Information Systems to Advance Environmental Justice

State Environmental Justice Training Webinar

Wisconsin Department of Health

Texas Commission on Environmental Quality

U.S. Environmental Protection Agency

September 10, 2020

Introduction

- Information Systems to Advance Environmental Justice

- Important Logistical Information

Charles Lee

Senior Policy Advisor for Environmental Justice
U.S. Environmental Protection Agency

Moderator

https://www.epa.gov/environmentaljustice/environmental-justice-learning-center

Overarching Messages

1. Transition from screening-level to refined EJ analysis
2. Link EJ to public health
3. Take action with data; demonstrate environmental and public health results
4. Make data user-friendly; promote transparency and stakeholder input
5. EJ approaches can now be learned and replicated; each presentation provides examples

Tracking 101: Wisconsin Environmental Public Health Tracking

Constance Bell
Health Educator
Bureau of Environmental and Occupational Health
Division of Public Health
Wisconsin Department of Health

TRACKING 101

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING

EPA Environmental Justice Webinar 9/10/2020

Bureau of Environmental and Occupational Health

Division of Public Health

Wisconsin Department of Health Services

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Agenda

YOUR SOURCE FOR ENVIRONMENTAL PUBLIC HEALTH DATA.

TRACK.

Explore the data, compare counties, age groups, and years

ANALYZE.

Create charts, maps, and tables to visualize and interpret the data

ACT.

Use the data to target education, programming, and policies to address your community's needs

Our Target Audiences

Local and Tribal health departments

Academics, researchers, students

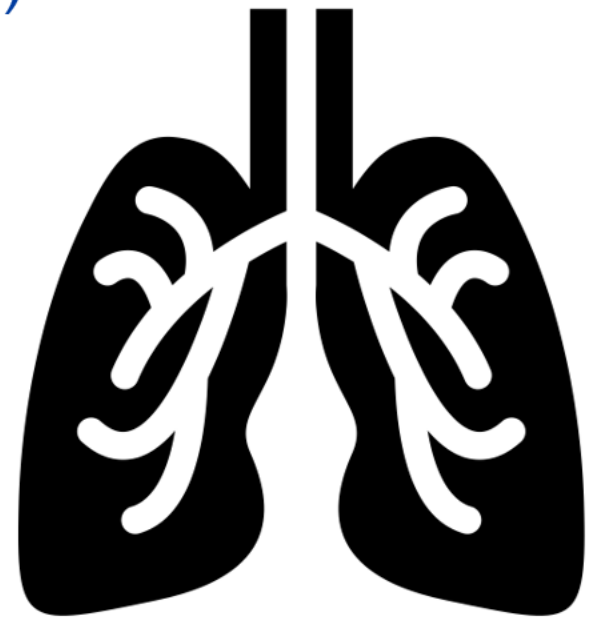
Nonprofits and advocacy groups

Health professionals

Policymakers

HEALTH HAZARD

(air pollution)



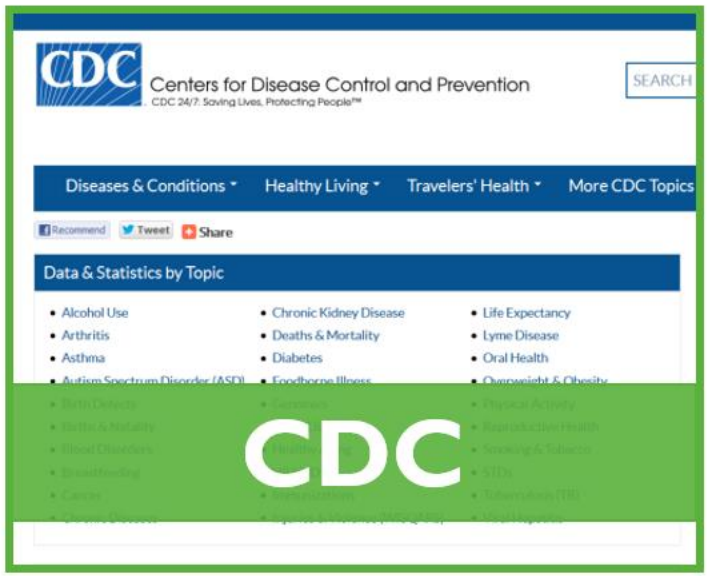
EXPOSURE

(breathing it in)

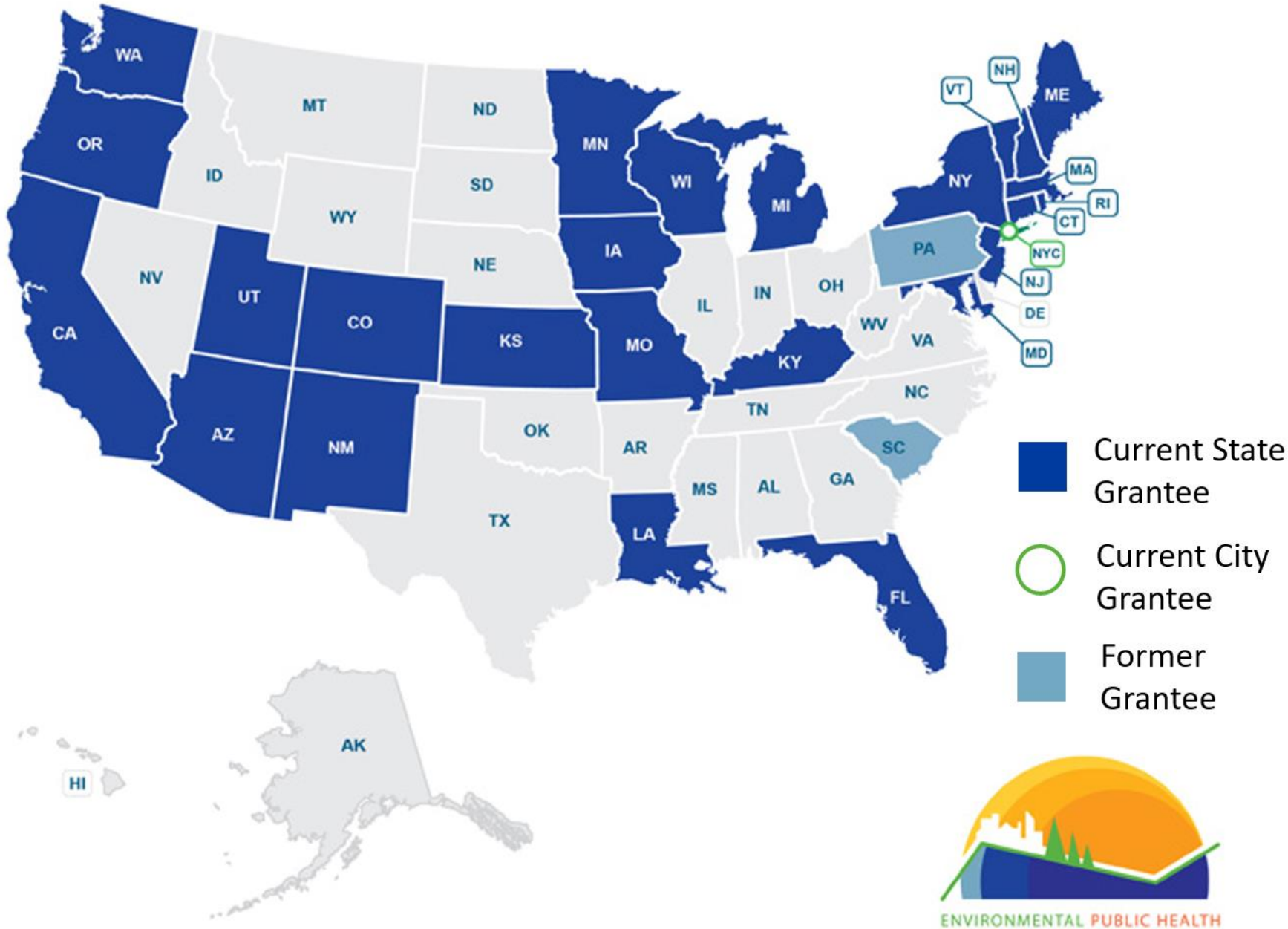
HEALTH EFFECT

(asthma)

To get the right data,
you might have to visit several databases.



To get the right data,
you might have to visit several databases.



August 2017

ENVIRONMENTAL PUBLIC HEALTH TRACKING

Data Topics (1)

Air quality

Alcohol outlet density (municipal)

Asthma

Birth defects

Cancer

Carbon monoxide poisoning

Childhood lead poisoning (census tract)

Data Topics (2)

Climate change

Chronic obstructive pulmonary disease

Community characteristics (census tract)

Community design (census tract)

Heart attack

Heat stress

Immunizations

Data Topics (3)

Lyme disease

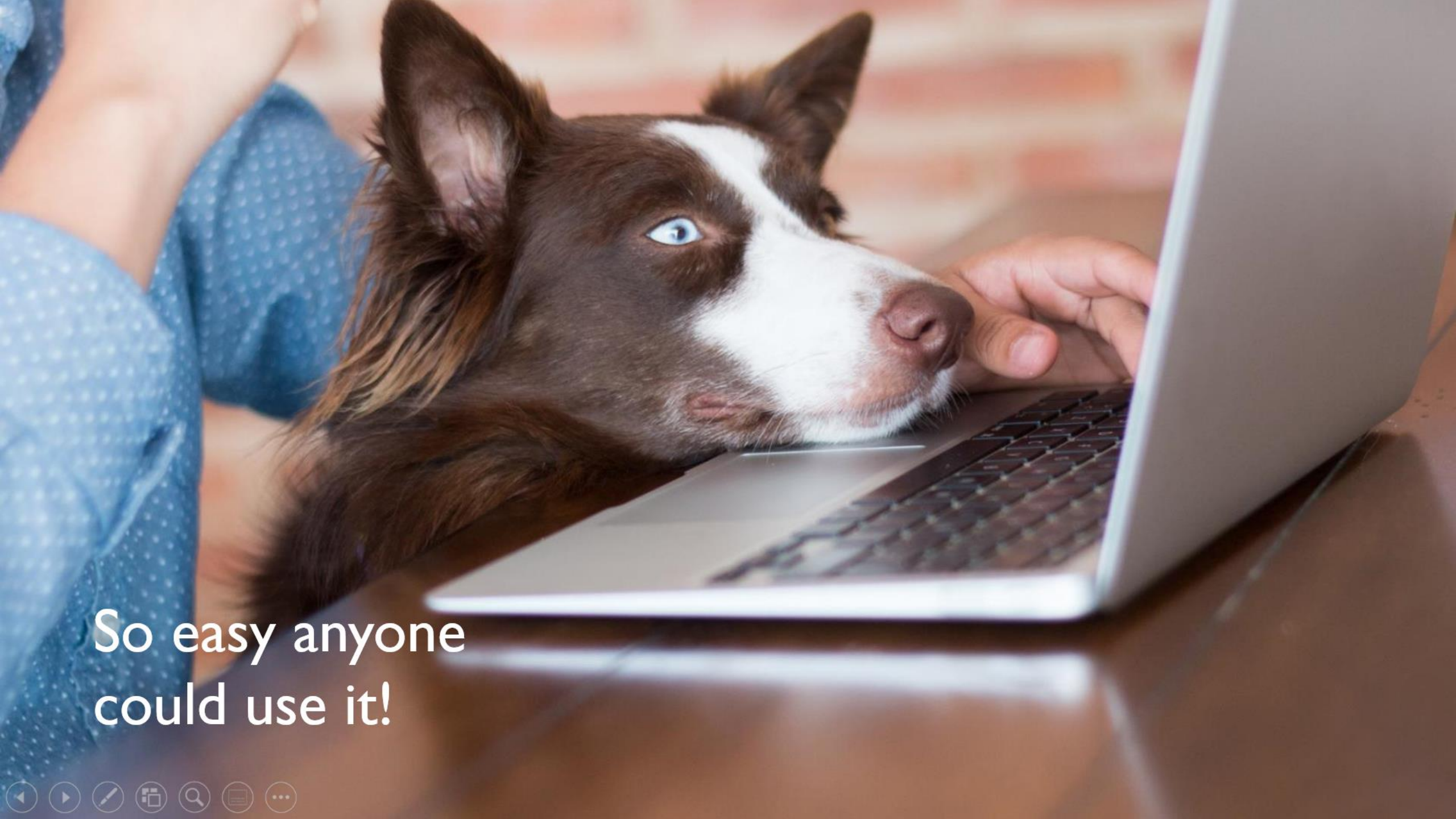
Oral health (fluoridation)

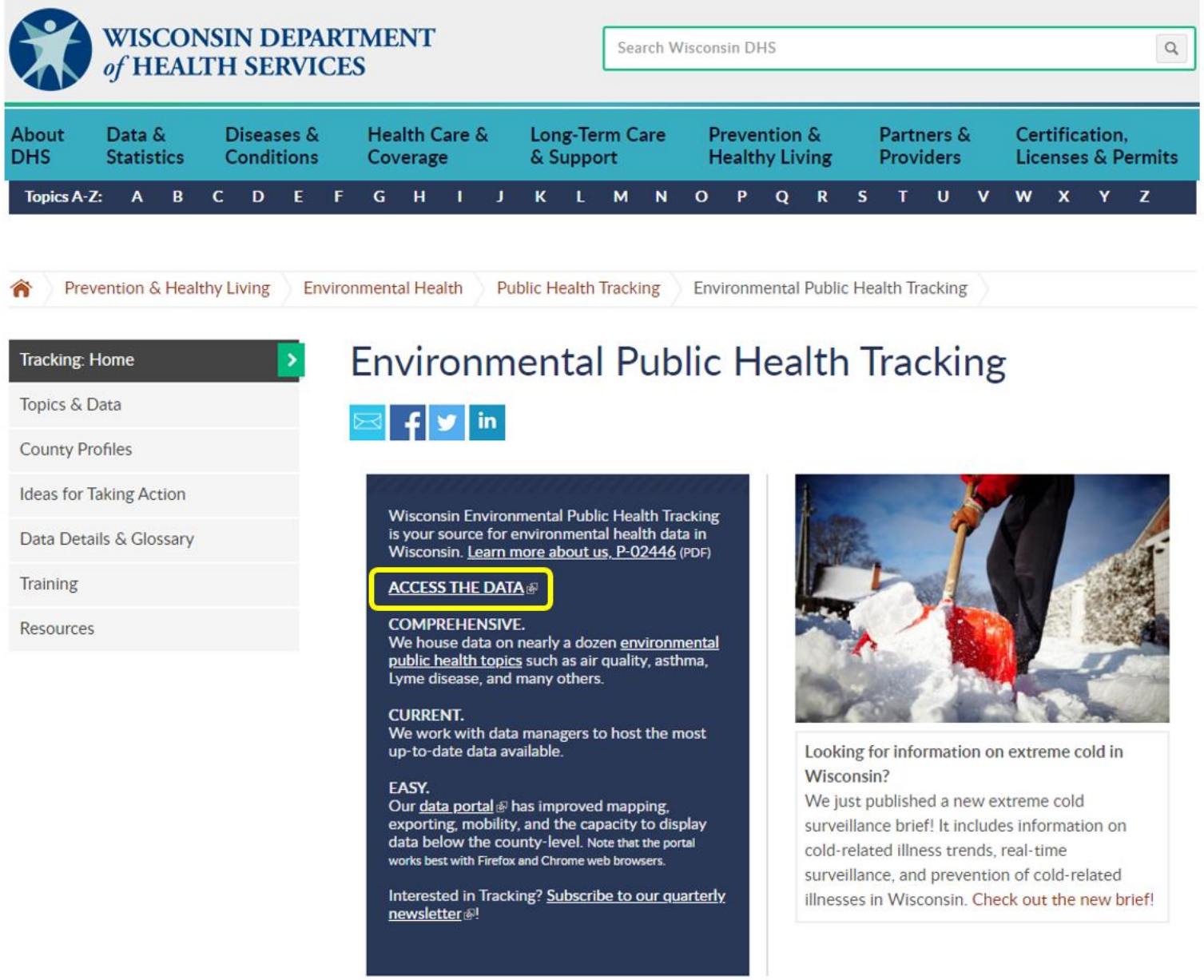
Populations and vulnerabilities (census tract)

Reproductive outcomes

Toxic air emissions (census tract)

Water quality

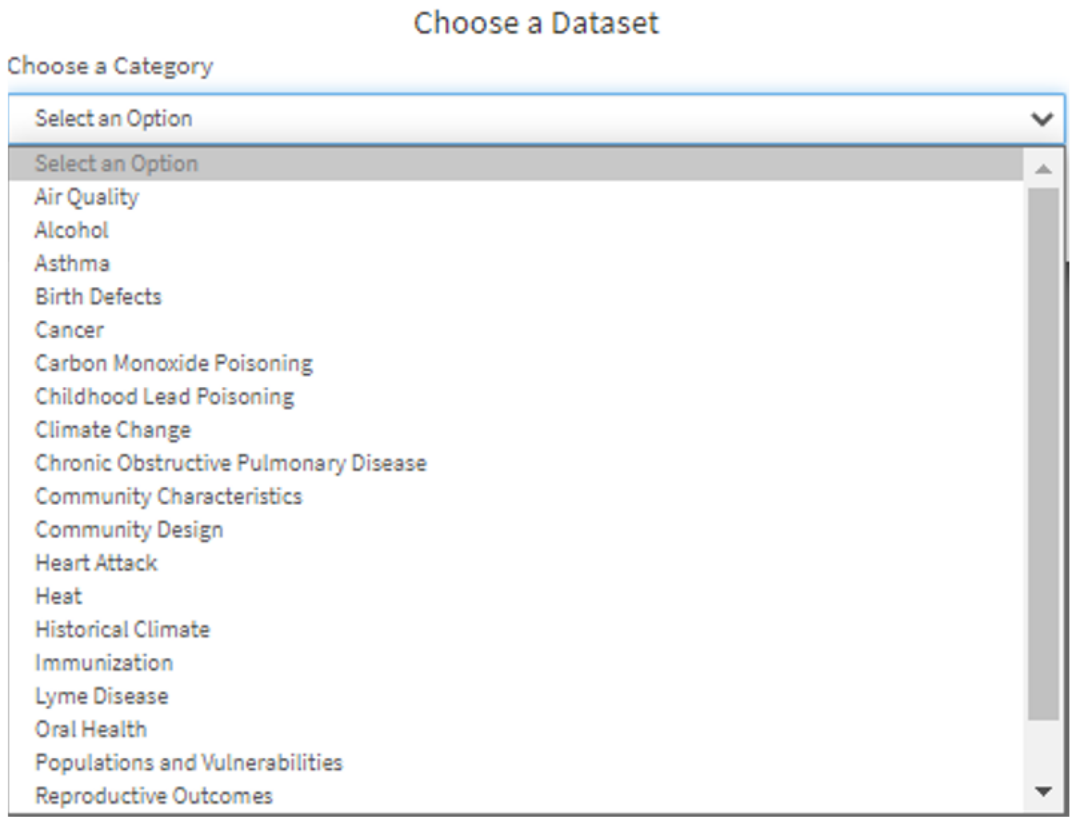

So easy anyone
could use it!



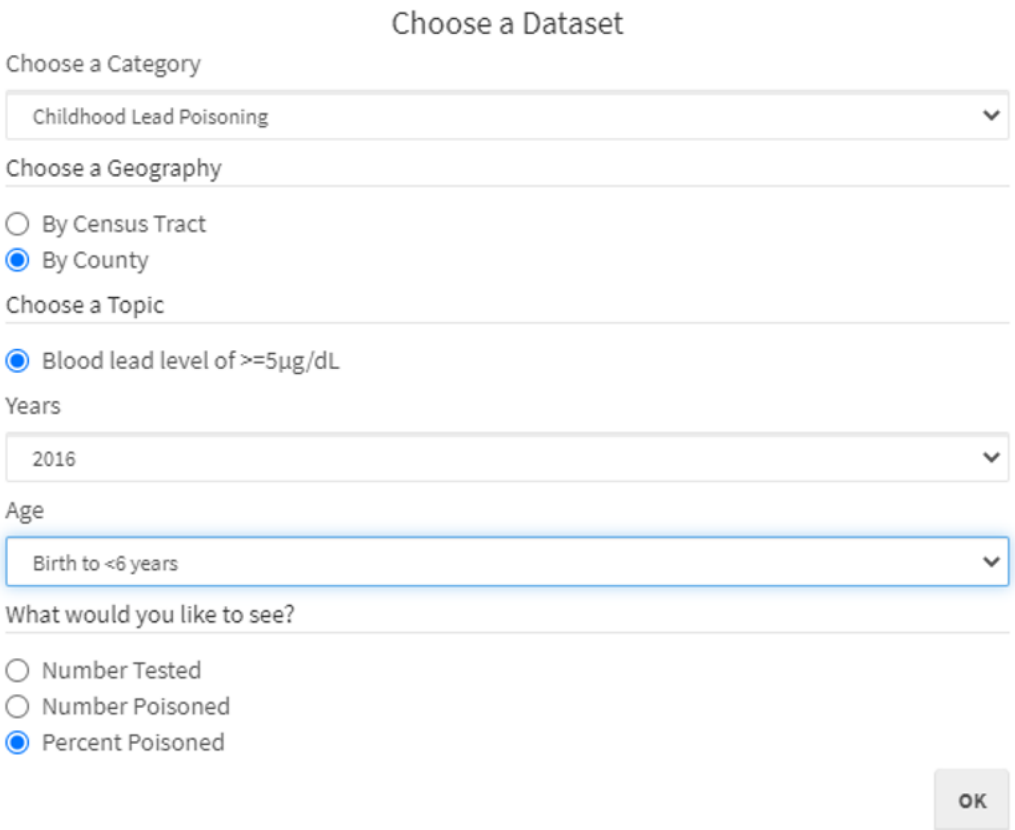
Tracking homepage: dhs.wisconsin.gov/epht

Direct portal link: dhsgis.wi.gov/DHS/EPHTracker

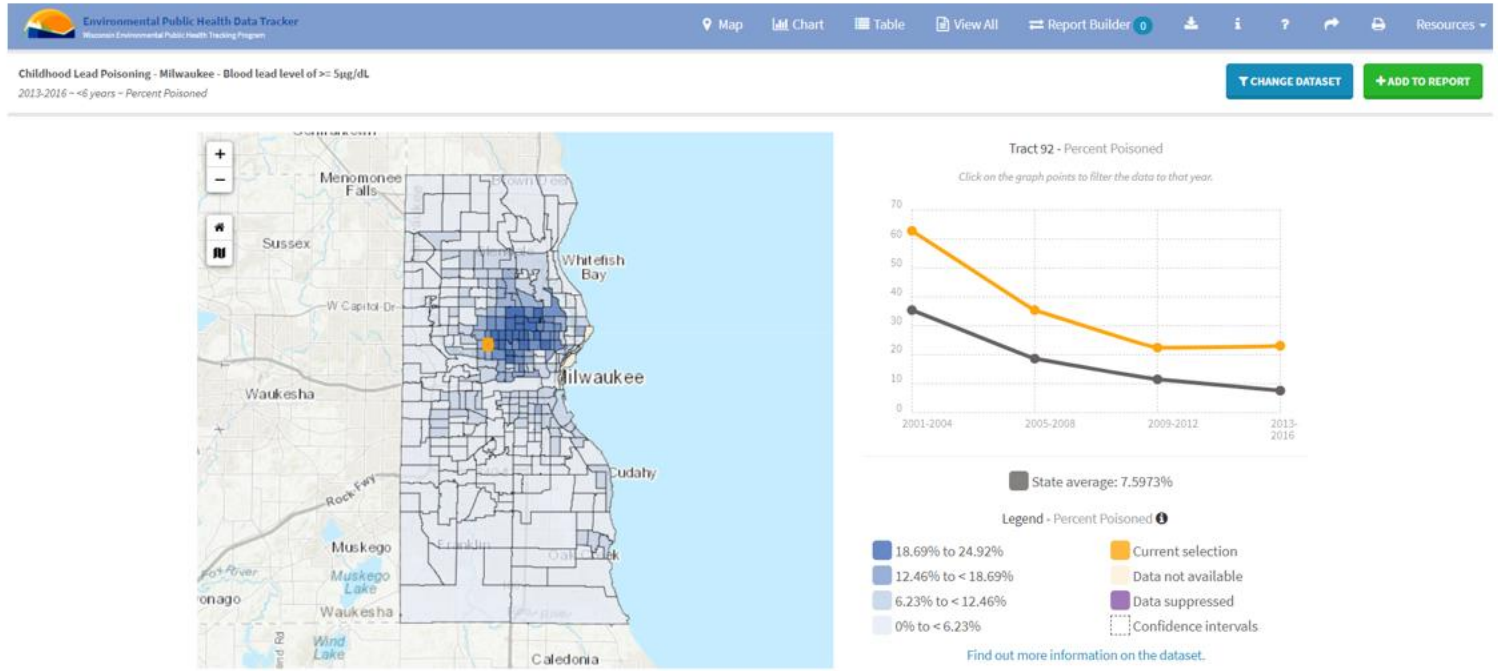
STEP 1


Choose a Dataset
Choose a Category
Select an Option
Select an Option
Air Quality
Alcohol
Asthma
Birth Defects
Cancer
Carbon Monoxide Poisoning
Childhood Lead Poisoning
Climate Change
Chronic Obstructive Pulmonary Disease
Community Characteristics
Community Design
Heart Attack
Heat
Historical Climate
Immunization
Lyme Disease
Oral Health
Populations and Vulnerabilities
Reproductive Outcomes

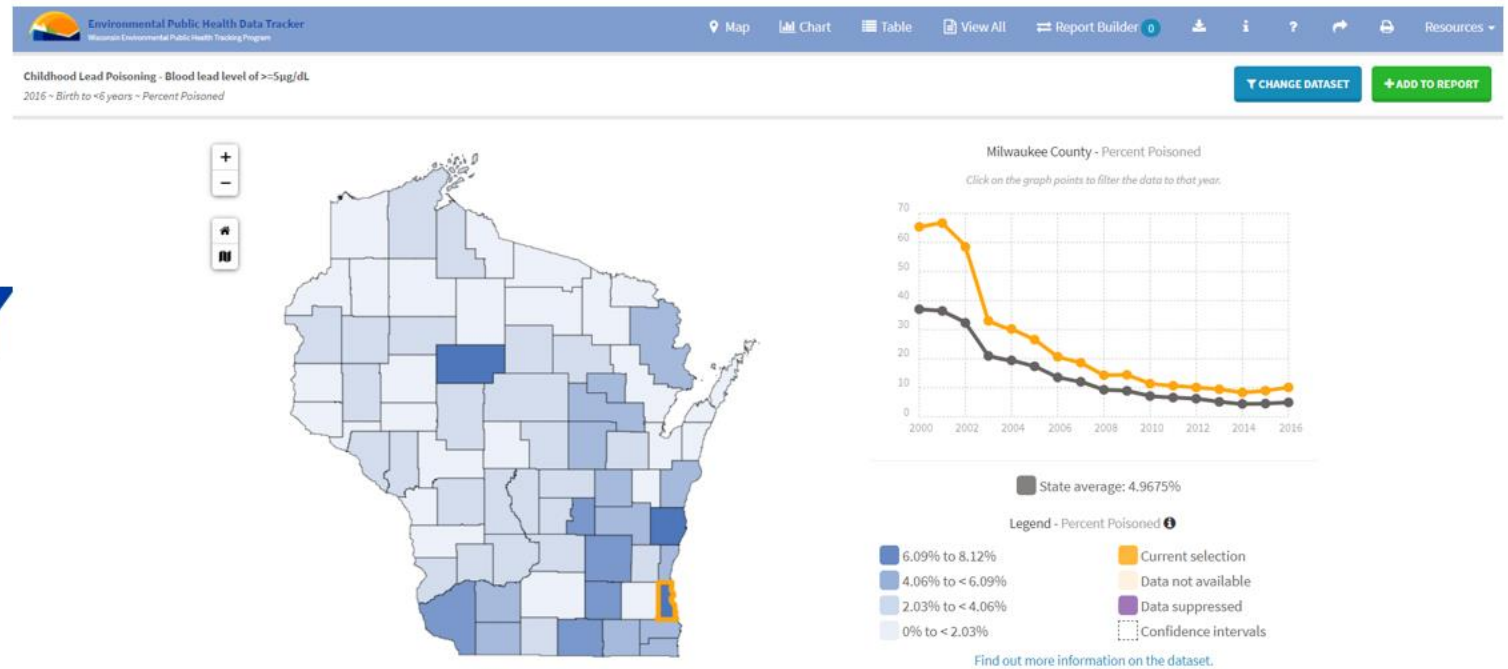
STEP 2


Choose a Dataset
Choose a Category
Childhood Lead Poisoning
Choose a Geography
By Census Tract
By County
Choose a Topic
Blood lead level of >=5µg/dL
Years
2016
Age
Birth to <6 years
What would you like to see?
Number Tested
Number Poisoned
Percent Poisoned
OK

CENSUS TRACT



COUNTY LEVEL



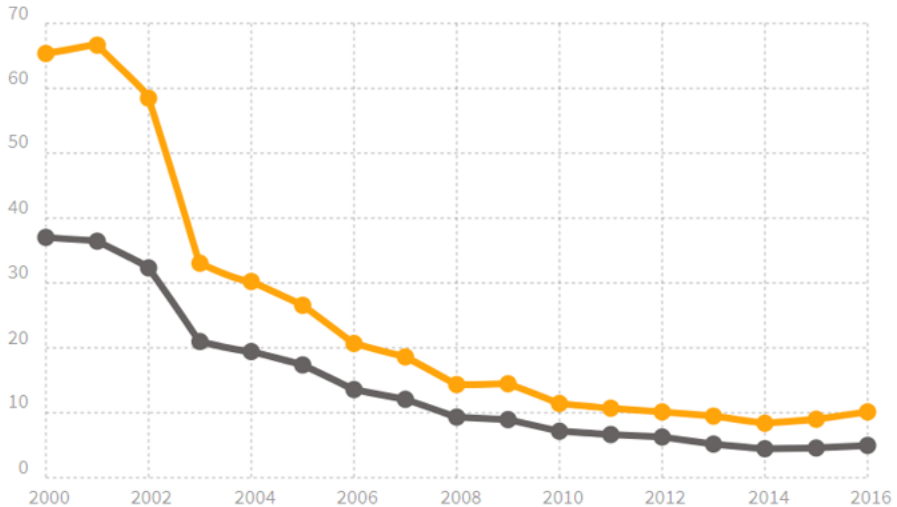
Childhood Lead Poisoning - Blood lead level of >=5µg/dL

2016 ~ Birth to <6 years ~ Percent Poisoned

CHANGE DATASET | + ADD TO REPORT

Milwaukee County - Percent Poisoned

Click on the graph points to filter the data to that year.

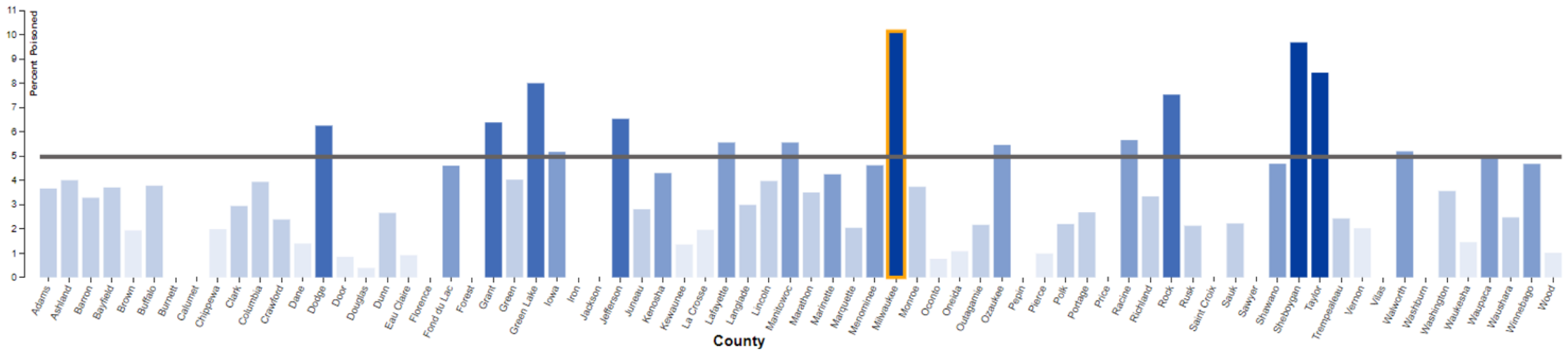


State average: 4.9675%

Legend - Percent Poisoned

- 6.09% to 8.12%
- 4.06% to < 6.09%
- 2.03% to < 4.06%
- 0% to < 2.03%
- Current selection
- Data not available
- Data suppressed
- Confidence intervals

Find out more information on the dataset.



The data are available in a table format too!

Click on column headings to sort table.

County	Number Tested	Number Poisoned	Percent Poisoned
Milwaukee	20662	2095	10.1394
Brown	2124	41	1.9303
Racine	1874	106	5.6564
Dane	1721	24	1.3945
Waukesha	1381	20	1.4482
Rock	983	74	7.528
Kenosha	931	40	4.2965

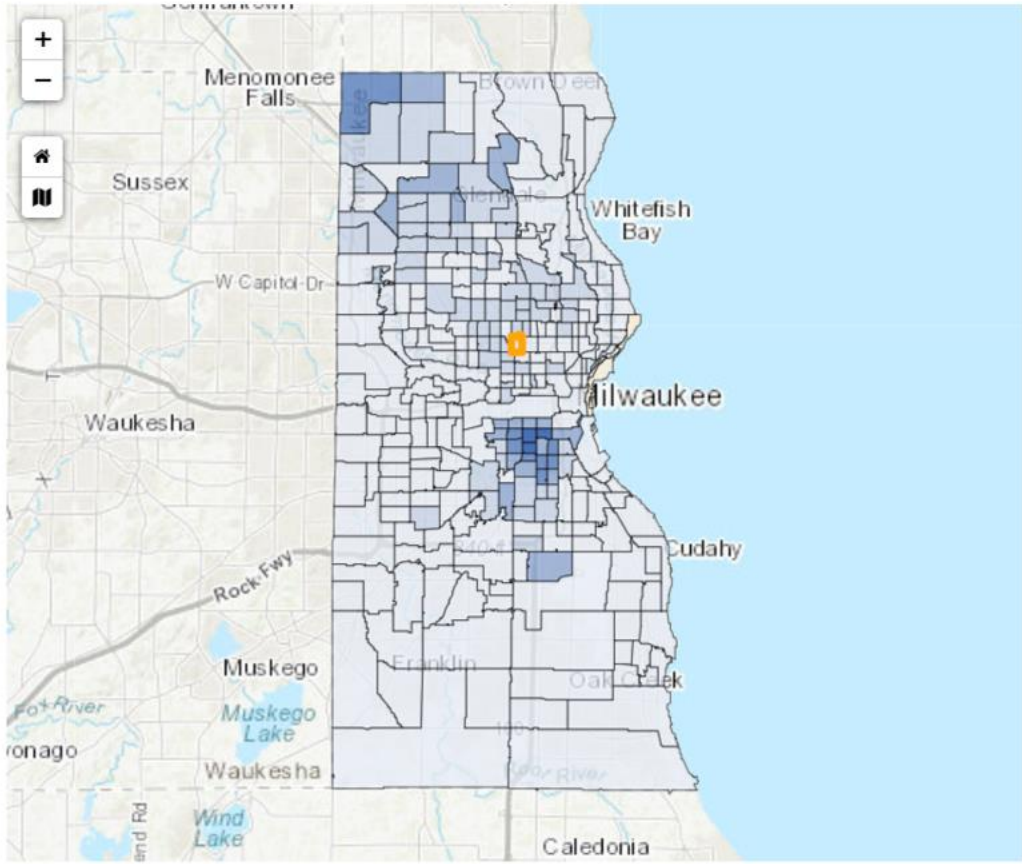
Environmental Public Health Data Tracker
Wisconsin Environmental Public Health Tracking Program

Map | Chart | Table | View All | Report Builder 0 | Resources

Childhood Lead Poisoning - Milwaukee - Blood lead level of >= 5µg/dL

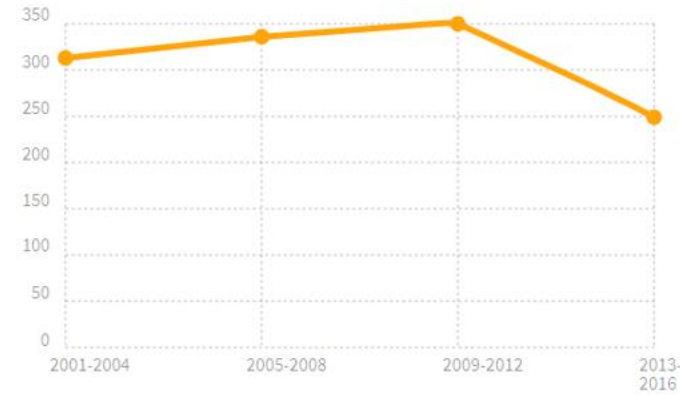
2013-2016 ~ <6 years ~ Number Tested

CHANGE DATASET | ADD TO REPORT



Tract 99 - Number Tested

Click on the graph points to filter the data to that year.



