

Public Health Asthma Data Sources

Technical Assistance for Brownfields Program
EPA Region 1

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UConn
HEALTH



Public Health Asthma Data Sources

Welcome & Introduction

- ▶ Sara Wakai, PhD, Assistant Professor
 - UConn Health, Center for Population Health

Acknowledgement - Technical Assistance of Brownfields Program

- ▶ Randi Mendes, PhD, Program Director
 - Civil and Environmental Engineering, UConn
 - Program Director UConn Technical Assistance for Brownfields Program (TAB). Region 1 (New England States)
- ▶ Marisa Chrysochoou, PhD, Dean of Engineering
 - School of Engineering, University of Missouri
 - Program Director UConn Technical Assistance for Brownfields Program (TAB). Region 1 (New England States)



Learning Objectives

- Characterize asthma risk factors and symptoms
- Review research on environmental exposures and asthma rates
- Explore data sources that monitor asthma rates in TAB Region 1



Asthma

about
300 million
in the world

Risk factors



VIRUSES



TOBACCO
SMOKE



STRESS



AIR
POLLUTION



COLD AIR



PHYSICAL
EXERCISE



DUST



POLLEN



SEAFOOD



MOLDY



INSECTS



NUTS



MEDICINES



CITRUS



ANIMALS



CHEMICALS

ALLERGENS



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NORMAL



ASTHMA



ASTHMA
ATTACK

Symptoms



DIFFICULTY
BREATHING



COUGH



NIGHT
COUGH



CHEST PAIN

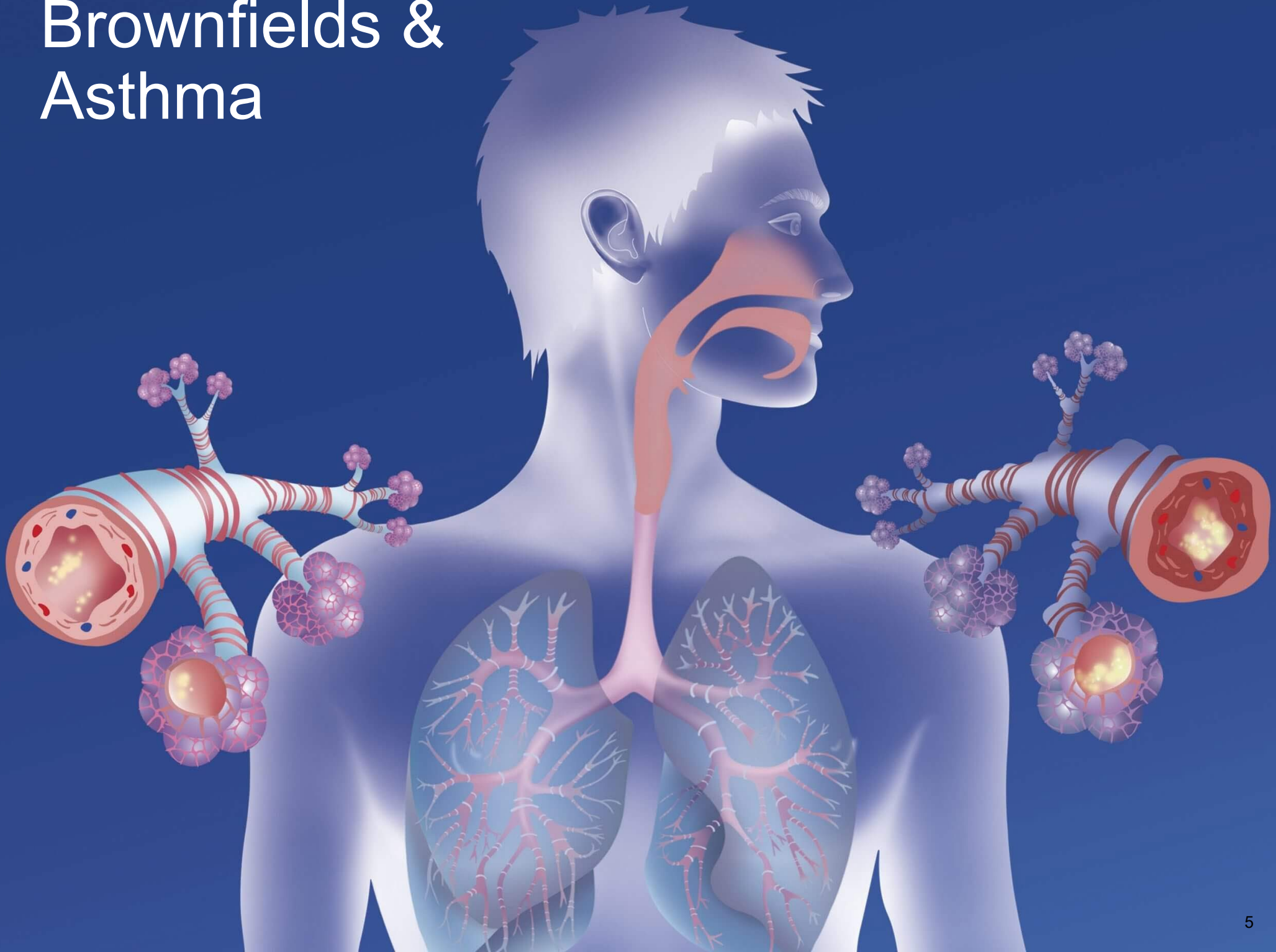


WHEEZING



SHORTNESS
OF BREATH

Brownfields & Asthma



National & State Asthma Surveillance Data

Location	Weighted Number with Current Asthma	Percent with Current Asthma (SE)
US	24,963,874	7.7 (.18)
CT	300,910	10.5 (.48)
ME	138,396	12.5 (.47)
MA	661,306	11.7 (.52)
NH	136,025	12.1 (.60)
RI	111,498	12.6 (.62)
VT	61,465	11.8 (.61)

https://www.cdc.gov/asthma/most_recent_data_states.htm



