DATA MINING FOR HEALTH IMPACTS FOR MAC GRANTS

Technical Assistance to Brownfields Program

EPA Region 1

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WHAT IS PUBLIC HEALTH?

The "science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing and responding to infectious diseases. Overall, public health is concerned with protecting the health of entire populations. These populations can be as small as a local neighborhood, or as big as an entire country or region of the world. . . . Public health also works to limit health disparities. A large part of public health is promoting health care equity, quality and accessibility."

What is Public Health? | CDC Foundation

UCONN

PUBLIC HEALTH SURVEILLANCE

"Public health surveillance is the continuous and systematic collection, orderly consolidation and evaluation of pertinent data with prompt dissemination of results to those who need to know, particularly those who are in a position to take action…Effective disease control programs rely on effective surveillance and response systems."

Public Health Surveillance | WHO

SO WHY IS PUBLIC HEALTH RELEVANT TO BROWNFIELD REDEVELOPMENT?

PUBLIC HEALTH AND BROWNFIELDS

Why Public Health Matters:

- Brownfields often contain legacy contaminants (lead, asbestos, solvents)
- Exposure linked to asthma, cancer, cardiovascular disease, developmental delays (children)
- Health framing strengthens EPA Brownfields grant applications

Key Connections:

- Brownfields disproportionately burden vulnerable communities
- Cleanup reduces exposure → better health outcomes and equity
- Healthier environments support economic redevelopment & quality of life

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FY26 GUIDELINES REVIEW CRITERIA

2.c. Greater Than Normal Incidence of Disease and Adverse Health Conditions

1. The extent to which this grant and reuse strategy/projected site reuse(s) will **address, or help identify and reduce, threats** to populations in the target area(s),
2. with a **greater-than-normal incidence of diseases or conditions** (including **cancer, asthma, or birth defects**),
3. that may be associated with **exposure to hazardous substances**, pollutants, contaminants, or petroleum.

*Note, if populations in the target area(s) **do not suffer** from a greater-than-normal incidence of cancer, asthma, or birth defects, then the response may only earn up to 2 out of 5 points.*

SENSITIVE POPULATIONS

Sensitive populations are those populations that are likely to experience elevated health risks from pollution, including populations based on age (young children and the elderly), pregnant women, and serious disease burden (such as, high rates of cancer, asthma, chronic respiratory disease, coronary heart disease, low birth weights, etc.), as well as low-income populations.

PUBLIC HEALTH DATA TO INCLUDE

Key Inclusions

- Rates of Asthma
- Rates of Cancer
- Birth Defects

Examples of Other Inclusions (if needed)

- Heart Disease
- Chronic Obstructive Pulmonary Disease
- Blood Lead Levels
- Pregnant women (fertility)

