RELATED MORTALITY	
Population:	All resident persons
Numerator:	Deaths with International Classification of Diseases (ICD)-9 code 250 (1989 to 1998); ICD-10 codes E10–E14 (1999 to present) as underlying or non-underlying ("contributing") cause of death among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval. Three-year and 5-year estimates are also available.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Available at the state, county, health district, and town level. Geocoded data are available from 1999 to present.
Data Source:	Numerator : death certificate data from the DPH Office of Vital Statistics Denominator: July 1 population estimates created by DPH
Notes:	
Website(s):	www.ct.gov/dph/DeathData; www.ct.gov/dph/DiabetesData
National Framework:	Healthy People 2020 (Objective D-3), CDC Chronic Disease Indicator (CDI)

DIABETES-RELATED HOSPITALIZATION	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with a principal or contributing diagnosis of International Classification of Diseases (ICD)-9-CM code 250 among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/DiabetesData
National Framework:	CDI

DIABETES-RELATED HOSPITALIZATION WITH NONTRAUMATIC LOWER-EXTREMITY AMPUTATION	
Population:	All resident persons
Numerator:	Hospitalizations (not unduplicated) with a principal or contributing diagnosis of International Classification of Diseases (ICD)-9-CM code 250 and a procedure of ICD-9-CM code 84.1, and not having ICD-9-CM codes 895–897 (traumatic amputation) among residents during a calendar year.
Denominator:	Midyear resident population for the same calendar year[i]
Measures:	Annual number of deaths. Annual mortality rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 1) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, and race and ethnicity
Geographic Coverage:	Geocoded data not available. County and town level data may be requested through the Office of Health Care Access (www.ct.gov/dph/ohca).
Data Source:	Acute Care Hospital Inpatient Discharge Database (HIDD) maintained by the Connecticut Office of Health Care Access (numerator) and population created by Connecticut Department of Public Health (denominator).
Notes:	Median length of stay, median charge, and total charge overall for each year are available.
Website(s):	www.ct.gov/dph/HospitalDischargeData; www.ct.gov/dph/DiabetesData
National Framework:	Healthy People 2020 (Objective D-4), CDI

DIABETES PREVALENCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report ever having physician-diagnosed diabetes other than gestational diabetes.
Denominator:	Respondents aged ≥ 18 years who report or do not report ever having physician-diagnosed diabetes (excluding unknowns and refusals). Where feasible and to improve the precision of the estimates, 3-year averages are used.
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	CDI

PREDIABETES PREVALENCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report ever having physician-diagnosed prediabetes .
Denominator:	Respondents aged ≥ 18 years who report or do not report ever having physican-diagnosed prediabetes (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

TESTED FOR HIGH BLOOD SUGAR OR DIABETES IN PAST 3 YEARS AMONG ADULTS ≥ 18 YEARS WITHOUT DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years without diagnosed diabetes who report having had a test for high blood sugar or diabetes within the past 3 years.
Denominator:	Respondents aged ≥ 18 years (excluding unknowns, refusals, and respondents with diagnosed diabetes).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

DILATED EYE EXAMINATION AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report having received a dilated eye exam within the previous year.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective D-10), CDI

FOOT EXAMINATION AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report having received at least one clinical foot examination within the previous year.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective D-9), CDI

INFLUENZA VACCINATION AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report having received an influenza vaccination in the previous 12 months.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	CDI

PNEUMOCOCCAL VACCINATION AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report ever having received a pneumococcal vaccination.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	CDI

SELF BLOOD GLUCOSE MONITORING AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report self-blood glucose monitoring at least once daily.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective D-13), CDI

2 OR MORE A1C TESTS AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report having 2 or more A1c tests being done in the past 12 months.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective D-11)

VISITING A HEALTH PROFESSIONAL FOR DIABETES AT LEAST ONCE IN THE LAST YEAR AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report having seen doctor, nurse, or other health professional at least once in the past 12 months.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

ATTENDED SELF-MANAGEMENT EDUCATION AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report ever having taken a course or class in how to manage their diabetes by themselves.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective D-14)

SELF-EXAM OF FEET AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report checking their feet for any sore or irritations at least once a day (excluding respondents with no feet).
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

PREVALENCE OF SMOKING AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report ever smoked at least 100 cigarettes and report now smoking every day or some days.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

PREVALENCE OF OBESITY AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) with a BMI ≥ 30 kg/m2 (based on self-reported height and weight).
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

PREVALENCE OF OVERWEIGHT OR OBESITY AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) with a BMI ≥ 25 kg/m2 (based on self-reported height and weight).
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

PREVALENCE OF LEISURE TIME PHYSICAL INACTIVITY ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who report not participating in any physical activity or exercise such as running, calisthenics, golf, gardening, or walking for exercise (other than their regular job).
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

HIGH BLOOD PRESSURE AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who have ever been told they had high blood pressure (excluding hypertension during pregnancy).
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

HIGH BLOOD CHOLESTEROL AMONG ADULTS ≥ 18 YEARS WITH DIABETES	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who have ever been told they had high blood cholesterol.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

PROPORTION OF ADULT (≥ 18 YEARS) SMOKERS WITH DIABETES WHO HAVE MADE A QUIT ATTEMPT	
Population:	Resident persons aged ≥ 18 years with diagnosed diabetes who have smoked at least 100 cigarettes in their entire life and indicate that they now smoke every day or some days (referred to as current smoker)
Numerator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant) who are current smokers and have stopped smoking for one day or longer during the past 12 months because they were trying to quit smoking.
Denominator:	Respondents aged ≥ 18 years ever told by a doctor or health professional that they have diabetes (excluding women who were told only when pregnant, refusals, and unknowns) who are current smokers.
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 5) — with 95% confidence interval. Where feasible and to improve the precision of the estimates, 3-year averages are used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are only collected in odd numbered years.
Website(s):	www.ct.gov/dph/DiabetesData; www.ct.gov/dph/BRFSS
National Framework:	

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[i] The official Connecticut state, county and town populations are estimated at the calendar year midpoint (July 1) each year. These July 1 estimates are to calculate the denominators for birth, death, and other population-based rates at the state level. The denominators used to calculate the race-specific rates used to monitor many health indicators are *bridged* population estimates (see Glossary).