State Asthma Data Sources

State	Website	Data Type
CT	Asthma Surveillance (ct.gov)	Statistics, Reports, Data Briefs & Fact Sheets, Maps, Data Links. The maps provide info at the census tract level
ME	Asthma MaineTracking Network (mainepublichealth.gov)	ED Visits, Hospitalizations, Prevalence, Town Data
MA	MEPHT Asthma Overview (state.ma.us)	Pediatric and Adult, Prevalence, ED Visits, Hospitalization. Maps, Tables, Chart CSV Export at Town level.
NH	NH DHHS Data Portal	Pediatric & Adult, ED Visits, Hospitalization. County level data
RI	Asthma Data: Department of Health (ri.gov)	Pediatric & Adult, Prevalence, ED Visits, Hospitalization. State level data.
VT	Asthma & Lung Disease Vermont Department of Health (healthvermont.gov)	ED Visits, Hospitalizations Reports and Data Briefs. County level data



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Asthma Surveillance & Epidemiology

Surveillance activities are one of five Infrastructure strategies under CDC’s Cooperative Agreement (CA) on comprehensive asthma control (2014-2019). Under the Cooperative Agreement, the goal of Surveillance Infrastructure strategy is to maintain and enhance a statewide surveillance system, collect and analyze asthma-related data, and identify populations disproportionately affected by asthma.

Moreover, the purpose of the Connecticut Asthma Program (CAP), Asthma Surveillance & Epidemiology team, is to provide the most recent and reliable data on Connecticut’s high-risk populations for asthma, identify asthma-related health disparities, and trends that stakeholders can use to help them guide program initiatives, rationalize intervention and develop custom local intervention/programs to target the most at-risk, to monitor progress toward Healthy People 2020 objectives and overall, to decrease the burden of asthma in Connecticut.

