

Using Public Health Data for FY24 MAC Grants

Technical Assistance for Brownfields Program
EPA Region 1

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Learning Objectives for today's webinar

1. Understand evaluation criteria for section 2a.ii (2) in MAC grants
2. Use EJSCREEN to obtain Public Health indicators for your Target Area
3. Use supplemental data sources for asthma and cancer data



Disclaimer – Background knowledge

- This webinar builds on the 10/6/23 webinar on EJSCREEN that introduces basic concepts, using maps and reports, and identifying Target Areas
- It is assumed that the Target Area has been identified based on demographics
- Examples build on those previously used for EJSCREEN webinar
- Proposed narratives are NOT taken from submitted proposals



Greater Than Normal Incidence of Disease and Adverse Health Conditions

Evaluation Criteria

1. The extent to which this grant and revitalization plan(s) will **address, or facilitate the identification and reduction of threats**, to populations in the target area,
2. that suffer from 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 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.)



National Public Health Data Sources

EJSCREEN

- Data at **census tract** level: Cancer, Asthma, Heart Disease
- Original data source is PLACES (see below)
- Low Life Expectancy (based on a [CDC model](#))

PLACES

- 13 health outcomes at census tract level
- Note that this is data from a statistical model based on a survey and NOT actual incidence rates

National Environmental Public Health Tracking Network

- Various data at county level, including birth defects (data difficult to obtain and mostly unstable)



What is Prevalence of Cancer?

- It is based on responses to a survey that were extrapolated to larger geographic units using a model
- Survey Question: *Have you ever been diagnosed with any type of cancer except skin cancer by a health professional?*
- *Cancer Prevalence % =*
$$\frac{\text{Number of survey respondents who said yes}}{\text{Total number of respondents}}$$



Example EJSCREEN report data – Caribou, ME Census Tract 9514

HEALTH INDICATORS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	20%	19%	59	20%	57
Heart Disease	7.8	7.1	71	6.1	81
Asthma	11.3	10.9	65	10	84
Cancer	7.2	7.3	47	6.1	74
Persons with Disabilities	23.5%	16.3%	88	13.4%	93

Suggested Narrative:

The populations in the Target Area, including people with low income, people with age >65 and people with disabilities, disproportionately suffer from asthma (84th percentile nationally according to EJSCREEN) and cancer (74th percentile). These conditions are exacerbated by exposure to pollutants found at the site, such as asbestos and volatile organic compounds. This grant will facilitate the removal of these contaminants, directly reducing the health burdens to the sensitive populations.



Example – multiple Target Areas, Chittenden RPC

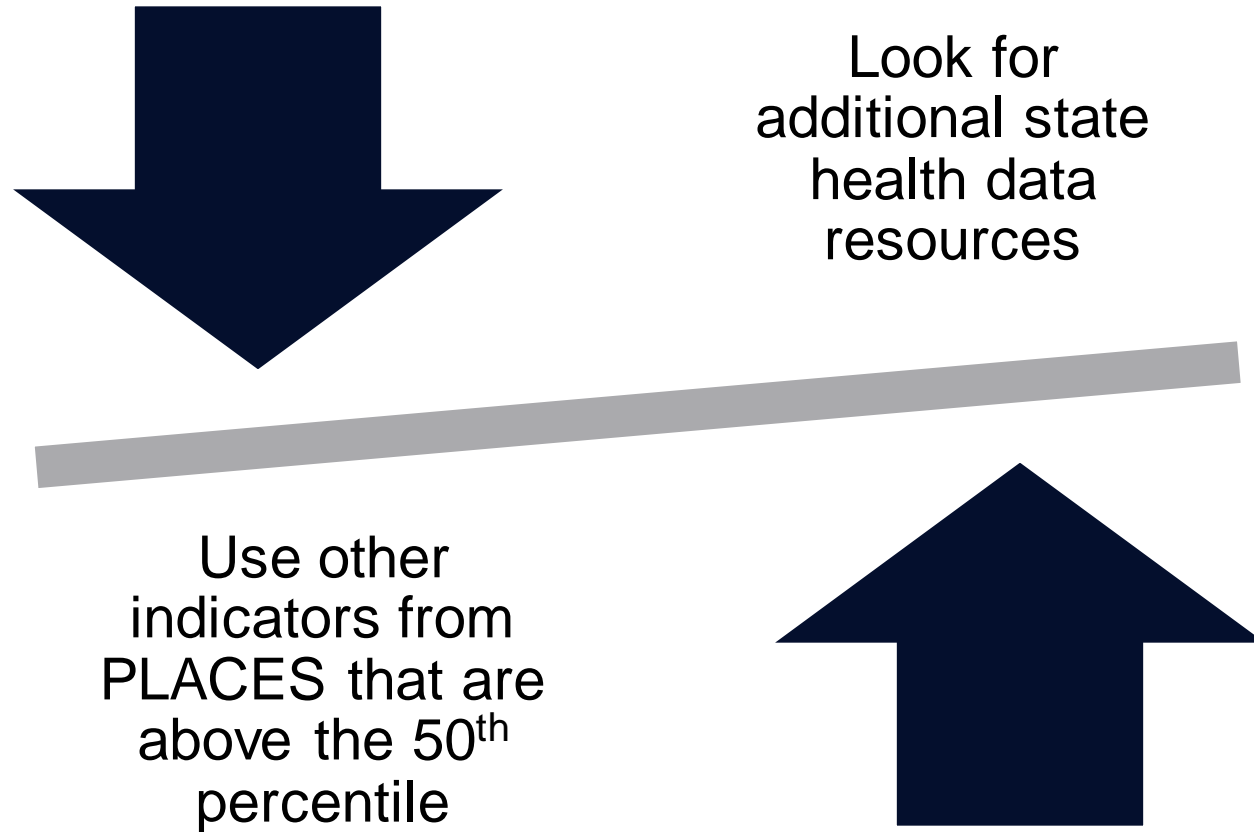
Winooski CDP		HEALTH INDICATORS			
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	22%	17%	93	20%	74
Heart Disease	5.1	6.1	19	6.1	31
Asthma	11.2	10.2	89	10	81
Cancer	5	6.9	6	6.1	26
Persons with Disabilities	14.6%	14.5%	62	13.4%	63