Connecticut Chronic Disease Surveillance Indicators

Nutrition, Physical Activity, & Obesity (NPAO) Indicators

NUTRITION, PHYSICAL ACTIVITY, & OBESITY (NPAO) INDICATORS

FRUIT AND VEGETABLE CONSUMPTION AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report eating fruits and vegetables >=5 times/day during the past 7 days.
Denominator:	Respondents aged ≥ 18 years who report eating fruits and vegetables any number of times per day, including zero (excluding unknowns and refusals).
Measures:	Biennial prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	As of 2003, data are collected in odd numbered years.
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	CDC Winnable Battles, CDC Chronic Disease Indicator (CDI)

FRUIT AND VEGETABLE CONSUMPTION (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	Public school students in grades 9–12 who report eating fruits and vegetables ≥5 times/day during the past 7 days.
Denominator:	Public school students in grades 9–12 who report eating fruits and vegetables any number of times per day, including zero during the past seven days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	The indicator is calculated based on a series of fruit and vegetable consumption questions. From 2005-2011, additional dietary behaviors were collected, including healthy and unhealthy weight loss behaviors.
Website(s):	www.ct.gov/dph/CSHS
National Framework:	CDC Winnable Battles, CDI

OBESITY AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who have body mass index (BMI) ≥30.0 kg/m² calculated from self-reported weight and height
Denominator:	Respondents aged ≥ 18 years for whom BMI can be calculated from their self-reported weight and height (excluding unknowns or refusals to provide weight or height).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective NWS-9), National Prevention Strategy, CDC Winnable Battles, CDI

OVERWEIGHT OR OBESITY AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who have body mass index (BMI) ≥25.0 kg/m² calculated from self-reported weight and height.
Denominator:	Respondents aged ≥ 18 years for whom BMI can be calculated from their self-reported weight and height (excluding unknowns or refusals to provide weight or height).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Respondents classified as overweight based on body mass index (25.00 <= BMI < 30.00) or obese based on body mass index. (30.00 <= _BMI < 99.99)
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	CDC Winnable Battles, CDI

OBESITY (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	Public school students in grades 9–12 with a body mass index (BMI) at or above the sex- and age-specific 95th percentile from CDC Growth Charts: United States (based on self-reported height and weight).
Denominator:	Public school students in grades 9–12 who answer height, weight, sex and age questions.
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective NWS-10), National Prevention Strategy, CDC Winnable Battles, CDI

OVERWEIGHT (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	Public school students in grades 9–12 with a body mass index (BMI) at or above the sex- and age-specific 85th percentile but less than 95th from CDC Growth Charts: United States (based on self-reported height and weight).
Denominator:	Public school students in grades 9–12 who answer height, weight, sex and age questions.
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	CDC Winnable Battles

RECOMMENDED PHYSICAL ACTIVITY AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report moderate physical activity for ≥30 minutes ≥5 times/week or who report vigorous physical activity for ≥20 minutes ≥3 times/week.
Denominator:	Respondents aged ≥ 18 years who report any or no physical activity within the previous month (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	Data are collected in odd-numbered years.
	This can also be reported as Vigorous Physical Activity only.
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective PA-2), National Prevention Strategy, CDC Winnable Battles, CDI

RECOMMENDED PHYSICAL ACTIVITY (YOUTH)	
Population:	Public school students in grades 9-12
Numerator:	Public school students in grades 9–12 who report doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of ≥60 minutes per day on ≥ 5 of the past 7 days before the survey.
Denominator:	Public school students in grades 9–12 who report doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of ≥60 minutes/day on 0 or more days during the 7 days before the survey.
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective PA-3), National Prevention Strategy, CDC Winnable Battles, CDI

LEISURE TIME PHYSICAL ACTIVITY AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report participating in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise, other than their regular jobs, during the past month.
Denominator:	Respondents aged ≥ 18 years who report any or no leisure time physical activity within the previous month (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used. Each 3-year estimate is composed of at least 2 years of data.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective PA-1), CDC Winnable Battles

TELEVISION VIEWING (YOUTH)	
Population:	Public school students in grades 9-12
Numerator:	Public school students in grades 9–12 who report watching television for 3 or more hours on an average school night.
Denominator:	Public school students in grades 9–12 who report watching television for any number of hours, including zero, on an average school day (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective PA-8), CDC Winnable Battles, CDI

Connecticut Chronic Disease Surveillance Indicators

Tobacco & Alcohol Use Indicators

TOBACCO & ALCOHOL USE INDICATORS

ALCOHOL USE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having had at least one drink of alcohol within the past 30 days.
Denominator:	Respondents aged ≥ 18 years who reported having a specific number, including zero, of drinks of alcohol during the past 30 days (excluding those who did not answer).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	

ALCOHOL USE (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	Public school students in grades 9–12 who report consumption of ≥1 drink of alcohol during the past 30 days.
Denominator:	Public school students in grades 9–12 who reported having a specific number, including zero, of drinks of alcohol during the past 30 days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	CDC Chronic Disease Indicator (CDI)

HEAVY ALCOHOL CONSUMPTION AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Adult men having more than two drinks per day and adult women having more than one drink per day, on average in the past 30 days.
Denominator:	Respondents aged ≥ 18 years who reported having a specific number, including zero, of drinks of alcohol during the past 30 days (excluding those who did not answer).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective SA-15), National Prevention Strategy, CDI

BINGE DRINKING AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Adult males having five or more drinks on one occasion, females having four or more drinks on one occasion, at least once in the past 30 days.
Denominator:	Respondents aged ≥ 18 years who reported having a specific number, including zero, of drinks of alcohol during the past 30 days (excluding those who did not answer).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective SA-14), National Prevention Strategy, CDI

BINGE DRINKING (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	Public school students in grades 9–12 who report having ≥5 drinks of alcohol within a couple of hours on ≥1 day during the past 30 days.
Denominator:	Public school students in grades 9–12 who report having a specific number, including zero, of drinks of alcohol within a couple of hours on ≥1 day during the past 30 days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective SA-14), National Prevention Strategy, CDI

AGE OF INITIATION - ALCOHOL USE (YOUTH)	
Population:	Public school students in grades 9–12
Numerator:	The age at which Public school students in grades 9–12 report first consumption of a drink of alcohol (more than a few sips).
Denominator:	Public school students in grades 9–12 who reported having a specific number, including zero, of drinks of alcohol during the past 30 days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	

CIGARETTE SMOKING AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having smoked ≥100 cigarettes in their lifetime and are current smokers on every day or some days.
Denominator:	Respondents aged ≥ 18 years who report ever or not ever smoking ≥100 cigarettes in their lifetime and report their current smoking status (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective TU-1), National Prevention Strategy, CDC Winnable Battles, CDI

CIGARETTE SMOKING (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report having smoked a cigarette on ≥1 day during the past 30 days.
Denominator:	Public school students in grades 6–12 who report having or not having smoked a cigarette on ≥1 day during the past 30 days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective TU-2), National Prevention Strategy, CDC Winnable Battles, CDI

SMOKELESS TOBACCO USE (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report having used smokeless tobacco products on ≥1 day during the past 30 days.
Denominator:	Public school students in grades 9–12 who report having or not having used smokeless tobacco products on ≥1 days during the past 30 days (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Objective TU-2), CDC Winnable Battles, CDI