Legend - Number Tested

- 1,315.2 to 1,642
- 988.4 to < 1,315.2
- 661.6 to < 988.4
- 334.8 to < 661.6
- 8 to < 334.8
- Current selection
- Data not available
- Data suppressed
- Confidence intervals

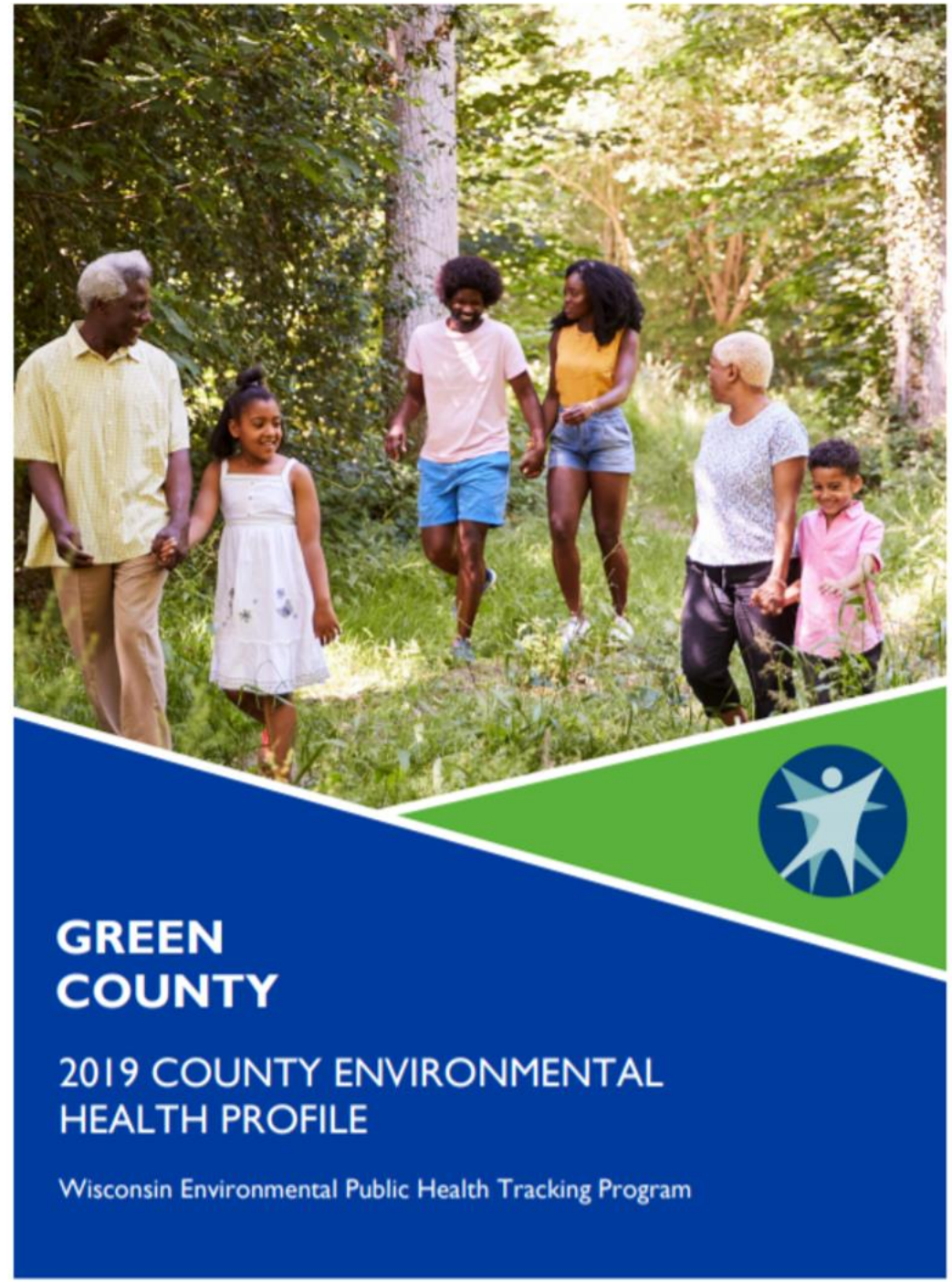
Find out more information on the dataset.

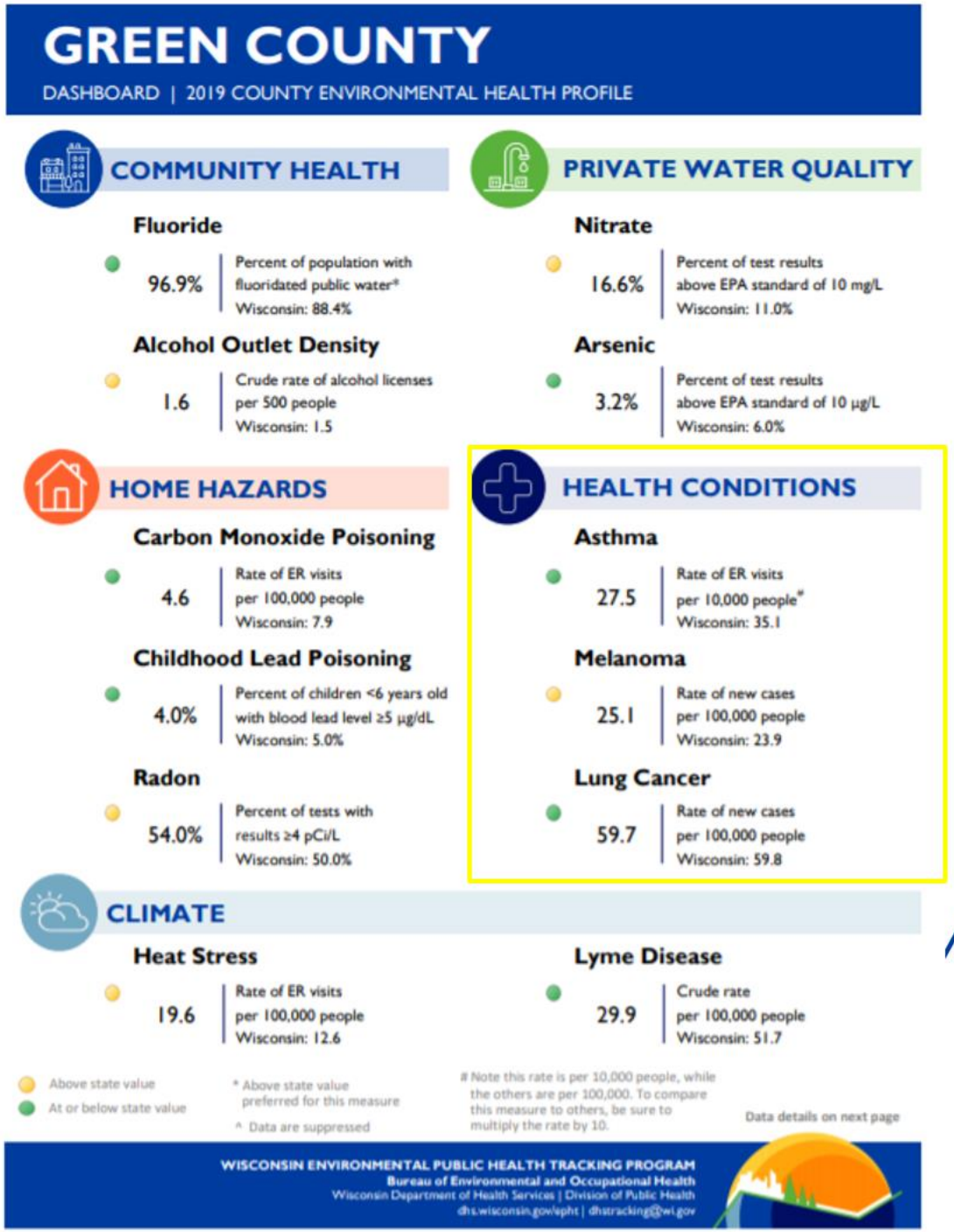
Map | Chart | Table | View All | Report Builder 0 | Resources

CHANGE DATASET | ADD TO REPORT

Making our Portal User-Friendly

County Environmental Health Profiles



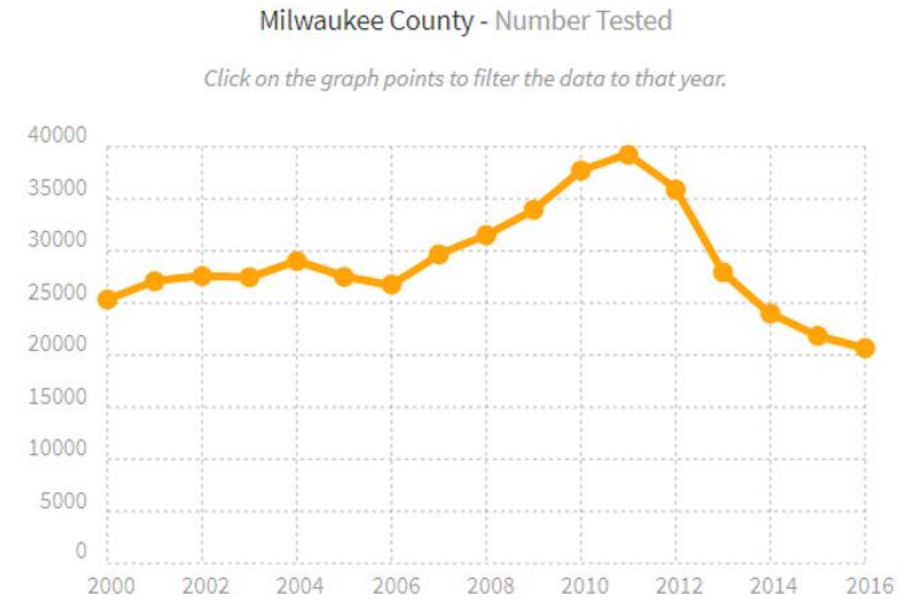


Dashboard

I work as a handout!

Portal data

Public health action



TAKING ACTION WITH DATA | 2015-2020

FUNDED PROJECTS

Bayfield County
2017 - Carbon Monoxide Poisoning
2019 - Lyme Disease

Burnett County
2015 - Carbon Monoxide Poisoning
2016 - Water Quality

Calumet County
2018 - Melanoma

City of Menasha
2018 & 2019 - Lead Poisoning

City of Milwaukee
2016 - Birth Outcomes/Pre-Term Birth

Clark County
2018 - Water Quality

Door County
2016 - Melanoma

Dunn County
2019 - Water Quality

Eau Claire County
2015 - Water Quality
2017 - Lyme Disease
2018 - Carbon Monoxide Poisoning

Florence & Marinette Counties
2015 - Water Quality

Fond du Lac County
2017 - Melanoma
2019 - Melanoma

Grant County
2015 - Heat Stress

Green Lake County
2019 - Water Quality

Iron County
2015 - Water Quality

Juneau, Adams, & Sauk Counties
2015 - Water Quality

La Crosse County
2017 - Water Quality

Lincoln County
2015 - Heat Stress

Marquette County
2018 - Water Quality

Monroe County
2016 - Melanoma
2019 - Water Quality

North Shore
2016 - Lead Poisoning

Portage County
2018 - Water Quality

Polk County
2017 - Carbon Monoxide Poisoning

Rock County
2015 & 2016 - Water Quality
2017 - Water Quality & Lead Poisoning
2019 - Lyme Disease

Walworth County
2016 - Lead Poisoning
2017 - Fluoride

Washburn County
2018 - Carbon Monoxide Poisoning

Waukesha County
2017 - Water Quality & Lead Poisoning

Waupaca County
2018 - Lead Poisoning

Mini-Grants

Mini-grant Success Stories

AN ENVIRONMENTAL PUBLIC HEALTH TRACKING STORY

CREATING A PUBLICLY ACCESSIBLE HOME LEAD RISKS DATABASE

Menasha, Wisconsin

THE PROBLEM

The City of Menasha has more than 7,500 housing units, more than half built before 1970. The age of these homes means they are likely to have at least some lead-based paint, which creates a health hazard. The City of Menasha is federally designated as a low income, medically underserved population and some residents are financially unable to fix lead issues. Using Wisconsin Environmental Public Health Tracking Program data, Menasha Health Department staff identified several census tracts where childhood lead poisoning rates were near or above the Wisconsin average.

THE HEALTH DEPARTMENT'S SOLUTION

Health department staff wanted to make it easier for residents to find and understand lead risk information. Staff had access to the Home Lead Risks database which included information about the age of homes, known renovation dates for homes, the city water service type, and the private water lateral type. However, this information was difficult to query and it was not publicly available. Health department staff worked with an IT consultant to integrate the Menasha Home Lead Risks database into their agency website, making it available to the public for the first time. The improved database gives staff and other users more comprehensive lead poisoning prevention information, including how to clean and minimize the impact of lead paint in the home.

THE PUBLIC HEALTH IMPACT

Since many City of Menasha residents are unable to afford high-cost lead remediation, it is critical they know if their home has a lead risk and the steps to take to be safe around lead. The database and its health education information are housed in the same place, making it easier and more convenient for both staff and residents to use. Menasha Health Department staff are actively promoting the database with clients at their clinic, partner agencies, and health professionals in the area.

EXPLORE YOUR COUNTY'S LEAD POISONING DATA:

dhs.wisconsin.gov/epht

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health

dhs.wisconsin.gov/epht | OCTOBER 2019 | dhstracking@wi.gov
Department of Health Services | Division of Public Health | P-02514 (10/2019)
This project funded by the Tracking team's *Taking Action with Data* program.

Surveillance Briefs

HEALTH DISPARITIES IN WISCONSIN HOSPITALIZATIONS FOR ASTHMA

By Paul D. Creswell, PhD[1,2,3]; Christy Vogt, MPH, CHES[1,2]; Megan Christenson, MS, MPH[1,2,3]; Carrie Tomasallo, PhD, MPH[1,4]

[1]Wisconsin Department of Health Services, Bureau of Environmental and Occupational Health;
[2]Wisconsin Environmental Public Health Tracking Program;
[3]University of Wisconsin-Madison, Department of Population Health Sciences;
[4]Wisconsin Asthma Program

SUMMARY - Asthma is a chronic disease that causes substantial disease burden in Wisconsin. Certain groups are more likely to be affected by asthma. Black and American Indian/Alaska Native populations experience asthma hospitalization rates that are significantly higher than rates for white populations in Wisconsin.

Asthma hospitalizations can be reduced by implementing individual- and community-level strategies. Self-management strategies include adhering to medication recommendations, avoiding known asthma triggers, and controlling asthma symptoms.

Asthma self-efficacy may be increased by creating asthma action plans and improving the cultural competency of asthma educational materials. Community programs to improve indoor air quality can help reduce asthma symptoms and may decrease asthma-related hospitalizations.

BACKGROUND

Asthma is a chronic inflammatory disease characterized by intermittent wheezing, chest tightness, and shortness of breath that can limit an individual's ability to bring oxygen into the lungs, making breathing difficult.[1] While asthma cannot be cured, it can be controlled by self-management strategies such as the regular use of controller medications, receiving an annual influenza immunization, and avoiding exposure to triggers such as cigarette smoke. Incorporating such self-management strategies into an asthma action plan can be a very effective approach to keeping asthma appropriately controlled.

Asthma affects 12% of Wisconsin adults and 11% of Wisconsin children,[2] and resulted in 5,111 hospitalizations and 21,382 emergency department visits in 2014.[3] While asthma affects individuals throughout Wisconsin, some groups are more likely to be

Tracking: Home
Topics & Data
County Profiles
Ideas for Taking Action
Data Details & Glossary
Training
Resources

Environmental Public Health Tracking: Resources and Publications

Find newsletters, surveillance briefs, success stories, publications, and more on this page from the Wisconsin Environmental Public Health Tracking Program.

Resources | Success Stories | Publications

Newsletters

- January 2020
- September 2019
- June 2019
- October 2018

Surveillance briefs

- Extreme Cold in Wisconsin: Trends, Surveillance, and Prevention, P-02577 (PDF)
- Extreme Heat: Who's at Highest Risk, P-02386 (PDF)
- What's in Your Water? A Look at Private Well Water Quality in Wisconsin, P-01830 (PDF)
- Health Disparities in Wisconsin Hospitalizations for Asthma,

Keep in Touch

dhstracking@wi.gov

TRACKING 101

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JENNY CAMPONESCHI, MS
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TCEQ's Emissions Events Database

Cynthia Gandee

Special Assistant, Coastal and East Texas Area,
Office of Compliance and Enforcement
Texas Commission on Environmental Quality

TCEQ's Emissions Events Database

Environmental Justice Webinar

2020

Programmatic context

TCEQ Regulations require that certain events be reported within 24 hours

- These are unauthorized air releases
- Companies report the information to TCEQ
- TCEQ reviews all incidents reported
- Reports are publicly available

Historical context

1997

Prior to 1997, all “major upset” required reporting

2001

In 2001, statutory text added during the 77th Legislative Session in Tex. Health & Safety Code § 382.0215 (HB 2912)

- required reports within 24 hours
- bill focused on transparency

1997

Texas Administrative Code, Chapter 101 was amended in 1997 to use reportable/non-reportable concept

2003

Electronic reporting fully implemented in 2003

Changes over Time

Electronic reporting enabled public database

Users include

- Public at large
- Non-governmental organizations
- Media
- Internal users

Enhancement requests were received

Met with external stakeholders

TCEQ public site

https://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.searchForm&newsearch=yes

Search by Incident Number

Incident Number: Search

Search by Other Criteria

Please provide at least one search criteria to identify the air emission reports of interest to you. You may not specify a date prior to 01/31/2003. All dates should be entered as MM/DD/YYYY format.

Event Start Date Range: To (MM/DD/YYYY)

Event End Date Range: To (MM/DD/YYYY)

CN: (CN+9-digits)

Customer Name:

RN: (RN+9-digits)

Regulated Entity Name:

County:
- --ALL--
- ANDERSON
- ANDREWS
- ANGELINA
- ARANSAS

Region: --ALL--

Event Type:
- --ALL--
- AIR SHUTDOWN
- AIR STARTUP
- EMISSIONS EVENT
- EXCESS OPACITY

☐ **Use Full Wildcard for name fields**

Search Clear

Type	Description
EMISSIONS EVENT	Any upset event or unscheduled maintenance, startup, or shutdown activity, from a common cause that results in unauthorized emissions of air contaminants from one or more emissions points at a regulated entity (30 TAC §101.1(28)).
EXCESS OPACITY	When an opacity reading is equal to or exceeds 15 additional percentage points above an applicable opacity limit, averaged over a six-minute period (30 TAC §101.1(32)).
AIR SHUTDOWN AIR STARTUP MAINTENANCE	Activities with unauthorized emissions that are expected to exceed a reportable quantity (RQ), and the owner or operator provides prior notice and a final report as required by 30 TAC §101.211. For a complete definition, see 30 TAC

Your search returned 24 records. You may also view and save this list with additional fields (county, region) as an Excel spreadsheet.

1-24 of 24 Records

Incident #	RN	RE Name	Began	Ended	Event Type	Report Type	Report Date	Associated Customer
339871	RN100212109	TOTAL PETROCHEMICALS USA LA PORTE PLANT	07/30/2020 05:55 PM	07/30/2020 08:30 PM	EMISSIONS EVENT	FINAL	08/13/2020	CN600582399 TOTAL PETROCHEMICALS & REFINING USA INC
339707	RN100542281	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	07/29/2020 09:00 AM	07/29/2020 03:00 PM	EMISSIONS EVENT	FINAL	08/03/2020	CN600124705 EQUISTAR CHEMICALS LP
339665	RN100716661	PASADENA REFINING SYSTEM PRSI	07/27/2020 05:24 PM	07/27/2020 05:54 PM	EMISSIONS EVENT	FINAL	08/10/2020	CN603137605 PASADENA REFINING SYSTEM INC
339664	RN100210665	MORGANS POINT COMPLEX	07/27/2020 07:30 PM	07/28/2020 12:00 AM	EMISSIONS EVENT	FINAL	08/07/2020	CN603211277 ENTERPRISE PRODUCTS OPERATING LLC
339650	RN100210806	INTERCONTINENTAL TERMINALS DEER PARK TERMINAL	07/27/2020 04:30 PM	07/27/2020 06:50 PM	EMISSIONS EVENT	INITIAL	07/28/2020	CN601470222 INTERCONTINENTAL TERMINALS COMPANY LLC
339527	RN110461415	RAVEN PLANT	07/25/2020 09:46 AM	07/25/2020 10:34 AM	EMISSIONS EVENT	FINAL	08/06/2020	CN604933655 RAVEN BUTENE-1

	A	B	C	D	E
1	INCIDENT NO.	RN	RE NAME	START DATE/TIME	END DATE/TIME
2	339871	RN100212109	TOTAL PETROCHEMICALS USA LA PORTE PLANT	07/30/2020 05:55 PM	07/30/2020 08:30 PM
3	339707	RN100542281	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	07/29/2020 09:00 AM	07/29/2020 03:00 PM
4	339665	RN100716661	PASADENA REFINING SYSTEM PRSI	07/27/2020 05:24 PM	07/27/2020 05:54 PM
5	339664	RN100210665	MORGANS POINT COMPLEX	07/27/2020 07:30 PM	07/28/2020 12:00 AM
6	339650	RN100210806	INTERCONTINENTAL TERMINALS DEER PARK TERMINAL	07/27/2020 04:30 PM	07/27/2020 06:50 PM
7	339527	RN110461415	RAVEN PLANT	07/25/2020 09:46 AM	07/25/2020 10:34 AM
8	339517	RN100716661	PASADENA REFINING SYSTEM PRSI	07/23/2020 11:48 PM	07/24/2020 08:30 PM
9	339506	RN100217207	LYONDELLBASELL SYNGAS	07/23/2020 05:42 PM	07/24/2020 06:25 AM

REPORT TYPE	REPORT DATE	EVENT TYPE	ASSOCIATED CUSTOMER	COUNTY	TCEQ REGION
FINAL	08/13/2020	EMISSIONS EVENT	CN600582399 TOTAL PETROCHEMICALS & REFINING USA INC	HARRIS	REGION 12 - HOUSTON
FINAL	08/03/2020	EMISSIONS EVENT	CN600124705 EQUISTAR CHEMICALS LP	HARRIS	REGION 12 - HOUSTON
FINAL	08/10/2020	EMISSIONS EVENT	CN603137605 PASADENA REFINING SYSTEM INC	HARRIS	REGION 12 - HOUSTON
FINAL	08/07/2020	EMISSIONS EVENT	CN603211277 ENTERPRISE PRODUCTS OPERATING LLC	HARRIS	REGION 12 - HOUSTON
INITIAL	07/28/2020	EMISSIONS EVENT	CN601470222 INTERCONTINENTAL TERMINALS COMPANY LLC	HARRIS	REGION 12 - HOUSTON
FINAL	08/06/2020	EMISSIONS EVENT	CN604933655 RAVEN BUTENE-1 LLC	HARRIS	REGION 12 - HOUSTON
FINAL	08/07/2020	EMISSIONS EVENT	CN603137605 PASADENA REFINING SYSTEM INC	HARRIS	REGION 12 - HOUSTON
FINAL	08/06/2020	EMISSIONS EVENT	CN603674862 LYONDELLBASELL ACETYLS LLC	HARRIS	REGION 12 - HOUSTON

Event/Activity Type:	EMISSIONS EVENT
Date and Time Event Discovered or Scheduled Activity Start:	07/14/2020 12:41 AM
Date and Time Event or Scheduled Activity Ended:	07/14/2020 06:00 PM
Event Duration:	17 hours, 19 minutes

Process Unit or Area Common Names
EVAL Business Unit

Facility Common Name	**Facility Identification Number (FIN)**
Flare	FL8432
Fugitive Emission Units	AREA 4

1 - Emission Point Common Name:	**Emission Point Number:**
Flare	400

List of Air Contaminant Compounds - 6 total

Description	**Est. Quantity/ Opacity**	**Units**	**Emission Limit**	**Units**	**Authorization**
Carbon Monoxide	161.3	POUNDS	14.27	LBS/HR	9576
Ethylene (gaseous)	66.0	POUNDS	23.9	LBS/HR	9576
Methanol	423.6	POUNDS	23.9	LBS/HR	9576
Methyl Acetate	77.0	POUNDS	0.74	LBS/HR	9576
NOX	31.7	POUNDS	2.98	LBS/HR	9576
Vinyl acetate	161.5	POUNDS	23.9	LBS/HR	9576

	A	B	C	D	E	F	G
1	INCIDENT NO.	RN	RE NAME	PHYSICAL LOCATION	COUNTY	TCEQ REGION	START DATE/TIME
2	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
3	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
4	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
5	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
6	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
7	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
8	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
9	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41
10	339072	RN100212216	EVAL BUSINESS UNIT	11500 BAY AREA BLVD; PASADENA, TX 77507	HARRIS	12	07/14/2020 00:41

	J	K	L	M	N	O	P	Q	R
	EMISSION POINT NAME	EPN	CONTAMINANT	EST QUANTITY/OPACITY	ESTIMATED IND	AMOUNT UNK IND	UNITS	EMISSION LIMIT	LIMIT UNITS
	Flare	400	Carbon Monoxide	161.3	YES	NO	POUNDS	14.27	LBS/HR
	Flare	400	Ethylene (gaseous)	66	YES	NO	POUNDS	23.9	LBS/HR
	Flare	400	Methanol	423.6	YES	NO	POUNDS	23.9	LBS/HR
	Flare	400	Methyl Acetate	77	YES	NO	POUNDS	0.74	LBS/HR
	Flare	400	NOX	31.7	YES	NO	POUNDS	2.98	LBS/HR
	Flare	400	Vinyl acetate	161.5	YES	NO	POUNDS	23.9	LBS/HR
	Fugitive VOC	Area4	Methanol	1622	YES	NO	POUNDS	1.54	LBS/HR
	Fugitive VOC	Area4	Methyl Acetate	108	YES	NO	POUNDS	0	
	Fugitive VOC	Area4	Vinyl acetate	1622	YES	NO	POUNDS	1.54	LBS/HR

Other search features:

- Searching by name may take more processing time
  - Example - Dow as RN name
    - sort began column goes back to 2003
    - sort by RN shows other sites
  - Also can use wildcard search box
    - Shows sites where “Dow” appears anywhere in name, not just beginning
- Date picker back to 2003
  - beginning of electronic reporting

RSS Data Feed for Air Emission Events in Texas

You are viewing a feed that contains frequently updated content. When you subscribe to a feed, it is added to the Common Feed List. Updated information from the feed is automatically downloaded to your computer and can be viewed in Internet Explorer and other programs. Learn more about feeds.

Subscribe to this feed

Displaying 70 / 70

All 70

Sort by:

Date
Title

336606 - RN100225291 OWENS CORNING ROOFING AND ASPHALT IRVING FACILITY

Today, June 5, 2020, 7 hours ago

RN100225291 OWENS CORNING ROOFING AND ASPHALT IRVING FACILITY

336593 - RN100220565 MCALISTER BOOSTER STATION

Yesterday, June 4, 2020, 7:00:00 PM

RN100220565 MCALISTER BOOSTER STATION

336591 - RN101621449 STRYKER CREEK STEAM ELECTRIC STATION

Yesterday, June 4, 2020, 2:10:00 PM

RN101621449 STRYKER CREEK STEAM ELECTRIC STATION

336601 - RN110448834 BTT EPIC FRAC

Yesterday, June 4, 2020, 2:09:00 PM

RN110448834 BTT EPIC FRAC

336627 - RN105753008 WFMU SATELLITE NO 5 OIL AND GAS PRODUCTION FACILITY

Instructions

- https://www3.tceq.texas.gov/steers/help/aeme/create.html
- https://www.tceq.texas.gov/assets/public/compliance/field_ops/fod_forms/upset/eefguide.pdf

Other reporting requirements

- Emissions Inventory
- Annual Enforcement Report
- Toxics Release Inventory

Annual Enforcement Report

Figure 5-1: Total Number of Incidents Reported Statewide

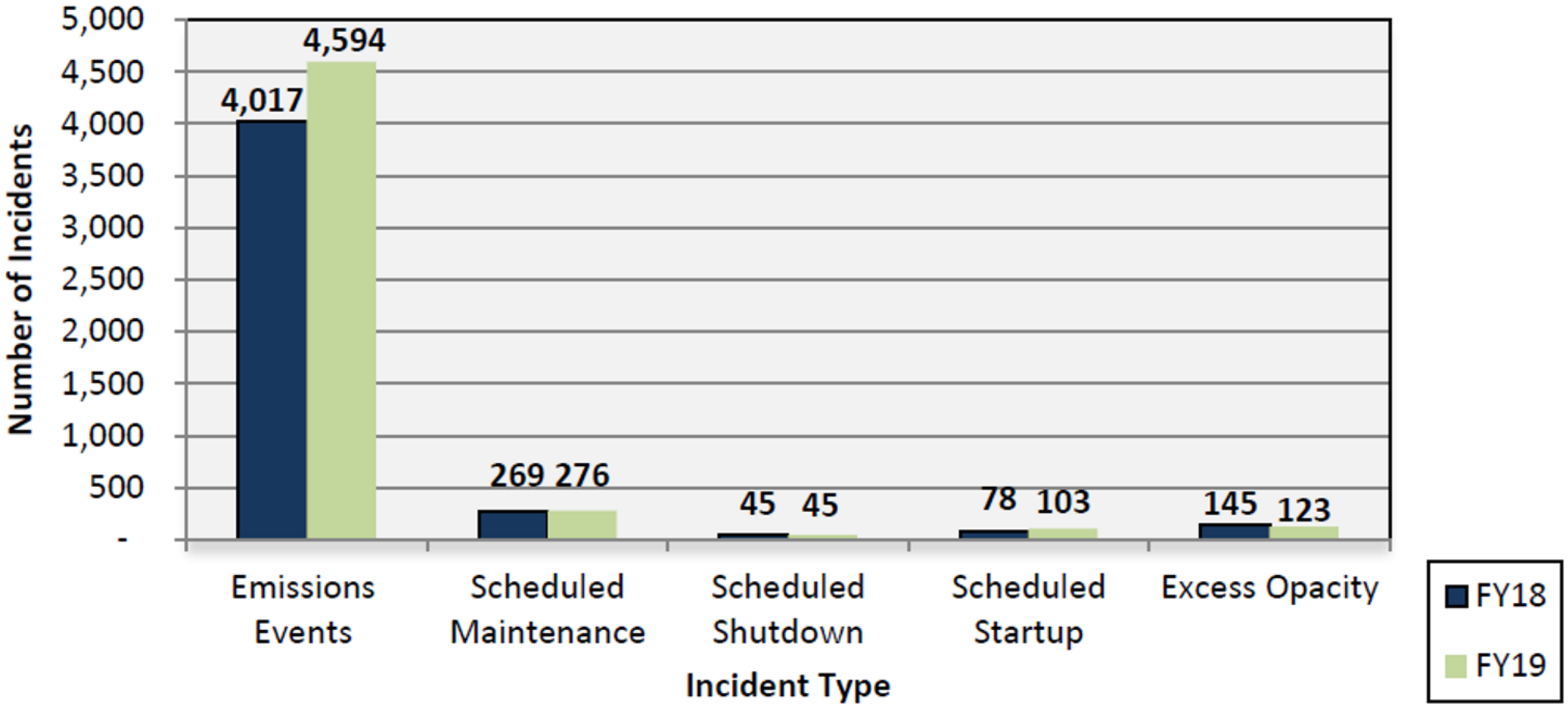
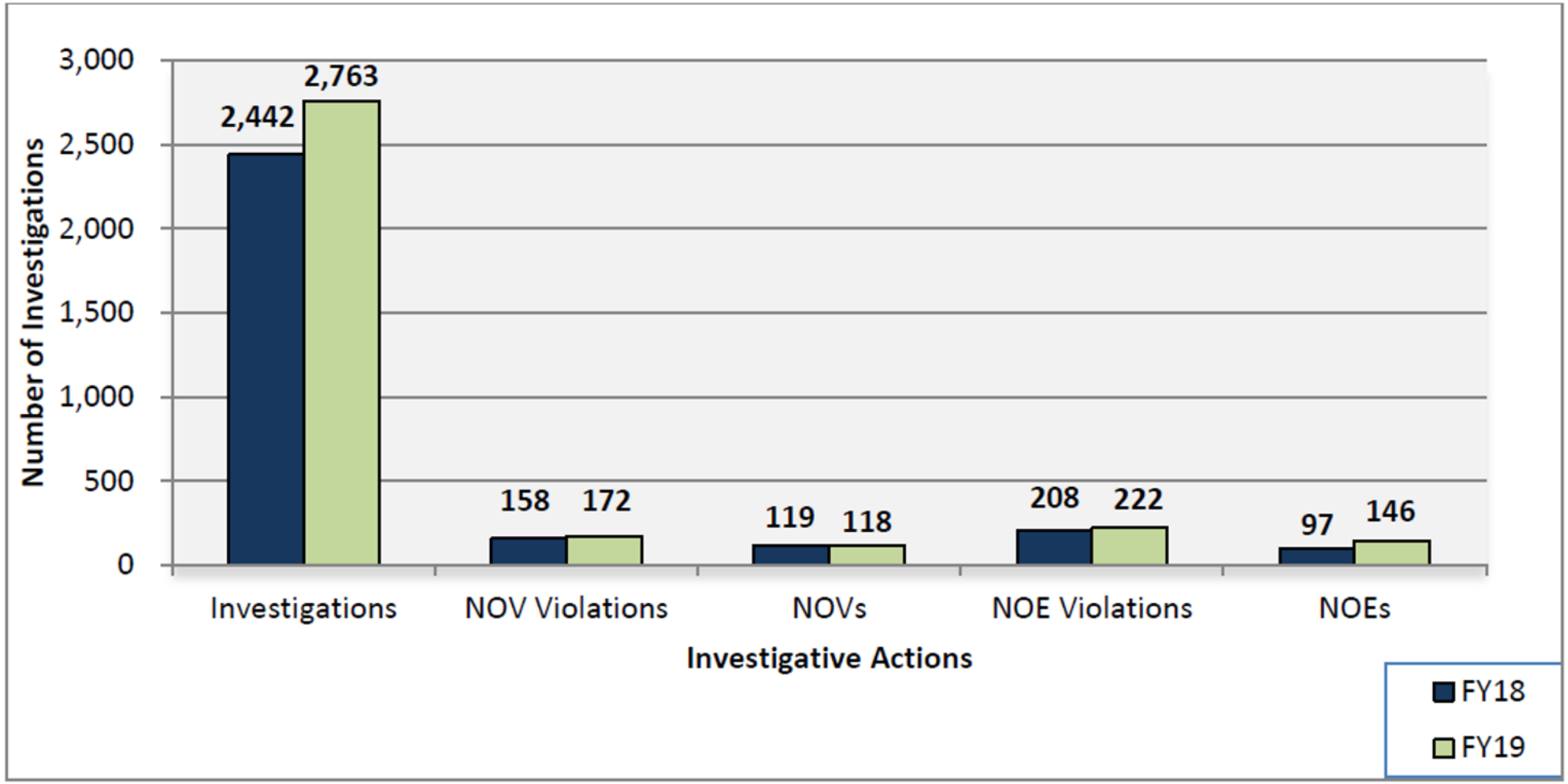
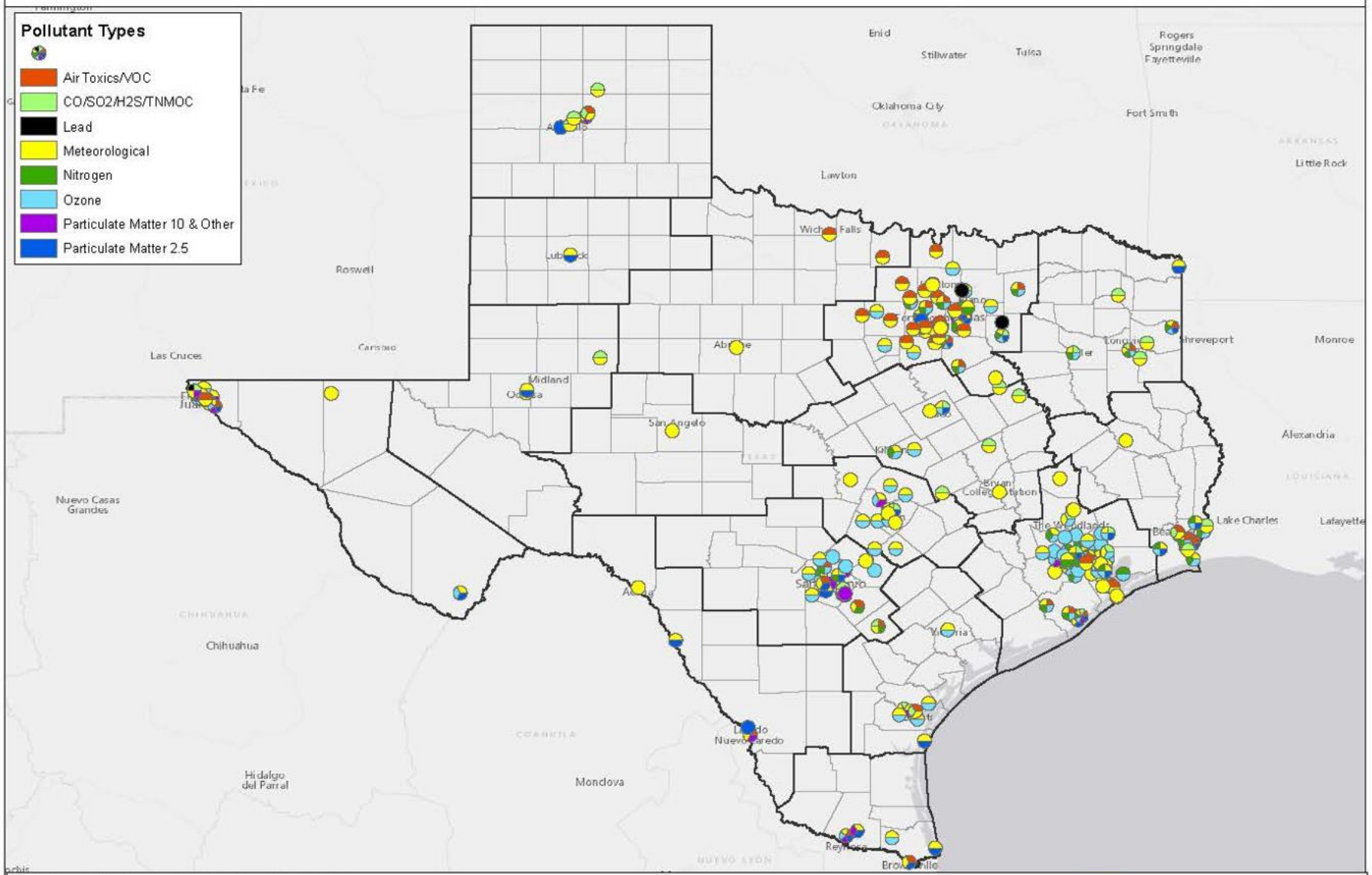