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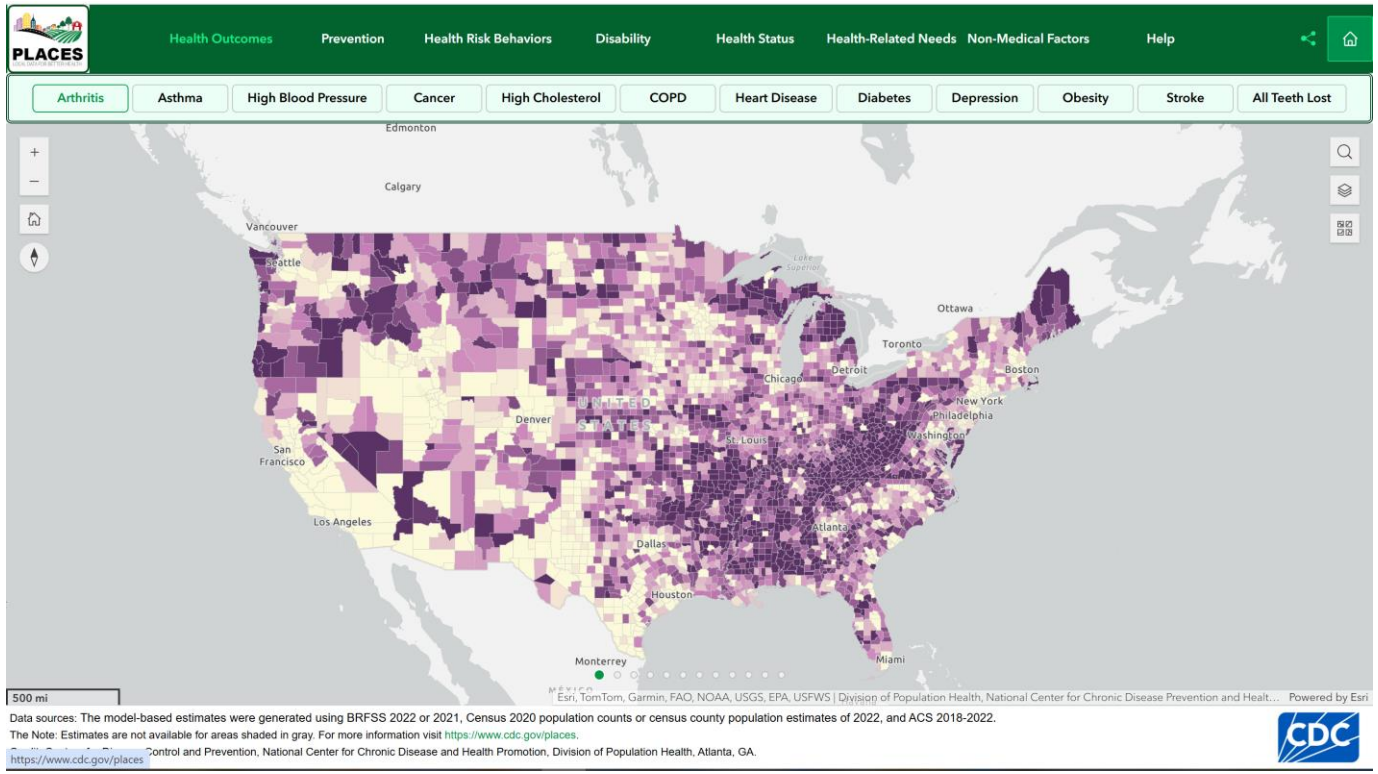
U.S. CDC PLACES

Data* (%) for County or Census Tract

- Health Outcomes tab: prevalence of asthma and cancer
- Prevention tab: prevalence of lack of health insurance
- Disability tab: prevalence of different types of disabilities
- Health-Related Needs tab: prevalence of received food stamps, food insecurity, housing insecurity, lack of utility services, transportation barriers
- Non-Medical Factors tab: ACS demographic data

*Note that this data is from a statistical model based on a survey and NOT actual incidence rates



https://www.cdc.gov/places/tools/interactive-map-tool.html

Very useful data source for Section 2.c. of EPA brownfields grant

WHAT IS PREVALENCE?

- Based on responses to a survey that were extrapolated to larger geographic units using a model

- Example of cancer prevalence:

Survey Question: *Have you ever been diagnosed with any type of cancer except skin cancer by a health professional?*

$$\text{Cancer Prevalence \%} = \frac{\text{Number of survey respondents who said yes}}{\text{Total number of respondents}}$$