RECENT SMOKE EXPOSURE IN A ROOM (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report being in the same room with someone who was smoking cigarettes on one or more of the seven days before the survey.
Denominator:	Public school students in grades 9–12 who report being or not being in the same room with someone who was smoking cigarettes on one or more of the seven days before the survey (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

RECENT SMOKE EXPOSURE IN A CAR (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report riding in a car with someone who was smoking cigarettes on one or more of the seven days before the survey.
Denominator:	Public school students in grades 9–12 who report riding or not riding in a car with someone who was smoking cigarettes on one or more of the seven days before the survey (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

RECENT SMOKE EXPOSURE AT SCHOOL (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report breathing smoke from someone who was smoking a tobacco product at school on one or more of the seven days before the survey.
Denominator:	Public school students in grades 9–12 who report breathing or not breathing smoke from someone who was smoking a tobacco product at school on one or more of the seven days before the survey (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

RECENT SMOKE EXPOSURE IN A PUBLIC PLACE (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report breathing smoke from someone who was smoking a tobacco product at an indoor or outdoor public place on one or more of the seven days before the survey.
Denominator:	Public school students in grades 9–12 who report breathing or not breathing smoke from someone who was smoking a tobacco product at an indoor or outdoor public place on one or more of the seven days before the survey (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

LIVE WITH SOMEONE WHO SMOKES CIGARETTES (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report living with someone who smokes cigarettes.
Denominator:	Public school students in grades 9–12 who report living or not living with someone who smokes cigarettes (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

RECENT SMOKE EXPOSURE AT HOME (YOUTH)	
Population:	Public school students in grades 6–12
Numerator:	Public school students in grades 6–12 who report being at home when someone who smoked a tobacco product, on one or more of the seven days before the survey.
Denominator:	Public school students in grades 9–12 who report being at home with or without someone who smoked a tobacco product, on one or more of the seven days before the survey (excluding those who did not answer).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Tobacco Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	National Prevention Strategy, CDC Winnable Battles

Connecticut Chronic Disease Surveillance Indicators

Self-Rated Health Status Indicators

OVERARCHING INDICATORS

FAIR OR POOR HEALTH STATUS AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report their general health status as "fair" or "poor".
Denominator:	Respondents aged ≥ 18 years who report their general health status as "excellent," "very good," "good," "fair," or "poor" (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Foundation Health Measure), National Prevention Strategy, CDC Chronic Disease Indicator (CDI)

FAIR OR POOR HEALTH STATUS (YOUTH)	
Population:	Public school Students in grades 9–12
Numerator:	Public school students in grades 9–12 who report their general health status as "fair" or "poor".
Denominator:	Public school students in grades 9–12 who report their general health status as "excellent," "very good," "good," "fair," or "poor" (excluding unknowns and refusals).
Measures:	Biennial prevalence with 95% confidence interval
Socio-Demographic Variables:	Age, grade, gender, race and ethnicity
Geographic Coverage:	Data are presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Connecticut School Health Survey Youth Behavior Component
Notes:	
Website(s):	www.ct.gov/dph/CSHS
National Framework:	Healthy People 2020 (Foundation Health Measure), National Prevention Strategy

POOR PHYSICAL HEALTH AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report at least one day in the past 30 days of poor physical health.
Denominator:	Respondents aged ≥ 18 years who report ≥0 days during the previous 30 days for which their physical health was not good (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Foundation Health Measure), CDI

POOR MENTAL HEALTH AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report at least one day in the past 30 days of poor mental health.
Denominator:	Respondents aged ≥ 18 years who report ≥0 days during the previous 30 days for which their mental health was not good (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Foundation Health Measure), CDI

INABILITY TO DO USUAL ACTIVITIES AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report at least one day in the past 30 days when poor physical or mental health keep them from doing their usual activities, such as self-care, work, or recreation.
Denominator:	Total number of respondents aged ≥ 18 years who report (or for whom it can be imputed – see notes) ≥0 days during the previous 30 days for which poor physical or mental health keep them from doing their usual activities, such as self-care, work, or recreation (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	For respondents who previously report 0 "unhealthy days" for recent physical health and recent mental health, this question is not asked, and 0 days of recent activity limitation are imputed.
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Foundation Health Measure), CDI

Connecticut Chronic Disease Surveillance Indicators

Social Indicators

CURRENT LACK OF HEALTH INSURANCE AMONG ADULTS ≥ 18 YEARS	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years who report having no current health insurance coverage.
Denominator:	Respondents aged ≥ 18 years who report having current health insurance or having no current health insurance (excluding unknowns and refusals).
Measures:	Annual prevalence — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, Appendix I Table 4) — with 95% confidence interval. To improve the precision of the estimates, 3-year averages may be used.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment, annual household income
Geographic Coverage:	Data are usually presented at state level due to small sample size when reported at a smaller unit. Geocoded data are not available.
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Notes:	
Website(s):	www.ct.gov/dph/BRFSS
National Framework:	Healthy People 2020 (Objective AHS-1), CDC Chronic Disease Indicator (CDI)

POPULATION BY ETHNICITY	
Population:	Resident persons
Numerator:	Respondents self-reported ethnicity category.
Denominator:	Population as determined by the U.S. Census or estimated by the American Community Survey (ACS)
Measures:	Number and percent of respondents self-reporting ethnicity category.
Socio-Demographic Variables:	Age, gender
Geographic Coverage:	State, county, and town. Data are available by multiple geographies through the Connecticut State Data Center (ctsdc.uconn.edu/connecticut_census_data.html).
Data Source:	U.S. Census or American Community Survey (ACS)[i, ii]
Notes:	The Connecticut Department of Public Health's minimum sociodemographic data collection standard required the use of the ethnicity categories specified in *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* published by the office of Management and Budget (OMB) in 1997. These categories are "Hispanic or Latino" and "Not Hispanic or Latino". Expanded ethnicity categories may be used. Multiple ethnicity categories are not recorded (www.ct.gov/dph/HealthDisparitiesData).
Website(s):	www.census.gov
National Framework:	Healthy People 2020 (Foundation Health Measure)