Figure 5-5: Incident Investigations



Air Quality Successes

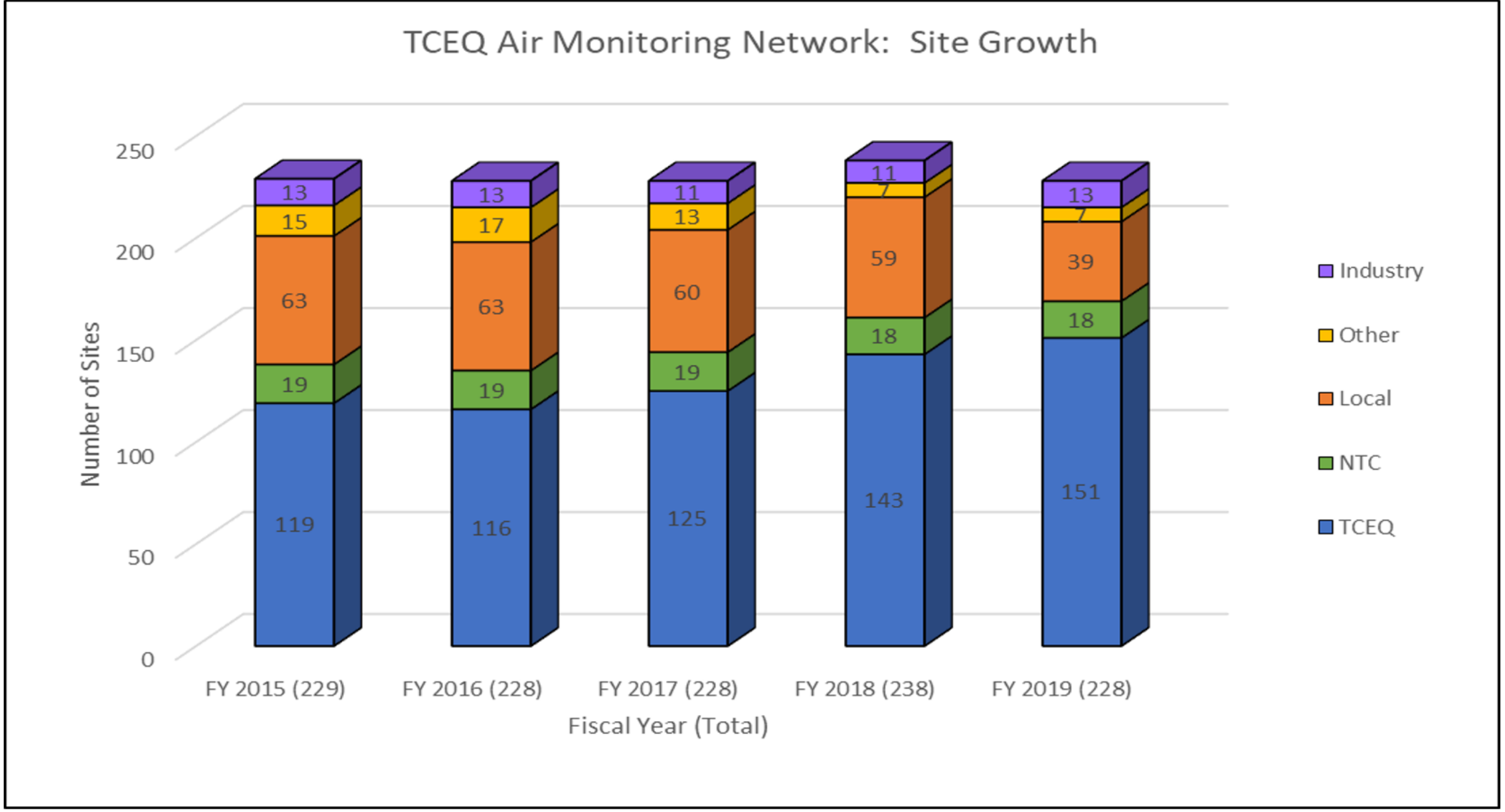
Ambient Air Monitors for the State of Texas



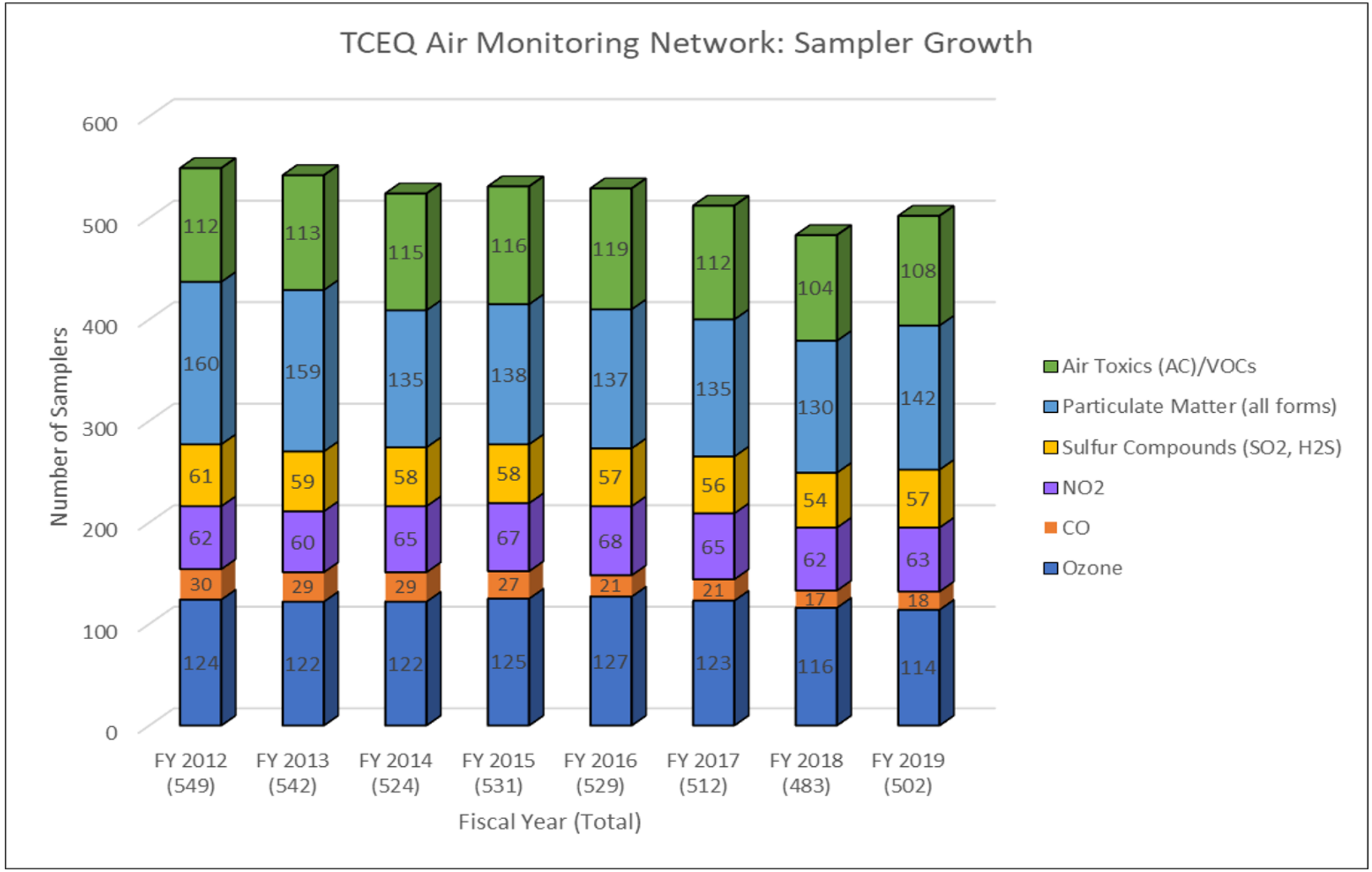
This map was generated by the Office of Compliance and Enforcement, Monitoring Division of the Texas Commission on Environmental Quality and is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location as of Thursday, January 24, 2019 for property boundaries. For information concerning this map, contact the Monitoring Division at (512) 239-1716.

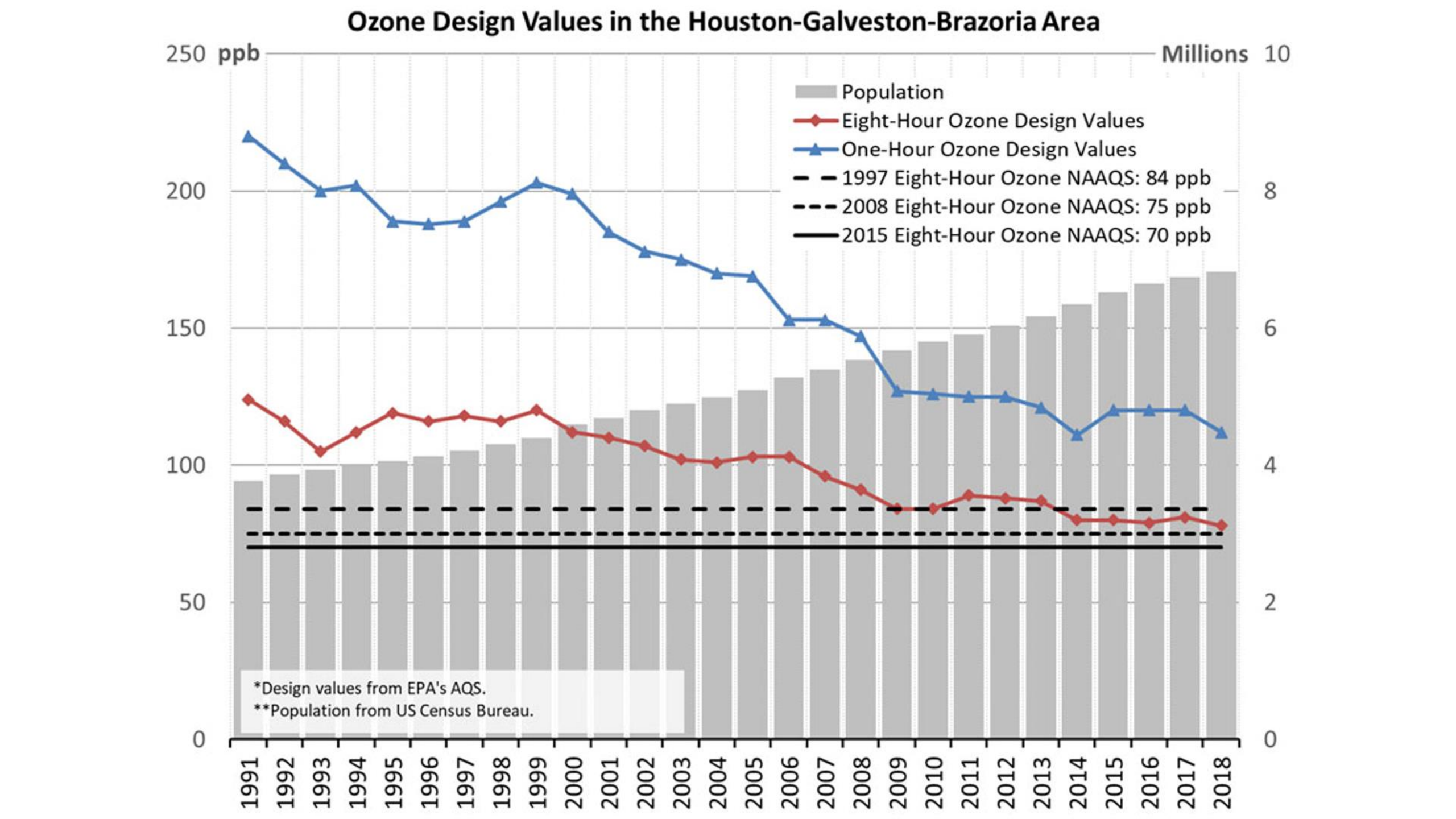
Texas Commission on Environmental Quality
Office of Compliance and Enforcement
Monitoring Division
PO Box 13087
Austin, Texas 78711-3087

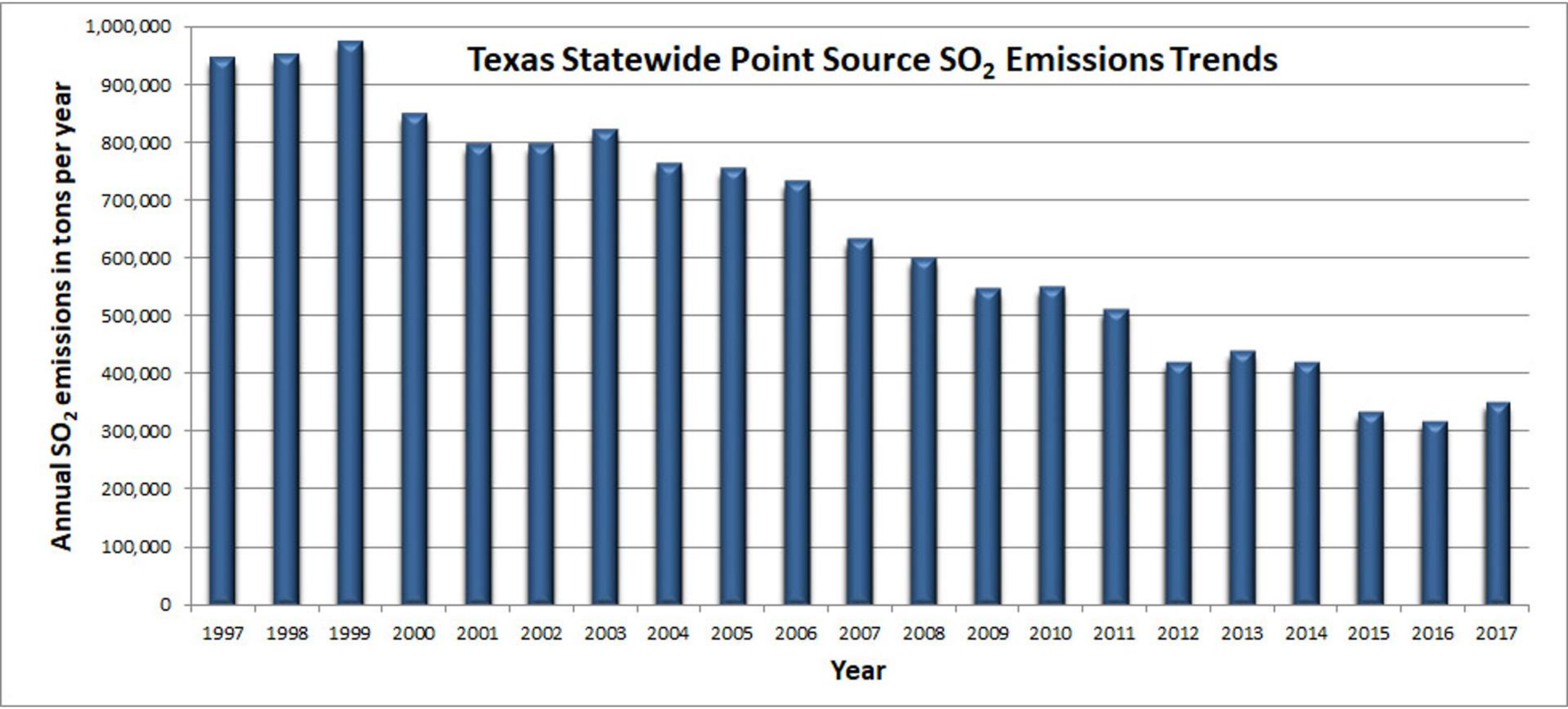
Thursday, January 24, 2019

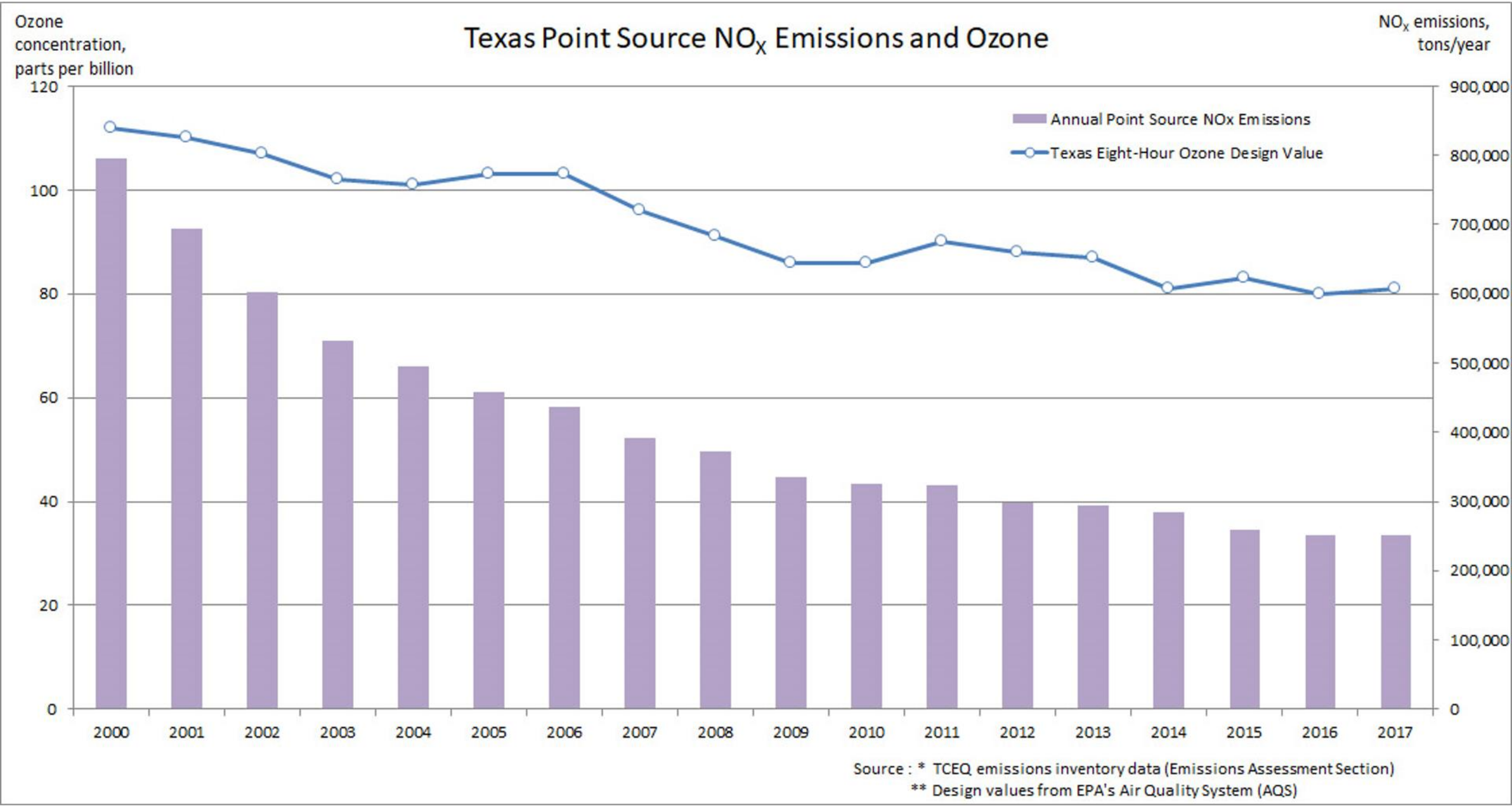


Local: City, County, COG
Other: EPA, Federal, Other, Private, Tribal, University
Meteorological-only sites are not represented in the charts of counts above or below.

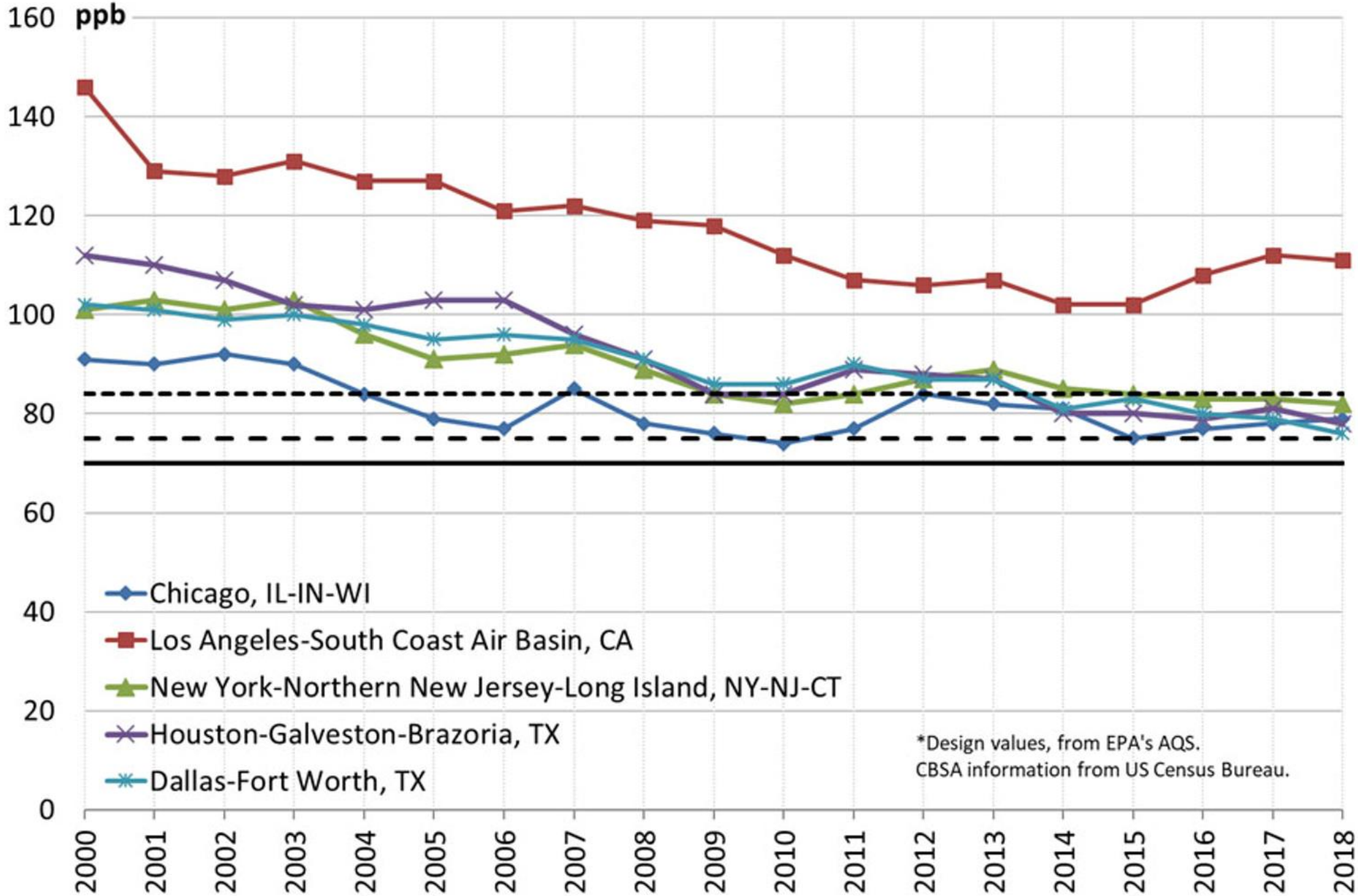

TCEQ Air Monitoring Network: Sampler Growth
Number of Samplers
600
500
400
300
200
100
0
112
160
61
62
30
124
113
159
59
60
29
122
115
135
58
65
29
122
116
138
58
67
27
125
119
137
57
68
21
127
112
135
56
65
21
123
104
130
54
62
17
116
108
142
57
63
18
114
FY 2012 (549)
FY 2013 (542)
FY 2014 (524)
FY 2015 (531)
FY 2016 (529)
FY 2017 (512)
FY 2018 (483)
FY 2019 (502)
Fiscal Year (Total)
Air Toxics (AC)/VOCs
Particulate Matter (all forms)
Sulfur Compounds (SO2, H2S)
NO2
CO
Ozone


Ozone Design Values in the Houston-Galveston-Brazoria Area
250 ppb
200
150
100
50
0
Millions
10
8
6
4
2
0
Population
Eight-Hour Ozone Design Values
One-Hour Ozone Design Values
1997 Eight-Hour Ozone NAAQS: 84 ppb
2008 Eight-Hour Ozone NAAQS: 75 ppb
2015 Eight-Hour Ozone NAAQS: 70 ppb
*Design values from EPA's AQS.
**Population from US Census Bureau.
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018


Texas Statewide Point Source SO_2 Emissions Trends
Annual SO_2 emissions in tons per year
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Year


Ozone concentration, parts per billion
Texas Point Source NOX Emissions and Ozone
NOX emissions, tons/year
Annual Point Source NOx Emissions
Texas Eight-Hour Ozone Design Value
120
100
80
60
40
20
0
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Source : * TCEQ emissions inventory data (Emissions Assessment Section)
** Design values from EPA's Air Quality System (AQS)

Eight-Hour Ozone Design Values in the Five Largest CBSAs



Questions?

Cynthia Gandee
Special Assistant, Coastal and East Texas Area
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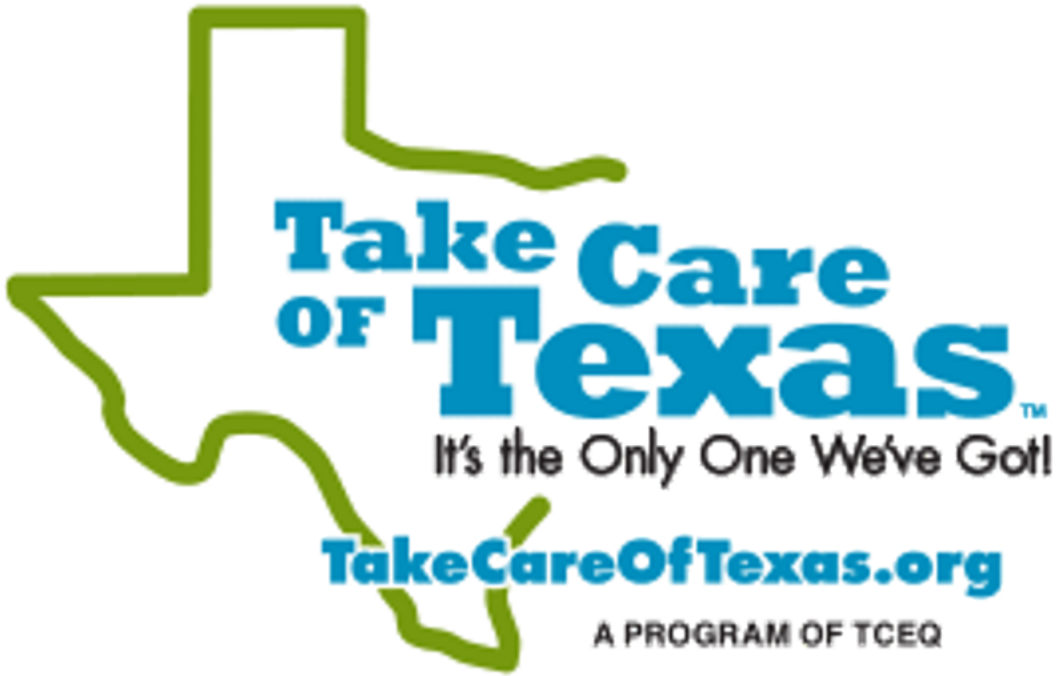
cynthia.gandee@tceq.texas.gov
512.239.0179



Toxics Release Inventory

Shelley Fudge

Shelley Fudge

Environmental Justice & Tribal Affairs Coordinator

Toxics Release Inventory Program Division

Office of Chemical Safety and Pollution Prevention

U.S. Environmental Protection Agency

Toxics Release Inventory

U.S. Environmental Protection Agency

Improved, user-friendly access to data about industrial chemical releases in your community

Presentation Overview

- What is the Toxics Release Inventory (TRI)?
- Why is TRI important to EJ communities?
- Introducing new, user-friendly way to access TRI data
- Examples of how to use the new improved TRI search interface to find TRI data in your community
- How TRI can supplement states' environmental information resource systems

What is TRI?

- TRI is an EPA information resource that can help you learn about toxic chemical releases from certain facilities **in your neighborhood.**
- TRI can tell you about:

Releases

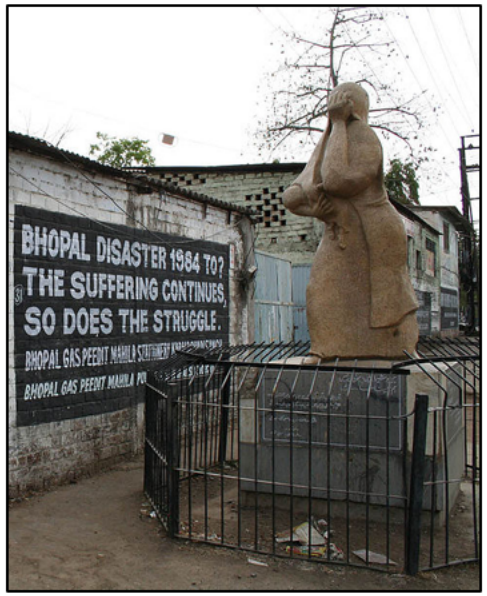
Waste transfers

Recycling

Pollution prevention

- TRI includes data from more than 21,000 facilities across the country, and covers 767 individual chemicals and 33 chemical categories.

Why was the Toxics Release Inventory created?



Bhopal memorial for those killed and disabled by the 1984 toxic gas release

Bhopal, India December 1984

- Methyl isocyanate gas was released at a Union Carbide chemical plant.
- Thousands died the first night, thousands more since and survivors continue to suffer with permanent disabilities.

Institute, West Virginia August 1985

- Chemicals released at a similar facility in the U.S.
- More than 100 people hospitalized.

- These events led to the passage of the Emergency Planning and Community Right-to-Know Act (EPCRA) by Congress in 1986, which mandated the enactment of EPA's TRI program.

Why is TRI important to Environmental Justice communities?

TRI can help EJ communities:

- Identify **how many TRI facilities** operate in the community **and where they are located**.
- Identify **which chemicals are being released** by TRI facilities.
- **Track increases or reductions** of toxic chemical releases from facilities located in the community over time.
- **Compare the toxic chemical releases and pollution prevention efforts of facilities** in one location with similar facilities across the country.
- **Prioritize efforts to reduce pollution** from facilities located in the community.

Which facilities must report to TRI?

1. Must be in a **TRI-covered industry sector or category**, including:

Manufacturing

Coal/Oil Electricity Generation

Certain Mining Facilities

Hazardous Waste Management

Federal Facilities

2. Must have the equivalent of at least **10 full-time employees.**

3. Must manufacture, process or use more than a **certain threshold amount of a TRI-listed toxic chemical per year.**

What information do facilities report to TRI?

- On-site releases of TRI chemicals to:
  - Air
  - Water
  - Land
- Transfer of chemical waste to off-site locations
- Waste management:
  - Recycling
  - Treatment
  - Energy Recovery
- Pollution prevention activities

What was the first year of TRI reporting?

- Facilities first reported TRI chemical release data to EPA for **calendar year 1987**.

How quickly does EPA make TRI data available to the public?

- **Facilities are required to submit TRI reports to EPA on July 1st each year** for the previous calendar year's data.
- EPA publishes a preliminary dataset of submitted TRI data in late July.
- After completion of a thorough data quality process, **the revised TRI dataset used for the National Analysis becomes available in late October** and can be accessed using TRI's new improved search interface and other TRI online tools.

What are the limitations of TRI data?