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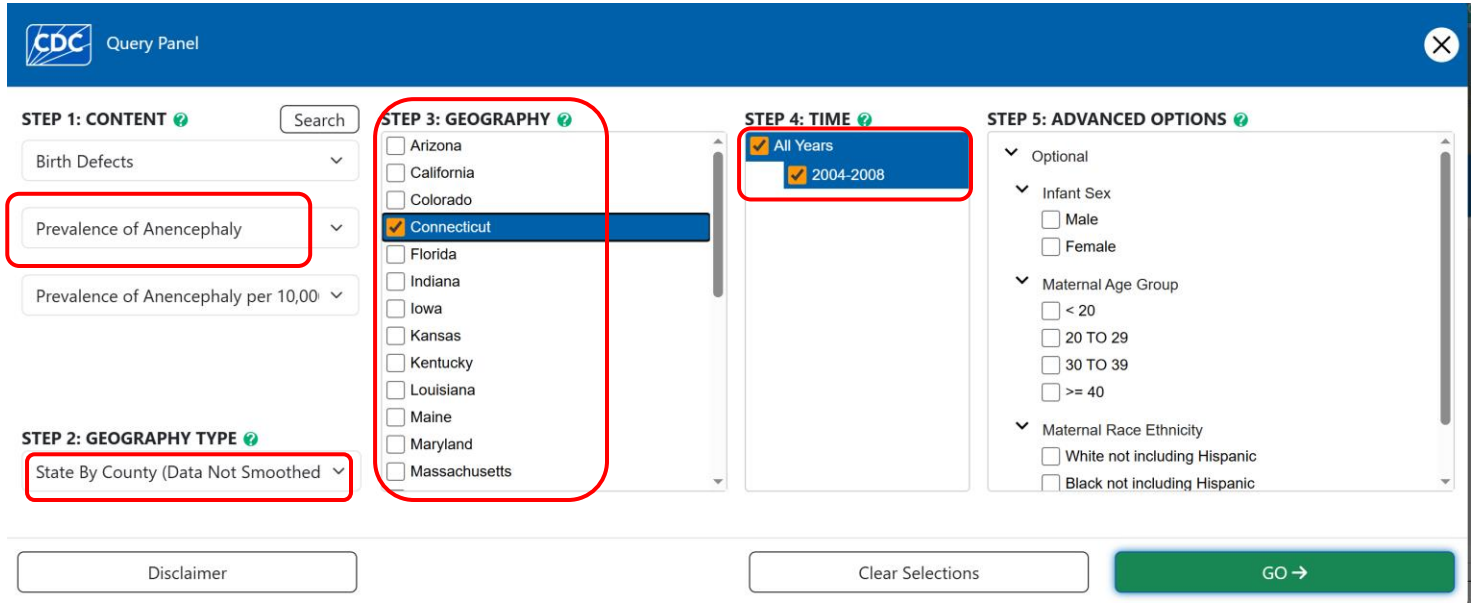
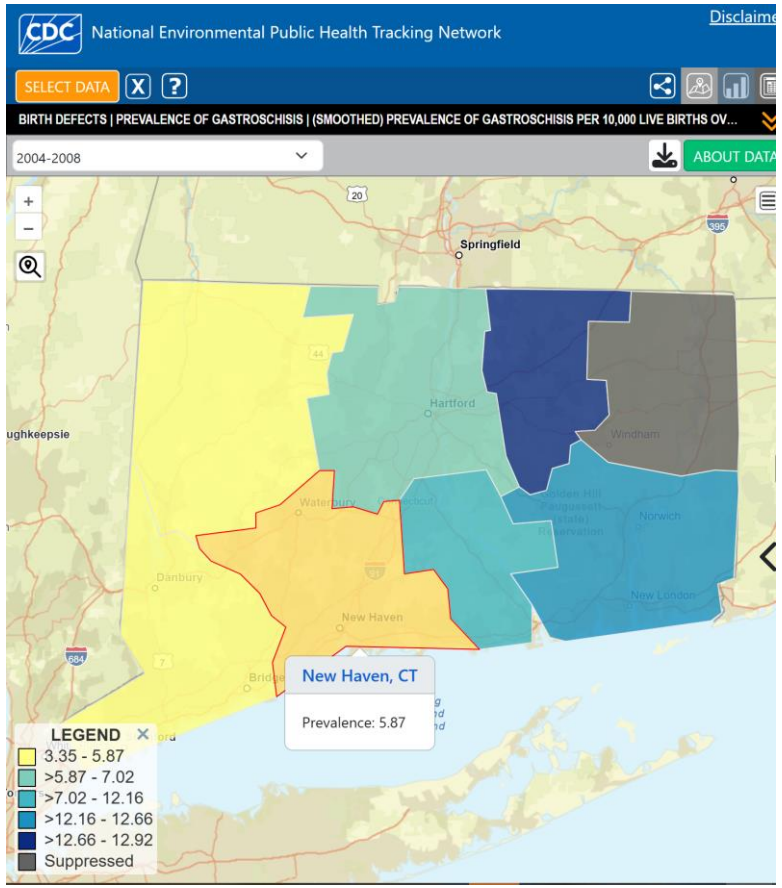
U.S. CDC NATIONAL ENVIRONMENTAL PUBLIC HEALTH TRACKING NETWORK

Data (counts or %) for State or County

Must search by particular types of birth defects/cancers, etc.



Fill out the Query Panel first (tip: search for prevalence, not average annual counts)



Output = map, data appears by scrolling with curser

https://ephtracking.cdc.gov/DataExplorer/?c=5

Only data source for birth defects
Data is difficult to obtain and mostly unstable

WHAT DATA SHOULD YOU USE?

