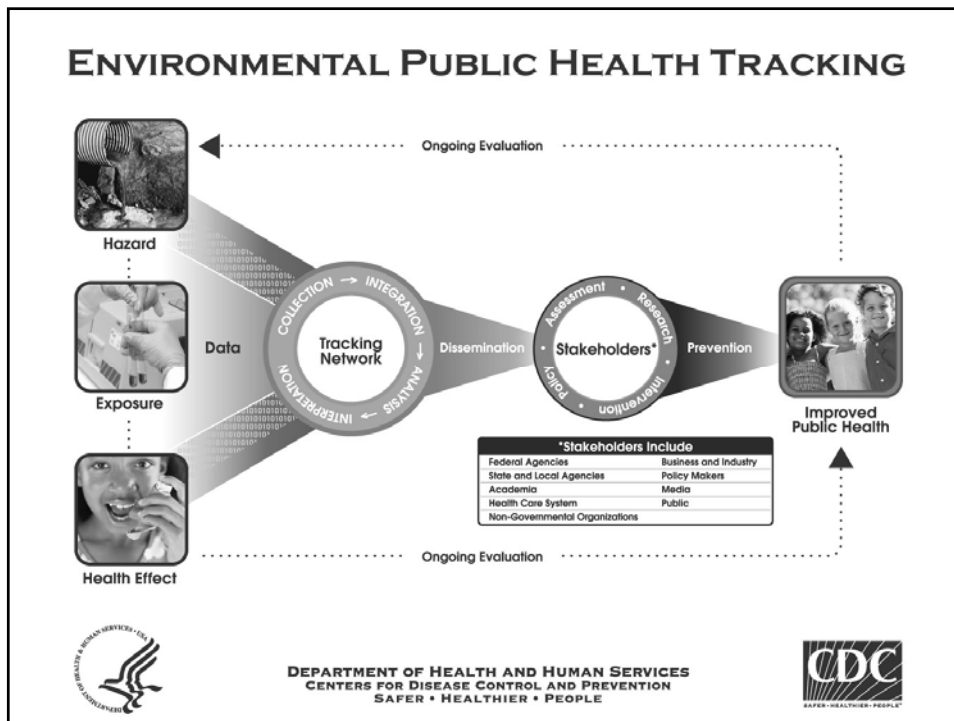


# Customized County Level Environmental Health Reports in Wisconsin

Jennifer C. Boyce  
 Environmental Public Health Tracking Program  
 Bureau of Environmental and Occupational Health  
 Division of Public Health  
 Department of Health Services



# Network Implementation

- **National Network**
  - Public and secure portals
  - Nationally consistent data and measures
- **State Network**
  - Public (DHS) and secure (WI-PHIN) portals
  - Locally relevant data, indicators and information
    - TAG with broad representation
    - Madison/Dane County Environmental Health Report Card

# EPHT in Wisconsin

## Target Endpoints (2008)

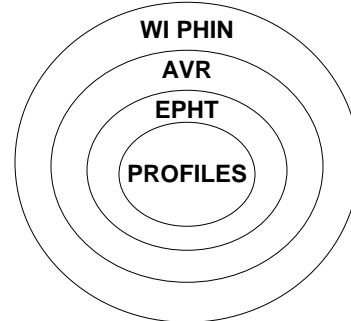
- Hospitalizations
  - Asthma
  - Acute myocardial infarctions
- Childhood Lead poisoning
- Ozone and PM<sub>2.5</sub> in ambient air
- Drinking Water quality
- Reproductive Outcomes

## Target Endpoints (2010)

- Cancer
- Birth Defects
- Carbon Monoxide Poisoning
- Carcinogenic Emissions
- Poison Center Calls
- Criteria air pollutants