- **Annual data** – collected from TRI reporting facilities each year
- Covers many, but **not all chemical releases and not all industry sectors**
- **Small facilities are not included** (under 10 employees)
- **Does not cover all sources of pollution**, (e.g. cars and trucks)
- **Does not describe how long or how often chemicals were released**

For more information, see *"Factors to Consider When Using TRI Data"* at: www.epa.gov/toxics-release-inventory-tri-program/factors-consider-when-using-toxics-release-inventory-data

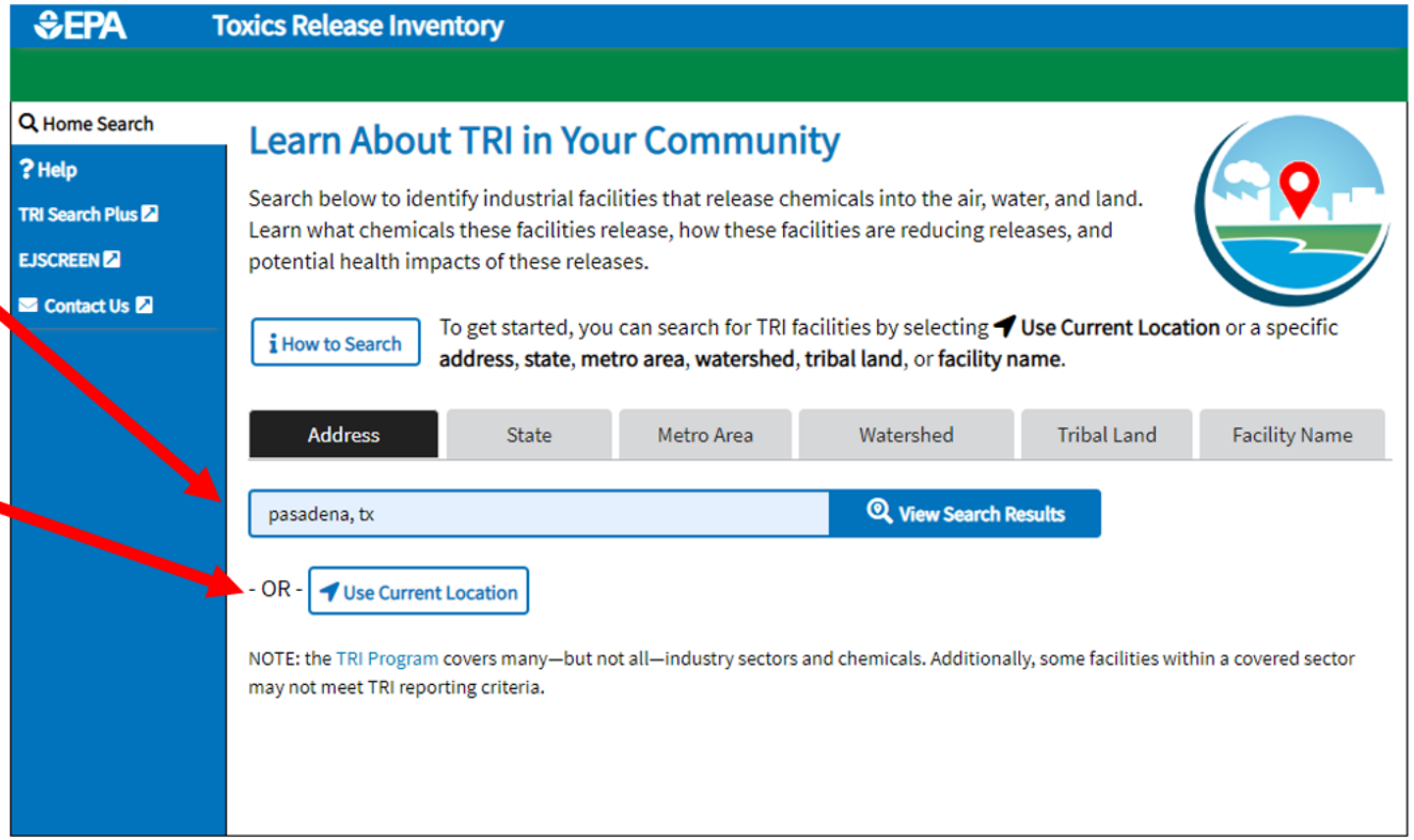
New improved TRI search interface
Examples of how to access and use it

- TRI's search interface is available at www.epa.gov/tri#trisearch
  - Now more user-friendly with expanded search options, interactive mapping features, charts, graphs and tables with summary community-level data and detailed data about individual TRI facilities, compliance and enforcement, potential health effects, and additional in-depth data in new TRI Search Plus section.
- Example 1: Pasadena, TX
  - Designated as a community for focus in the Texas Environmental Justice Collaborative Action Plan
- Example 2: 30th Street Corridor, Milwaukee, WI
  - Designated as an Environmental Justice Showcase Community in EPA Region 5

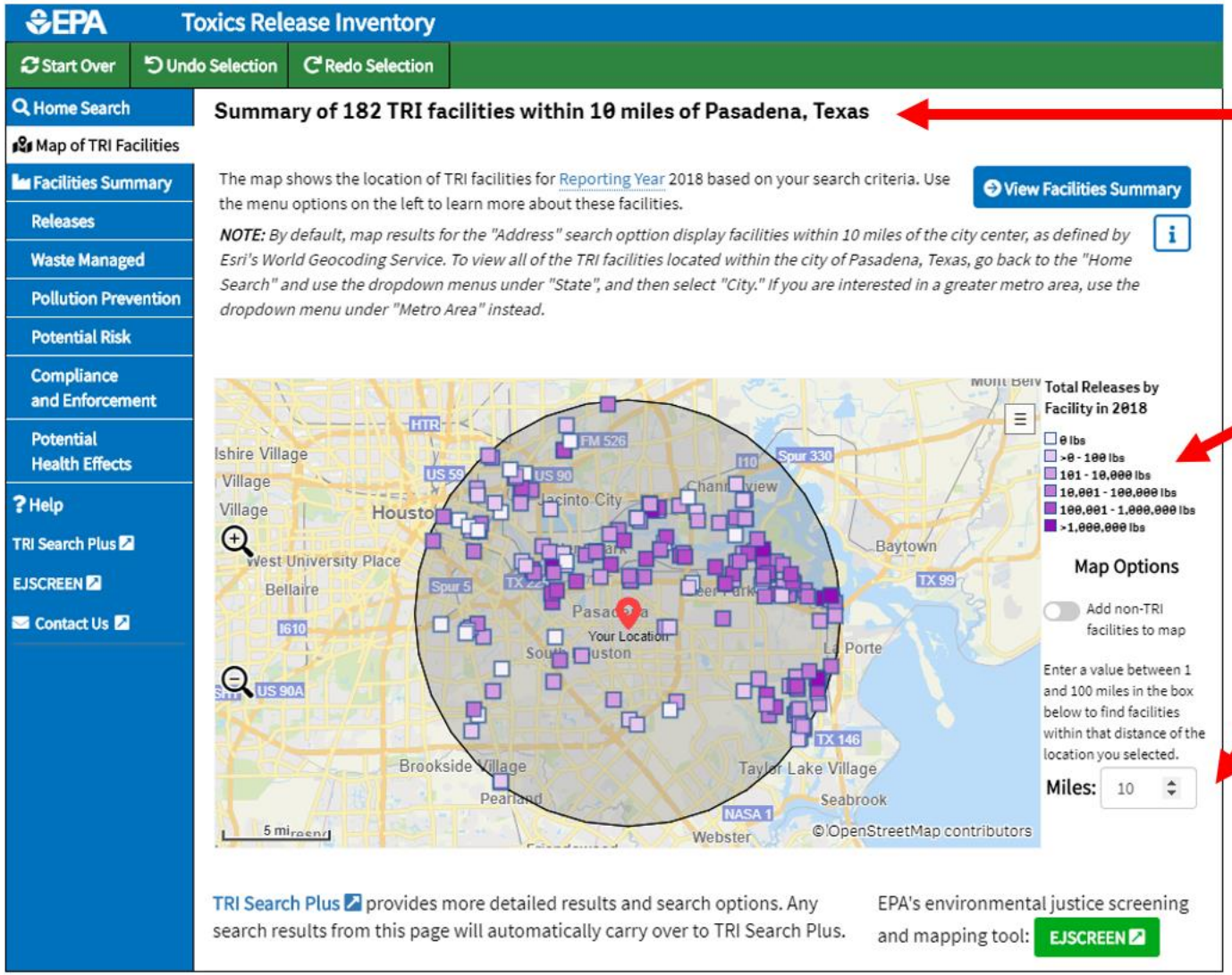
TRI Search Launch Screen
Example: Pasadena, TX

Enter an address or place name, then click "View Search Results" to see all TRI facilities in the most recent reporting year (currently 2018) within 10 miles.

Also "Current Location" search option (*unavailable for some devices/ browser settings)*



TRI Facilities Mapping
Example: Pasadena, TX



Displays the number of TRI facilities located within the selected **search radius**.

Facilities are shown as color-coded squares (in shades of deep purple to light purple/white) to identify the range of release quantities for each of the facilities in the selected search **radius**.

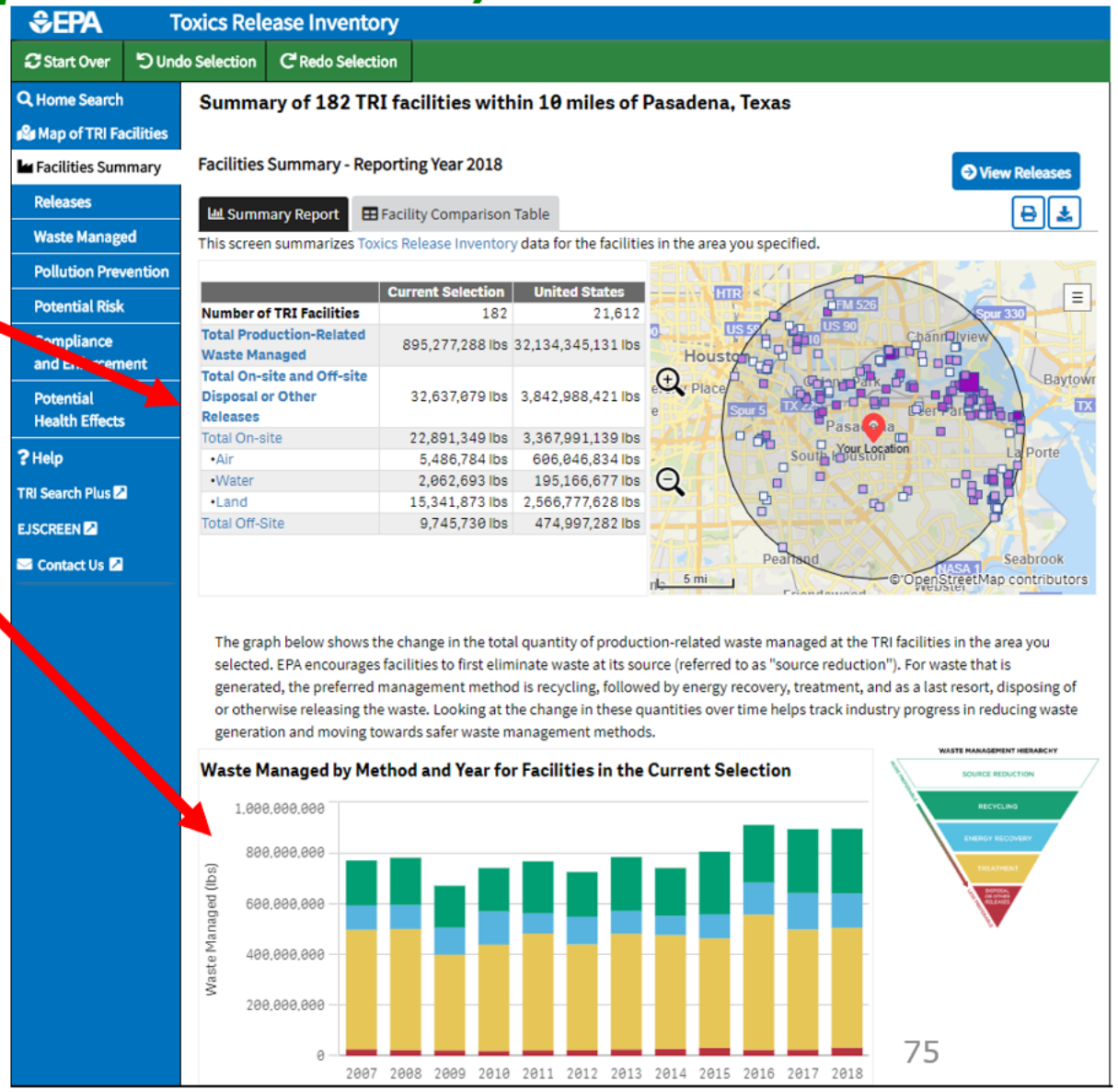
Can select a search radius between 1 to 100 miles. *(The default radius is 10 miles.)*

TRI Summary Report

Example: Pasadena, TX

Basic “Quick Facts” summary of overall TRI 2018 data about all TRI reporting facilities located within 10 miles of Pasadena, TX.

Includes a trends chart that provides a quick overview of waste managed and release quantities between 2007 and 2018.



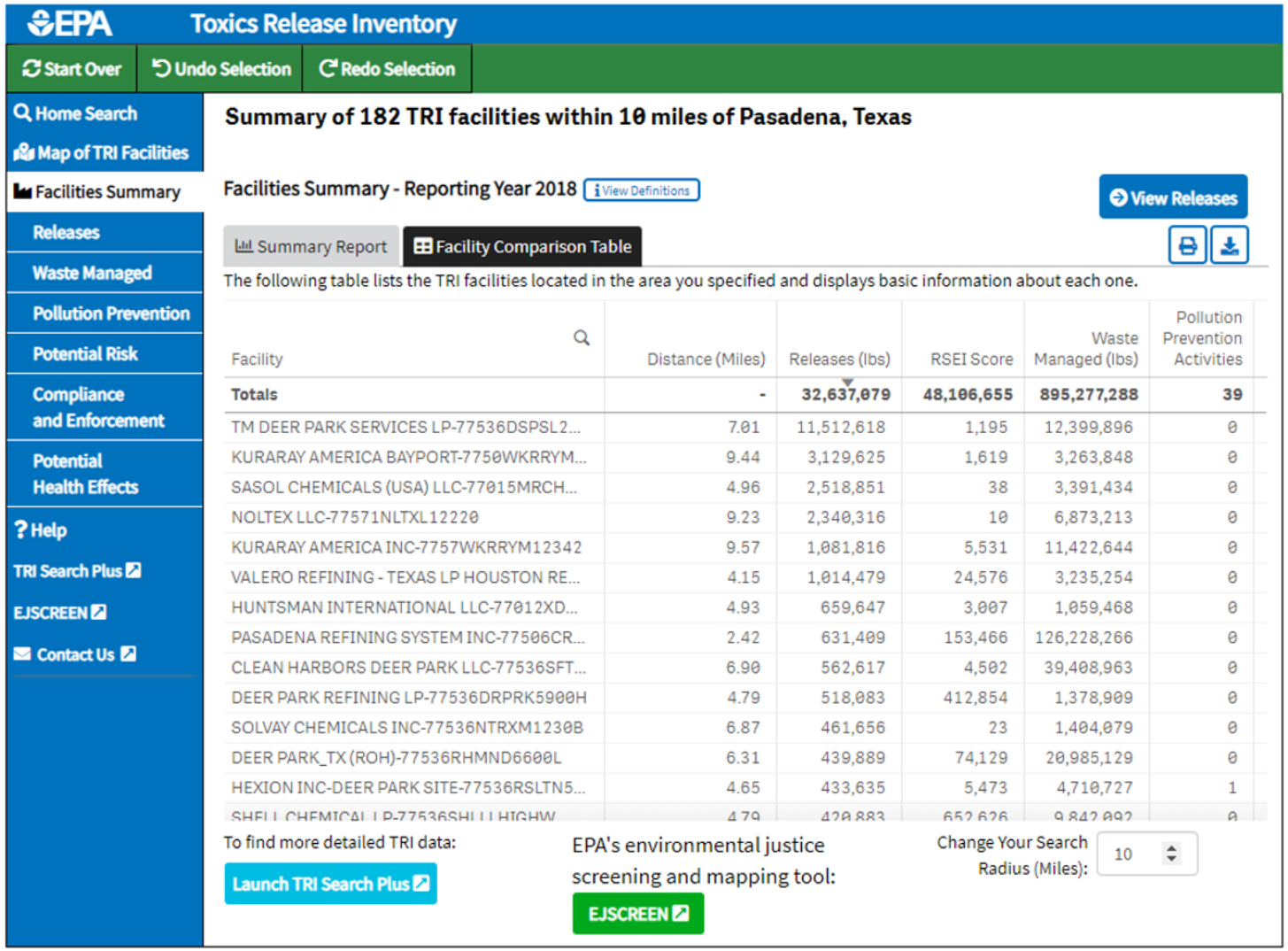
TRI Facilities Comparison Table

Example: Pasadena, TX

Side-by-side comparison of all 182 facilities.

Sort by:

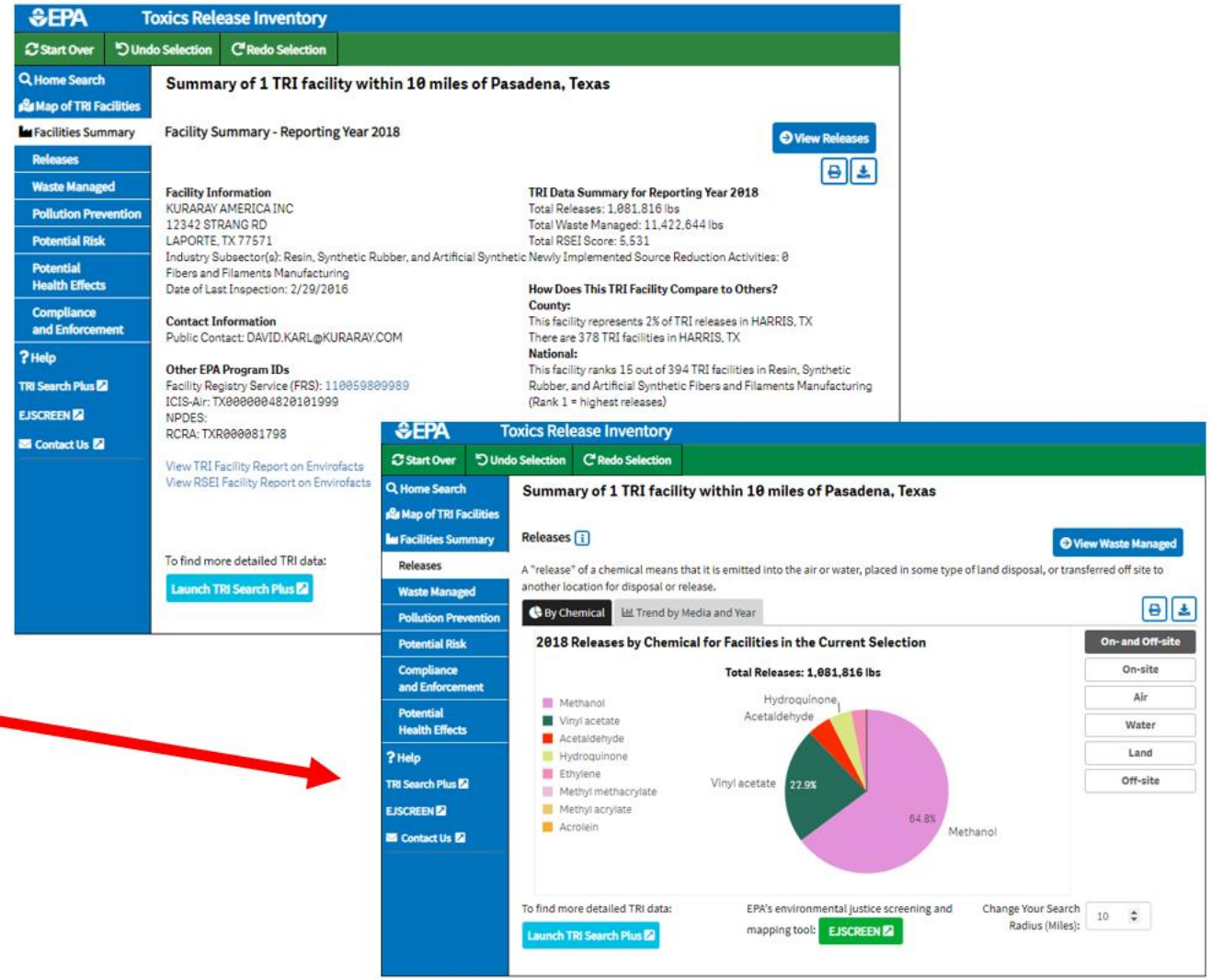
- Distance (from selected location)
- Releases
- RSEI Score
- Waste Managed
- Pollution Prevention Activities



TRI Data about Individual Facilities

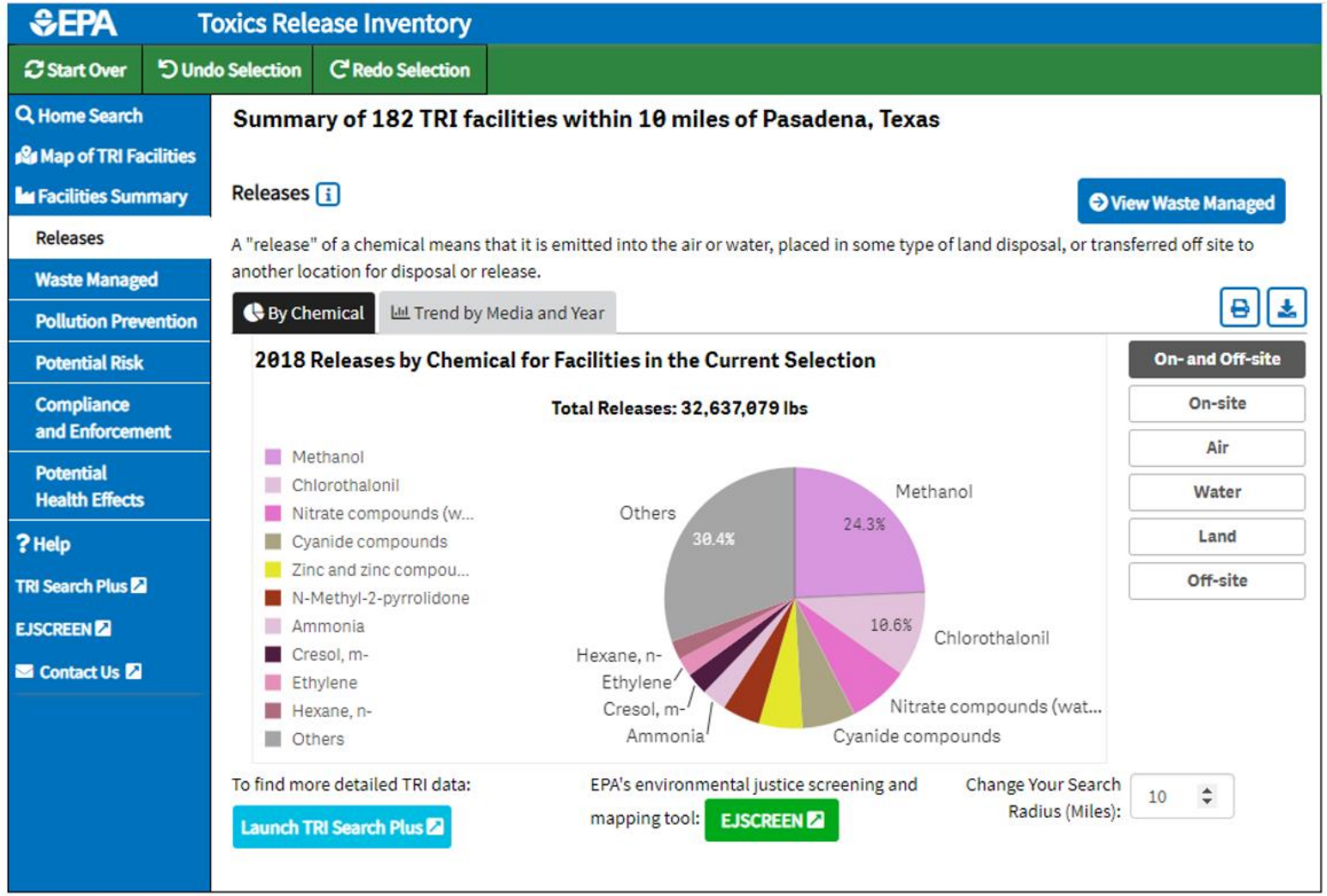
Example: Pasadena, TX

- Data about a single TRI facility can be accessed from the TRI search launch screen.
- This chart provides various data about the selected facility, including:
  - Data about total releases and waste management.
  - How the facility compares to others in the county and nationally.
  - How to access more detailed data about the facility.
- Various types of pie charts, trends graphs, tables, etc. are available to help you learn about individual facilities.



TRI Total Releases by Chemical
Example: Pasadena, TX

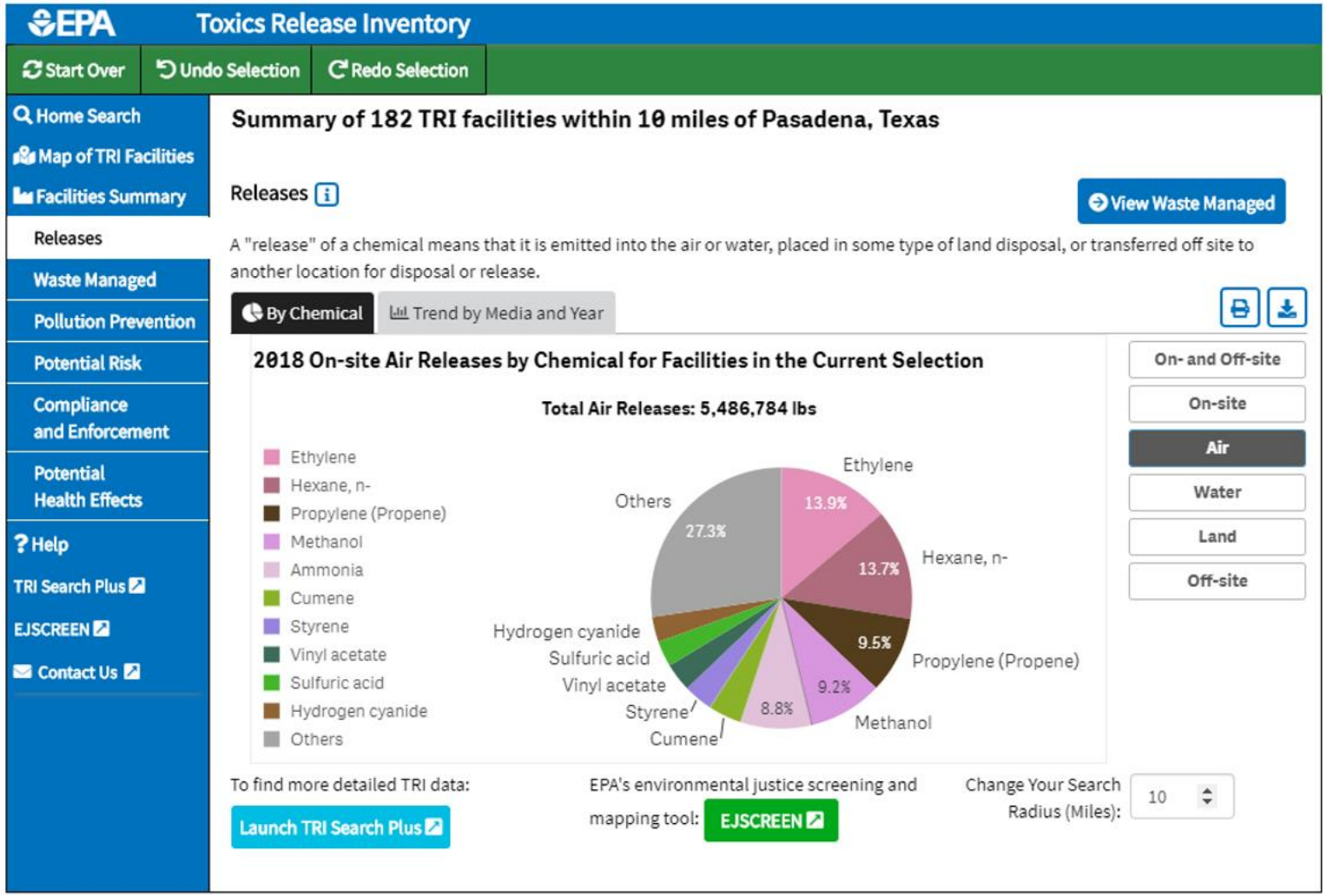
- Top chemicals by total release quantities (i.e., releases to air, water, land, and off-site releases) in 2018.



TRI Air Releases by Chemical

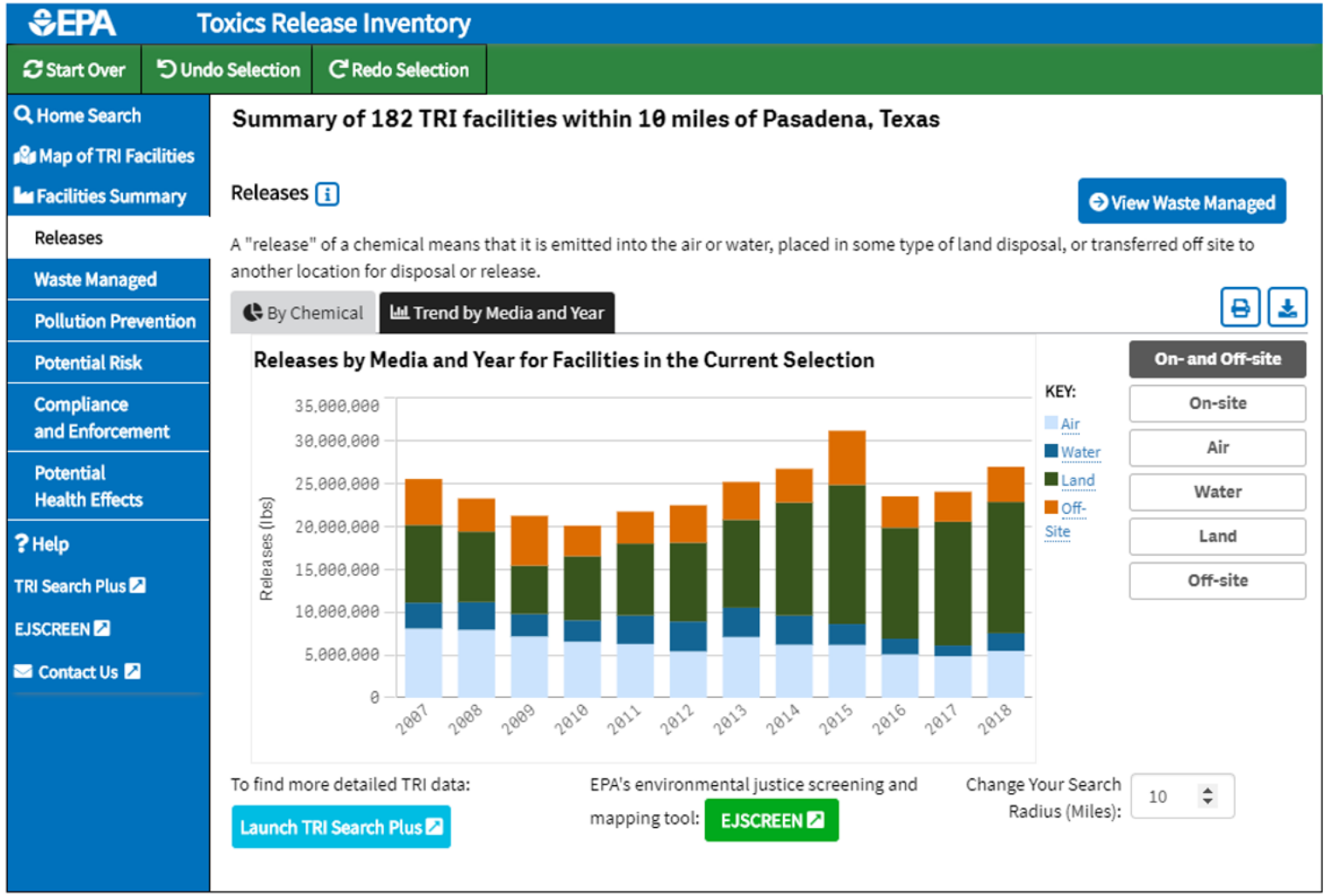
Example: Pasadena, TX

- In addition to data about total overall releases (see previous slide), one can choose to view data about releases by media (i.e., air, water, land), as well as by total on- or off-site releases.
- This chart displays data about the top chemicals released to the air by all the facilities located in the selected location.



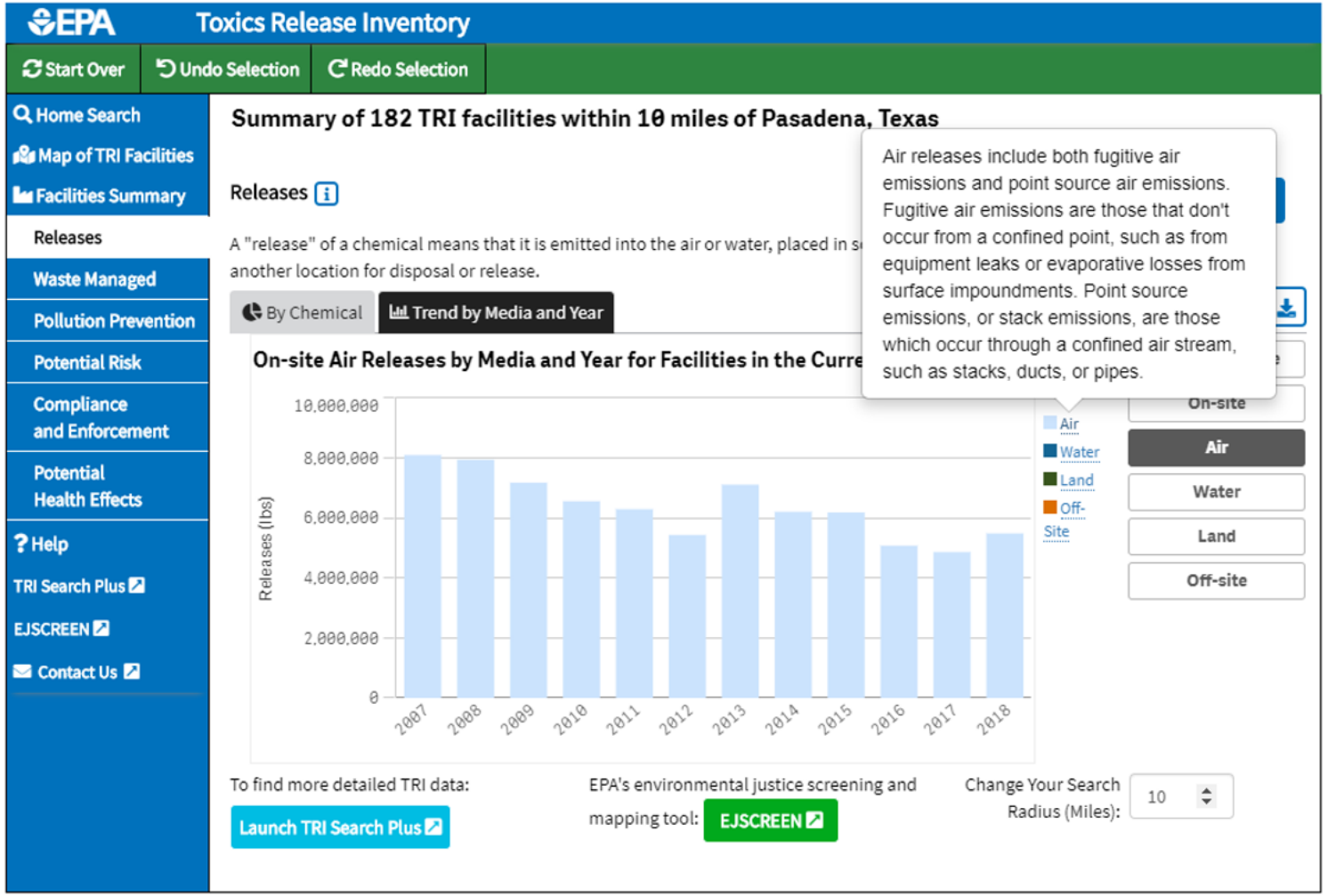
TRI Trends Data
Total Releases by Media and Year
Example: Pasadena, TX

- Trends chart showing total releases by all the facilities located in the selected location between 2007 to 2018 by media (i.e. air, water, land) as well as off-site releases.



TRI Trends Data
Air Releases by Media and Year
Example: Pasadena, TX

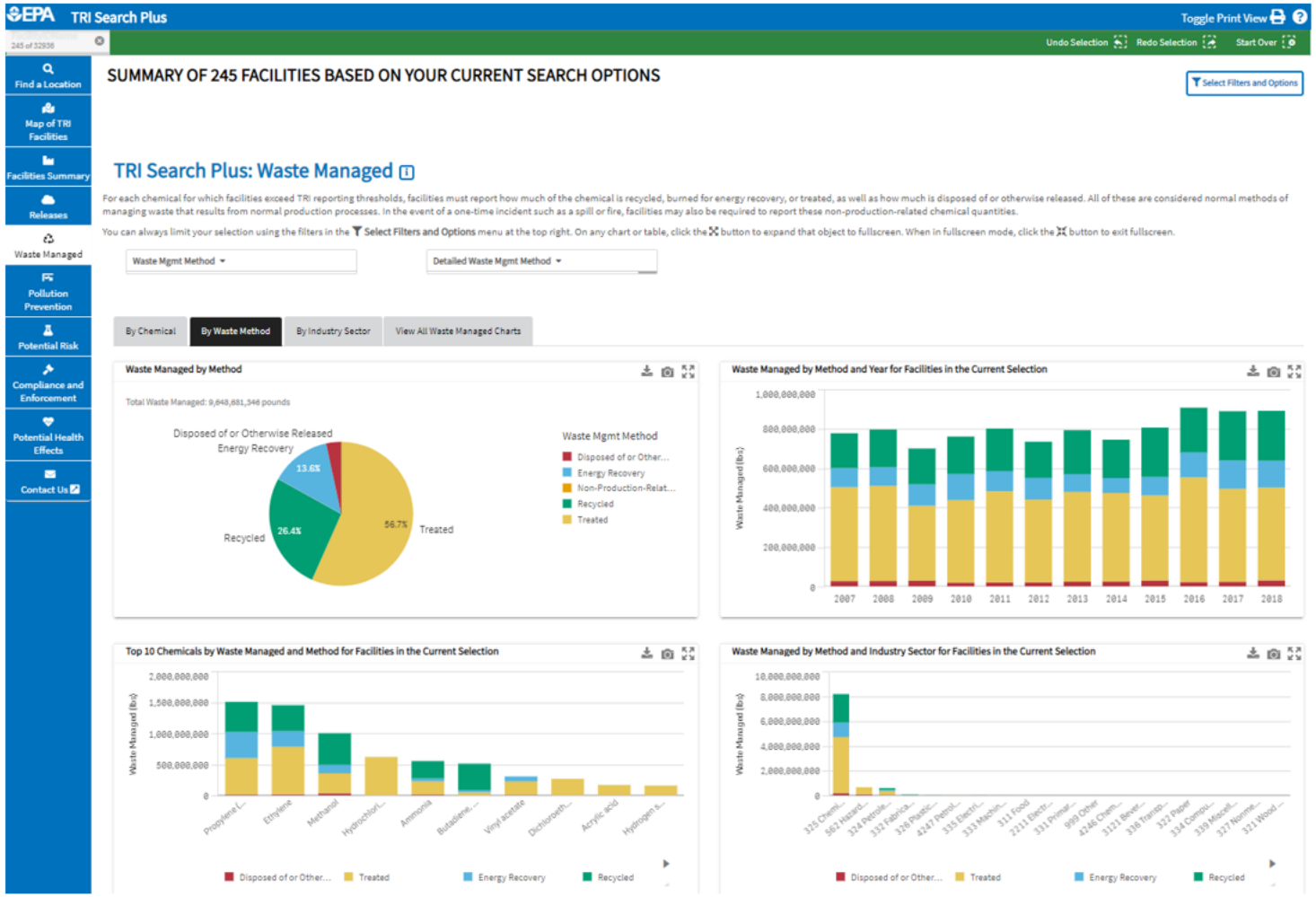
- Trend from 2007 to 2018 for air releases (shows slight decreasing trend over time).
- Tool tips are available that provide definitions of terms used and additional background information – to promote understanding of what each data element includes.