If needed, look for additional state health data resources (e.g. blood lead levels)

Use indicators from PLACES and Environmental Public Health Tracking Network that are greater than national or state averages

RESOURCES: CT ASTHMA RATES

CT.gov Home / Department of Public Health / Asthma Surveillance

- Services and Programs
- Regulation & Licensure
- Vital Records
- Newsroom
- DPH Advertising and Communications Videos
- Topics A-Z
- Statistics and Research
- Forms
- Publications
- Boards and Commission Meeting

Asthma Surveillance & Epidemiology

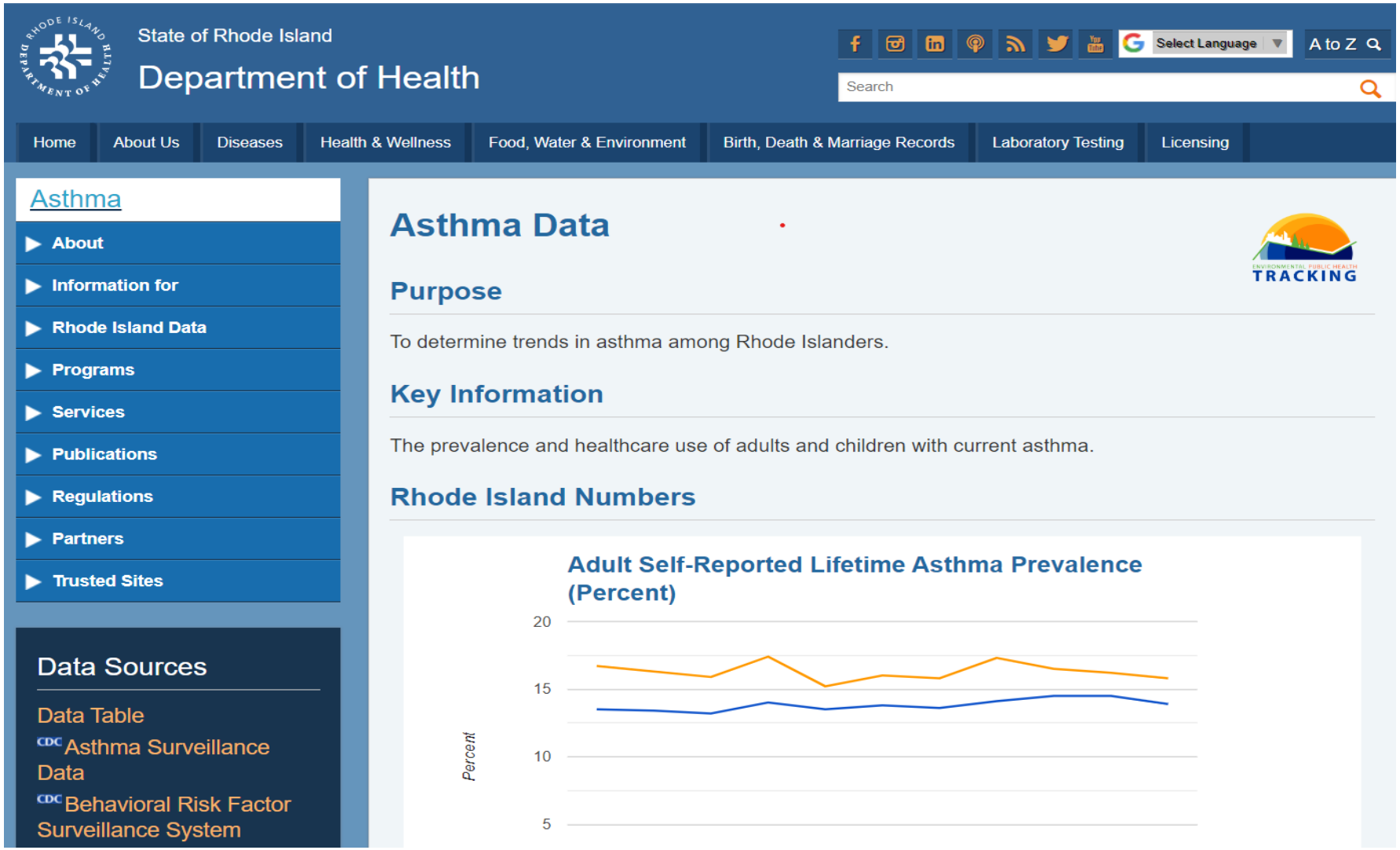
Surveillance activities are one of five Infrastructure strategies under CDC's Cooperative Agreement (CA) on comprehensive asthma control (2014-2019). Under the Cooperative Agreement, the goal of Surveillance Infrastructure strategy is to maintain and enhance a statewide surveillance system, collect and 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.