Burlington Census Tract 10		HEALTH INDICATORS			
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	20%	17%	83	20%	56
Heart Disease	5	6.1	19	6.1	28
Asthma	10.2	10.2	52	10	61
Cancer	5.5	6.9	9	6.1	35
Persons with Disabilities	11.4%	14.5%	31	13.4%	42

Both Target Areas have asthma prevalence that exceed the national average, with Winooski at the 81st percentile and Burlington Census Tract 10 at the 61st percentile according to EJSCREEN.



What if both EJSCREEN indicators are <math><50^{\text{th}}</math> percentile?



Cancer Incidence Data – United States Cancer Statistics

United States Cancer Statistics: Data Visualizations

At a Glance ▾ **Geography ▾** Trends ▾ Stage/Survival ▾ Prevalence ▾ Screening and Risk Factors ▾ Special Analysis ▾

CDC > Cancer Home > U.S. Cancer Statistics Home > Data Viz Tool



State/County/Territory

Area: County (2016-2020): New Cases (Incidence) or Deaths (Mortality): Cancer Type: Year: 2020 2016-2020

Cancer burden: Massachusetts

All Types of Cancer, 2016-2020

In **Massachusetts** from 2016-2020, there were **192,991 new cases of cancer**. For every 100,000 people, **448 cancer cases were reported**.

Over those years, there were **63,244 people who died of cancer**. For every 100,000 people in **Massachusetts**, **143 died of cancer**.