Statistics include prevalence rates tables for adult and children with current or lifetime asthma from the Behavioral Risk Factor Surveillance System (BRFSS); hospitalization and emergency department acute rates for adult and children from the Connecticut Hospital Information Management Exchange (CHIME) and Mortality rates based on the Connecticut Vital Records Registry data.

- <https://portal.ct.gov/dph/health-education-management--surveillance/asthma/asthma-surveillance>



Asthma

Maine has some of the highest rates of asthma in the country. About 1 in 9 Mainers currently has asthma, compared to 1 in 12 nationally. Tracking asthma helps identify groups of people at high risk for asthma or with the highest burden of asthma and provide communities and health care providers with the data they need to develop and evaluate efforts to help prevent and control asthma.

What data are available?

Maine tracks the following measures associated with asthma:

- Emergency Department (ED) Visits
- Hospitalizations
- Prevalence of asthma diagnosis



Emergency Department Visits | Hospitalizations | Prevalence | Town Data | Tables | About the Data

Asthma Emergency Department (ED) Visits

This display shows the number and rate of asthma emergency department visits per 10,000 population. These data can tell us which counties have a higher number or rate of ED visits and if a rate is going up or down over time. To add a county to the trend chart, click a county on the map. To unselect a county, click the same county again.

Region: | Measure: | Year: | Sex: | Age Group: 

- <https://data.mainepublichealth.gov/tracking/asthma>





Massachusetts Environmental Public Health Tracking

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Asthma Overview

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PEDIATRIC ASTHMA
MAPS & TABLES**

**EXPLORE ASTHMA
HOSPITALIZATION
MAPS & TABLES**

[Asthma Hospitalization](#) • [Pediatric Asthma](#) • [FAQs](#) • [Related Links](#)

Asthma is an illness that affects the respiratory tract and airways that carry oxygen into and out of the lungs. During an asthma attack, these airways constrict, resulting in wheezing and difficulty breathing. Asthma can affect people of all ages. However, it often starts in childhood and is more common in children than adults.

Asthma is a common chronic disease that continues to increase in prevalence. It is the most common chronic disease in children. The state of Massachusetts has an elevated rate of asthma compared to the national prevalence rate.

Causes of asthma are unknown. However, episodes of asthma (asthma attacks) can be triggered by certain environmental pollutants such as air pollution, mold, pets/pet dander, and dust mites. A number of studies have reported links between exposure to air pollution and asthma. Reducing exposure to these pollutants can help prevent symptoms. Other factors are also linked with asthma. Therefore, when