CT Department of Public Health

RESOURCES: RI ASTHMA RATES



RI Department of Health

RESOURCES: MA ASTHMA RATES

Mass.Gov EOHHS Skip to main content

Massachusetts Environmental Public Health Tracking

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TUTORIALS

HOME ABOUT PLANNING & TOOLS HEALTH ENVIRONMENT INSPECTIONS & LICENSES

Asthma Overview

EXPLORE 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

MA Department of Public Health

RESOURCES: ME ASTHMA RATES

Maine Tracking Network

Contact | News

Search tracking Search

Home | News & Success Stories | Tools & Resources | About Us

Home → Asthma

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

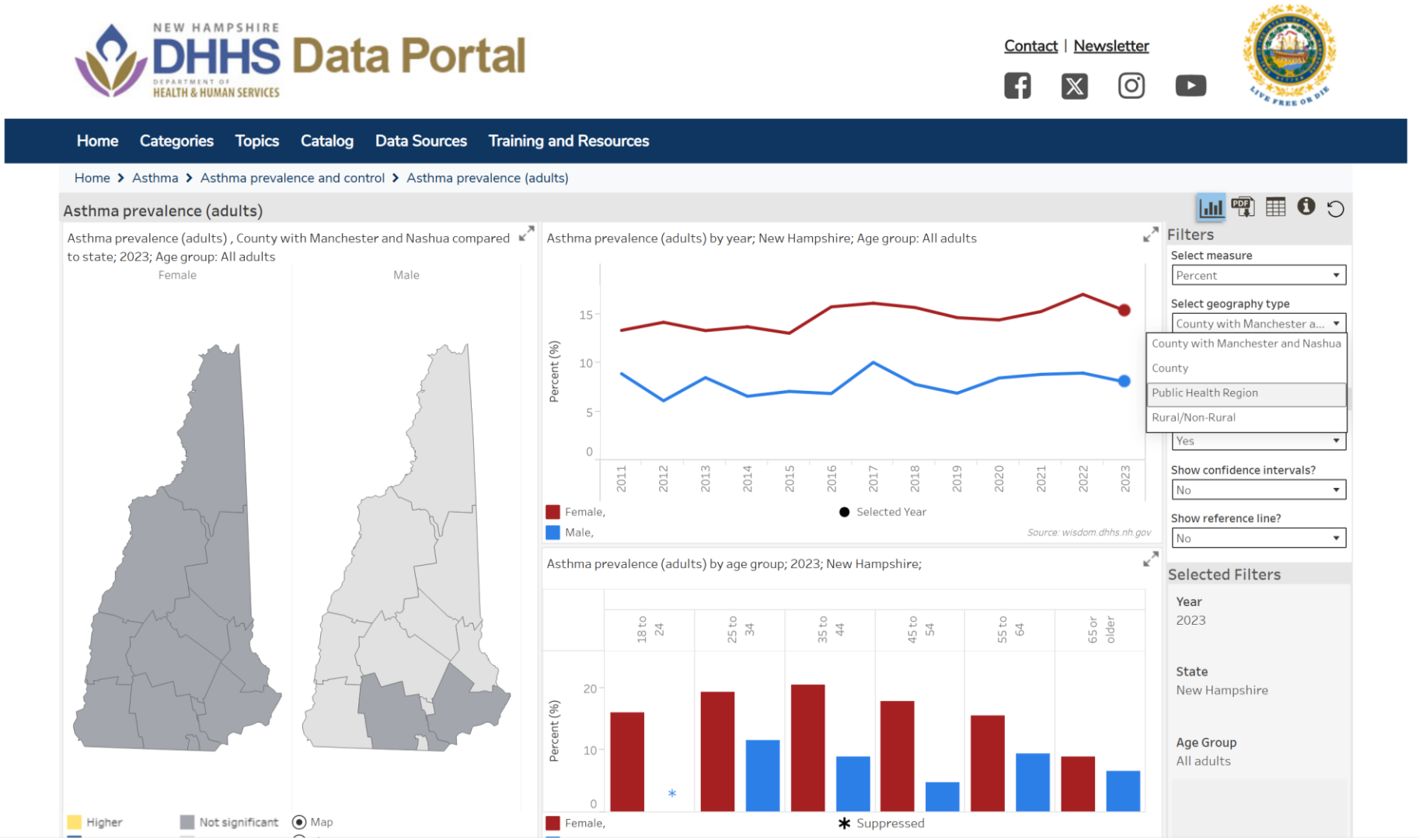
Asthma Emergency Department (ED) Visits

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
County	Age-Adjusted Rate	2016-2020	Both	All Ages