POPULATION BY RACE	
Population:	Resident persons
Numerator:	Respondents self-reporting each race category. Race categories include
Denominator:	Population as determined by the U.S. Census or estimated by the American Community Survey (ACS)
Measures:	Number and percent of respondents self-reporting each race category.
Socio-Demographic Variables:	Age, gender
Geographic Coverage:	State, county, and town. Data are available by multiple geographies through the Connecticut State Data Center (ctsdc.uconn.edu/connecticut_census_data.html).
Data Source:	U.S. Census or American Community Survey (ACS)[i, ii]
Notes:	The Connecticut Department of Public Health's minimum sociodemographic data collection standard required the use of the ethnicity categories specified in *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* published by the office of Management and Budget (OMB) in 1997. These categories are "American Indian or Alaska Native", "Asian", "Black or African American" "Native Hawaiian or Other Pacific Islander" and "White". Expanded race categories may be used. The selection of multiple race categories should be allowed (www.ct.gov/dph/HealthDisparitiesData).
Website(s):	www.census.gov
National Framework:	Healthy People 2020 (Foundation Health Measure)

PER CAPITA INCOME	
Population:	Resident persons
Numerator:	The total income reported by residents 15 years and older.
Denominator:	American Community Survey (ACS) population estimate
Measures:	The average income for all persons, calculated from total income of persons 15 years and older (all income data are adjusted using the Consumer Price Index and stated in terms of annual dollars for the most recent year covered in the data release).
Socio-Demographic Variables:	Race and ethnicity
Geographic Coverage:	State, county, and town. Data are available by multiple geographies through the Connecticut State Data Center (ctsdc.uconn.edu/connecticut_census_data.html).
Data Source:	American Community Survey (ACS)[i]
Notes:	
Website(s):	www.census.gov/acs/www
National Framework:	Healthy People 2020 (Foundation Health Measure)

EDUCATIONAL ATTAINMENT	
Population:	Resident persons aged ≥ 18 years
Numerator:	Respondents aged ≥ 18 years self-reporting grade or level of school category as the highest grade or level of school completed
Denominator:	American Community Survey (ACS) population estimate of residents aged ≥ 18 years
Measures:	The number and percent of residents ≥ 18 years old self-reporting each grade or level of school as the highest grade of level of school completed.
Socio-Demographic Variables:	Age and gender
Geographic Coverage:	State, county, and town. Data are available by multiple geographies through the Connecticut State Data Center (ctsdc.uconn.edu/connecticut_census_data.html).
Data Source:	American Community Survey (ACS)[i]
Notes:	
Website(s):	www.census.gov/acs/www
National Framework:	Healthy People 2020 (Foundation Health Measure)

PEOPLE LIVING IN POVERTY	
Population:	Resident persons
Numerator:	Respondents whose reported income in the last 12 months falls below the federal poverty thresholds for their type of family or household structure (all income data are adjusted using the Consumer Price Index and stated in terms of annual dollars for the most recent year covered in the data release).
Denominator:	Number of respondents with known poverty status.
Measures:	Number and percent of people living below the federal poverty level.
Socio-Demographic Variables:	Age, gender, race and ethnicity, educational attainment
Geographic Coverage:	State, county, and town. Data are available by multiple geographies through the Connecticut State Data Center (ctsdc.uconn.edu/connecticut_census_data.html).
Data Source:	American Community Survey (ACS)[i]
Notes:	
Website(s):	www.census.gov/acs/www
National Framework:	Healthy People 2020 (Foundation Health Measure), CDI

[i] Depending on the population size of a geographic area, tabulations will be based on the responses accumulated for 1-year, 3-year, or 5-year periods. Data for geographic areas with populations of 65,000 and more are summarized and produced annually based on the accumulated responses from the previous calendar year's data collection. Areas with populations of 20,000 and more are summarized and produced annually based on the accumulated responses to the previous 3 years of data collection. All size areas (including town and census tracts) are summarized with data produced annually based on the accumulated responses to the previous 5 years of data collection.

[ii] ACS provides limited cross tabulations of race and ethnicity. There is a White, Non-Hispanic category, but all other races are reported independent of Hispanic ethnicity.

Connecticut Chronic Disease Surveillance Indicators

Appendices

APPENDIX I: Age Distributions and Age-Adjustment Weights

Table 1. 1940 and 2000 U.S. Standard Million Population

Age group	1940	2000
0-4	80,057	69,136
5-9	81,151	72,533
10-14	89,209	73,032
15-19	93,665	72,169
20-24	88,002	66,477
25-29	84,280	64,529
30-34	77,787	71,044
35-39	72,501	80,762
40-44	66,744	81,851
45-49	62,696	72,118
50-54	55,116	62,716
55-59	44,559	48,454
60-64	36,129	38,793
65-69	28,519	34,264
70-74	19,519	31,773
75-79	11,423	26,999
80-84	5,878	17,842
85+	2,765	15,508
Total	1,000,000	1,000,000

(NCIb, 2012)

Table 2. Population distribution #17 (50 years and older)

Age group	Population in thousands	Adjustment weight
50-64	41,185	0.542658
65 years and over	34,710	0.457342
Total	75,895	1.000000

(Klein & Schoenborn, 2001)

Table 3. Population distribution #9 (18 years and older)

Age group	Population in thousands	Adjustment weight
18-24	26,258	0.128810
25-34	37,233	0.182648
35-44	44,659	0.219077
45-64	60,991	0.299194
65 years and over	34,710	0.170271
Total	203,851	1.000000

(Klein & Schoenborn, 2001)

Table 4. Population distribution #8 (18 years and older)

Age group	Population in thousands	Adjustment weight
18-24	26,258	0.128810
25-44	81,892	0.401725
45-64	60,991	0.299194
65 years and over	34,710	0.170271
Total	203,851	1.000000

(Klein & Schoenborn, 2001)

Table 5. Population distribution (unnumbered) (18 years and older)

Age group	Population in thousands	Adjustment weight
18-64	169,141	0.829729
65 years and over	34,710	0.170271
Total	203,851	1.000000

(Klein & Schoenborn, 2001)

APPENDIX II: Data Sources[i]

Acute Care Hospital Inpatient Discharge Database (HIDD)

The Connecticut Hospital Discharge Abstract and Billing Data Base is the source of inpatient hospitalization data. It is maintained by the Connecticut Office of Health Care Access (OHCA), and it contains patient-level demographic, clinical, and billing data for all non-federal acute care hospitals in the state. It should be noted that counts reflect **hospitalizations not persons**. Six months of inpatient discharge data are submitted to an Office of Health Care Access (OHCA)-approved vendor in January and July of each year. The vendor then adds diagnostic codes and works with the hospitals to get clarifications/corrections as needed before merging the data into an annual file for OHCA. OHCA staff then perform additional quality assurance and analyses of the data. Data are usually available one month after submission. The electronic database contains data from 1991 to the present.

Six (6) race and two (2) Hispanic ethnicity categories are collected. Only one (1) race category may be selected. Hospital discharge data estimates are typically available for the following racial and ethnic population subgroups: White, non-Hispanic; Black, non-Hispanic; and Hispanic (Hispanics may be of any race). Race and ethnicity may be either self- or observer-reported. Sex/gender is self-reported.