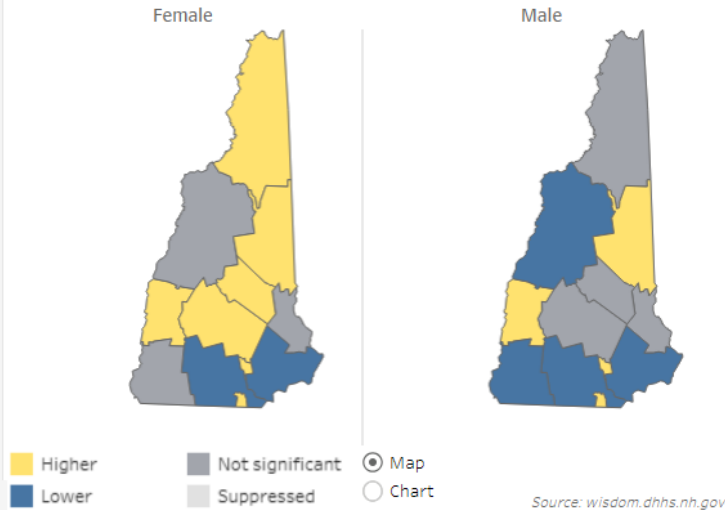


- <https://matracking.ehs.state.ma.us/Health-Data/Asthma/index.html>

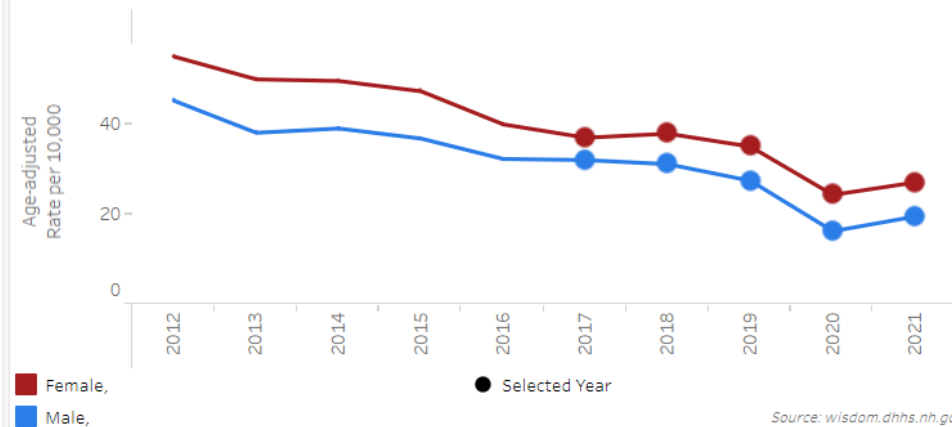


Asthma hospital visits (emergency dept.)

Asthma hospital visits (emergency dept.); Age-adjusted rate; County with Manchester and Nashua compared to rest of state; Discharge years: 2017 - 2021; All ages



Asthma hospital visits (emergency dept.) by discharge year; Age-adjusted rate; New Hampshire; All ages



Filters

Select measure: Rate

Select geography type: County with Manchester a...

Select sex: Female, Male

Select year type: Discharge year

Options

Show selected years? Yes

Show confidence intervals? No

Show reference lines? No

- [NH DHHS Data Portal](https://wisdom.dhhs.nh.gov/wisdom/dashboard.html?to pic=asthma&subtopic=asthma-prevalence-and-control&indicator=asthma-hospital-visits-(emergency-dept.))
- [https://wisdom.dhhs.nh.gov/wisdom/dashboard.html?to pic=asthma&subtopic=asthma-prevalence-and-control&indicator=asthma-hospital-visits-\(emergency-dept.\)](https://wisdom.dhhs.nh.gov/wisdom/dashboard.html?to pic=asthma&subtopic=asthma-prevalence-and-control&indicator=asthma-hospital-visits-(emergency-dept.))





Asthma

- ▶ About
- ▶ Information for
- ▶ Rhode Island Data
- ▶ Programs
- ▶ Services
- ▶ Publications
- ▶ Regulations
- ▶ Partners
- ▶ Trusted Sites