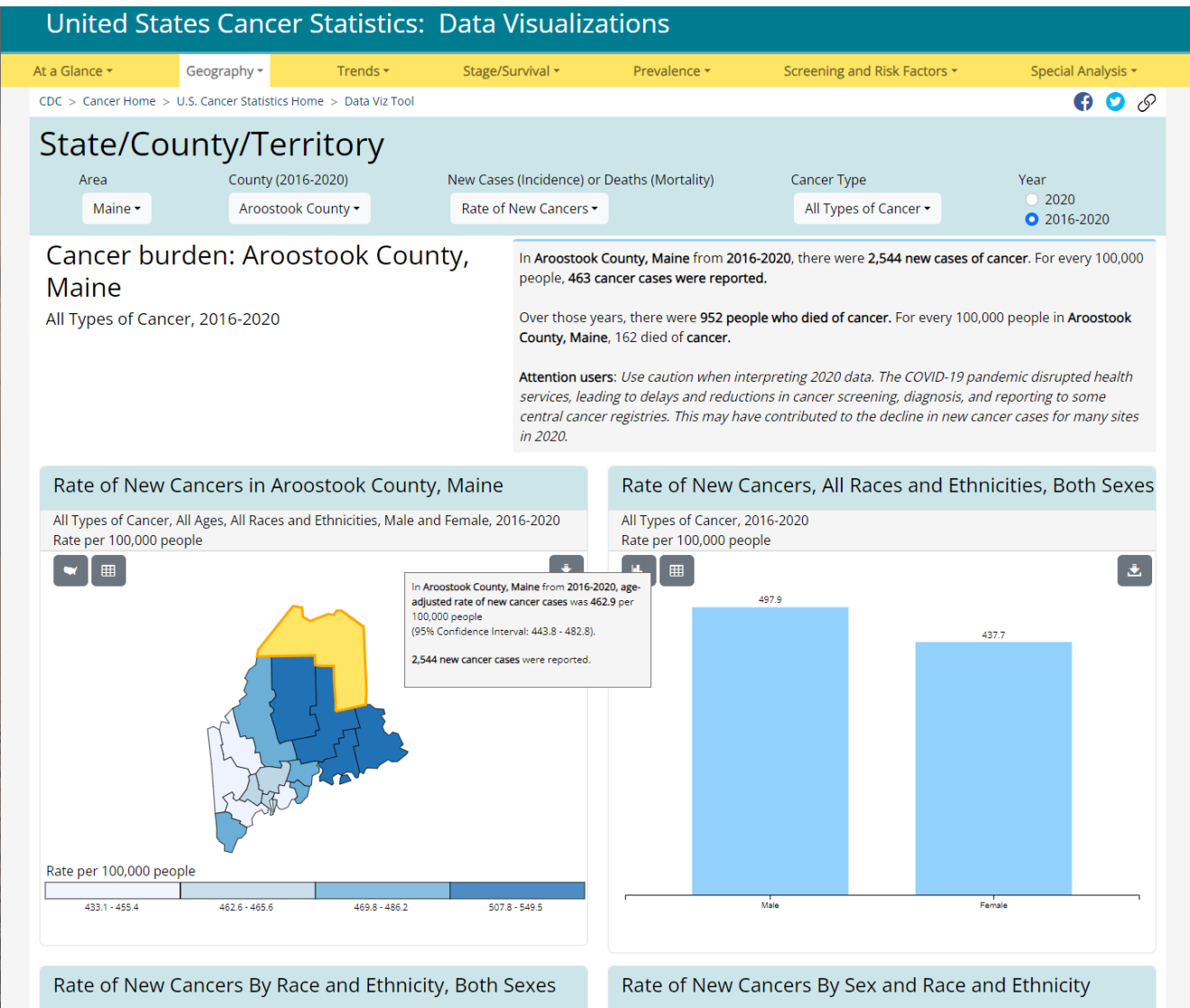
Leading Cancer Cases and Deaths, All Races and Ethnicities, Male and Female, 2016-2020

From 2016-2020, in the **United States**, **8,491,642 new cases of cancer** were reported, and **2,998,331 people died of cancer**. For every 100,000 people, **442 new cancer cases were reported** and **149 people died of cancer**.

These are your reference values to compare to your county



Example – how to use county-level data



Aroostook County (where Caribou is located) had cancer incidence rate of 463 per 100,000 people for the period 2016-2020 according to the U.S. Cancer Statistics. This exceeds the national average of 442 per 100,000.

Note: if the value is greater than the state average you can also mention that, but it is not the case here

State data sources for cancer

	Site	Data
CT	The DPH Interactive Map of CT Tumor Registry	data for different types of cancer by town for two time periods: 1998-2002 and 2010-2014
MA	https://matracking.ehs.state.ma.us/Health-Data/Cancer/index.html#MyPopup	Click on Explore Maps and Tables Massachusetts age- and gender-specific cancer rates applied to local (i.e., community or census tract) population
ME	https://www.maine.gov/dhhs/mecdc/public-health-systems/data-research/vital-records/mcr/reports/index.htm	Annual Cancer Snapshot includes data at the county level
NH	https://wisdom.dhhs.nh.gov/wisdom/topics.html?topic=cancer	Cancer Incidence Rates by county and and public health region
VT	https://www.cdc.gov/nceh/tracking/profiles/Vermont_Profile.htm Navigate to Sub-county Cancer Data	~100 areas compared statistically to the state average, 7 difference cancer types



State data sources for asthma

	Site	Data
CT	https://portal.ct.gov/DPH/Health-Education-Management--Surveillance/Asthma/Asthma-Surveillance---GIS	Asthma Emergency Department and Hospitalization Rates by Census Tract and by town
MA	https://matracking.ehs.state.ma.us/Health-Data/Asthma/index.html Explore Maps and Tables	ED visits and hospitalizations, pediatric prevalence by town, county and statewide data also available for comparison
ME	https://data.mainepublichealth.gov/tracking/asthma	Click on Town Data for ED visits per 10,000 people
NH	https://wisdom.dhhs.nh.gov/wisdom/topics.html?topic=asthma	Asthma hospital visits and hospitalizations by county and public health region
RI	https://health.ri.gov/data/epht/ Explore RI Data	Asthma ED, hospitalization, prevalence, by county and statewide
VT	https://www.healthvermont.gov/tracking/asthma	Asthma ED, hospitalization, by county and statewide



Birth defects – only one source

National Environmental Public Health Tracking Network

CDC Query Panel ×

STEP 1: CONTENT ? Search

Birth Defects ▼

Prevalence of Trisomy 21 ▼

Prevalence of Trisomy 21 p ▼

STEP 2: GEOGRAPHY TYPE ?