Geocoded data are not available; however, the residence zip code, town, and county of the patient are collected (DPHb, 2012; Stratton, Hynes, & Nepaul, 2009).

For more information on HIDD or for hospital discharge data visit: www.ct.gov/ohca or www.ct.gov/dph/HospitalDischargeData.

American Community Survey (ACS)

The American Community Survey (ACS) is an ongoing national survey conducted by the U.S. Census Bureau. The ACS uses a series of monthly samples to produce annually updated data from the same small areas (census tracts and block groups) formerly surveyed via the decennial census long-form sample. People living in both housing units and group quarters (e.g. , nursing homes, correctional facilities, military barracks, and college/university housing) are included in the sample. The ACS is conducted throughout the United States and in Puerto Rico. The annual ACS sample consists of approximately three million housing unit addresses. Three modes of data collections are used to contact household: mail (self-enumeration through mail-out/mail-back); telephone (Computer Assisted Telephone Interviewing [CATI]); and computer-assisted personal interviewing.

The ACS provides all states and communities that have at least 65,000 residents with single-year estimates of demographic, housing, social, and economic characteristics. Areas with populations of 20,000 and more are summarized and produced annually based on the accumulated responses to the previous 3 years of data collection. All size areas are summarized with data produced annually based on the accumulated responses to the previous 5 years of data collection.

On the ACS form, Hispanic or Latino ethnicity is asked prior to asking about race. Also, the ACS form includes fifteen (15) separate response categories for race and three (3) areas where respondents could write in a more specific race group. The response categories and write-in answers were combined to create the five (5) Office of Management and Budget race categories (White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native), plus "Some other race" (Stratton et al., 2009; U.S. Census Bureau, 2009).

For more information on ACS visit: www.census.gov.

Behavioral Risk Factor Surveillance System (BRFSS)
The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that generate information about health risk behaviors, clinical preventive practices, and health care access and utilization. The BRFSS, sponsored by the Centers for Disease Control and Prevention (CDC), is the world's largest telephone survey, and is conducted in all 50 states. Respondents are randomly selected adults (aged 18 or older) within randomly selected households with landline telephones, or with cellular telephones owned by adults with no landline or who use their cellular telephones for at least 90% of their calls. Data are collected on an ongoing basis and are usually available six months after data collection for the year is complete. Electronic data sets for individual years from 1990 to the present are available.
Race, ethnicity and sex/gender are self-reported. Five (5) race and two Hispanic (2) ethnicity categories are choices for the respondent. More than one (1) race category may be selected. Connecticut BRFSS presents estimates for the following racial and ethnic population subgroups: White, non-Hispanic; Black, non-Hispanic; and Hispanic (Hispanics may be of any race). The numbers of American Indians or Alaska Natives, and Native Hawaiian or Other Pacific Islanders surveyed in Connecticut are too small to present reliable estimates.

Connecticut BRFSS presents estimates only at the state level due to small sample size when reported at a smaller unit. Geocoded data are not available for this dataset (DPHb, 2012; Stratton et al., 2009).

Other national and state-specific risk factor data and information regarding BRFSS methodology can be accessed on the CDC's BRFSS website at: www.cdc.gov/BRFSS/.

<u>CHIME</u>

Connecticut Hospital Association (CHA) Data Services offers data collection and reporting services to its acute care hospital members through its ChimeData program, part of Chime, an affiliate of CHA. ChimeData maintains a proprietary healthcare information system, which incorporates clinical, financial, patient demographic, and provider information data submitted voluntarily by Connecticut's acute care, non-governmental hospitals. ChimeData collects and edits administrative discharge data from inpatient admissions. Data are submitted to CHIME under individual contract with each participating facility.

ChimeData's database contains nearly 31 million patient encounters dating back to 1980. ChimeData collects and edits administrative discharge (UB-04 claims-based) data from inpatient admissions, hospital-based outpatient surgery, and emergency department (ED) non-admissions.

Data elements for patient race and ethnicity are based upon observation of the patient rather than self-report. As such, they are more subject to misclassification. Data are presented in racial categories exclusive of Hispanic ethnicity (White, non-Hispanic; Black, non-Hispanic; Other, non-Hispanic) and Hispanic ethnicity (Hispanics of any race)(Stratton et al., 2009).

For more information on ChimeData visit:

www.chime.org/Member_Services/Data_Services/ChimeData.html

<u>Connecticut Vital Records Death Registry</u>

The Connecticut Vital Records Death Registry contains records pertaining to deaths that occur within the state as well as deaths of Connecticut residents occurring in other states, or in Canada. Mortality statistics are compiled in accordance with World Health Organization (WHO) regulations, which specify that deaths be classified by the current version of the *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*. Deaths for the 1989-1998 period are classified by the *Ninth Revision of the International Classification of Diseases* (ICD-9); deaths from 1999 to the

present are classified by the *Tenth Revision of the International Classification of Diseases* (ICD-10). Ordinarily, the physician or medical examiner certifying the death completes the cause of death information on the death certificate. The funeral director having charge of the body completes the remaining data items on the death certificate. Within five (5) days after death the funeral director submits the completed death certificate to the registrar of the town where the death occurred. The registrar then forwards a copy of the death certificate to the Department of Public Health (DPH). Data are usually available by the end of the following year. The electronic database contains data from 1949 to the present.

As of 2005, fifteen (15) race and two (2) Hispanic ethnicity categories are listed as choices for the respondent. More than one (1) race category may be selected. Mortality statistics present estimates for the following racial and ethnic population subgroups: White, non-Hispanic; Black, non-Hispanic; Hispanic (Hispanics may be of any race); Native American, non-Hispanic; and Asian or Pacific Islander, non-Hispanic. Mortality data among some of the racial and ethnic population subgroups may require aggregation of years and/or suppression of sparse cells where numbers are small. Race, ethnicity and sex/gender are observer-reported by next of kin or a health professional.

Complete mailing address is collected for the deceased and funeral home. Birth town and state are also collected. Geocoded data are available from 1999 to present (DPHb, 2012; Stratton et al., 2009).

For more information visit: www.ct.gov/dph/DeathData.

Connecticut School Health Survey (CSHS)

The Connecticut School Health Survey (CSHS) is a comprehensive survey that consists of two components:

> **Youth Tobacco Component (YTC):**
>
> The Youth Tobacco Component (YTC) is part of the national Centers for Disease Control and Prevention (CDC) survey of middle and high school students' tobacco use, secondhand smoke exposure, and tobacco-related risk factors and health behaviors. In 2000 and 2002, the Youth Tobacco Survey (YTS) was administered as a separate survey. Starting in 2005, data have been collected during odd-numbered years as part of the Connecticut School Health Survey (Youth Tobacco Component). Data are collected in odd-numbered years from public middle- and high-school students (grades 6-12) using a written questionnaire during class time. The 2000 and

2002 surveys included private school students. Electronic data sets are available for the years 2002 to the present. New data are usually available six (6) months after data collection for the year is complete.