ME Center for Disease Control and Prevention

RESOURCES: NH ASTHMA RATES



[NH Department of Health and Human Services]

RESOURCES: VT ASTHMA RATES

MENU VERMONT DEPARTMENT OF HEALTH I am searching for... Translations for you

Home / Health Promotion & Chronic Disease Prevention / **Asthma & Lung Disease**

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

VT Department of Health

STATE DATA SOURCES FOR CANCER

State	Website	Data Type
CT	CT DPH | CT Tumor Registry	Data for different types of cancer by town, county, statewide for different time periods
RI	RI Department of Health | Cancer Registry	Data reports for different types of cancer by age and racial/ethnic group
MA	MA Environmental Public Health Tracking | Cancer	Click on Explore Maps and Tables, age-and-gender-specific cancer rates for county, town, public health region, or census tract
ME	ME CDC Cancer Registry | Annual Cancer Snapshot	Annual Cancer Snapshot includes data at the county level
NH	NH DHHS Data Portal | Cancer Incidence	Cancer incidence rates by county, public health region, and rural/non-rural
VT	VT Department of Health | Cancer Data	Navigate to “Vermont Cancer Data Pages” or “Vermont Cancer Dashboard” for cancer incidence rates by county

EXTRA - STATE DATA SOURCES FOR LEAD EXPOSURE

State	Website	Data Type
CT	Connecticut Data | Childhood Lead Poisoning Surveillance - Prevalence	Screening: incidence, prevalence, number, and percent by town and statewide
RI	RI Department of Health | Childhood Lead Poisoning Data	Screening: incidence, and prevalence, by town and statewide
MA	Mass.gov | Lead Data and Reports	Surveillance reports, screening, prevalence, and maps, by year, town, and statewide
ME	ME DHHS Maine Tracking Network | Childhood Lead Poisoning	Screening: BLL, risk factors, number, percent, and maps, by year, county, town, and statewide
NH	NH DHHS Data Portal | Childhood blood lead levels	Screening: prevalence, and maps, by year, county, town, and statewide
VT	Vermont Department of Health | Childhood Lead Poisoning	Screening: prevalence, percent, and maps, by year, county, town, and statewide

NOTES FOR GRANT NARRATIVE

FY 26 Section 2.c. Greater Than Normal Incidence of Disease and Adverse Health Conditions

….that may be associated with **exposure to hazardous substances**, pollutants, contaminants, or petroleum

Do **NOT** say that brownfields cause asthma, cancer, or birth defects

More appropriate language is *"Exposure to contamination from the brownfield sites places an additional burden on the sensitive populations and may exacerbate adverse health effects such as XYZ"*

OTHER GRANT RESOURCES

Webinars:

- Planning for a Successful Fall EPA Brownfield Grant Application
- EPA Webinar: FY26 Narrative Criteria for Multipurpose and Assessment Grant funding
- EPA Webinar: FY26 Narrative Criteria for Cleanup Grant funding
- Rural Communities and Grant Support

Webpages & Factsheets:

- Summary of FY26 BF MAC Grant Guideline Changes
- Tips on How to Get Started Early on Preparing Your Brownfields MAC Grant Application
- List of Entities Eligible to Apply for Multipurpose, Assessment, and Cleanup Grants
- Programmatic Requirements for Brownfield Grants
- Eligible Planning Activities
- Information on Sites Eligible for Brownfields Funding under CERCLA § 104(k)
- FY26 FAQs
- UConn TAB Grant Proposal Review

UConn TAB Brownfield Grant Office Hours:

Tuesdays 12:00-12:30 pm

Join Here: https://uconn-cmr.webex.com/uconn-cmr/j.php?MTID=m8394d51274f8578a5939ab92bd3b9752

Meeting number: 2870 154 3181 Password: MMcNPpaB687