Data Sources

Data Table

Asthma Surveillance Data

Behavioral Risk Factor Surveillance System

Asthma Data



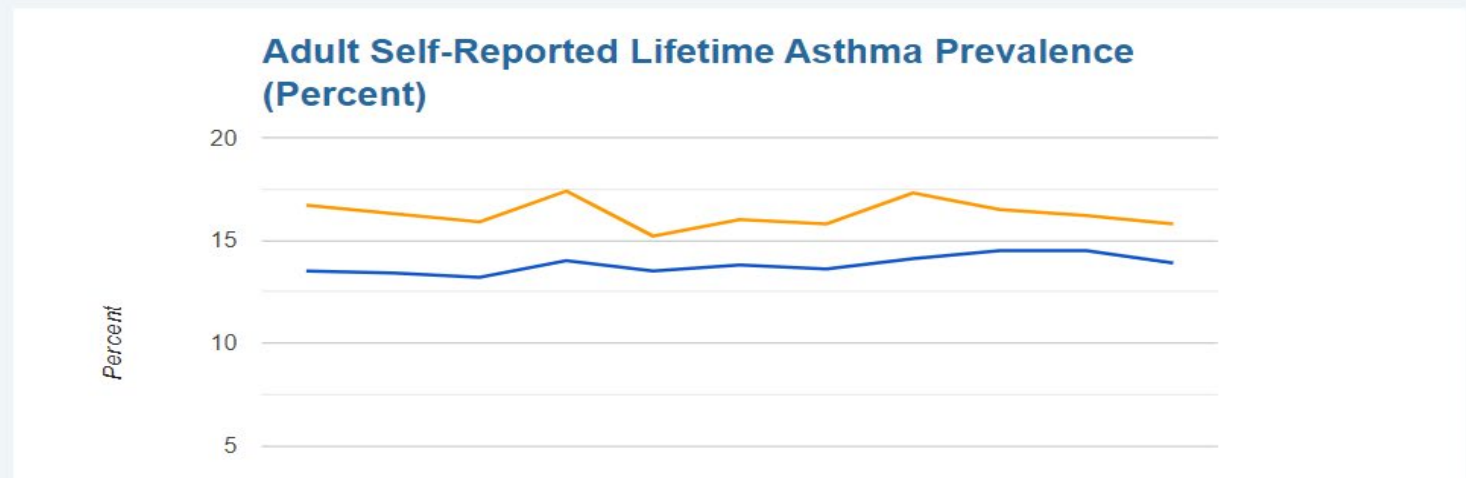
Purpose

To determine trends in asthma among Rhode Islanders.

Key Information

The prevalence and healthcare use of adults and children with current asthma.

Rhode Island Numbers



- <https://health.ri.gov/data/asthma/>



Asthma & Lung Disease

In this section:

[Asthma Basics](#) | [Asthma Self-Management Education](#) | [Asthma-friendly Schools](#) | [School Nurse Asthma Resources](#) | [Secondhand Smoke and Asthma Triggers](#) | [Using the Vermont Asthma Action Plan](#) | [State Partners and Health Professionals](#)



Asthma is a chronic (long-term) disease in which the lungs become inflamed and airways narrow and react to "triggers." When the lungs become irritated, the airways swell and mucus builds up, causing shortness of breath, coughing, wheezing, chest pain or tightness, tiredness or a combination of these symptoms. People with uncontrolled asthma often have difficulty

Important Links

[Vermont Asthma Data](#)[Envision](#)[Secondhand Smoke](#)

- [Asthma & Lung Disease | Vermont Department of Health \(healthvermont.gov\)](https://healthvermont.gov)

EJScreen Indexes



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EJScreen: Environmental Justice Screening and Mapping Tool

- [EJScreen: Environmental Justice Screening and Mapping Tool | US EPA](#)