State By County (Data Not ▼)

STEP 3: GEOGRAPHY ?

Arizona

California

Colorado

Connecticut

Florida

Iowa

Kansas

Kentucky

Louisiana

Maine

Maryland

Massachusetts

Michigan

STEP 4: TIME ?

All Years

2004-2008

STEP 5: ADVANCED OPTIONS ?

Optional

Infant Gender

Male

Female

Maternal Race Ethnicity

White not including Hispanic

Black not including Hispanic

Other not including Hispanic

Hispanic

Disclaimer

Clear Selections

GO →

11 more categories

County level data



Extra – Childhood Pb poisoning

	Site	Data
CT	Childhood Lead Poisoning Surveillance Report	Number of cases >5 µg/dL by town
MA	MA Tracking Network Lead Poisoning Page	Town-specific screening and Pb blood levels data
ME	https://data.mainepublichealth.gov/tracking/lead	Click on Town data, Topic: Pb poisoning, towns with percent >8.8 exceed the state average
NH	https://wisdom.dhhs.nh.gov/wisdom/topics.html?topic=childhood-lead-poisoning	Results by Town, different age groups, Pb blood levels exceeding 5 ug/dL
RI	https://health.ri.gov/data/epht/	Click on Explore RI data -> Childhood Pb poisoning -> Percent of children tested with between 5 and 10 and exceeding 10 ug/dL, data only up to 2014
VT	https://www.healthvermont.gov/environment/tracking/childhood-lead-poisoning	Not available online, email AHS.VDHVTEPHT@vermont.gov

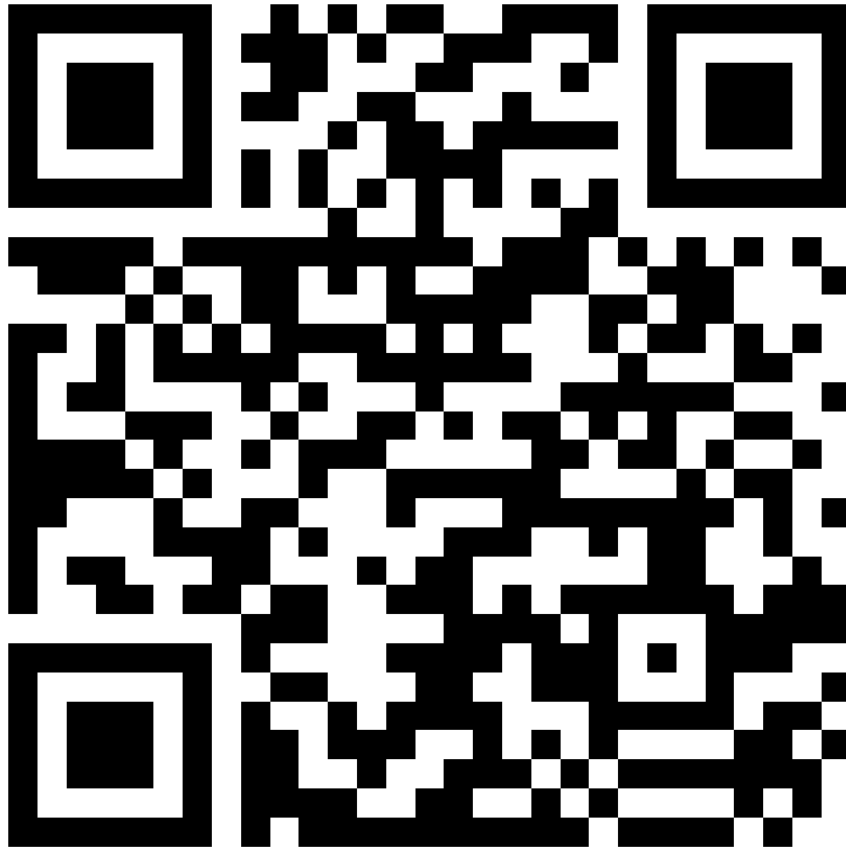


....that may be associated with **exposure to hazardous substances**, pollutants, contaminants, or petroleum

- Do NOT say that brownfields cause asthma 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”*



Please give us feedback!



<https://forms.office.com/r/hF1qA27ci9>

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