TRI Search Plus and TRI Waste Management Data

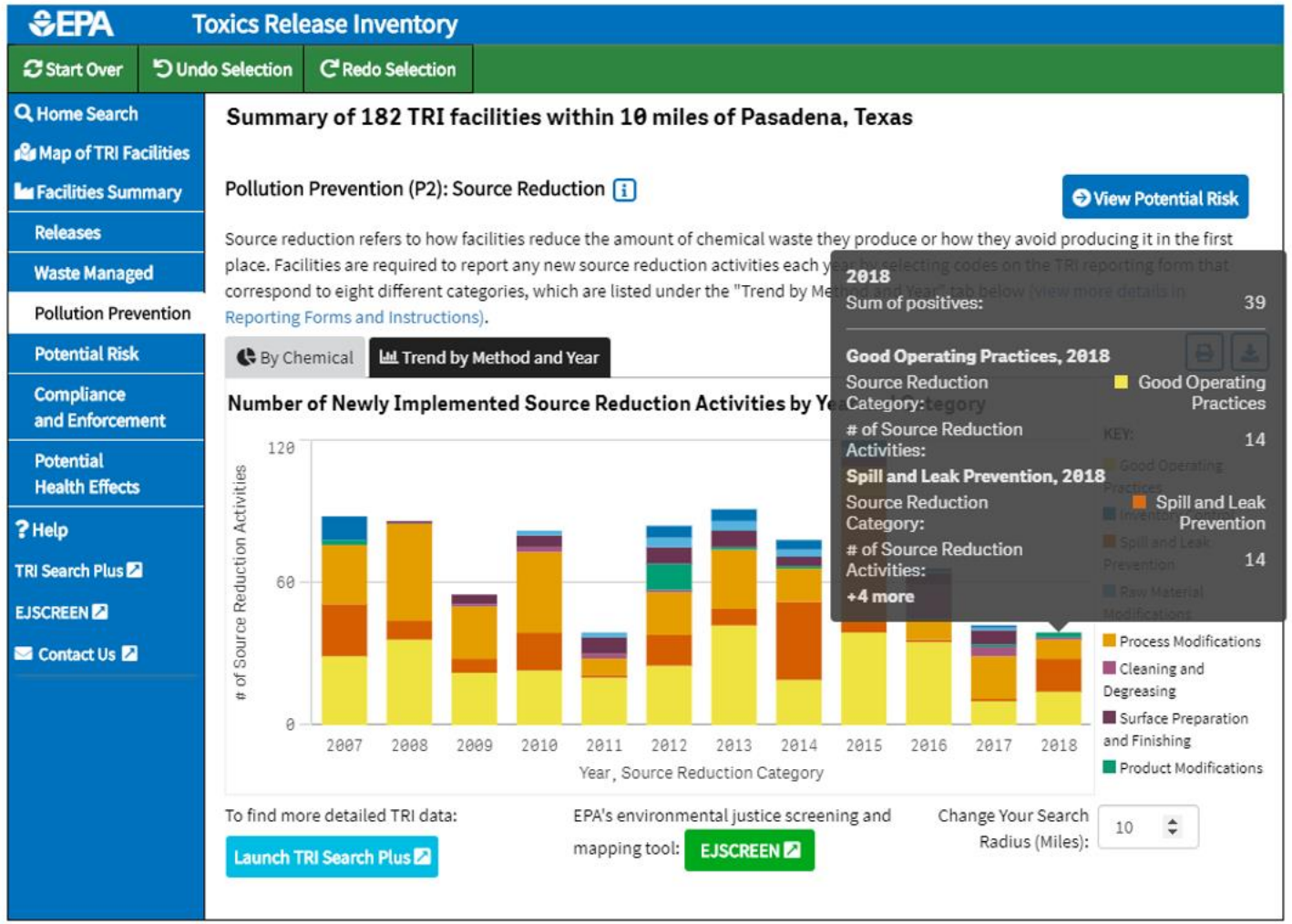
Example: Pasadena, TX

- TRI's search interface also offers a feature called TRI Search Plus that provides access to more in-depth TRI data with expanded charts, graphs and filter options, including:
  - Data about multiple years *(currently 2007 – 2018).*
  - Additional charts and tables for viewing data by chemical, media, year, industry sector, etc. -- In this example, total quantities of waste managed (i.e., recycling, energy recovery, treatment and disposal) for 2007 – 2018.



TRI Pollution Prevention (P2) Data
Example: Pasadena, TX

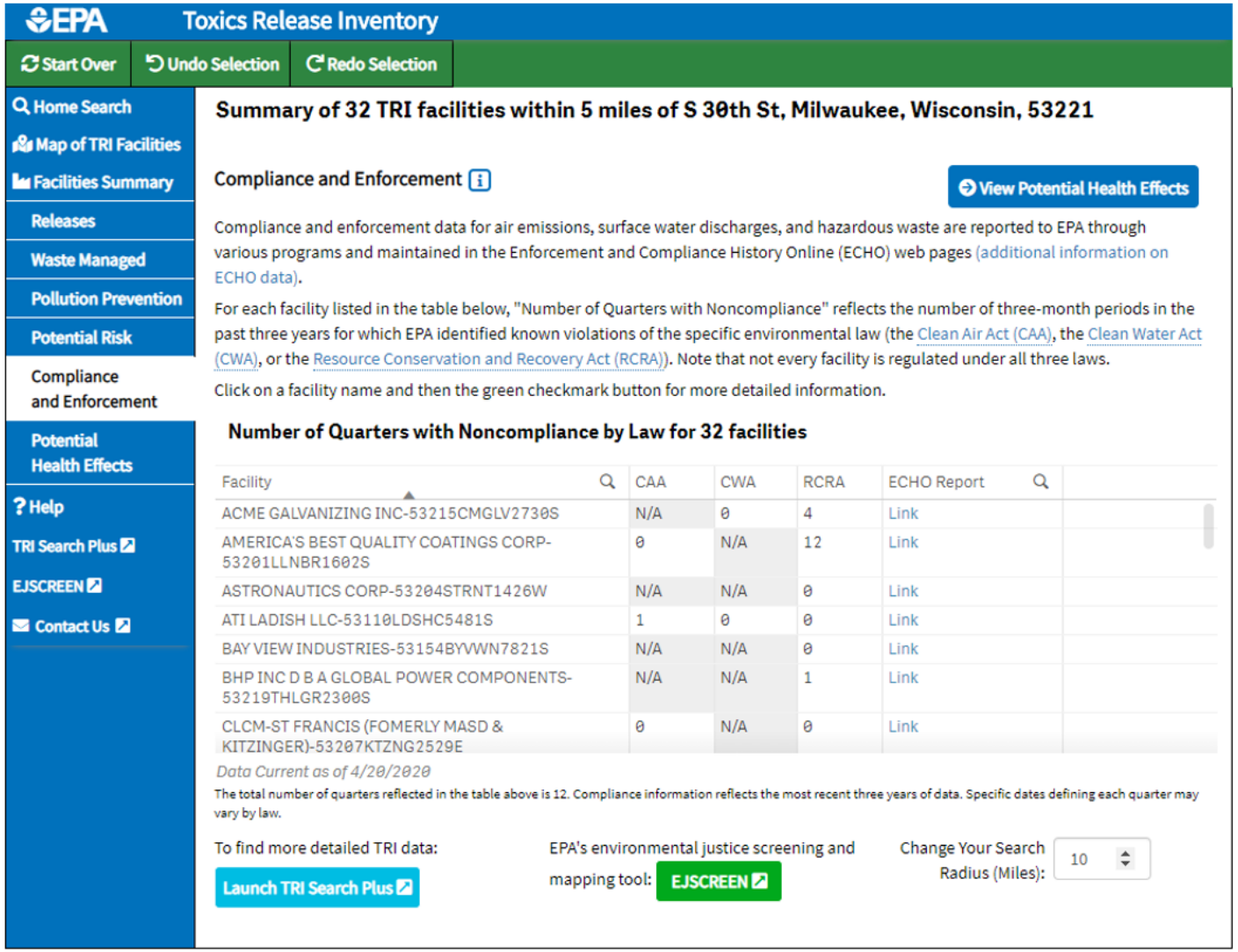
- Displays various P2 (source reduction) activities implemented by all facilities within 10 miles of Pasadena, TX.
- The majority of P2 activities implemented by all the facilities in Pasadena, TX during the most recent TRI reporting year (2018) were spill and leak prevention, and good operating practices.



Compliance and Enforcement

Example: 30th Street Corridor, Milwaukee, WI

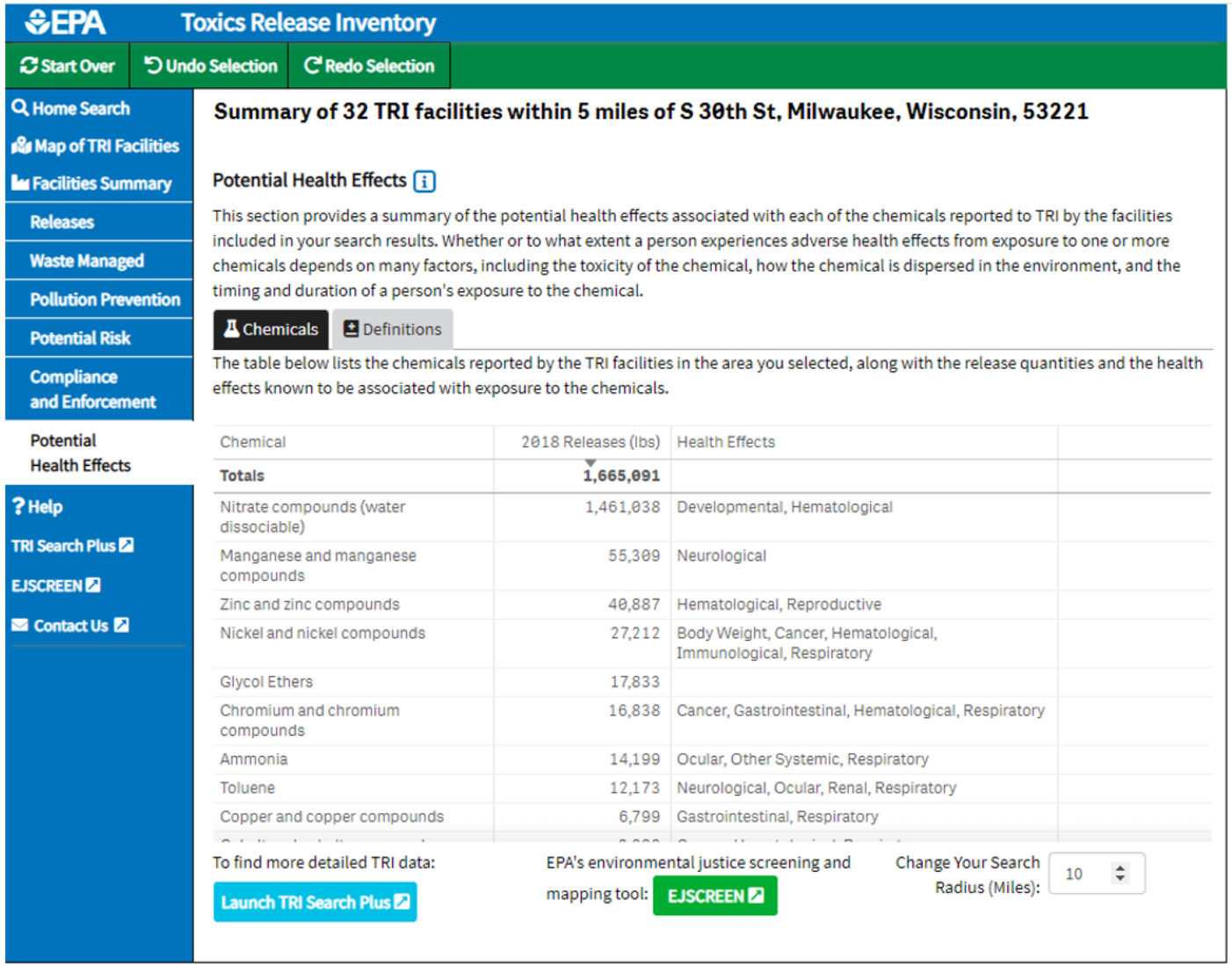
- EPA compliance and enforcement data about facilities within 5 miles of S 30th Street, Milwaukee, WI under the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act.



Potential Health Effects

Example: 30th Street Corridor, Milwaukee, WI

- Potential health effects associated with each chemical released from the facilities within 5 miles of S 30th Street, Milwaukee, WI.



Comparison: TRI vs TCEQ STEERS

TRI includes annually reported data by facilities throughout the U.S. that meet TRI reporting requirements. This example displays annual TRI data about air releases by a single facility (Kuraray America Inc. in Pasadena, TX), and highlights the total releases and percentage share of total releases for each of the top chemicals released in 2018.

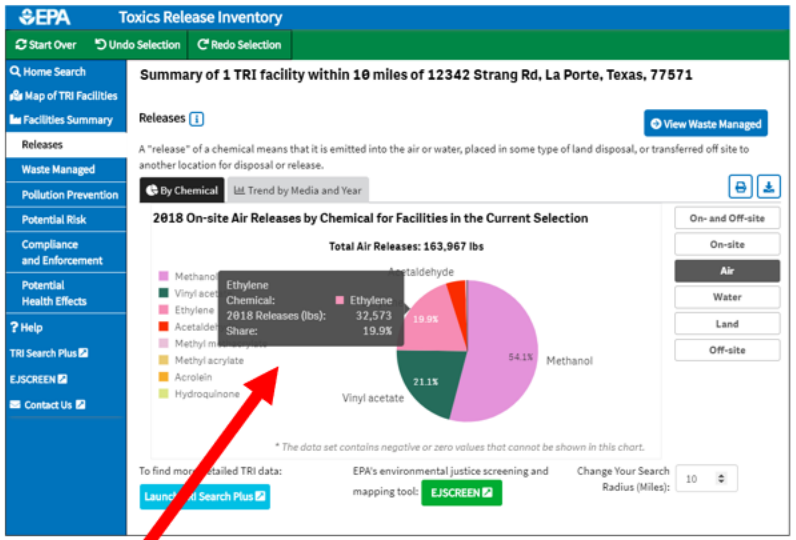
State of Texas Environmental Electronics Reporting System (STEERS) includes reports about certain individual air emissions events that exceed a reportable quantity from facilities that are regulated by the Texas Commission on Environmental Quality.

Both TRI and STEERS display data about pounds of chemicals released by individual facilities.

STEERS data is available through the present day; TRI currently includes data though 2018 *(TRI's data for 2019 will become available in late 2020)*.

The example screenshot displayed here is for Kuraray America Inc. in Pasadena, TX in 2018:

- TRI annual, aggregated data shows 32,573 lbs of ethylene were released by Kuraray America in 2018.
- STEERS data shows 150 lbs of ethylene were released by Kuraray America during a 2 ½ hour event on January 2, 2018.



TCEQ STEERS

Air Emission Event Report Database Incident 275496

Export emission point and contaminant information to Excel spreadsheet.

Incident Tracking Number:	275496	Incident Status:	CLOSED
Report Type:	FINAL	Report Date:	01/15/2018
Name of Owner or Operator:	KURARAY AMERICA INC	CN:	CN603315953
Regulated Entity Name:	KURARAY LA PORTE	RN:	RN107305922
Physical Location:	12342 STRANG RD; LA PORTE, TX 77571		
County:	HARRIS		
Event/Activity Type:	EMISSIONS EVENT		
Date and Time Event Discovered or Scheduled Activity Start:	01/02/2018 02:20 AM		
Date and Time Event or Scheduled Activity Ended:	01/02/2018 04:45 AM		
Event Duration:	2 hours, 25 minutes		

Process Unit or Area Common Names
Reaction Gas Loop (VS-223P)

Facility Common Name	Facility Identification Number (FIN)
'A' Plant Flare MSS Emissions	VS-202(MSS)
Fugitives (@Vaporizer Pressure Transmitter Drain)	VS-400F

1 - Emission Point Common Name:	Emission Point Number:
'A' Plant Flare MSS Emissions	VS-202(MSS)

List of Air Contaminant Compounds - 6 total

Description	Est. Quantity / Opacity	Units	Emission Limit	Units	Authorization
Acetaldehyde	3.23	POUNDS	168.64	LBS/HR	NSR 4445 for VS-202(MSS) total VOC
Carbon Monoxide	0.3305	POUNDS	171.24	LBS/HR	NSR 4445 for VS-202(MSS) CO
Ethylene (gaseous)	150.24	POUNDS	168.64	LBS/HR	NSR 4445 for VS-202(MSS) total VOC
Nitrogen Oxides	0.0649	POUNDS	23.71	LBS/HR	NSR 4445 for VS-202(MSS) NOx
Sulfur dioxide	0.01	POUNDS	0.05	LBS/HR	NSR 4445 for VS-202(MSS) SO2
Vinyl acetate	7.34	POUNDS	168.64	LBS/HR	NSR 4445 for VS-202(MSS) total VOC

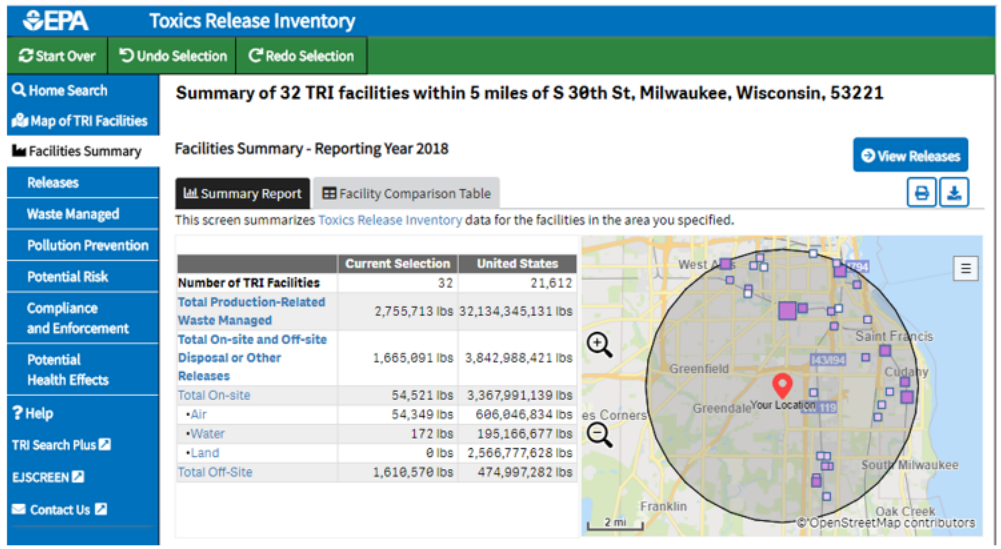
Comparison: TRI vs Wisconsin Tracking Program Public Data Portal

Wisconsin Tracking Program Public Data Portal includes a variety of data related to public health issues, such as data about childhood lead exposure, drinking water contaminants, cancer rates, and reproductive outcomes.

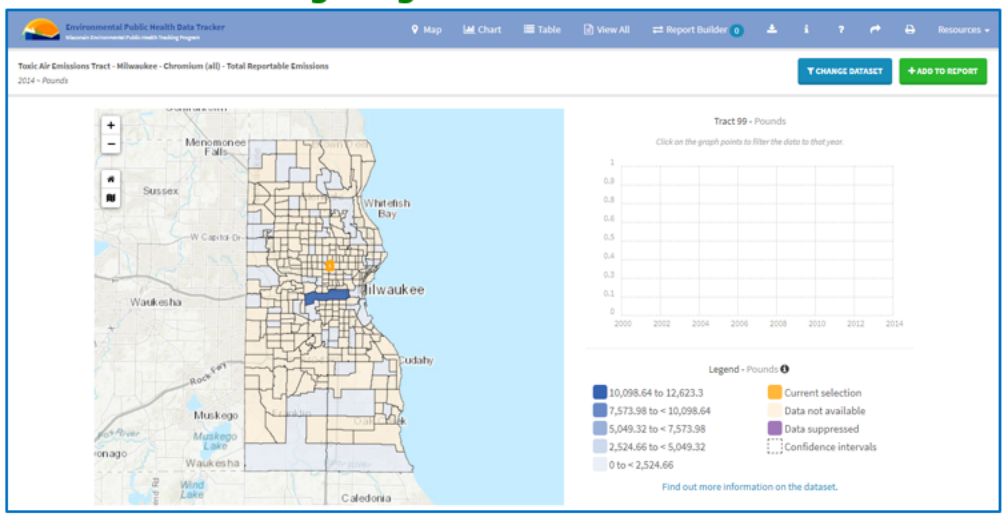
One of the topics included in the WI Tracking Data Portal is toxic air emissions data, reported by facilities located in Wisconsin. Data on over 30 chemicals are available at the census tract level.

TRI includes data regarding chemical releases to air, water, and land about 800 chemicals and chemical categories. The most recent data is for 2018. *(2019 data will become available in late 2020.)*

Although the toxic air emissions data in the WI Tracking Data Portal and TRI data both cover toxic air releases from industrial facilities (e.g., number of facilities and pounds of chemicals released), they are not directly comparable, due to differences such as chemical reporting thresholds.

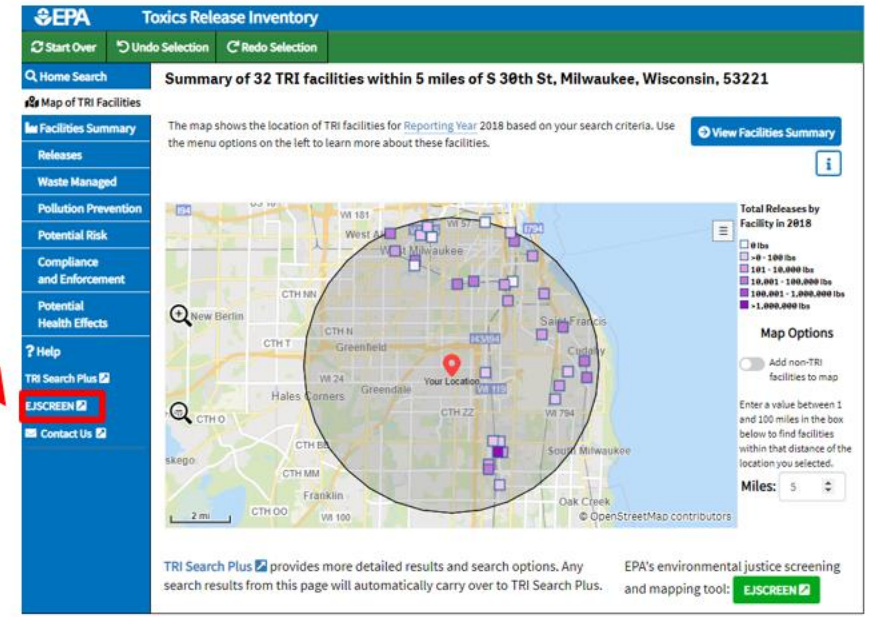


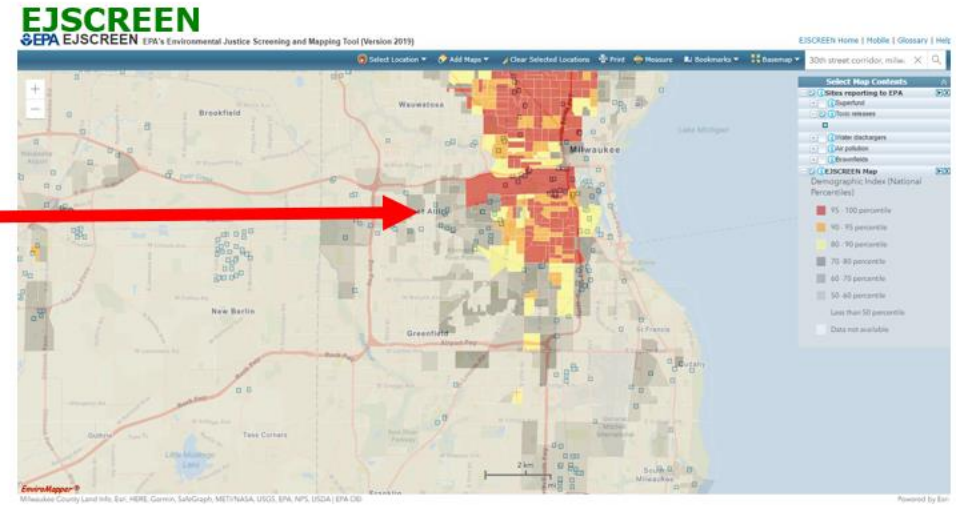
Wisconsin Tracking Program Public Data Portal



TRI vs EJSCREEN

- The new TRI search interface features EJSCREEN throughout all its webpages on its menu bar.
- EJSCREEN includes demographic and environmental indicator information available at the Census block group level *(currently unavailable for TRI)*, as well as search capability to locate various sites reporting to EPA and other points of interest such as schools, parks, and public housing.
- EJSCREEN provides the ability to view the location of TRI facilities and overlay that data with EJSCREEN's demographic, environmental indicator, and/or other location layers.
  - EJSCREEN demographic index: average of percent low-income and percent minority populations in each Census block group (these are the two demographic factors named in EO 12898 on Environmental Justice).
  - Orange and red shading indicates higher value of demographic index compared to national percentiles (i.e., larger minority and/or low-income populations as a percentage of the total population in each block group).
  - Blue squares indicate TRI facilities.





TRI Resources and Contact Information for EJ Communities

To learn more about TRI check out the new improved TRI search interface: www.epa.gov/tri/#trisearch

TRI Information Center: (800) 424-9346
(Select option #3 from menu – 10 am - 5:00 pm ET)

To email a question to a TRI program expert: tri.help@epa.gov

TRI Contacts: www.epa.gov/tri/contacts

TRI Regional Coordinators: www.epa.gov/tri/regionalcoordinators

Discussion

- Summary
- Questions and Answers
- For more information, tools and resources, go to EPA Environmental Justice Learning Center

https://www.epa.gov/environmentaljustice/environmental-justice-learning-center

State EJ Training Webinar on
Information Systems to Advance Environmental Justice
September 10, 2020
Speaker Biographies

SPEAKERS

Constance Bell is the Health Educator for the Environmental Public Health Tracking Program at the Wisconsin Department of Health Services. In this role she gets to work with local public health agencies and data stewards to develop and promote messaging for the Wisconsin Tracking Program. Prior to joining the Department of Health Services, she spent several years working in Washington D.C. as a clinical nurse and health educator. She has a BA in Zoology from University of Wisconsin-Madison, a BSN from Barnes-Jewish College of Nursing, and an MPH from the University of Maryland-College Park.

Cynthia Gandee joined the Texas Commission on Environmental Quality in 2007 as an air investigator in the Houston area and was later promoted to Team Leader before moving to the headquarters office located in Austin. She has served in multiple coordination roles across several programs to support field staff. Cynthia has a B. S. in Environmental Science with a second major in Journalism and is currently Special Assistant to Director Jonathan Walling of the Coastal and East Texas Area of the Office of Compliance and Enforcement.

Shelley Fudge is the Environmental Justice and Tribal Affairs Coordinator for the U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) Program. During the 30 years she has worked at EPA, she has also focused on aquatic habitat protection, Clean Water Act standards for impaired waters, pollution prevention, climate change/energy efficiency, concentrated animal feeding operations, and underground storage tanks. Prior to joining the EPA, she focused on natural resource protection for two other federal agencies. She also worked for the North Carolina Cooperative Extension Service, and taught elementary and high school in Valparaiso, Indiana.

MODERATOR

Charles Lee is widely recognized as a true pioneer in the arena of environmental justice. He was the principal author of the landmark report, Toxic Wastes and Race in the United States. He helped to spearhead the emergence of a national environmental justice movement and federal action, including the establishment of EPA's Office of Environmental Justice and issuance of Executive Order 12898. Charles Lee is currently the Senior Policy Advisor for Environmental Justice at the U.S. Environmental Protection Agency (EPA). He led the development and implementation of EPA's agency-wide environmental justice strategic plans, e.g., Plan EJ 2014 and EJ 2020. He has served in multiple capacities, ranging from creating the United Church of Christ's environmental justice program to directing EPA's environmental justice office.

Texas Commission on Environmental Quality
Environmental Justice Webinar
September 10, 2020

For further information, please see the following links.

TCEQ Air Emission Event Report Database:
https://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.searchForm&newsearch=yes

Instructions on Creating an Electronic Incident Report for Regulated Entities:
https://www3.tceq.texas.gov/steers/help/aeme/create.html

Instructions on Creating a Hard Copy Incident Report for Regulated Entities:
https://www.tceq.texas.gov/assets/public/compliance/field_ops/fod_forms/upset/eefguide.pdf

TCEQ Annual Enforcement Report:
https://www.tceq.texas.gov/compliance/enforcement/enforcement-reports/annenfreport.html

Information on TCEQ Air Quality Successes:
https://www.tceq.texas.gov/airquality/airsuccess

SURVEILLANCE BRIEF

Wisconsin Environmental Public Health Tracking Program REV. FEBRUARY 2019

HEALTH DISPARITIES IN WISCONSIN HOSPITALIZATIONS FOR ASTHMA

By Paul D. Creswell, PhD[1,2,3]; Christy Vogt, MPH, CHES[1,2]; Megan Christenson, MS, MPH[1,2,3]; Carrie Tomasallo, PhD, MPH[1,4]

[1]Wisconsin Department of Health Services, Bureau of Environmental and Occupational Health; [2]Wisconsin Environmental Public Health Tracking Program; [3]University of Wisconsin-Madison, Department of Population Health Sciences; [4]Wisconsin Asthma Program

SUMMARY - Asthma is a chronic disease that causes substantial disease burden in Wisconsin. Certain groups are more likely to be affected by asthma. Black and American Indian/Alaska Native populations experience asthma hospitalization rates that are significantly higher than rates for white populations in Wisconsin.

Asthma hospitalizations can be reduced by implementing individual- and community-level strategies. Self-management strategies include adhering to medication recommendations, avoiding known asthma triggers, and controlling asthma symptoms.

Asthma self-efficacy may be increased by creating asthma action plans and improving the cultural competency of asthma educational materials. Community programs to improve indoor air quality can help reduce asthma symptoms and may decrease asthma-related hospitalizations.

BACKGROUND

Asthma is a chronic inflammatory disease characterized by intermittent wheezing, chest tightness, and shortness of breath that can limit an individual's ability to bring oxygen into the lungs, making breathing difficult.[1] While asthma cannot be cured, it can be controlled by self-management strategies such as the regular use of controller medications, receiving an annual influenza immunization, and avoiding exposure to triggers such as cigarette smoke. Incorporating such self-management strategies into an asthma action plan can be a very effective approach to keeping asthma appropriately controlled.

Asthma affects 12% of Wisconsin adults and 11% of Wisconsin children,[2] and resulted in 5,111 hospitalizations and 21,382 emergency department visits in 2014.[3] While asthma affects individuals throughout Wisconsin, some groups are more likely to be

affected by the disease.

The Wisconsin Department of Health Services (DHS) Asthma Program conducts asthma surveillance and summarizes rates of asthma-related adverse health outcomes on a regular basis.[2] In concert with national trends,[4] the most recent data reveal that black individuals in Wisconsin experience higher prevalence of asthma compared to other racial/ethnic groups (15.9 for blacks, as opposed to 10.3 for Hispanics, 12.9 for American Indian and Alaskan Natives, 6.2 for Asians, and 8.6 for whites).[2,3] This surveillance brief uses publicly available data from DHS to expand on these numbers by examining rates of asthma hospitalization by race and ethnicity in Wisconsin. It also provides suggestions for reducing asthma disparities.

METHODS

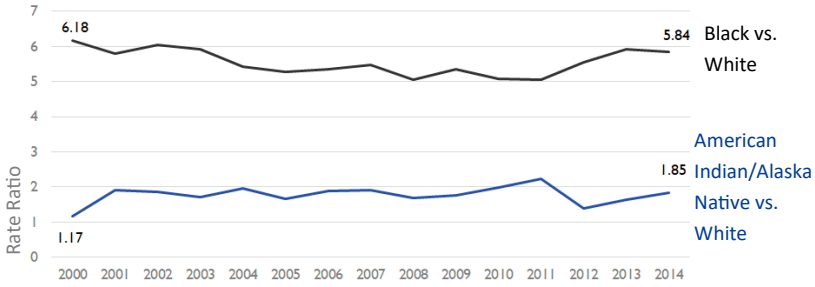
We used data from the Wisconsin Environmental Public Health Tracking (Tracking) Program's public data portal[5] to compare rates of asthma hospitalizations, over time, by race and ethnicity in Wisconsin. We calculated rate ratios to compare the annual age-adjusted rates per 10,000 population for black and American Indian/Alaska Native to white populations and Hispanic to non-Hispanic populations during 2000-2014. Statistically significant differences were identified using non-overlapping confidence intervals.

RESULTS

Racial Disparities in Hospitalizations

Disparities by race were evident in the asthma hospitalization data from Tracking. In 2014, the age-adjusted asthma hospitalization rate for black residents was 36.25 per 10,000 population, which is 5.8 times as high as the rate for white residents (6.21 per 10,000 population).[3] Figure 1 shows this trend has been relatively consistent from 2000-2014, with the rate for black residents remaining significantly higher (six times) than the rate for white residents in each year (2000-2014). The age-adjusted asthma hospitalization rate for American Indian and Alaska Natives was 11.48 per 10,000 population, which is nearly twice as high (1.8 times) as the rate for whites in 2014.[3] This rate ratio is consistent across the years

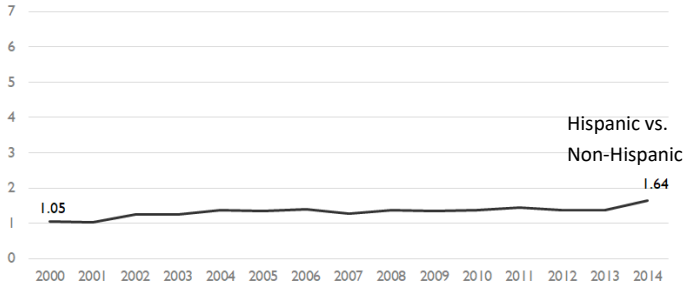
FIGURE 1. Rate Ratio of Age-Adjusted Asthma Hospitalization Rates by Race: Wisconsin, 2000-2014



Black Wisconsinites have a rate of asthma-related hospitalizations **six times higher** than white Wisconsinites.

American Indian/Alaska native Wisconsinites have a rate of asthma-related hospitalizations **1.8 times** higher than white Wisconsinites.

FIGURE 2. Rate Ratio of Age-Adjusted Asthma Hospitalization Rates by Ethnicity: Wisconsin, 2000-2014



In 2014, Hispanic Wisconsinites had an asthma-related hospitalization rate **1.6 times higher** than non-Hispanic Wisconsinites.

shown and significantly higher during each year during 2002-2014.

Ethnic Disparities in Hospitalizations

While the historical populations of other races in Wisconsin are too small to make statistically adequate comparisons, the Tracking data can be broken down by ethnicity. In 2014, the rate for the Hispanic population was 13.57 per 10,000 population—1.6 times as high as the non-Hispanic population's rate of 8.29 per 10,000 population (Figure 2), while the average annual rate ratio during this period is 1.3. The annual differences in rates between these populations are statistically significant during 2000-2014.

Discussion of Findings

These comparisons of age-adjusted hospitalization rates for asthma using rate ratios illustrate that significant differences by race and ethnicity exist in Wisconsin. Rates for black Wisconsin residents are particularly high compared to white residents and have remained relatively unchanged across the 15 years of data presented in this brief. However, while the disparity is the greatest for blacks, other racial and ethnic disparities exist, namely for American Indian/Alaska Natives and Hispanics.