Six (6) race categories and one (1) Hispanic ethnicity category are choices for the respondent. More than one (1) race category may be selected. CSHS YTC presents estimates for the following racial and ethnic population subgroups: White, non-Hispanic; Black, non-Hispanic; and Hispanic (Hispanics may be of any race). Race, ethnicity and sex/gender are self-reported.

Data are presented at state level due to small sample size and sampling design. Geocoded data are not available (DPHb, 2012; Stratton et al., 2009).

For more information visit: www.ct.gov/dph/CSHS.

Youth Behavior Component (YBC):

The Youth Behavior Component (YBC) collects data that is used to monitor priority health risk behaviors and the prevalence of obesity and asthma among high school students in Connecticut. The CSHS is conducted by the Connecticut Department of Public Health in cooperation with the CDC, the Connecticut State Department of Education (SDE), and partners from local school health districts and local health departments. The YBC is administered to a representative sample of all regular public high school students in Connecticut. Data are collected in odd-numbered years from students using a written questionnaire during class time. Electronic data sets are available for the years 1997, 2005, 2007, 2009, and 2011. New data are usually available six (6) months after data collection for the year is complete.

Five (5) race and two (2) Hispanic ethnicity categories are choices for the respondent. More than one (1) race category may be selected. CSHS YBC presents estimates for the following racial and ethnic population subgroups: White, non-Hispanic; Black, non-Hispanic; and Hispanic (Hispanics may be of any race). Race, ethnicity and sex/gender are self-reported.

Data are presented at the state level due to small sample size and sampling design. Geocoded data are not available (DPHb, 2012; Stratton et al., 2009).

For more information visit: www.ct.gov/dph/CSHS.

Connecticut Tumor Registry

The Connecticut Tumor Registry (CTR) is part of the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program (seer.cancer.gov/), and collects data on all cancers diagnosed in residents of Connecticut. Information collected includes: patient demographics; tumor characteristics (primary site, histology, behavior, grade); stage at diagnosis; first course of treatment; and patient follow-up data (vital status, date of last contact, date and cause of death). Data collected by the CTR are submitted to the NCI and other organizations. This information contributes to national surveillance data on cancer incidence, survival and prevalence. All hospitals, clinical laboratories, and health care providers in Connecticut are required by law to report cancer cases to the CTR. Data are usually available two (2) years after the close of the calendar year of report.

Data are collected on all malignant and in situ neoplasms excluding basal and squamous skin cancers, in situ cervical cancers and some other specific cancer types. Information on certain benign tumor types are also collected, primarily those of the brain and central nervous system. A full list of reportable neoplasms is available on the CTR web page.

The recorded race and Hispanic ethnicity comply with OMB recommendations. Up to 5 race categories may be recorded for a patient, choosing from over 50 census-derived race and nationality categories (seer.cancer.gov/manuals/2010/SPCSM_2010_AppendixD.pdf). Race, ethnicity and sex/gender are self-reported when available; otherwise clinical registration staff submit observer reports.

The patient's address at the time of diagnosis is collected. Geocoded data may be released to authorized persons with appropriate approvals (DPHb, 2012; NCIa, 2012).

For more information visit: www.ct.gov/dph/TumorRegistry.

U.S. Census of the Population

The U.S. Census counts every resident in the United States. It is mandated by Article I, Section 2 of the Constitution and takes place every ten (10) years. The data collected by the decennial census determine the number of seats each state has in the U.S. House of Representatives and is also used to distribute billions in federal funds to local communities.

The 2010 Census represented the most massive participation movement ever witnessed in the United States. Approximately 74 percent of the households returned their census by mail; the remaining households were counted by census workers walking neighborhoods throughout the United States.

On the 2010 Census form, Hispanic or Latino ethnicity was asked prior to asking about race. Also, the 2010 Census included fifteen (15) separate response categories for race and three (3) areas where respondents could write in a more specific race group. The response categories and write-in answers were combined to create the five (5) Office of Management and Budget race categories (White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native), plus "Some other race"(Stratton et al., 2009; U.S. Census Bureau, 2012).

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[i] For more information on databases maintained by the Connecticut Department of Public Health including contact person information, access the *Health Database Compendium – A Profile of Selected Databases Maintained by the Connecticut Department of Public Health* at
www.ct.gov/dph/lib/dph/hisr/pdf/ct_health_database_compendium_2012.pdf.

APPENDIX III: Glossary

A1c

A1c or glycosylated hemoglobin test measures the binding of glucose to hemoglobin during the lifespan of a red blood cell. It reflects the average blood glucose level over 2 to 3 months and is useful in evaluating long-term therapy for type 2 diabetes (Janson Cohen, 1994).

Age adjustment

Age adjustment, using the direct method, is the application of observed age-specific rates to a standard age distribution, in order to eliminate differences in crude rates in populations of interest that result from differences in the populations' age distributions. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time. Age adjustment is particularly relevant when populations being compared have different age structures (Klein & Schoenborn, 2001).

Body mass index (BMI)

The body mass index is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems. The BMI formula is the following: weight (kg) / [height (m)]^2 (CDCa, 2012).

Bridged population estimate

Bridged estimates are the result of statistically reallocating multiple-race counts to single-race categories (www.cdc.gov/nchs/data/series/sr_02/sr02_135.pdf). Bridged population estimates are particularly useful since many health data systems still collect information using single-race categories (i.e. White, Black or African American, American Indian or Alaskan Native, Asian, and Native Hawaiian or Other Pacific Islander). Bridged estimates provide denominators that can be used to calculate the race-specific rates used to monitor many health indicators (DPHa, 2012).

Cause-of-death coding

Connecticut mortality statistics are compiled in accordance with World Health Organization (WHO) regulations, which specify that member nations classify causes of death by the current *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*. The current version for

mortality coding is the *Tenth Revision of the International Classification of Diseases* [ICD-10]. Mortality statistics for 1999 and earlier were classified using the *Ninth Revision* [ICD-9] (DPHc, 2012).

CDC Winnable Battles

The Centers for Disease Control and Prevention's (CDC) Winnable Battles are public health priorities with large-scale impact on health and with known, effective strategies to address them. The current Winnable Battles have been chosen based on the magnitude of the health problems and the ability to make significant progress in improving outcomes (CDCc, 2012).

95% Confidence Interval

A 95% confidence interval is a range of reasonable values that are intended to contain the parameter of interest (e.g. prevalence estimate) with a certain degree of confidence – 95%, in this case (Pagano & Gauvreau, 2000).