UConn

TAB Program: <http://tab.program.uconn.edu>

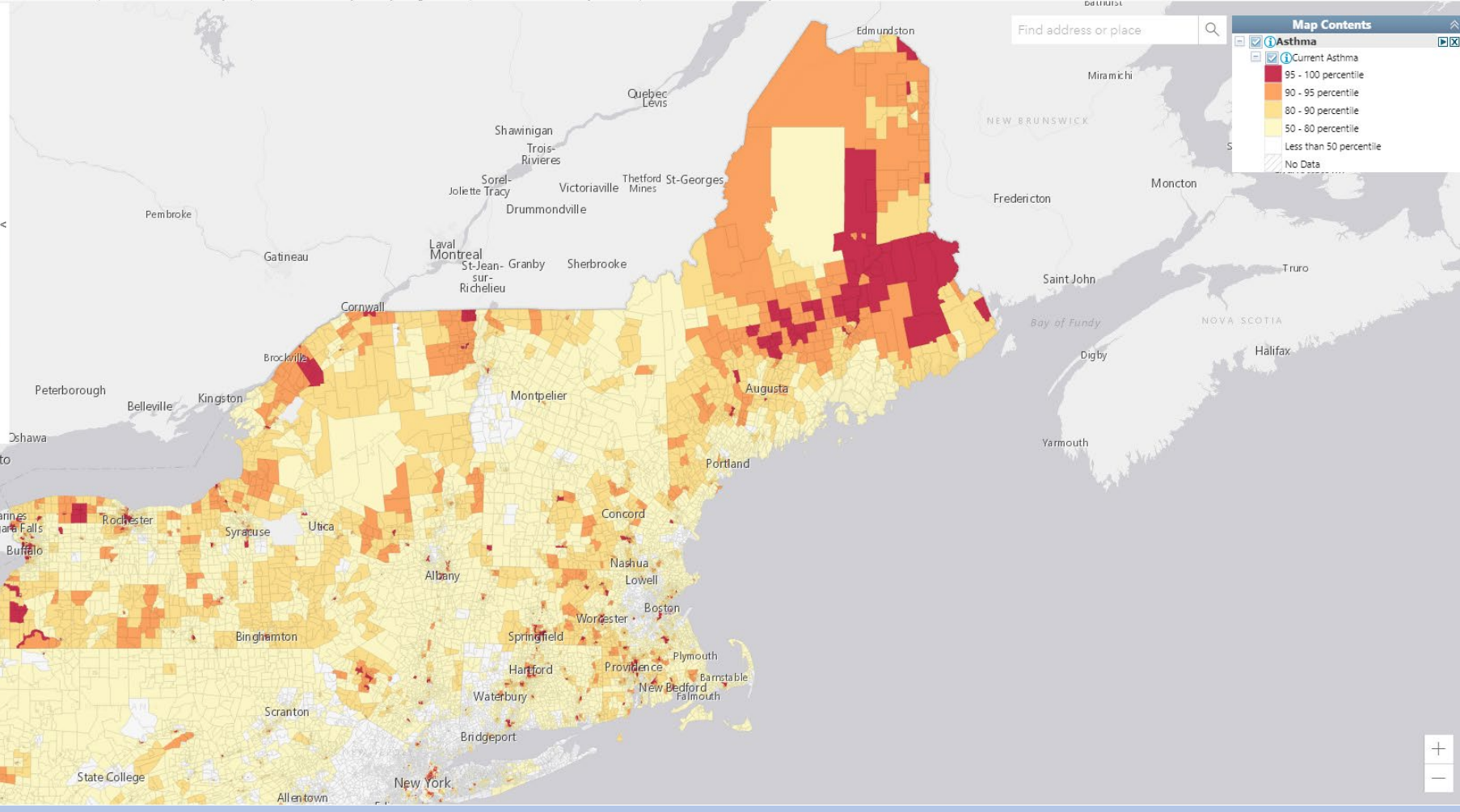
10/18/2024

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Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the indicators may not be available for territories.