ADDRESSING ASTHMA DISPARITIES

Self-Management and Clinical Care

Asthma care and control are essential components in preventing hospitalizations. One route to reduce existing disparities would be to improve self-management of asthma for different population groups in Wisconsin. University of Wisconsin researchers found asthma self-efficacy—a person's belief that they can manage their disease—differed by race, ethnicity, and income in a large California sample. Black individuals typically had lower self -efficacy related to asthma than did their white counterparts. However, researchers saw improvements in self-efficacy when patients had an asthma management plan from their doctor,[6] suggesting that an asthma action plan or similar strategy might be a way to reduce disparities by improving self-efficacy.

Researchers have also found that pediatric patients on Medicaid who used clinics and hospitals with the highest cultural competence scores were less likely to underuse preventive asthma medications, and their parents were more likely to report higher satisfaction with care.[7]

> "These comparisons of age-adjusted hospitalization rates for asthma using rate ratios illustrate that significant differences by race and ethnicity exist in Wisconsin.

Research has also highlighted that asthma educational materials could be improved with regards to cultural competency.[8] Improving communications with vulnerable populations could improve asthma self-management for members of these groups. This is also consistent with findings that suggest acculturation (i.e., English proficiency) and education level are strong predictors of asthma self-efficacy.

Community Interventions, Projects, and Programs

Many other factors are likely to influence racial and ethnic disparities in asthma in Wisconsin. Environmental exposures can differ by location and this can affect the susceptibility of some populations to asthma attacks. For instance, proximity to freeways or industrial sites can influence population patterns in asthma.[9,10] As such, changes in the built environment can affect asthma and may reduce health costs for communities.

Improving known environmental factors is another way to reduce asthma symptoms and improve self-management. For instance, the City of Milwaukee Health Department recently embarked on a smoking cessation project called *Smoke Free Homes for Strong Babies*, which focuses on men who live with pregnant women, infants, and young children.[11] By helping men

quit smoking, this program aims to improve indoor air, which can prevent asthma attacks.

Other programs to improve indoor air have focused on housing. The Clear Gains Smoke-Free Housing Initiative, led by the Wisconsin Tobacco Prevention and Control Program and the American Lung Association, is increasing access to smoke-free housing in Wisconsin. Since 2010, over 200 buildings holding 7,000 units have gone smoke-free, giving an estimated 15,000 Wisconsinites smoke-free spaces to live.[12]

Asthma Care and Environmental Strategies is a new initiative developed by the Wisconsin Asthma Program that provides patients with poorly-controlled asthma and their families with intensive self-management education and a free environmental home assessment to identify and help remediate asthma triggers. The program is available in Sawyer, Kenosha, Milwaukee, and Rock counties, which were selected for initial implementation because of their high asthma burden and disparities among racial and ethnic populations.

RESOURCES

The Tracking portal provides a repository of environmental public health data that communities can explore to consider questions on a variety of topics. The portal hosts asthma data, as discussed here, but also includes data on air quality, cancer, carbon monoxide poisoning, heart attacks, heat stress, historical climate measures, reproductive outcomes, and water quality. Wisconsin Tracking is part of the National Environmental Public Health Tracking Network within the Centers for Disease Control and Prevention (CDC). The national network also contains additional data topics.[13] The Wisconsin Asthma Program[14] and the Wisconsin Asthma Coalition[15] also offer resources for individuals and communities working to address asthma.

CONCLUSIONS

Disparities in asthma hospitalizations by race and ethnicity exist in Wisconsin and are particularly pronounced among black residents of the state. Community and individual strategies can help reduce disparities and decrease the number of people living with uncontrolled asthma.

REFERENCES

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[4]Oraka E, Iqbal S, Flanders WD, Brinker K, Garbe P. Racial and ethnic disparities in current asthma emergency department visits: findings from the National Health Interview Survey, 2001-2010. J Asthma 2013; 50:488-496.

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[9]Chang J, Delfino RJ, Gillen D, Tjoa T, Nickerson B, Cooper D. Repeated respiratory hospital encounters among children with asthma and residential proximity to traffic. Occup Environ Med. 66(2): 90-98. 2009.

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[12]Tobacco Prevention and Control Program. Internal data.

[13]National Environmental Public Health Tracking Program. http://ephtracking.cdc.gov

[14]Wisconsin Asthma Program. Home Page. https://www.dhs.wisconsin.gov/asthma/index.htm

[15]Wisconsin Asthma Program. Wisconsin Asthma Coaliation. https://www.dhs.wisconsin.gov/asthma/wac.htm

ACKNOWLEDGEMENTS

The authors would like to thank Meridith Mueller, MPH; Mark Werner, PhD; and Lola Awoyinka, MPH, for their contributions to this surveillance brief.

ABOUT TRACKING

The Wisconsin Environmental Public Health Tracking Program is your source for environmental public health data on Wisconsin communities.

FUNDING

The Wisconsin Environmental Public Health Tracking Program is funded by the Centers for Disease Control and Prevention.

Wisconsin Environmental Public Health Tracking Program

phone | 608-267-2488

web | dhs.wisconsin.gov/epht

email | dhstracking@wi.gov

AN ENVIRONMENTAL PUBLIC HEALTH TRACKING STORY

CREATING A PUBLICLY ACCESSIBLE HOME LEAD RISKS DATABASE

Menasha, Wisconsin

THE PROBLEM

The City of Menasha has more than 7,500 housing units, more than half built before 1970. The age of these homes means they are likely to have at least some lead-based paint, which creates a health hazard. The City of Menasha is federally designated as a low income, medically underserved population and some residents are financially unable to fix lead issues. Using Wisconsin Environmental Public Health Tracking Program data, Menasha Health Department staff identified several census tracts where childhood lead poisoning rates were near or above the Wisconsin average.

THE HEALTH DEPARTMENT'S SOLUTION

Health department staff wanted to make it easier for residents to find and understand lead risk information. Staff had access to the Home Lead Risks database which included information about the age of homes, known renovation dates for homes, the city water service type, and the private water lateral type. However, this information was difficult to query and it was not publicly available. Health department staff worked with an IT consultant to integrate the Menasha Home Lead Risks database into their agency website, making it available to the public for the first time. The improved database gives staff and other users more comprehensive lead poisoning prevention information, including how to clean and minimize the impact of lead paint in the home.

THE PUBLIC HEALTH IMPACT

Since many City of Menasha residents are unable to afford high-cost lead remediation, it is critical they know if their home has a lead risk and the steps to take to be safe around lead. The database and its health education information are housed in the same place, making it easier and more convenient for both staff and residents to use. Menasha Health Department staff are actively promoting the database with clients at their clinic, partner agencies, and health professionals in the area.

EXPLORE YOUR COUNTY'S LEAD POISONING DATA:

dhs.wisconsin.gov/epht

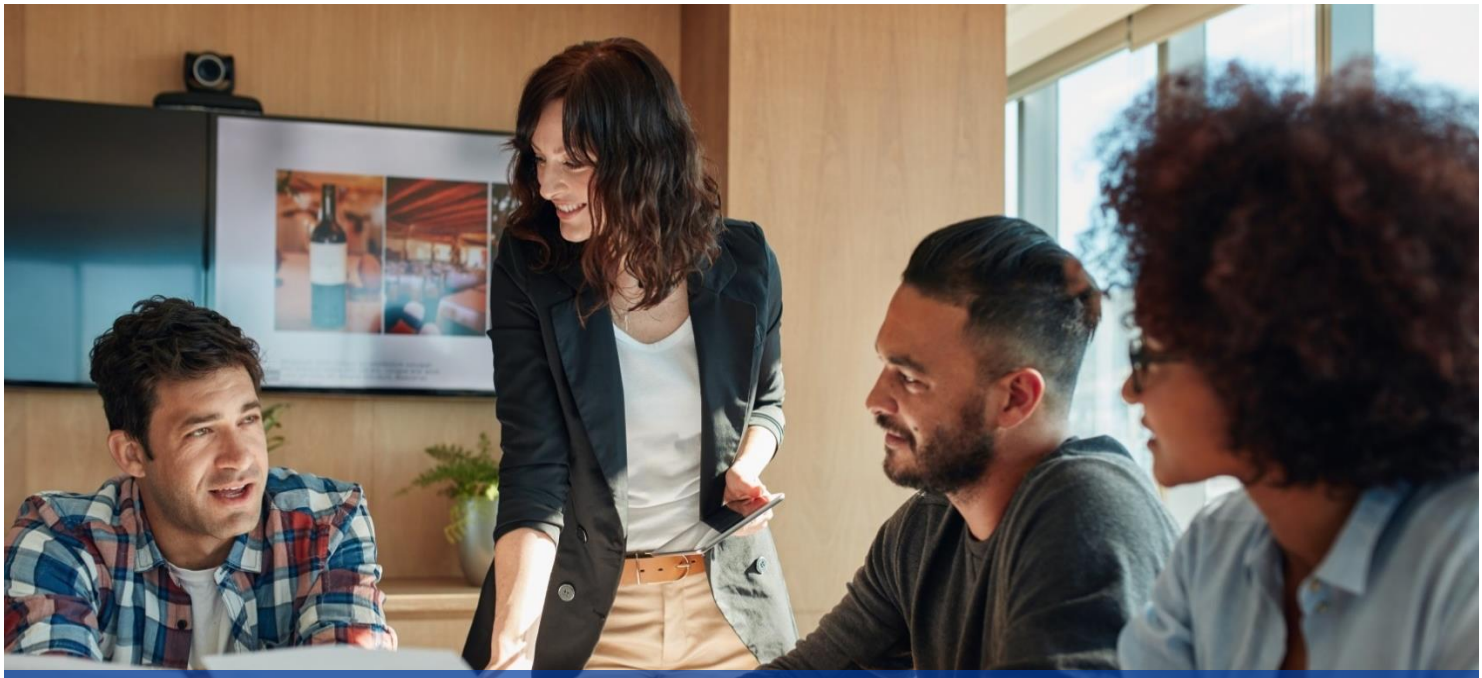
WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health

dhs.wisconsin.gov/epht | OCTOBER 2019 | dhstracking@wi.gov
Department of Health Services | Division of Public Health | P-02514 (10/2019)
This project funded by the Tracking team's *Taking Action with Data* program.

GREEN COUNTY

2019 COUNTY ENVIRONMENTAL HEALTH PROFILE

Wisconsin Environmental Public Health Tracking Program



HOW TO USE ENVIRONMENTAL PUBLIC HEALTH TRACKING DATA

COMMUNITY HEALTH ASSESSMENTS

Tracking data can help flesh out your community health assessment and help meet state requirements.

COMMUNITY HEALTH IMPROVEMENT PLANS

Use Tracking data and Ideas for Taking Action to prioritize environmental health and plan strategies for community improvement. Use the data to track progress in meeting your goals.

RESEARCH

Tracking data can be used to explore environmental health research questions.

MEDIA STORIES

Strengthen your interview, article, or press release with facts and figures from Tracking and our resources.

ACCREDITATION

The Profiles can be used to address Public Health Accreditation Board standards, such as Standard 1.3: "analyze public health data to identify trends in health problems, environmental public health hazards, and social and economic factors that affect the public's health."

SOCIAL MEDIA

Localize your posts with data from your community.

GRANT PROPOSALS

Tracking data and resources can help you and your team develop rationale for funding requests. These data can help justify existing programs and show where work needs to be done.

EDUCATION AND OUTREACH

When creating programs and outreach materials for your community, Tracking data can help you make your case and show the extent of the problem.

POLICY DEVELOPMENT

Tracking data and these County Environmental Health Profiles contain measures that can be used to identify the need for a policy. Once a policy is in place, the data can be used as a baseline to track progress over time.

If you have questions about how to use Tracking data in your work, let us know!
dhstracking@wi.gov

GREEN COUNTY

DASHBOARD | 2019 COUNTY ENVIRONMENTAL HEALTH PROFILE

COMMUNITY HEALTH

Fluoride

96.9% — Percent of population with fluoridated public water*
Wisconsin: 88.4%

Alcohol Outlet Density

1.6 — Crude rate of alcohol licenses per 500 people
Wisconsin: 1.5

PRIVATE WATER QUALITY

Nitrate

16.6% — Percent of test results above EPA standard of 10 mg/L
Wisconsin: 11.0%

Arsenic

3.2% — Percent of test results above EPA standard of 10 µg/L
Wisconsin: 6.0%

HOME HAZARDS

Carbon Monoxide Poisoning

4.6 — Rate of ER visits per 100,000 people
Wisconsin: 7.9

Childhood Lead Poisoning

4.0% — Percent of children <6 years old with blood lead level ≥5 µg/dL
Wisconsin: 5.0%

Radon

54.0% — Percent of tests with results ≥4 pCi/L
Wisconsin: 50.0%

HEALTH CONDITIONS

Asthma

27.5 — Rate of ER visits per 10,000 people#
Wisconsin: 35.1

Melanoma

25.1 — Rate of new cases per 100,000 people
Wisconsin: 23.9

Lung Cancer

59.7 — Rate of new cases per 100,000 people
Wisconsin: 59.8

CLIMATE

Heat Stress

19.6 — Rate of ER visits per 100,000 people
Wisconsin: 12.6

Lyme Disease

29.9 — Crude rate per 100,000 people
Wisconsin: 51.7

Above state value
At or below state value

* Above state value preferred for this measure

^ Data are suppressed

Note this rate is per 10,000 people, while the others are per 100,000. To compare this measure to others, be sure to multiply the rate by 10.

Data details on next page

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health
Wisconsin Department of Health Services | Division of Public Health
dhs.wisconsin.gov/epht | dhstracking@wi.gov

DASHBOARD DATA DETAILS

Below are the abbreviated references for the data presented in the dashboard. Note that some measures have more years of data available on the Wisconsin Tracking portal. For additional details on the data, see pages 15-16. For more information about age-adjustment and other terms referenced in this Profile, visit the Wisconsin Tracking Program's data details webpage or our Tracking 270 tutorial, both available on our website.

COMMUNITY HEALTH

Fluoride: Percent of population with access to fluoridated public water
Source: Wisconsin Oral Health Program, Bureau of Community Health Promotion, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

Alcohol Outlet Density: Crude rate of alcohol licenses per 500 people
Source: Division of Care and Treatment Services, Wisconsin Department of Health Services; primary data source is Wisconsin Department of Revenue
Years displayed: 2015-2016

PRIVATE WATER QUALITY

Nitrate: Percent of test results that exceed EPA standard of 10 mg/L
Arsenic: Percent of test results that exceed EPA standard of 10 µg/L
Source: Well Water Quality Viewer, Center for Watershed Science and Education, University of Wisconsin-Stevens Point
Years displayed: 1988 to March 2017

HOME HAZARDS

Childhood Lead Poisoning: Percent of children (less than 6 years of age) tested who had a blood lead level ≥5 µg/dL
Source: Childhood Lead Poisoning Prevention Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2016

Radon: Percent of tests with results above EPA standard of 4 pCi/L
Source: Radon and Indoor Air Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015

Carbon Monoxide (CO) Poisoning: Age-adjusted rate of unintentional emergency room visits related to CO poisoning per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2013-2017

HEALTH CONDITIONS

Asthma: Age-adjusted rate of emergency room visits related to asthma per 10,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

Melanoma: Age-adjusted rate of new cases of melanoma reported by health care providers per 100,000 people
Lung Cancer: Age-adjusted rate of new cases of lung cancer reported by health care providers per 100,000 people
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2012-2016

CLIMATE

Heat Stress: Age-adjusted rate of emergency room visits related to heat stress per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2013-2017

Lyme Disease: Crude rate of confirmed and probable Lyme disease cases per 100,000 people
Source: Vectorborne Disease Program, Bureau of Communicable Diseases, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017

COMMUNITY HEALTH GREEN COUNTY

BACKGROUND

Fluoride is a mineral in water that is often naturally-occurring and offers protection against tooth decay. If you are on public water, you can read about your water's fluoridation levels in a consumer confidence report. You can request this report from your water utility.

Environment includes not only the air we breathe and the water we drink but also our built environment: the businesses, parks, schools, bike paths, and other surroundings that make up our communities. Places that sell alcohol are part of that built environment. Examining the number of places that sell alcohol—which is known as alcohol outlet density—can help us understand how alcohol impacts our health and communities.

96.9%

FLUORIDE

PERCENT OF POPULATION WITH FLUORIDATED PUBLIC WATER*

WISCONSIN: 88.4%

1.6

ALCOHOL OUTLET DENSITY

RATE OF ALCOHOL LICENSES PER 500 PEOPLE

WISCONSIN: 1.5

Above state value

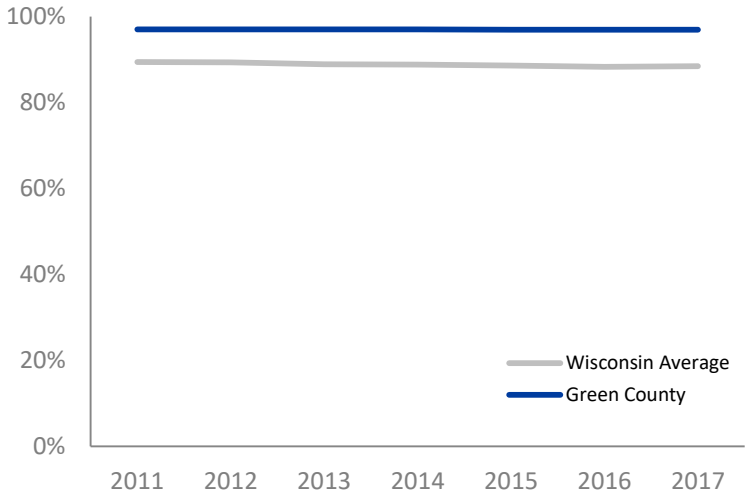
At or below state value

* Above state value preferred for this measure

^ Suppressed

FLUORIDE

PERCENT OF POPULATION WITH FLUORIDATED PUBLIC WATER



FLUORIDE IN PUBLIC DRINKING WATER

The CDC selected community water fluoridation as one of the 10 greatest public health achievements of the 20th century, as it is a low-cost, effective way to prevent tooth decay.

Some water systems may not have enough natural fluoride to offer protection, so community water systems can add fluoride to bring the levels up to the U.S. Department of Health and Human Services' recommended level of 0.7 mg/L.

The fluoride data in this Profile are collected from public water systems. The data include the percentage of the population on public drinking water that have access to fluoridated water (regardless of whether it is at the recommended level).

COMMUNITY HEALTH GREEN COUNTY

ALCOHOL OUTLET DENSITY

Alcohol has many potential health consequences, including increased risk for seven types of cancer.

Alcohol outlets are places where someone can buy alcohol to drink on premises (such as bars) or elsewhere (such as liquor stores).

Communities can use alcohol outlet density data to get a better understanding of how alcohol impacts their residents. We can use these data to monitor alcohol-related measures over time and to educate communities, plan programs, and implement policies.

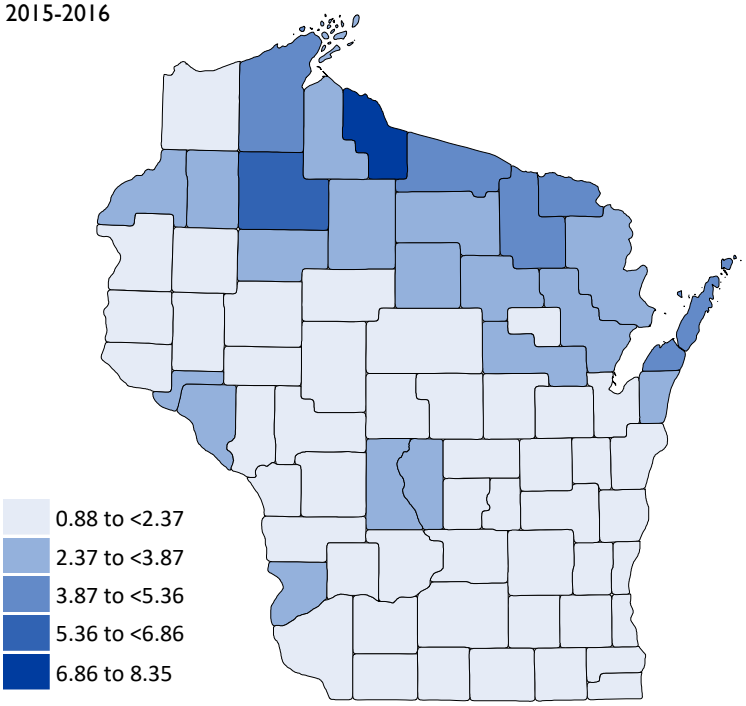
Alcohol outlet data are collected once annually, which means at any given time in the year, a new license could be issued or an old one may not be renewed.

Differences in alcohol outlet density are difficult to interpret. Rural counties may have a higher number of outlets relative to population, but these outlets may be small and serve fewer people than a single outlet in a larger city.

Learn more about alcohol outlet density and Wisconsin's alcohol environment by visiting law.wisc.edu/wapp.

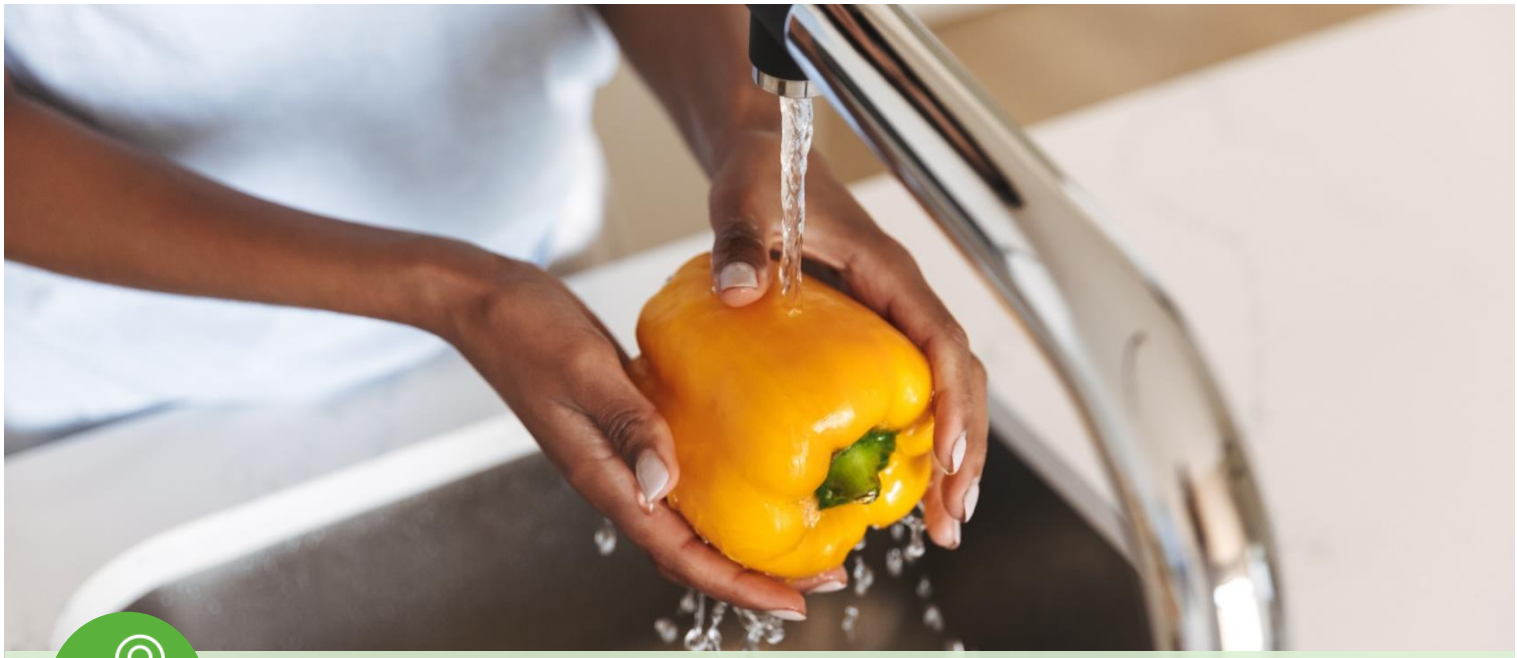
ALCOHOL OUTLET DENSITY

CRUDE RATE OF ALCOHOL LICENSES
PER 500 PEOPLE
2015-2016



117
LICENSES IN GREEN COUNTY

16,948
TOTAL LICENSES IN WISCONSIN



PRIVATE WATER QUALITY GREEN COUNTY

BACKGROUND

About four in 10 Wisconsin homes get their water from private wells. Well owners are responsible for monitoring and testing their wells. All private wells should be tested regularly to ensure the water is safe to use and drink.

The University of Wisconsin-Stevens Point's Center for Watershed Science created a mapping tool to improve access to private well water data. The private well data are voluntarily submitted by homeowners and do not include water quality information for all known wells. County-specific measures for arsenic and nitrate in private wells are displayed in this report. Users can find public water quality data on our data portal.

16.6%

NITRATE IN PRIVATE WELLS

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 mg/L

WISCONSIN: 11.0%

3.2%

ARSENIC IN PRIVATE WELLS

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 µg/L

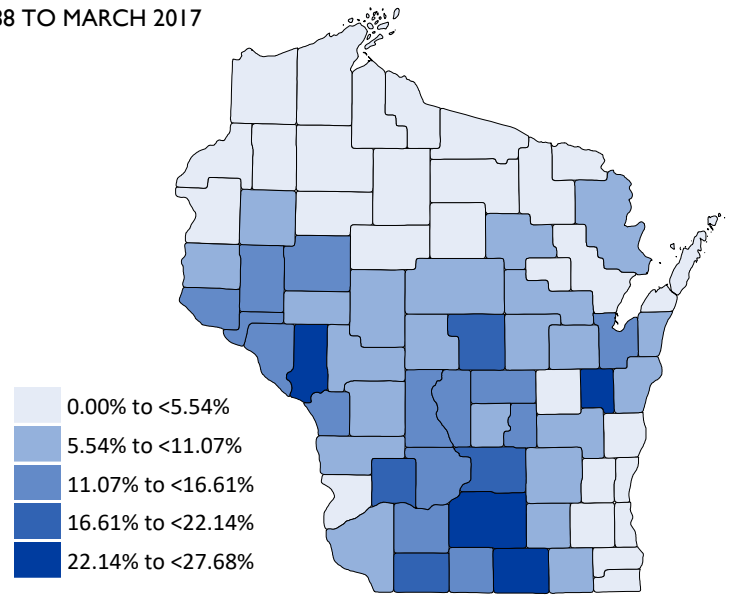
WISCONSIN: 6.0%

Above state value | At or below state value | ^ Suppressed

NITRATE IN PRIVATE WELLS

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 mg/L

1988 TO MARCH 2017



NITRATE IN PRIVATE WELLS

Nitrate naturally occurs in plants and animals and can enter groundwater from fertilizers or animal and human waste.

In Wisconsin, nitrate is one of the most common groundwater contaminants. High nitrate levels are linked with certain birth defects.

Infants who consume drinking water with high nitrate levels are at risk of blue baby syndrome, a condition that limits the blood's ability to carry oxygen.

Source: UW-Stevens Point Well Water Viewer

PRIVATE WATER QUALITY GREEN COUNTY

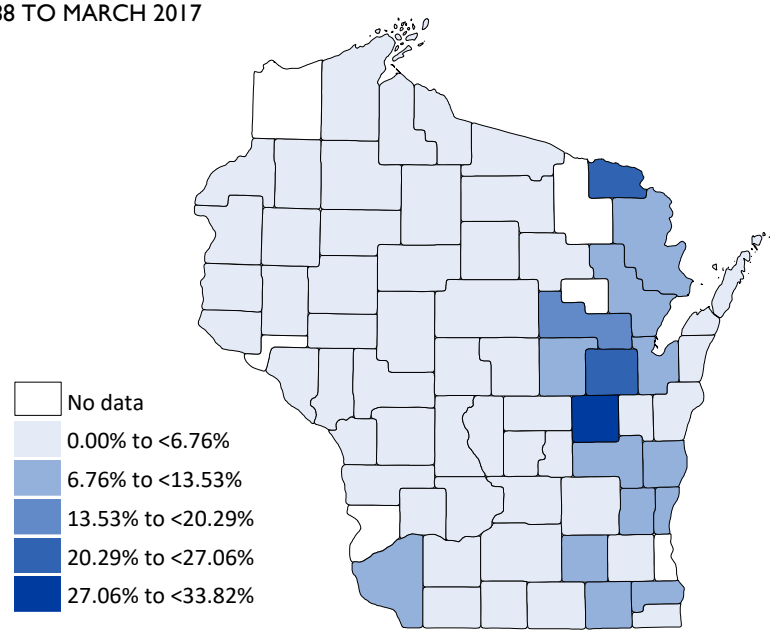
ARSENIC IN PRIVATE WELLS

Arsenic can naturally occur in soil and rock formations but can also come from some types of pesticides, treated wood, and certain foods. In Wisconsin, high levels of arsenic in wells are most common in the northeastern part of the state but can be found in any county.

Drinking water with high levels of arsenic can cause skin rashes and stomach problems. Arsenic can also increase the risk for certain kinds of cancer. Infants and children are especially sensitive to arsenic and high levels can affect learning.

ARSENIC IN PRIVATE WELLS

PERCENT OF TEST RESULTS ABOVE EPA STANDARD OF 10 µg/L
1988 TO MARCH 2017



Source: UW-Stevens Point Well Water Viewer

ABOUT THE PRIVATE WELL WATER DATA

The data displayed in the private well water section include samples collected from 1988 to March 2017. The maps include results of 19,317 arsenic samples and 122,260 nitrate samples. The number of samples collected varies from year to year and by county; accordingly, some years and counties are better represented than others.

These data do not include all well tests conducted in the state; some tests done by private labs and local labs are not submitted to be displayed on the Well Water Viewer.

To explore data for other water contaminants, enter "UW Stevens Point Well Water Viewer" in your search engine.

HOME HAZARDS GREEN COUNTY

BACKGROUND

Because we spend a great deal of time in our homes, it's important that they are safe and healthy. Carbon monoxide (CO) poisoning, childhood lead poisoning, and radon are three home hazards tracked by the Wisconsin Environmental Public Health Tracking Program.

4.6

CARBON MONOXIDE POISONING

RATE OF ER VISITS RELATED TO CO POISONING PER 100,000

WISCONSIN: 7.9

4.0%

CHILDHOOD LEAD POISONING

PERCENT OF CHILDREN WITH BLOOD LEAD ≥5 µg/dL

WISCONSIN: 5.0%

54.0%

RADON

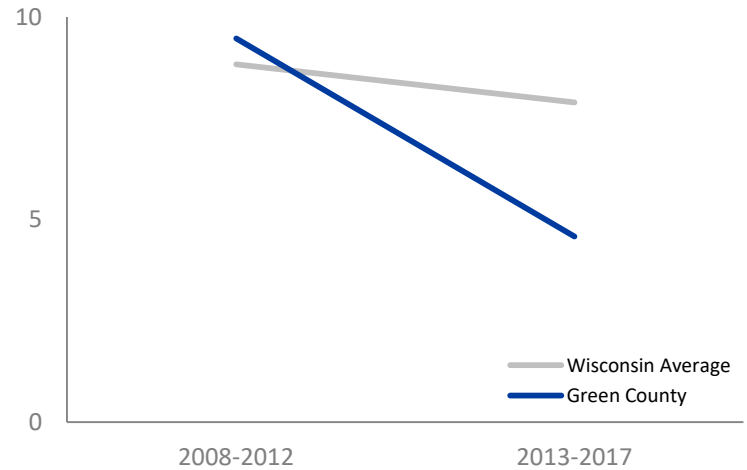
PERCENT OF TESTS WITH RESULTS ≥4 pCi/L

WISCONSIN: 50.0%

Above state value At or below state value ^ Suppressed

CARBON MONOXIDE POISONING

RATE OF ER VISITS PER 100,000 PEOPLE



CARBON MONOXIDE POISONING

Carbon monoxide (CO) poisoning prevents oxygen from getting to the body, which can damage tissue and even cause death.

CO is a toxic gas that cannot be seen or smelled. CO is created whenever fuel or other materials are burned. Wisconsin state law requires all homes to have a CO detector on every level.

CO poisoning is also a risk in indoor ice arenas or recreational facilities where fuel-powered equipment (e.g., ice resurfacers, motorbikes, go-karts) is used. While there is no state law requiring CO detectors in these venues, it is still important to monitor CO levels in the air and take action if levels are unsafe.

HOME HAZARDS GREEN COUNTY

CHILDHOOD LEAD POISONING

Lead poisoning slows growth and development in children, particularly in the brain. Lead poisoning is also associated with problems later in life, such as poor academic outcomes and increased incarceration.

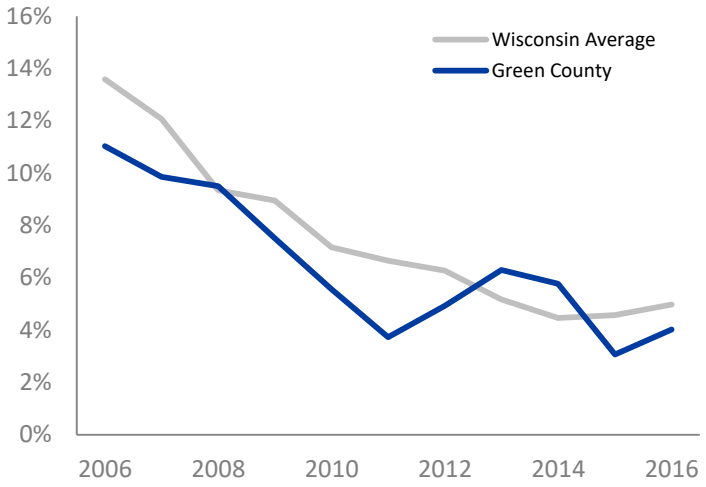
There is no safe level of lead in the human body. Even very low levels of exposure can be harmful to our health. Blood lead levels are measured in micrograms per deciliter (µg/dL). The Centers for Disease Control and Prevention defines lead poisoning at or above 5 µg/dL.

In most counties, the percentage of children poisoned is below 5%. However, counties vary greatly in the number of children that are tested for lead poisoning. Keep in mind that high percentages of poisoning may reflect fewer children tested. For example, if a county tested eight children and two were poisoned, the percentage poisoned would be 25%. There is also great variation within counties; some pockets of a county could have much higher percentages of children poisoned than the county as a whole.

On our data portal users can dig deeper to see how many children were tested, how many were poisoned, and how these numbers vary at the census tract level.

CHILDHOOD LEAD POISONING

PERCENT OF TESTED CHILDREN WITH BLOOD LEAD ≥5 µg/dL



RADON

Radon is a naturally occurring gas that is radioactive and can cause lung cancer. Radon can leak into homes and other buildings through cracks in the foundation.

Like carbon monoxide, radon can't be seen or smelled. Homes both old and new can have unsafe radon levels, and the only way to know if a home has high radon levels is to test for it.

The radon data we present are only a fraction of the tests completed in Wisconsin. The data presented include all tests facilitated by the Radon and Indoor Air Program and Radon Information Centers, but do not include all tests conducted by private contractors. To view more years of data and data at the zip code level, visit lowradon.org.

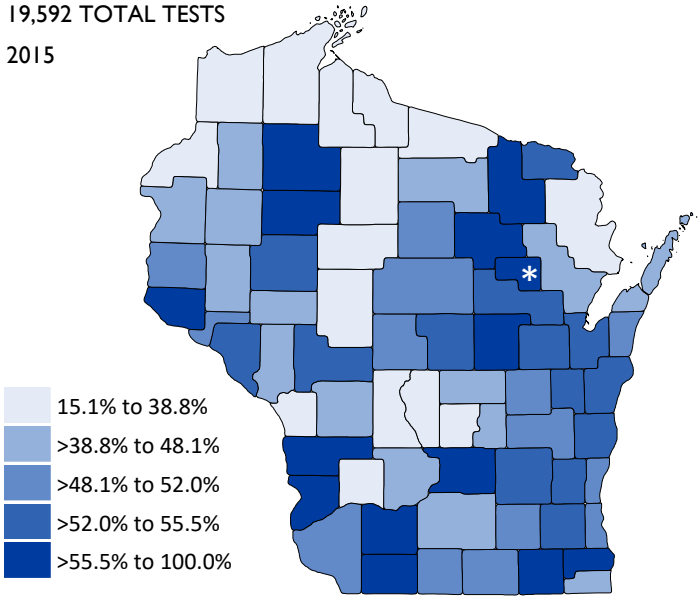
The Environmental Protection Agency (EPA) recommends all homes with radon levels of four picocuries per liter (4 pCi/L) or higher be fixed. There are many certified radon mitigation contractors throughout the state who can fix radon problems in homes. Learn more at lowradon.org.