Consumer Price Index (CPI)

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The cost of food and energy are included in the CPI. The CPI is calculated by the U.S. Bureau of Labor Statistics (www.bls.gov) (BLS, 2012).

Crude rate

The raw percentage or unadjusted estimate of, for example, morbidity or mortality (CDC, 2012).

Emergency department (ED)

A hospital facility that provides unscheduled outpatient services 24 hours a day for conditions requiring immediate care (Stratton et al., 2009).

Ethnicity

Ethnicity refers to the cultural, behavioral, religious, linguistic, and/or geographical commonalities imputed to people belonging to a particular group, as opposed to genetic heritability. The boundaries of authenticity (that is, who or what "counts" as being a member of an ethnic group) are often changeable and can depend on social, economic, political and historical situations. In the United States, federal

officials have determined that for data collection purposes, there are two "ethnicities": Hispanic or Latino, or Not Hispanic or Latino (Stratton et al., 2009).

Federally sponsored statistical data collections that include data on race and/or ethnicity must comply with the United States' Office of Management and Budget's (OMB) *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*. These standards have five (5) minimum categories for data on race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. There are two (2) categories for data on ethnicity: "Hispanic or Latino" and "Not Hispanic or Latino". For more information on these standards, visit www.whitehouse.gov/omb/fedreg_1997standards.

Gender

This term refers to the cultural roles assigned to males or females, which vary considerably by society (how to behave like a "man" or a "woman"). The term "sex" refers to the physical characteristics that distinguish males from females in a species. In common usage, however, the two terms often become conflated (Stratton et al., 2009). The *Connecticut Chronic Disease Surveillance Indicators* document uses the term "gender" instead of "sex" because the sex/gender data collected by the data sources referred to in the document are self-reported.

Geocode

Geocoding is a geographic information system (GIS) operation for converting street addresses into spatial data that can be displayed as features on a map, usually referencing address information from a street segment data layer (ESRI, 2012).

Healthy People 2020

Healthy People provides science-based, national goals and objectives with 10-year targets designed to guide national health promotion and disease prevention efforts to improve the health of all people in the United States. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.

- Provide measurable objectives and goals that are applicable at the national, State, and local levels.

- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.

- Identify critical research, evaluation, and data collection needs.

Healthy People 2020 contains about 1,200 objectives in 42 Topic Areas designed to serve as this decades framework for improving the health of all people in the United States (CDCb, 2012).

Hospitalization

Hospitalization refers to any discharge from a non-federal, short-stay, acute-care, general hospital in Connecticut. Hospitalizations are expressed as numbers of discharges, not as unduplicated patients; a single patient with multiple hospitalizations can thus be counted more than once (www.ct.gov/dph/HospitalDischargeData).

ICD-9

See **International Classification of Diseases (ICD)**.

ICD-9-CM

ICD-9-CM refers to the *International Classification of Diseases, Ninth Edition, Clinical Modification*, which provides procedure codes for morbidity data. The procedures are classified as diagnostic and other non-surgical procedures or as surgical operation. See also International Classification of Disease (Stratton et al., 2009).

Incidence

Incidence refers to the number of new cases of a disease that occur during a specified period of time, within a specified population at risk for developing that disease (Gordis, 2000):

Incidence per 1,000 =   Number of new cases of disease occurring
in the population during specified time period   x 1,000
Number of persons at risk of developing the
disease during that time period

International Classification of Diseases (ICD)

The World Health Organization's *International Classification of Diseases* (ICD) has been the internationally accepted coding system for determining cause of death since the early 1900s. It is periodically revised. The *Ninth Revision* (ICD-9) was in use from 1975 through 1998. Beginning with 1999 deaths, the *Tenth Revision* (ICD-10) has been used (Stratton et al., 2009).

Midyear resident population

The midyear resident population, the official Connecticut state, county and town populations, are estimated at the calendar year midpoint (July 1) of each year. These July 1 estimates typically constitute the basis for determining birth, death, and other population-based rates.

Since the 2000 decennial census is based on April 1 data, while the annual estimates are based on July 1 data, the decennial census is not an accurate substitute for town-level annual estimates. To address this, the Connecticut Department of Public Health (DPH) created July 1, 2000 state population estimates by Age, Sex, Race and Hispanic Ethnicity (ASRH) that should be used in place of the decennial census counts for year-to-year comparisons (DPHa, 2012).

National Prevention Strategy

The National Prevention and Health Promotion Strategy is a comprehensive plan that will help increase the number of Americans who are healthy at every stage of life. Created by the National Prevention, Health Promotion, and Public Health Council in consultation with the public and an Advisory Group of outside experts, the Strategy recognizes that good health comes not just from receiving quality medical care but from stopping disease before it starts. Good health also comes from clean air and water, safe outdoor spaces for physical activity, safe worksites, healthy foods, violence-free environments and healthy homes. Prevention should be woven into all aspects of our lives, including where and how we live, learn, work and play. Everyone—businesses, educators, health care institutions, government, communities and every single American—has a role in creating a healthier nation.

Called for by the Affordable Care Act, the National Prevention Strategy includes actions that public and private partners can take to help Americans stay healthy and fit. It helps move the nation away from a health care system focused on sickness and disease to one focused on wellness and prevention (HHS, 2012).

Number of deaths

The total number of deaths registered with the State of Connecticut where age at death was known.
The total death counts may be slightly lower than the total counts in Connecticut's Registration
Reports since deaths with unknown age are not included in these age-related calculations (DPHc, 2012).

Poverty

The federal government issues two different measures of poverty: poverty thresholds and poverty
guidelines. *Poverty thresholds* are the original version of the federal poverty measures developed by the
Social Security Administration, and are used for statistical purposes. The thresholds are updated
annually by the U.S. Bureau of the Census based on changes in the Consumer Price Index, and comprise
a set of income thresholds that vary by family size and composition, taking into account age (under age
65 or age 65+) and number of related children under age 18. *Poverty guidelines* are simplified poverty
thresholds, used for determining eligibility for programs. They are updated annually by the U.S.
Department of Health and Human Services, and printed in the Federal Register. Poverty guidelines
pertain to family units by size only, without regard to age or number of children (Stratton et al., 2009).

Race

In the United States, racial and ethnic classifications are used by federal, state and local governments,
and private agencies, as well as in research for the purpose of defining group characteristics, tracking
morbidity, mortality, and other health indicators, and documenting the health status of population
groups. Race is widely considered a meaningful social characteristic, but it is not a valid biological or
genetic category. Available scientific evidence indicates that racial and ethnic classifications do not
capture biological distinctiveness, and that there is more genetic variation within racial groups than
there is between racial groups. Contemporary race divisions result from historical events and
circumstances and reflect current social realities. Thus, racial categories may be viewed more accurately
as proxies for social and economic conditions that put individuals at higher risk for certain disease
conditions. Five (5) race categories are required for federal recordkeeping and data presentation:
American Indian and Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific
Islander, and White) (Stratton et al., 2009).