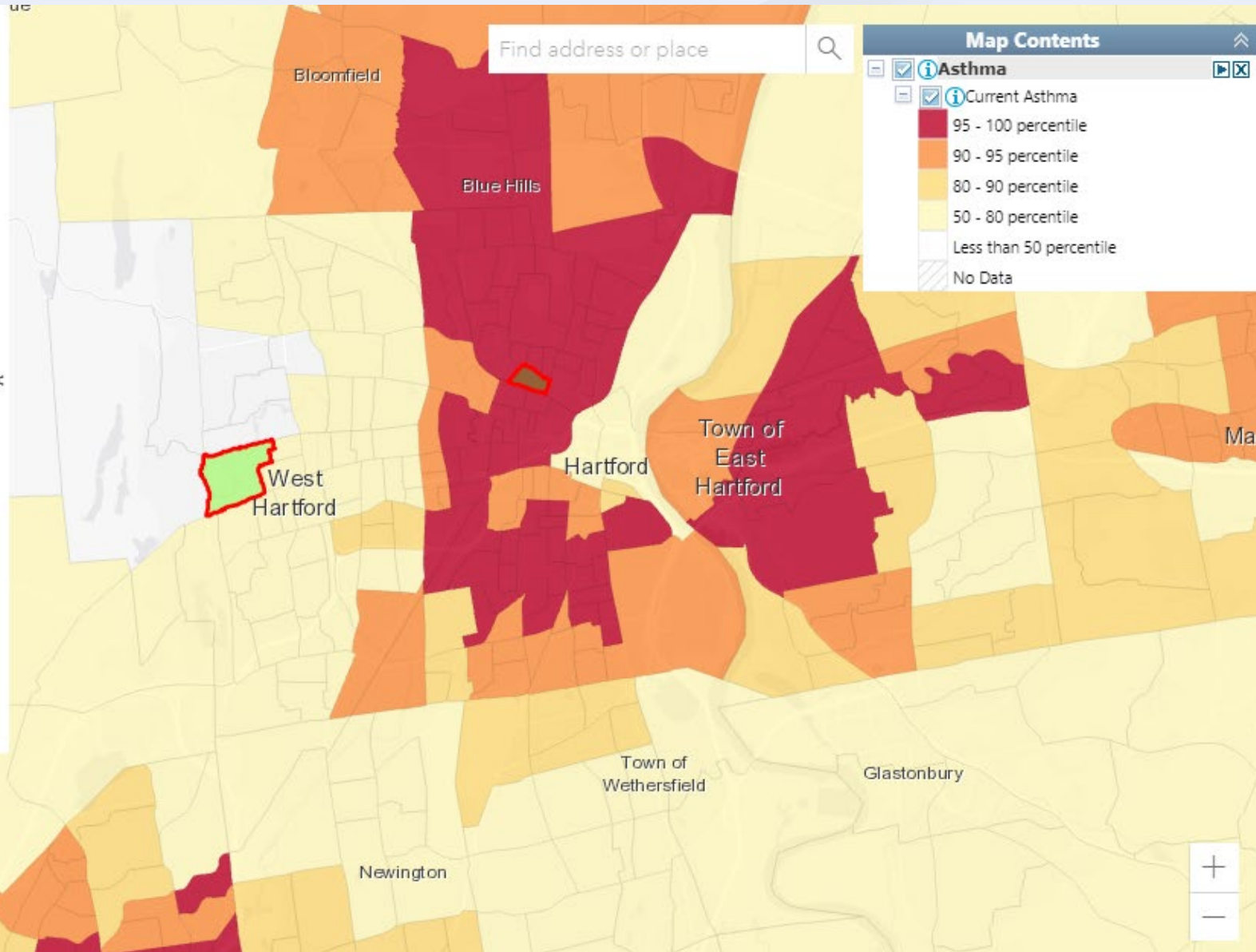
Compare to US Compare to State

- Environmental Burden Indicators
- Socioeconomic Indicators
- Environmental Justice Indexes
- Supplemental Indexes
- Climate Change
- Health Disparities**
 - Low Life Expectancy
 - Heart Disease
 - Asthma**
 - Cancer
 - Persons with Disabilities
- Critical Service Gaps



Compare to US
 Compare to State

- Environmental Burden Indicators
- Socioeconomic Indicators
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Hartford, CT

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	22%	18%	91	20%	78
Heart Disease	5.6	5.3	64	5.8	49
Asthma	16	11.1	99	10.3	99
Cancer	4.2	7	7	6.4	11
Persons with Disabilities	11.7%	11.8%	56	13.7%	42

West Hartford, CT

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	13%	18%	8	20%	5
Heart Disease	4.5	5.3	18	5.8	25
Asthma	10.4	11.1	30	10.3	56
Cancer	7.8	7	69	6.4	79
Persons with Disabilities	4.9%	11.8%	3	13.7%	3

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