RADON

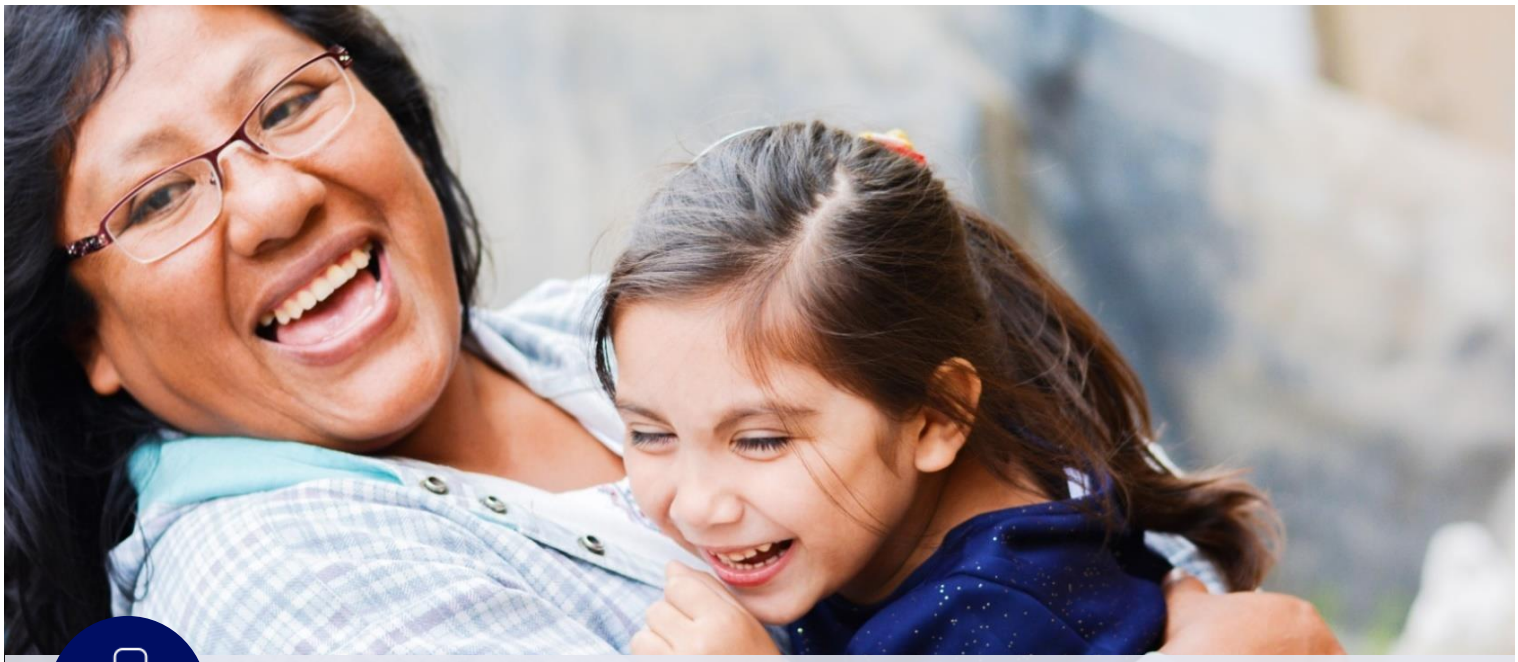
PERCENT OF TESTS WITH RESULTS ≥4 pCi/L

19,592 TOTAL TESTS

2015



Note: The white asterisk denotes a county with fewer than 11 tests. Tests may not be representative of radon levels for the county and should be interpreted with caution.



HEALTH CONDITIONS GREEN COUNTY

BACKGROUND

The Environmental Public Health Tracking Program monitors data on asthma, melanoma (a type of skin cancer), and lung cancer. Each of these measures is strongly linked to one or more environmental factors.

27.5

ASTHMA

RATE OF ER VISITS[#]

PER 10,000 PEOPLE

WISCONSIN: 35.1

25.1

MELANOMA

RATE OF NEW CASES

PER 100,000 PEOPLE

WISCONSIN: 23.9

59.7

LUNG CANCER

RATE OF NEW CASES

PER 100,000 PEOPLE

WISCONSIN: 59.8

Above state value

At or below state value

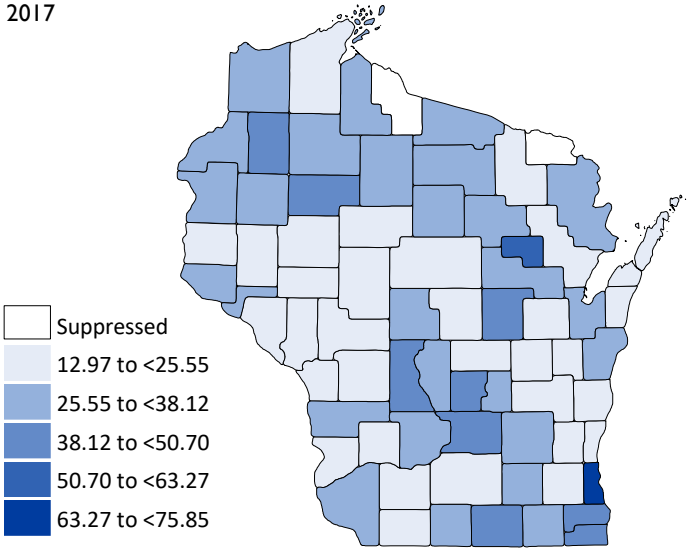
^ Suppressed

[#] Note this rate is per 10,000 people, while the others are per 100,000. To compare this measure to others, be sure to multiply the rate by 10.

ASTHMA

RATE OF ER VISITS PER 10,000 PEOPLE

2017



ASTHMA

Asthma is a disease that affects breathing and limits the ability to get oxygen to the lungs. Asthma symptoms often happen because a person came in contact with a trigger, such as outdoor air pollution or airborne pollens.

The overall rate of asthma emergency room visits in Wisconsin has declined slightly since 2004. Rates at the county level are more variable.

In Wisconsin, asthma rates vary considerably by race and ethnicity. Read more about these differences in our asthma disparities surveillance brief.

To learn more about the burden of asthma and resources in Wisconsin, visit the asthma webpage. View more years of asthma data on our portal.

HEALTH CONDITIONS GREEN COUNTY

MELANOMA AND LUNG CANCER

Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other body parts. There are more than 100 different types of cancer.

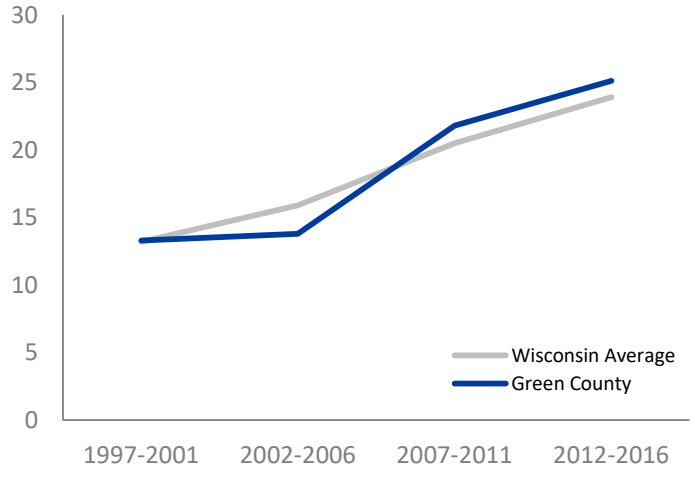
Melanoma is a cancer of the skin pigment cells and is the most deadly type of skin cancer. Lung cancer forms in the lung, usually in the cells lining the air passages, and is the leading cause of cancer deaths in the U.S.

Both melanoma and lung cancer are strongly linked to environmental causes. Melanoma is linked to ultraviolet (UV) radiation, and lung cancer is related to radon and secondhand smoke. In addition to these environmental exposures, lung cancer is also caused by smoking.

The rate of melanoma in Wisconsin is increasing over time, and nearly all Wisconsin counties are following the same upward trend. The Wisconsin rate of lung cancer has held relatively steady in recent years, with more variability by county.

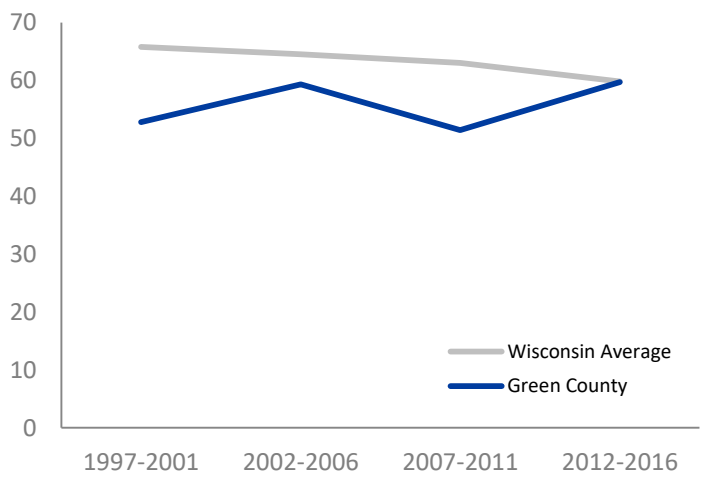
MELANOMA

RATE OF NEW CASES PER 100,000 PEOPLE



LUNG CANCER

RATE OF NEW CASES PER 100,000 PEOPLE



CLIMATE GREEN COUNTY

BACKGROUND

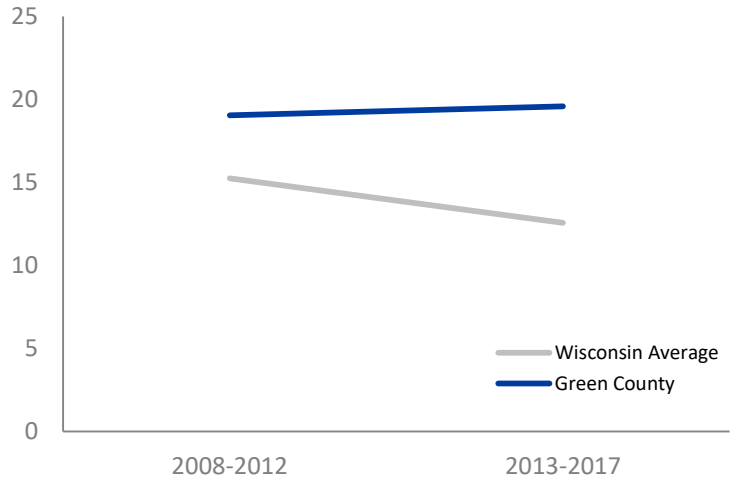
Consistent with global climate change trends over the past 60 years, Wisconsin has become generally warmer and wetter. Changes in the climate may lead to more precipitation and flooding, temperature extremes (very hot and very cold days), drought, and more carriers of disease (for example, mosquitoes and ticks). Climate change can contribute to mental health problems, water and vectorborne diseases, allergies, water and food insecurity, and even death.

In this section, we focus on heat stress and Lyme disease, two climate-related health outcomes.

To learn more about the connection between climate change and health and work being done by the Climate and Health Program, visit their webpage.

HEAT STRESS

RATE OF ER VISITS PER 100,000 PEOPLE



19.6

HEAT STRESS
RATE OF ER VISITS
PER 100,000 PEOPLE
WISCONSIN: 12.6

29.9

LYME DISEASE
RATE OF CASES
PER 100,000 PEOPLE
WISCONSIN: 51.7

Above state value | At or below state value | ^ Suppressed

HEAT STRESS

Heat stress encompasses a range of symptoms including heat rash, heat syncope (fainting), heat cramps, and heat exhaustion.

Any individual can develop heat stress when involved in intense physical activity or when it's hot.

Certain populations, such as adults who live alone or have limited social contacts, males who work or play outside, and people without access to air conditioning, are at increased risk of heat-related illness. While adults aged 15-34 are most likely to visit the ER for heat stress, adults over 65 are most likely to be hospitalized for heat stress.

To learn more about historical extreme heat—such as the number of days in which the heat index was at or above 90°F—visit our data portal.

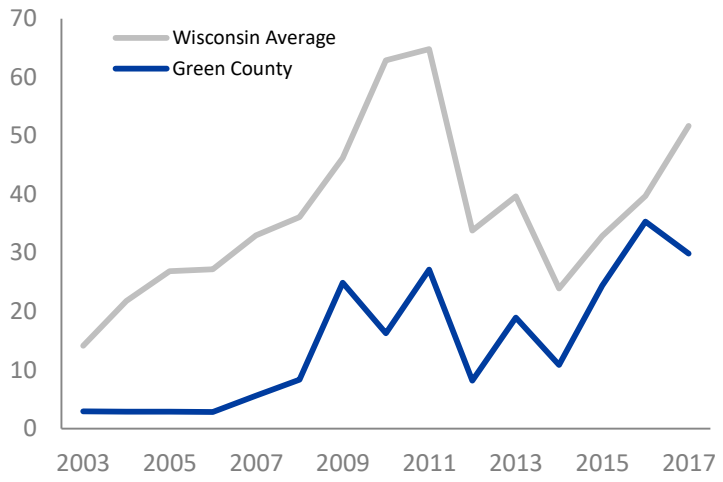
LYME DISEASE

Lyme disease is spread by the bite of an infected black-legged tick (*Ixodes scapularis*) and is becoming more common in Wisconsin. The highest number of cases is typically reported in the northwestern region of Wisconsin, but in recent years cases have increased in the central and eastern regions. Lyme disease was Wisconsin's fourth highest reported notifiable communicable disease in 2017.

Wisconsin's climate has become generally warmer and wetter, which can provide more favorable conditions for ticks. Climate change has contributed toward the expanded geographic distribution of ticks as well as a longer season of tick activity and potential for Lyme disease transmission. Other factors, such as host populations (for example, deer and mice), awareness of Lyme disease, and land use changes, also impact Lyme disease rates.

LYME DISEASE

CRUDE RATE PER 100,000 PEOPLE



INTERPRETING LYME DISEASE DATA

The crude rate includes confirmed cases of Lyme disease—not probable or estimated cases—until 2008. Starting in 2008, the crude rate includes confirmed and probable cases.

The criteria for reporting Lyme disease were revised again in 2012 to require reporting and follow-up only for cases with an erythema migrans (EM) rash. To compensate for this change, epidemiologists used a statistical method to estimate the true number of cases based on the number of total laboratory reports for each year since 2012.

As such, rates of confirmed cases might appear to decrease since 2012, but this is likely due to the change in case definition, not from a reduced burden of Lyme disease.

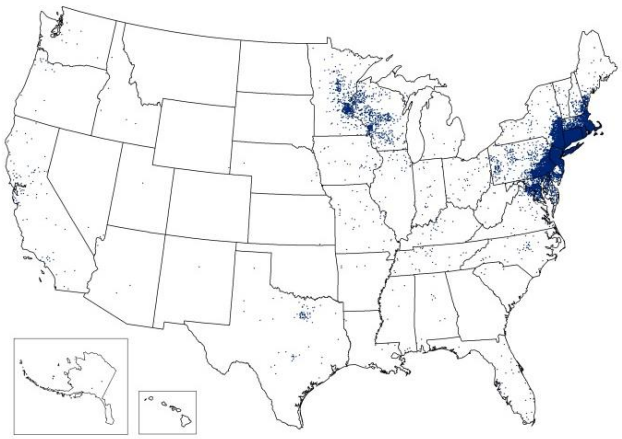
On the Tracking portal, estimated cases are only available at the state level, not the county level. The crude rate of cases reported here is an underestimate of the true rate of Lyme disease (see data details on page 16 for more information).

LYME DISEASE AT THE NATIONAL LEVEL

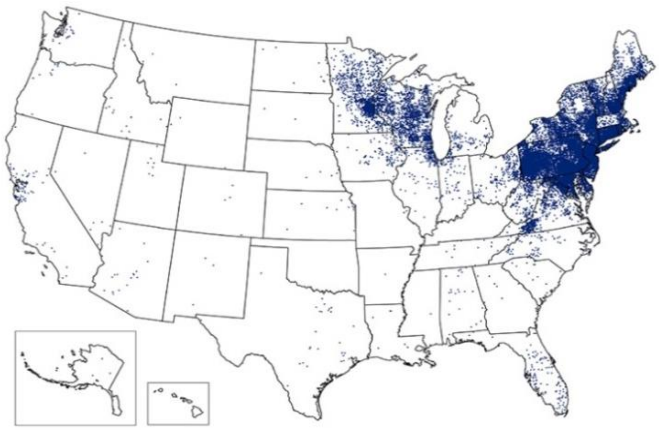
OVER TIME, WE ARE SEEING MORE TICK ACTIVITY

One dot placed randomly within county of residence for each reported case

2001



2017



Maps courtesy of Centers for Disease Control and Prevention

PROFILE DATA DETAILS

COMMUNITY HEALTH

Fluoride: Percent of population with access to fluoridated public drinking water
Source: Wisconsin Oral Health Program, Bureau of Community Health Promotion, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2011-2017; data from 2017 displayed on dashboard
Data details: Data on fluoride in drinking water are based on samples taken from active public community water systems and do not reflect data from private wells. The data represent the population using public drinking water that have access to fluoridated water, regardless of whether it is at the recommended level.

Alcohol Outlet Density: Crude rate of alcohol licenses per 500 people
Source: Divsion of Care and Treatment Services, Wisconsin Department of Health Services; primary data source is Wisconsin Department of Revenue
Years displayed: 2015-2016
Data details: Data are a point-in-time estimate (that means the data are shared once annually and, at any given time throughout the year, a new license could be issued or an old one not renewed). Data are not suppressed for this measure. Crude rate of alcohol licenses per 500 people is the number of establishments with a liquor license divided by the total number of people in the county, expressed as a number per 500 people in the population.

PRIVATE WATER QUALITY

Nitrate: Percent of test results for nitrate that exceed EPA standard of 10 mg/L
Arsenic: Percent of test results for arsenic that exceed EPA standard of 10 µg/L
Source: Well Water Quality Viewer, Center for Watershed Science and Education, University of Wisconsin-Stevens Point
Years displayed: 1988 to March 2017
Data details: The statewide comparison number was calculated by dividing the total number of tests that exceed EPA standard by the total number of tests and multiplying by 100. Per the Well Water Quality Viewer, "The viewer summarizes private well water quality data from the Center for Watershed Science and Education, the Wisconsin Department of Agriculture, Trade, and Consumer Protection, the Department of Natural Resources Groundwater Retrieval Network, Eau Claire City-County Health Department, and LaCrosse County Health Department. It is not considered a scientific study and **does not** represent well water quality information for all known private wells."

HOME HAZARDS

Carbon Monoxide (CO) Poisoning: Annual average rate of unintentional emergency room visits related to CO poisoning, age-adjusted per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2008-2017; data averaged from 2013-2017 displayed on the dashboard
Data details: This measure includes carbon monoxide poisonings that were unintentional (fire- or non-fire-related) and of unknown intent. These data are from emergency room visit records. The measure includes cases with an ICD-9 code (from 2008 through quarter three of 2015) of 986 or cause of injury code E868.2, E868.3, E868.8, E868.9, E982.0, or E982.1 and cases with an ICD-10 code (from quarter four of 2015 through 2017) of T58.01, T58.04, T58.11, T58.14, T58.2X1, T58.2X4, T58.8X1, T58.8X4, T58.91, and T58.94. Cases are excluded if there is any ICD-9 or ICD-10 code that indicates intentional exposure. Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

Childhood Lead Poisoning: Percent of children (less than 6 years of age) tested who had a blood lead level ≥5 µg/dL
Source: Wisconsin Childhood Lead Poisoning Prevention Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2006-2016; data from 2016 displayed on dashboard
Data details: Wisconsin blood lead testing data from children less than 6 years of age are reported to the Childhood Lead Poisoning Prevention Program. Data are de-duplicated such that they contain the most recent confirmatory (venous) test following an elevated screening (capillary) test. If no confirmatory test for the individual is available, the most recent screening test result is used. The Wisconsin average includes all tests, regardless of whether we have location data for a given test.

HOME HAZARDS, CONTINUED

Radon: Percent of radon tests with results at or above EPA standard of 4 pCi/L
Source: Wisconsin Radon and Indoor Air Program, Bureau of Environmental and Occupational Health, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2015
Data details: The map of these data comes from the National Tracking data explorer. Data are those from pre-mitigation tests or those where mitigation status was not designated. Post-mitigation tests are not included. This Profile includes data from 19,592 tests. The radon data we present are only a fraction of the tests completed in Wisconsin. The data presented include all tests facilitated by the Radon and Indoor Air Program and Radon Information Centers, but do not include all tests conducted by private contractors. To view more years of data and data at the zip code level, visit lowradon.org.

HEALTH CONDITIONS

Asthma: Rate of emergency room visits related to asthma, age-adjusted per 10,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Year displayed: 2017
Data details: These data are collected from emergency room visit records. This measure includes cases with an ICD-10 code of J45 (inclusive of all sub-variation codes). Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

Melanoma: Annual average rate of new cases of melanoma, age-adjusted per 100,000 people
Lung Cancer: Annual average rate of new cases of lung cancer, age-adjusted per 100,000 people
Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 1997-2016; data from 2012-2016 displayed on the dashboard
Data details: Rates are calculated from counts of new cancer cases reported to the Wisconsin Cancer Reporting System by health care providers in Wisconsin. Data for counties with fewer than six cases are suppressed to protect confidentiality. However, counties with zero cases are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

CLIMATE

Heat Stress: Annual average rate of emergency room visits related to heat stress, age-adjusted per 100,000 people
Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2008-2017; data from 2013-2017 are displayed on the dashboard
Data details: These data are collected from emergency room visit records. This measure includes cases with an ICD-9 code (from 2008 through quarter three of 2015) of 992.0–992.96 or cause of injury code E900.0 or E900.9 and cases with an ICD-10 code (from quarter four of 2015 through 2017) of T67, X30, or X32. Cases are excluded if there is any ICD-9 or ICD-10 code that indicates the source of heat was human-made. Cases are only included if they occurred during May 1 to September 30 of each year. Data for counties with fewer than five visits are suppressed to protect confidentiality. However, data from counties with zero visits are not suppressed. Direct age-adjustment is conducted using the 2000 U.S. standard population.

Lyme Disease: Crude rate of confirmed and probable Lyme disease cases per 100,000 people
Source: Vectorborne Disease Program, Bureau of Communicable Diseases, Division of Public Health, Wisconsin Department of Health Services
Years displayed: 2003-2017; data from 2017 are displayed on the dashboard
Data details: These data are from the Wisconsin Electronic Disease Surveillance System (WEDSS). County-level data are based on the county of residence of the case; some infections may have been acquired during travel to other areas. The crude rate numerator includes only confirmed and probable (when available) cases and does not include estimated cases. Confirmed cases of Lyme disease include: 1) those with an erythema migrans (EM) rash that is greater than or equal to 5 cm in diameter and diagnosed by a medical professional or 2) those with at least one non-EM confirmatory sign or symptom indicating late manifestation of disease (arthritis, Bell's palsy or other cranial neuritis, encephalomyelitis, lymphocytic meningitis, radiculoneuropathy, or 2nd or 3rd degree atrioventricular block) that also has laboratory evidence of infection that meets criteria. In 2008, the national surveillance case definition for Lyme disease introduced probable cases. In 2012, the criteria for reporting Lyme disease changed so only cases with an EM rash required follow-up. Read the data details on our website for more information.

TAKING THE NEXT STEP

Present to Stakeholders and Partners

We created a Profile Template Slide Deck as a guide for presentations. The slide deck is free to use and completely customizable. See the notes section for ideas and considerations for tailoring your talk. Visit the Profiles page of our website to download the template.

Plan Strategies for Taking Action

We know it's a challenge to translate data into action. To help get you started, we created a short menu of potential strategies for addressing the topics in this Profile called *Ideas for Taking Action*. To help communities of all sizes and resource levels, we organized them by the scope of the strategy, from increasing knowledge to addressing laws and policies. We also publish success stories from the recipients of our mini-grant program. Reviewing these stories is a great way to get ideas and connect with communities doing similar work. Visit the Ideas for Taking Action page of our website to learn more.

Join Our Quarterly Newsletter

Stay up to date on the latest Wisconsin Environmental Public Health Tracking news and resources by subscribing to our newsletter. Head to our website and click the link to subscribe.

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Special Thanks

Wisconsin Environmental Public Health Tracking Program's Technical Advisory Group

Center for Watershed Science and Education, University of Wisconsin-Stevens Point

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health
Wisconsin Department of Health Services | Division of Public Health

dhstracking@wi.gov | dhs.wisconsin.gov/epht
MAY 2019 | P-00719 (Rev. 05/2019)

Getting to Know

Wisconsin Environmental Public Health Tracking

Wisconsin's Environmental Public Health Tracking Program—"Tracking" for short—is your source for environmental public health data in Wisconsin. Our program provides tools so users can:

TRACK AND ANALYZE DATA

DATA PORTAL
Find data in our free, easy-to-use portal! We host over a dozen topics, including Lyme disease and childhood lead poisoning.

COUNTY PROFILES
Review a snapshot of our portal offerings in a shareable document.

PUBLICATIONS
Read surveillance briefs and manuscripts to dive deeper into our Tracking data.

TRANSLATE DATA TO ACTION

IDEAS FOR TAKING ACTION
Find ideas for projects, programs, and policies to try in your community.

MINI-GRANTS
Apply for funding to address environmental public health projects in your community.

SUCCESS STORIES AND RESOURCES
Read about projects implemented in Wisconsin communities. Explore videos, trainings, and other Tracking materials.

LEARN MORE

- Subscribe to our quarterly newsletter to stay up to date on the latest Tracking news and data.
- Watch our tutorials to learn more about our programs and resources.
- Request in person training.
- Check out our website to find all our data and resources.

WISCONSIN ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM
Bureau of Environmental and Occupational Health
dhs.wisconsin.gov/epht | JULY 2019 | dhstracking@wi.gov
Wisconsin Department of Health Services | Division of Public Health | P-02446 (07/2019)

It's your Right to Know about the

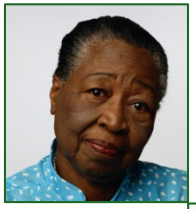
Toxic Chemicals

in your community

Introduction to the Toxics Release Inventory

U.S. Environmental Protection Agency

Common questions about toxic chemical releases



*Are industries in my town **increasing** or **reducing** the amounts of chemicals they release to the environment?*

*What are the **top chemicals released** in my town? How much is being released and **by whom**?*

*Does the factory near my daughter's school release **cancer-causing chemicals**?*

EPA's Toxics Release Inventory (TRI) can help you find the answers!

Introduction to TRI for Communities

- What is the Toxics Release Inventory (TRI)?
- Why is it important to communities?
- How can you access TRI data?
- What can you do about toxic releases in your community?
- Who can you contact for more information?

What is TRI?

- TRI is an EPA information resource that can help you learn about toxic chemical releases from certain facilities **in your neighborhood.**
- TRI can tell you about:

Releases

Waste transfers

Recycling

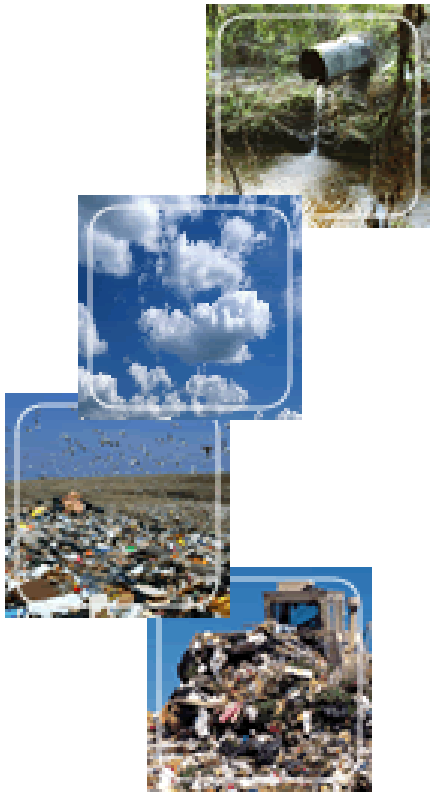
Pollution prevention

- TRI includes data from **more than 21,000 facilities** across the country and covers **767 individual chemicals and 33 chemical categories.**

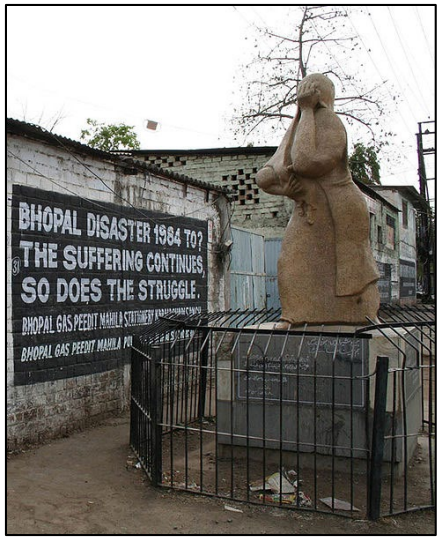
TRI is EPA's Premier "Right-to-Know" Program

Right to Know (RTK):

- We all have the right to know about the chemicals to which we may be exposed to in our daily lives.
- This principle is the foundation of Section 313 of the **Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).**
- This law requires EPA to collect, maintain, and provide public access to the TRI data.



Why was the Toxics Release Inventory created?



Bhopal memorial for those killed and disabled by the 1984 toxic gas release

Bhopal, India **December 1984**

- Methyl isocyanate gas was released at a Union Carbide chemical plant
- Thousands died the first night, thousands more since
- Survivors continue to suffer with permanent disabilities

Institute, West Virginia **August 1985**

- Chemical release at a similar facility in the U.S.
- More than 100 people hospitalized

- These events led to the passage of the Emergency Planning and Community Right-to-Know Act (EPCRA) by Congress in 1986, which mandated the creation of the TRI Program.

Why is TRI important to communities?

TRI can help communities:

- Identify **how many TRI facilities** operate in the community **and where they are located.**
- Identify **which chemicals are being released** by TRI facilities.
- **Track increases or reductions** of toxic chemical releases from facilities located in the community over time.
- **Compare the toxic chemical releases and pollution prevention efforts of facilities** in one location with similar facilities across the country.
- **Prioritize efforts to reduce pollution** from facilities located in the area.

What is a “release?”

- A **"release"** refers to different ways that toxic chemicals from industrial facilities enter the:

Air

Water

Land

- The likelihood of residents being exposed to toxic chemicals depends on the type of release and other factors.

What facilities must report to TRI?

1. Facility must be in a **TRI-covered industry sector or category**, including:

Manufacturing

Coal/Oil Electricity Generation

Certain Mining Facilities

Hazardous Waste Management

Federal Facilities

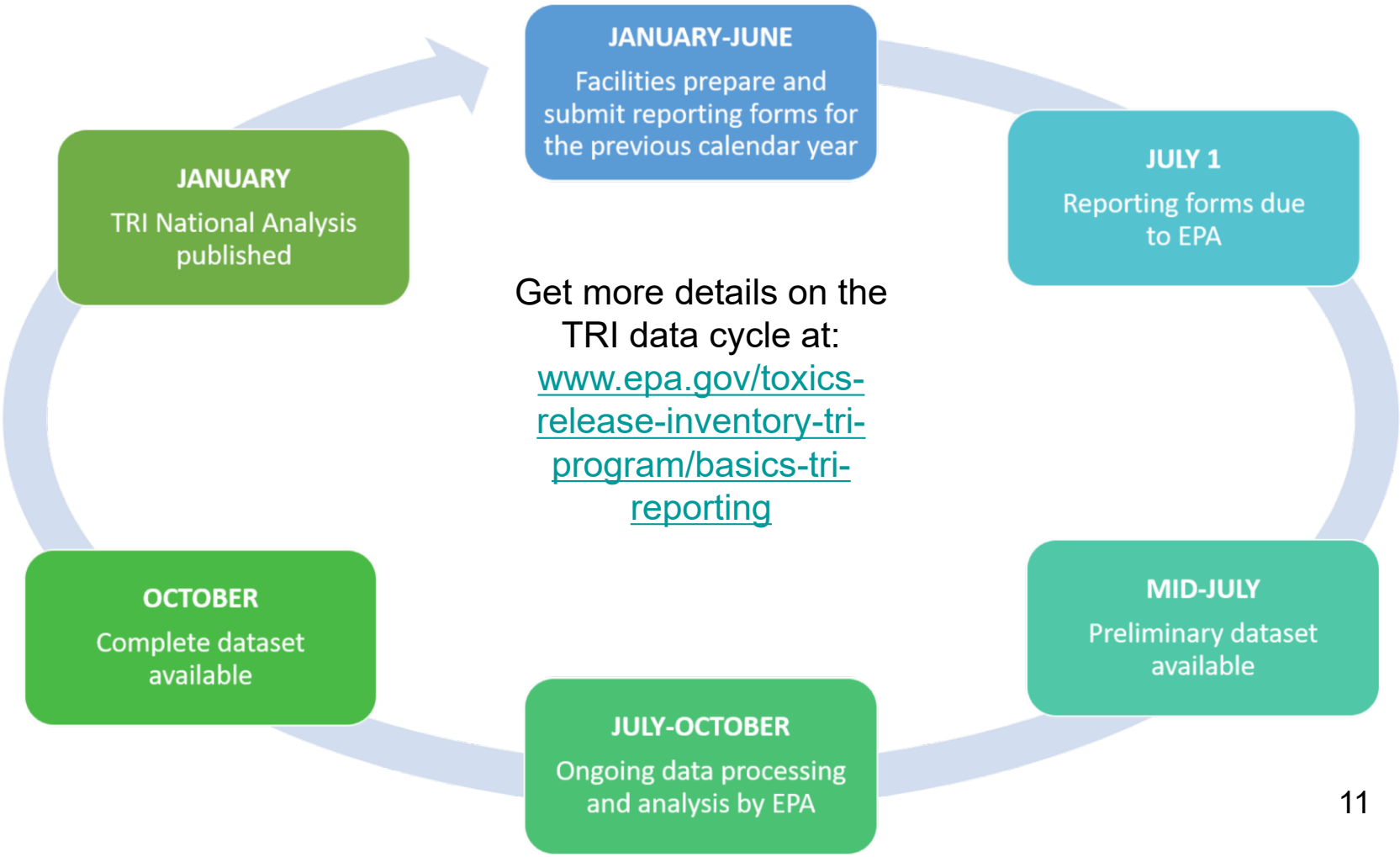
2. Facility must have the equivalent of at least **10 full-time employees**

3. Facility must manufacture, process or use more than a **certain amount of a TRI-listed toxic chemical per year**

What information do facilities report to TRI?