Related causes of death

"Related" causes of death refer to the presence of a cause-of-death code listed either as the underlying or non-underlying ("contributing") causes. For example, "diabetes" represents the count of death cases where diabetes appears as the underlying cause or "root cause" of the death while "diabetes-related" represents the count of death cases where diabetes is included in any of the causes of death listed on the death certificate (both underlying and contributing) (DPHc, 2012).

Underlying causes of death

Tabulations of cause-of-death statistics are based solely on the underlying cause of death unless otherwise stated. Every death is attributed to one underlying condition, based on information reported on the death certificate and using the international rules for selecting the "underlying cause of death" from the conditions stated on the death certificate. The underlying cause is defined by the World Health Organization (WHO) as the disease that initiated the chain of events leading directly to death. If more than one cause or condition of death is entered, the underlying cause is then determined by the sequence of conditions on the death certificate and selection rules of the ICD (DPHc, 2012).

Years of potential life lost (YPLL)

Years of potential life lost (YPLL) is a measure of premature mortality. It represents the number of years of potential life lost by each death before a predetermined end point (e.g., 65 or 75 years of age). For example, the death of a person 15-24 years of age counts as 55.5 years of life lost. The YPLL statistic is derived by summing age-specific years of life lost figures over all age groups up to 65 or 75 years. YPLL is presented for persons less than 75 years of age because the average life expectancy in the United States is over 75 years. YPLL for persons less than 65 years of age is also calculated in Connecticut.

Whereas the crude and adjusted death rates are heavily influenced by the large number of deaths among the elderly, the YPLL measure provides a picture of premature mortality by weighting deaths that occur at younger ages more heavily than those occurring at older ages. It thereby emphasizes different causes of death. For Connecticut, years of potential life lost are summarized both as the total years of life lost and as an age-adjusted YPLL rate. Age-adjusted YPLL are calculated using the methodology of Romeder and McWhinnie (1977) (DPHc, 2012).

APPENDIX IV: References

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APPENDIX V: Resources

Below is a list of websites where global, national, state, and/or county chronic disease data can be found.

Centers for Disease Control and Prevention (CDC)

- Behavioral Risk Factor Surveillance System Prevalence and Trends Data: apps.nccd.cdc.gov/BRFSS
- CDC Wonder: wonder.cdc.gov
- Chronic Disease Indicators: apps.nccd.cdc.gov/CDI
- Chronic Disease Prevention and Health Promotion – Statistics and Tracking: www.cdc.gov/ChronicDisease/Stats
- Diabetes Data & Trends: apps.nccd.cdc.gov/DDTSTRS
- Division for Heart Disease and Stroke Prevention: Data Trends & Maps: apps.nccd.cdc.gov/ncvdss_dtm
- Health Data Interactive: www.cdc.gov/nchs/hdi.htm
- Morbidity and Mortality Weekly Report (MMWR): www.cdc.gov/MMWR
- National Center for Health Statistics (NCHS): www.cdc.gov/NCHS
- Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC): happs.nccd.cdc.gov/sammec/index.asp
- State Cancer Profiles (CDC & NCI): StateCancerProfiles.Cancer.gov/
- United States Cancer Statistics: apps.nccd.cdc.gov/USCS
- Winnable Battles: www.cdc.gov/WinnableBattles
- Youth Risk Behavior Surveillance System (YRBSS): www.cdc.gov/HealthyYouth/yrbs/index.htm

Connecticut Department of Public Health

- Connecticut Asthma Program: www.ct.gov/dph/Asthma (click Surveillance link)
- Connecticut Behavioral Risk Factor Surveillance System: www.ct.gov/dph/BRFSS
- Connecticut Diabetes Surveillance System: www.ct.gov/dph/DiabetesData
- Connecticut Heart Disease and Stroke Surveillance System: www.ct.gov/dph/HeartStrokeData
- Connecticut Hospitalization Statistics: www.ct.gov/dph/HospitalDischargeData
- Connecticut Mortality Statistics: www.ct.gov/dph/DeathData
- Connecticut Population Statistics: www.ct.gov/dph/PopulationData
- Connecticut School Health Survey: www.ct.gov/dph/CSHS
- Connecticut Tumor Registry: www.ct.gov/dph/TumorRegistry
- Connecticut Vital Statistics Registration Reports: www.ct.gov/dph/VitalStatisticsData
- Health Disparities: www.ct.gov/dph/HealthDisparitiesData
- Office of Health Care Access (OHCA): www.ct.gov/dph/OHCA

U.S. Census Bureau

- American Fact Finder: factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
- Small Area Health Insurance Estimates (SAHIE): www.census.gov/did/www/sahie/index.html

U.S. Department of Health and Human Services (HHS)

- Community Health Status Indicators: www.CommunityHealth.hhs.gov
- Healthy People 2020: www.HealthyPeople.gov/2020
- National Prevention Strategy: www.healthcare.gov/prevention/nphpphc/strategy/index.html

Other

- America's Health Rankings (United Health Foundation): www.AmericasHealthRankings.org.
- Cancer Incidence in Five Continents (International Agency for Research on Cancer): ci5.iarc.fr
- CINA+ Online – Cancer in North America (NAACCR): www.cancer-rates.info/naaccr
- Community Commons (Advancing the Movement): www.CommunityCommons.org
- Connecticut State Data Center Connecticut Census Data (UCONN): ctsdc.uconn.edu/connecticut_census_data.html
- County Health Rankings & Roadmaps (Robert Wood Johnson Foundation in collaboration with the University of Wisconsin): www.CountyHealthRankings.org
- Data Sources Available from the Agency for Healthcare Research and Quality (AHRQ): www.ahrq.gov/data/DataResources.htm
- Globocan Global Cancer Statistics (International Agency for Research on Cancer): globocan.iarc.fr
- Medicare data (Centers for Medicare & Medicaid Services): data.medicare.gov/
- North American Association of Central Cancer Registries (NAACCR) Fast Stats: FastStats.naaccr.org
- State Health Facts (Kaiser): www.StateHealthFacts.org
- Surveillance Epidemiology and End Results (SEER) Cancer Statistics (National Cancer Institute): seer.cancer.gov/statistics/index.html
- The Dartmouth Atlas of Health Care (Dartmouth Institute for Health Policy & Clinical Practice): www.DartmouthAtlas.org
- United States Renal Data System (National Institute of Health and National Institute of Diabetes and Digestive and Kidney Diseases): www.usrds.org