- On-site releases of TRI chemicals to:
  - Air
  - Water
  - Land
- Transfer of chemical waste to off-site locations
- Waste management:
  - Recycling
  - Treatment
  - Energy Recovery
- Pollution prevention activities

Annual TRI Data Cycle

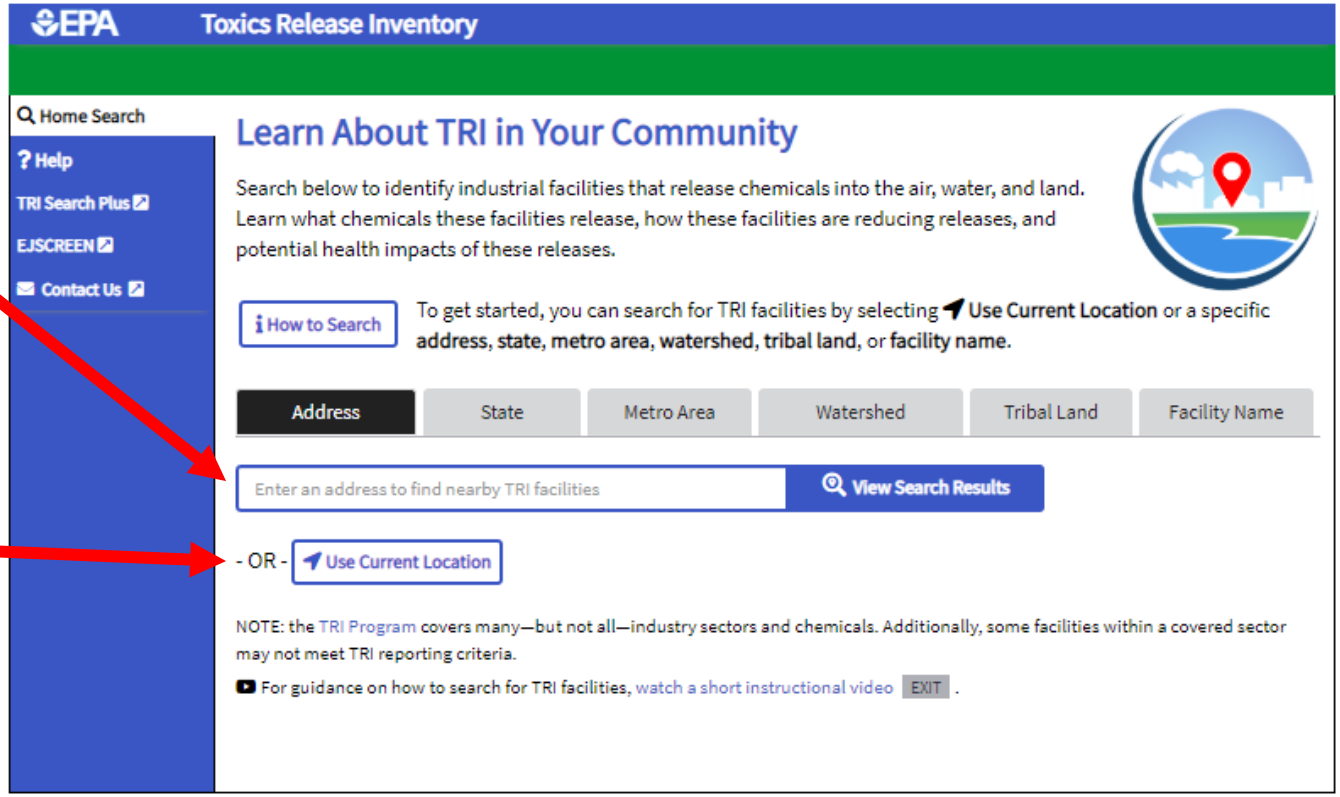


Get more details on the TRI data cycle at: www.epa.gov/toxics-release-inventory-tri-program/basics-tri-reporting

Find TRI facilities and learn about toxic chemicals in your community

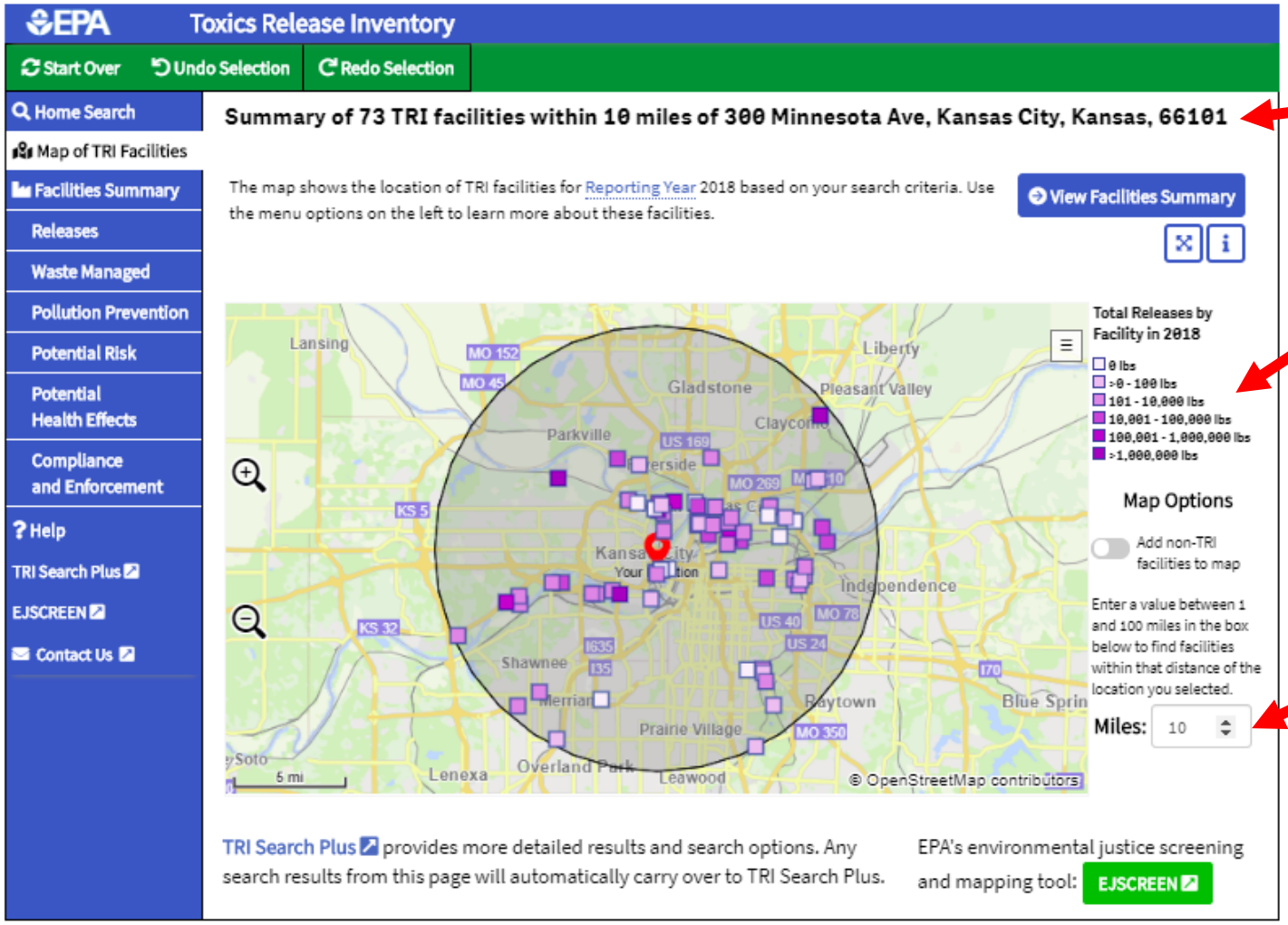
Enter an address or place name. Then click "View Search Results" to see all TRI facilities located within 10 miles that reported to EPA in the most recent reporting year.

Another search option is "Current Location." *(Unavailable on some computer equipment/ devices and/or browser settings)*



TRI search is also available in Spanish

Mapping TRI Facilities



Shows the number of TRI facilities within 10 miles of your selected search location.

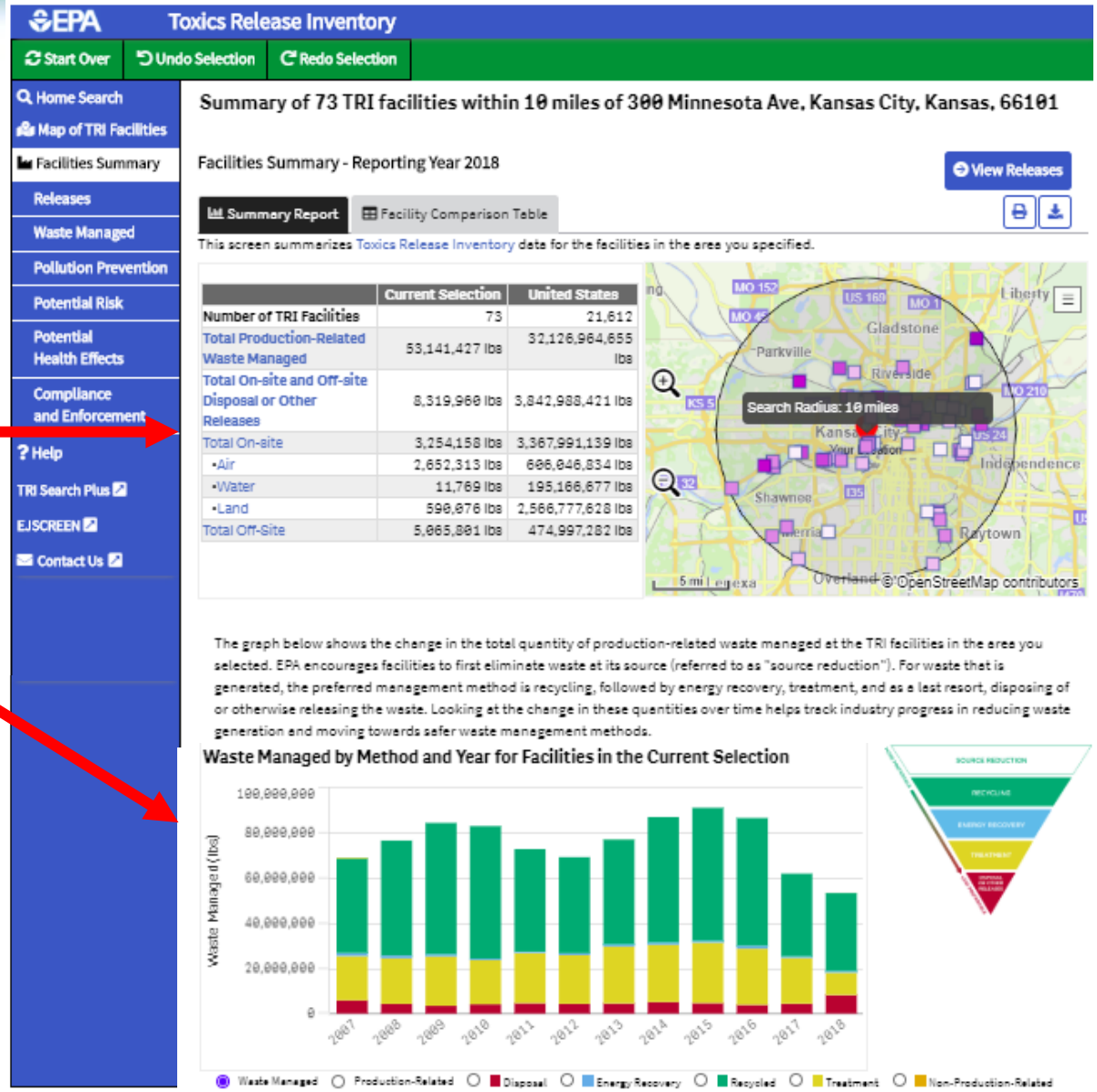
Facilities are shown as color-coded squares (in shades of deep purple to light purple/white) to identify the range of release quantities for each of them.

Can view TRI facilities 1 to 100 miles from the center of the selected search location. *(The default radius is 10 miles.)*

TRI Summary Report

Basic “Quick Facts” summary about all TRI facilities located within 10 miles of your selected search location.

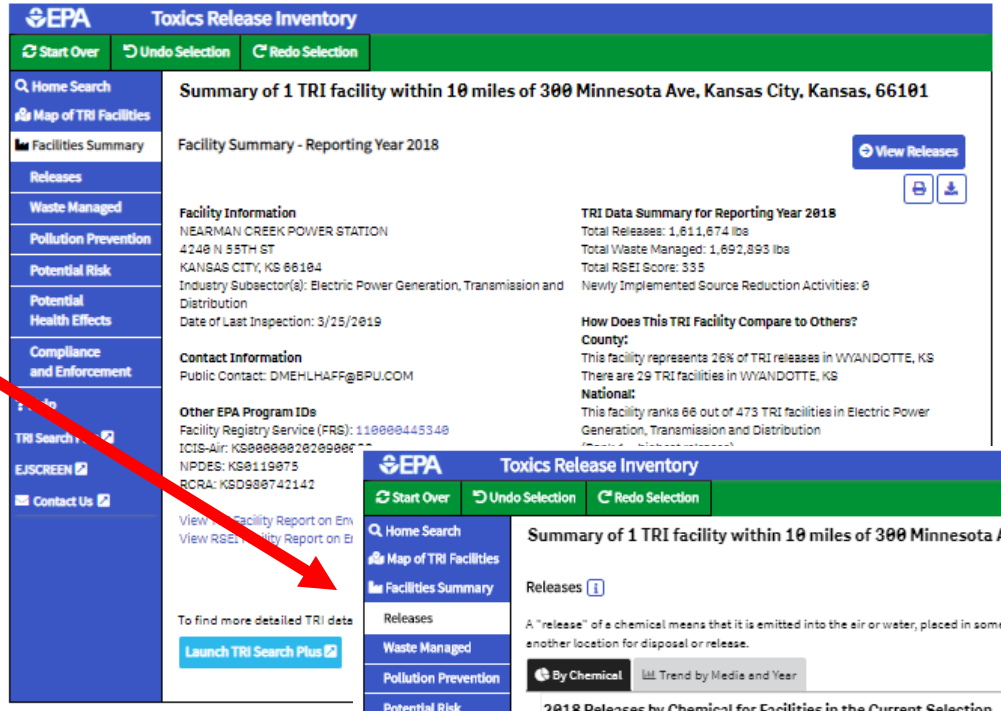
Includes a trends chart that shows the amounts of waste managed and toxic chemicals released over the most recent 12 years of TRI reporting.



TRI Data About Individual Facilities

Summary data about an individual TRI facility.

Various types of pie charts, trends graphs, tables, etc. provide more information about an individual facility.



TRI and Pollution Prevention

- The goal of pollution prevention (P2) is to **eliminate or reduce the creation of pollutants** (also called "source reduction").
- TRI tracks industrial facilities' progress toward this goal and collects data about **effective P2 practices**.
- TRI can be used to:
  - Identify facilities that are implementing P2 to reduce their toxic emissions.
  - Promote "tech transfer" of innovative P2 activities from facilities that have successfully used P2 to facilities that could be doing more.

TRI P2 Search Tool

www.epa.gov/tri/p2

Click to see how this facility has prevented pollution over time.

This facility treats (destroys) most of its toluene waste; other textile mills release a higher percentage.

Is it safe to live near facilities that release toxic chemicals?

The answer depends on many factors:

- How much has been released?
- How toxic are the chemicals?
- Where did the chemicals go?
- How much of the chemicals did people breathe, eat or drink?
- How often and how long were people exposed?
- Were the people exposed in a high risk group?

Note: many of the releases from TRI facilities are regulated under various EPA programs and requirements designed to limit harm to people's health and the environment.

What are the limitations of TRI data?

- **Annual data** – collected from TRI reporting facilities once/year
- Covers some, but **not all toxic chemicals and not all industry sectors**
- **Small facilities are not included** (under 10 employees)
- **Does not cover all sources of pollution**, e.g. cars and trucks
- **Does not describe how long or how often chemicals were released**

For more information, see *"Factors to Consider When Using TRI Data"* at: www.epa.gov/toxics-release-inventory-tri-program/factors-consider-when-using-toxics-release-inventory-data

TRI information is only one piece of the puzzle

While TRI provides important information about toxic chemical releases in your community, seeing the whole picture requires additional information about other types of environmental releases, as well as air monitoring, compliance with environmental regulations and more. Other information to consider can include:

- ❑ Motor vehicle emissions
- ❑ Gasoline stations
- ❑ Dry cleaners
- ❑ Car painting shops
- ❑ Drum burnings/forest fires
- ❑ Underground storage tanks
- ❑ Abandoned hazardous waste sites
- ❑ Drinking water quality
- ❑ Lead paint in homes
- ❑ And more...

EPA's MyEnvironment tool provides more information about your community

Go to www.epa.gov/myenvironment and enter your location to get detailed information about environmental conditions in your area.

What You Can Do

- Use TRI data (along with other environmental Information) to discuss your community's environmental health concerns with:
  - Neighborhood associations
  - Community grassroots groups
  - Environmental organizations
  - Non-profit planning organizations
  - Local colleges and researchers
  - Environmental, natural resources, health and/or planning government agencies
  - Local and State elected officials
  - Industry trade associations
  - Industrial facilities
- Use TRI P2 data to encourage local facilities to implement new P2 activities or expand their existing P2 activities.
- Find out if a facility of concern is in compliance with EPA laws and regulations using EPA's Enforcement and Compliance History Online (ECHO) at https://echo.epa.gov/.
- Report a suspected violation at epa.gov/tips or contact your state environmental agency (contacts listed at: www.epa.gov/home/health-and-environmental-agencies-us-states-and-territories).

For More Information About TRI:

- Contact your **EPA Regional TRI Coordinator:** www.epa.gov/tri/contacts
- Call EPA's **TRI Information Center:** 1-800-424-9346. Select menu option #3 for TRI.
- Visit the **TRI Program's website**: www.epa.gov/tri and www.epa.gov/tri/communities.
- Check out the **TRI Pollution Prevention (P2) Search Tool**: www.epa.gov/tri/p2.
- Contact the **TRI Help Desk** by email: tri.help@epa.gov.

With TRI and related EPA information, you can begin to answer your questions about your community

I thought a factory in my community released a lot of pollution. TRI showed me that this factory dramatically reduced the amount of toxic chemicals it released into the environment over the past twelve years.

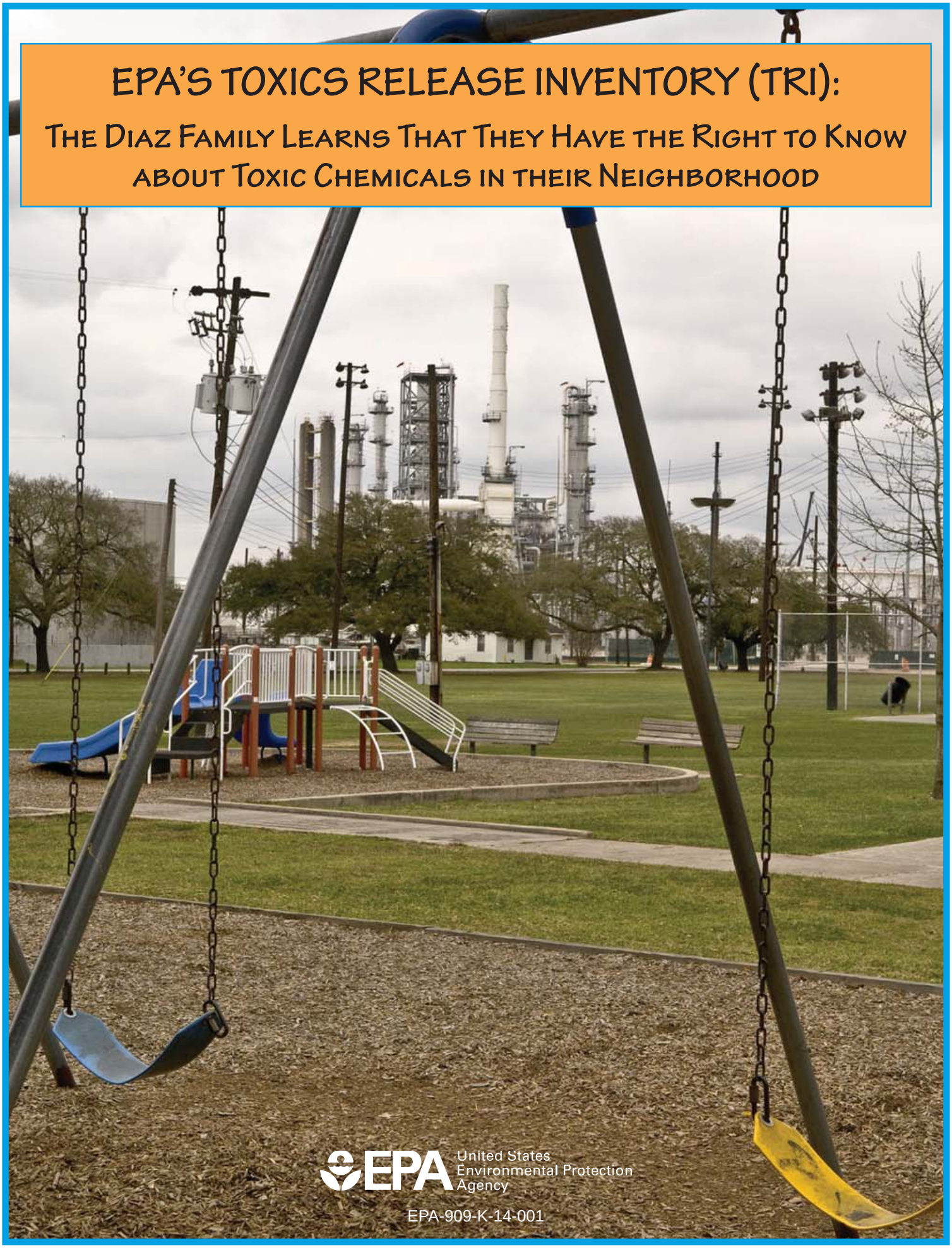
I found out using TRI which chemicals are released in the greatest quantities. I'm going to find out what can be done to reduce those releases.

TRI showed me that the factory by my daughter's school releases chemicals that could potentially cause cancer. Now I'm going to find out more.

TRI provides information to better understand toxic chemical releases in your community.

EPA's Toxics Release Inventory (TRI):

The Diaz Family Learns That They Have the Right to Know about Toxic Chemicals in their Neighborhood



United States Environmental Protection Agency

EPA-909-K-14-001

The Diaz Family and Neighbors

Julio

Johnny

Rosie

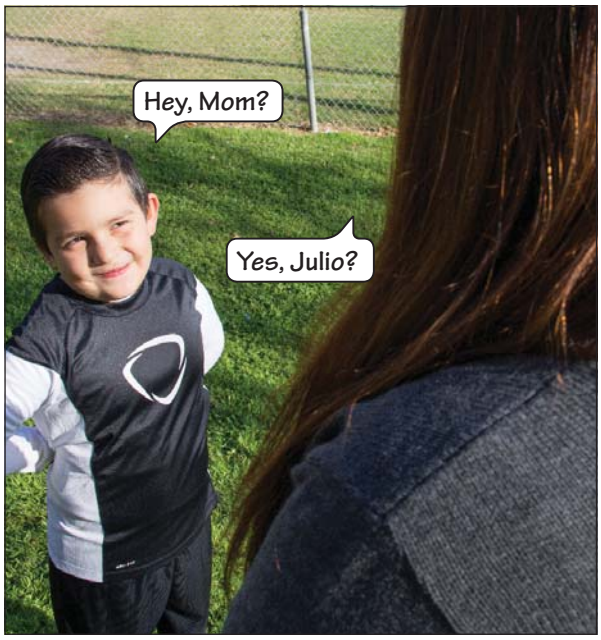
Cesar

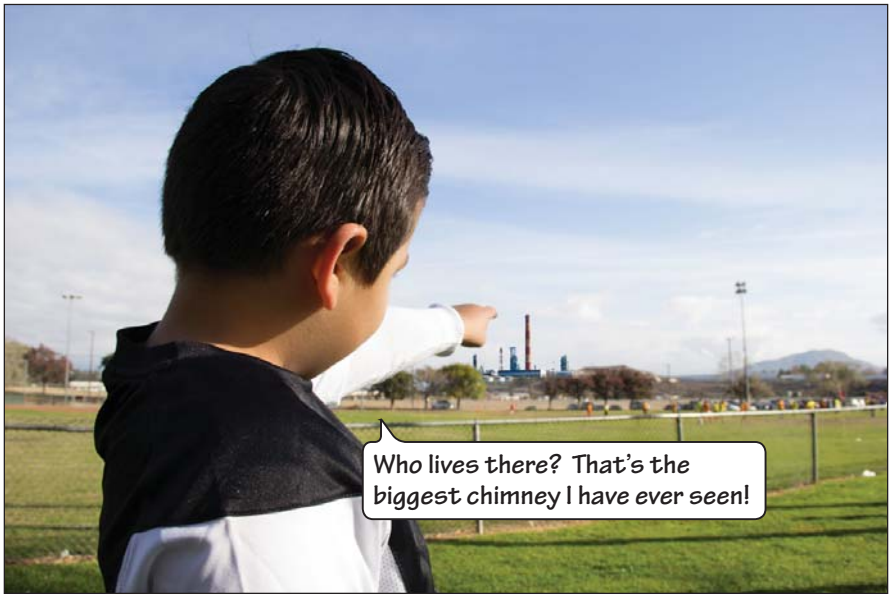
Lupe

Dolores

Miguel

Don't worry, Julio, we have lots of food here for you and your team.


Hey, Mom?
Yes, Julio?


Who lives there? That's the biggest chimney I have ever seen!

That's not a house, silly. It's a factory.

Why does a factory need a chimney?

It's called a smokestack, son. Smoke, steam, or even toxic chemicals can come out of smokestacks and go up into the air.

Rosie, do you wonder what's coming out of that smokestack?

Yes, because this soccer field is so close to it, and I worry about the kids.

I wish there was *something* I could do to learn more about that factory and other ones around here, but I don't know where to start.

Another parent, Miguel, overhears the conversation and joins in...

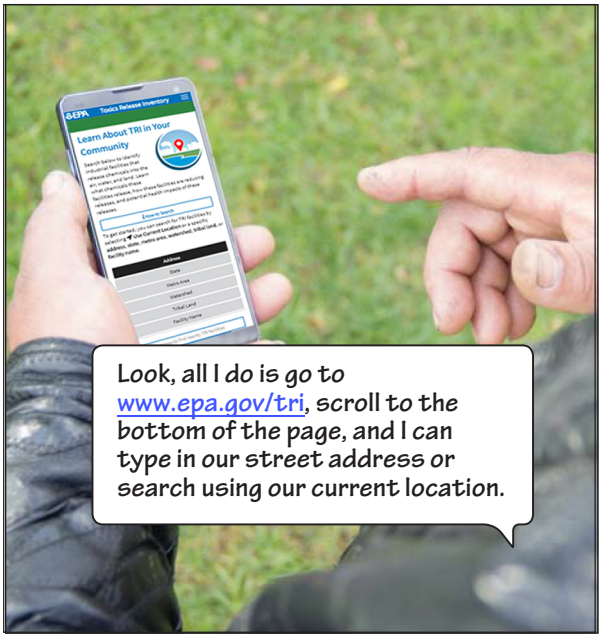
You don't have to see smoke. Some chemicals come out as fumes that you can't see...

...and others come out and spread into the water and onto land.

But how can we find out about the toxic chemicals that come out of the factory?

From a website run by the Environmental Protection Agency (EPA) called TRI! TRI stands for "Toxics Release Inventory." Congress created the TRI in the 1980's as part of the Emergency Planning and Community Right-to-Know Act.

I can show you on my smartphone right here. You can look it up on a computer too.


EPA Toxics Release Inventory
Learn About TRI in Your Community
Look, all I do is go to www.epa.gov/tri, scroll to the bottom of the page, and I can type in our street address or search using our current location.

Wow! It shows a map of our whole neighborhood. See Julio, we're here and there's the factory where Miguel works.

What does it say, Mom?

Well, it says here the factory released 800 pounds of one chemical to the air and 450 pounds of another chemical into the water.

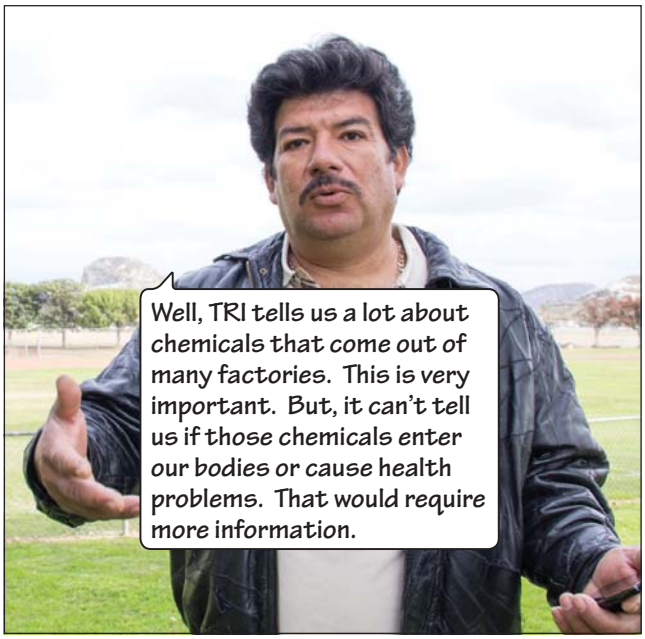
But there are lots of environmental laws that factories must follow to control their toxic chemical releases and to protect the environment.

It shows here on my phone what EPA is doing to make sure that factories are following the law. Even if a factory is doing what the law says it has to do, that doesn't mean that we shouldn't ask questions. We can work with our neighbors to encourage factories like that one to do more to protect the environment.

Why does the factory use all those chemicals in the first place?

Factories use chemicals to make cars, refrigerators, computers, and other things that we use every day.

Miguel, won't those chemicals make the kids sick?

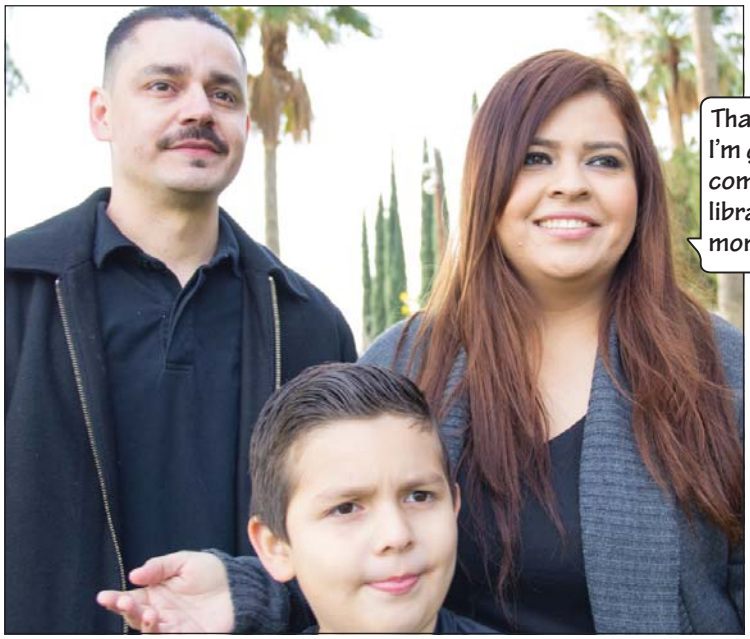

Well, TRI tells us a lot about chemicals that come out of many factories. This is very important. But, it can't tell us if those chemicals enter our bodies or cause health problems. That would require more information.

The TRI website at www.epa.gov/tri can point you to where you can learn more about toxic chemicals, pollution and human health.

How come I don't see anything about all the smelly trucks passing by here when I look up TRI information?

TRI doesn't cover all types of pollution.

You won't find information in TRI, for example, about pollution from cars and trucks, gas stations, and lead paint in homes. But TRI can help us find out a lot about pollution from many factories. It can also tell us whether or not they are trying to prevent or reduce their pollution.


Thanks, Miguel. I'm going to use a computer at the library to learn more about this.

We can talk to my science teacher too. She knows a lot about environmental issues and she runs an environmental group in town.

FOR MORE INFORMATION, you can go to any of these resources:

Call the TRI Information Center: 800-424-9346 (Select menu option #3)

Website for general TRI information: www.epa.gov/tri and website for TRI information for communities: www.epa.gov/tri/communities

Contact your EPA REGIONAL TRI COORDINATOR: www.epa.gov/tri/regionalcoordinators

Email the TRI HELP DESK: tri.help@epa.gov

Use this link to report what appears to you as a possible violation of environmental laws and regulations: https://echo.epa.gov/report-environmental-violations

Find Out What's Happening in Your Neighborhood

Using EPA's Toxics Release Inventory (TRI)

Do nearby industrial facilities release toxic chemicals?

What chemicals are they releasing?

What is being done to reduce chemical releases?

TRI can help you find the answers!

It's your RIGHT TO KNOW!

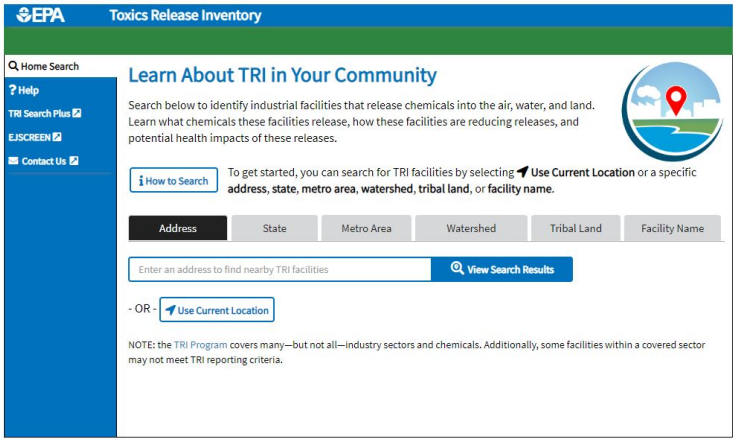
We all have the right to know about the chemicals we may be exposed to in our daily lives. The Emergency Planning and Community Right-to-Know Act of 1986 and the Pollution Prevention Act of 1990 require certain industrial facilities across the country to report annually to EPA's **Toxics Release Inventory (TRI)** about chemicals they release* and what they're doing to prevent or reduce pollution.

TRI includes data about more than 21,000 facilities across the country and covers 767 chemicals and 33 chemical categories.

TRI can identify:

- Nearby industrial facilities that release chemicals into the air, water, and land
- Which chemicals each facility releases and how much
- Pollution prevention (P2) activities that reduce chemical releases
- Which facilities are reducing chemical releases
- Potential health impacts linked to the chemicals released

Visit www.epa.gov/tri/#trisearch to learn about chemicals and facilities in your community



Is my health at risk because of toxic chemicals in my community?

- Although TRI can't tell you whether or to what extent you've been exposed to toxic chemicals, it can be used as a starting point in evaluating potential risks to the health of your community and the environment. Visit www.epa.gov/tri/risk to learn more.
- EPA, state and tribal governments implement environmental regulations to reduce potential risks to human health and the environment.
- Facilities are often required to use approved control technologies and methods to reduce or eliminate toxic releases.
- EPA also encourages facilities to prevent or reduce pollution at the source and to promote recycling whenever possible.

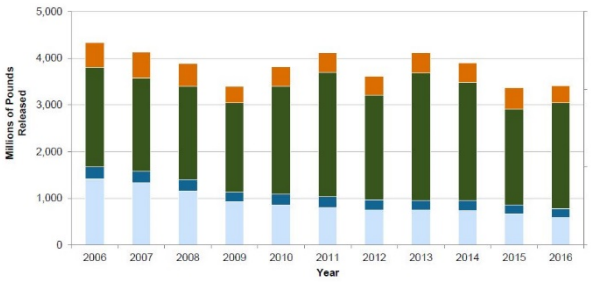
* A "release" is an emission or discharge to the air, water, and/or land.

Find Out What's Happening in Your Neighborhood

Using EPA's Toxics Release Inventory (TRI)

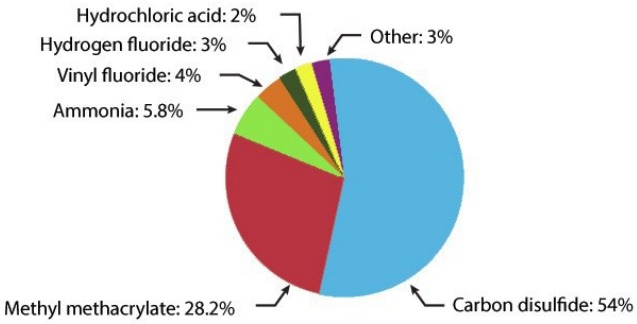
Have chemical releases in my neighborhood changed over time?

Historical data are available to track the trends of toxic releases from facilities in your community.



Which chemicals are being released in my neighborhood?

You can determine which chemicals are being released to air, water, and land, and which ones have the largest releases.



What you can do

- Use TRI data to start a dialogue about your community's environmental health with neighborhood associations; community-based and environmental groups; local, state, and federal government agencies; elected officials; colleges; researchers; local facilities; industry trade associations; and your neighbors and others in your community.
- Encourage local facilities to implement new pollution P2 activities or expand existing ones.
- Find out if a facility is complying with environmental laws and regulations on EPA's Enforcement and Compliance History Online website at www.epa.gov/echo.
- Report a suspected violation at www.epa.gov/tips or contact your state agency: www.epa.gov/home/health-and-environmental-agencies-us-states-and-territories

TRI and Pollution Prevention (P2)

- The goal of P2 is to eliminate or reduce the creation of pollution (also called "source reduction").
- TRI tracks industrial facilities' progress toward this goal and collects data on effective P2 practices.
- TRI can be used to:
  - Identify facilities that are implementing P2 to reduce their toxic emissions.
  - Promote "tech transfer" of innovative P2 activities from facilities that have successfully used P2 to facilities that could be doing more.
- Use EPA's TRI P2 Search Tool at www.epa.gov/tri/p2.

What are the top-releasing facilities in my neighborhood?

It's easy to find out which facilities in your neighborhood release the largest amounts of chemicals.

Facility Name	On-Site Releases
Evanescent Piping, Inc.	1,564,756 lbs.
Hotash Industries	83,540 lbs.
VZC Chemical Corporation	65,653 lbs.
Vivido Paints, LLC	41,234 lbs.
Efna Manufacturing, Inc.	30,128 lbs.

TRI is only one piece of the puzzle

While TRI provides important information about chemical releases in your community, to see the whole picture you'll need additional information about other types of environmental releases, environmental conditions, air and water quality monitoring, compliance with environmental laws and regulations, and more.

Two tools for additional information include:

MyEnvironment: www.epa.gov/myenvironment: access a variety of environmental information about your community.

EJSCREEN: www.epa.gov/ejscreen: EPA's environmental justice screening and mapping tool.