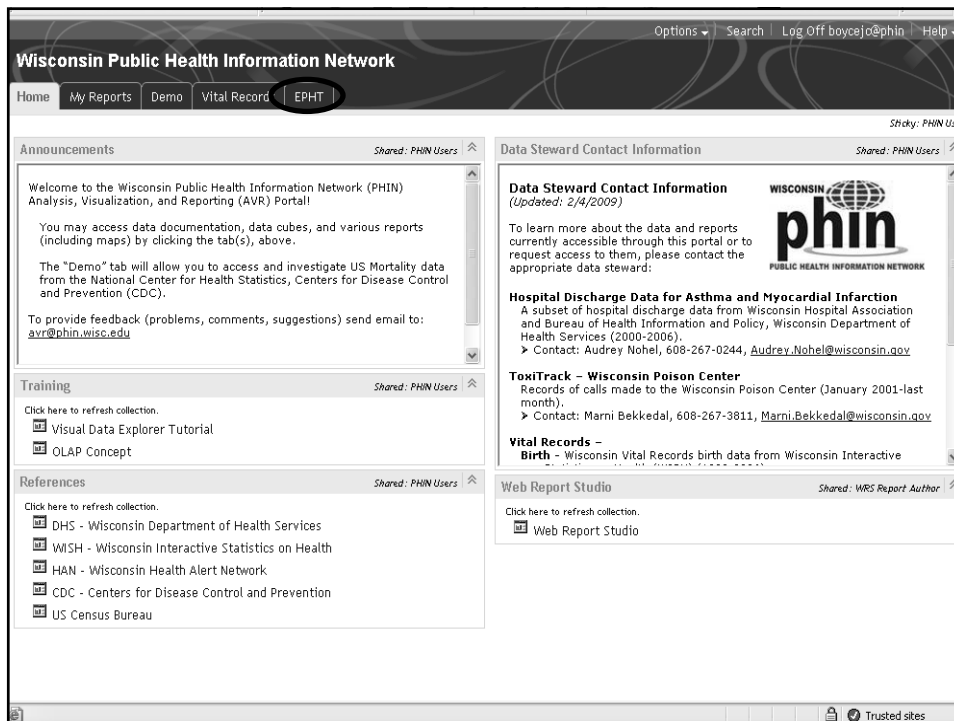
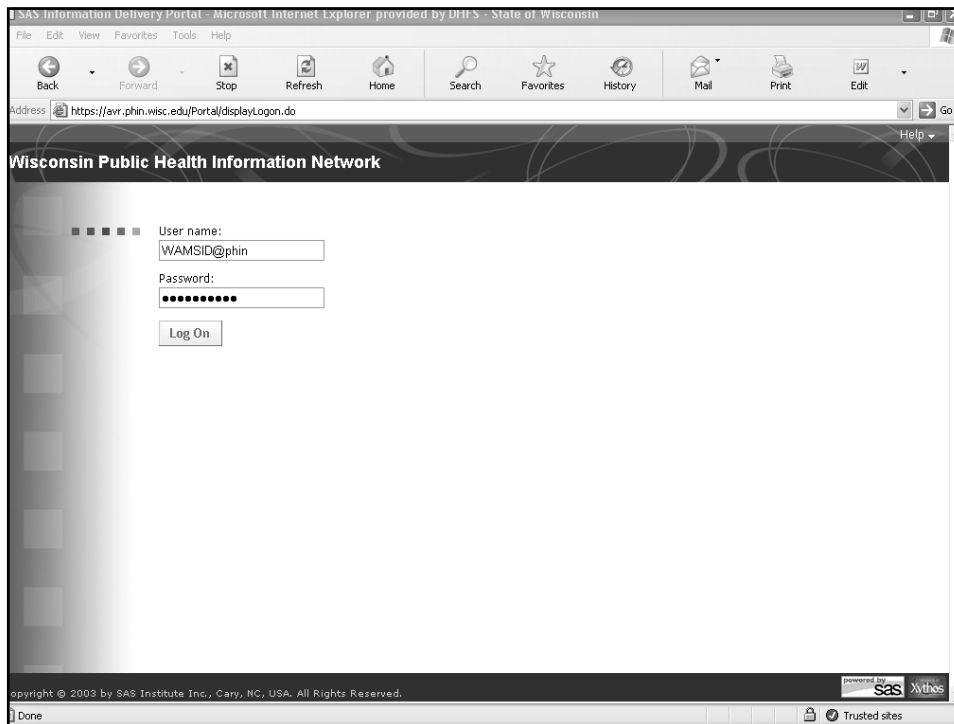
# Today's Objectives

- **Focus on the EPHT Secure Portal**
  - **Public Health Information Network**
    - **Analysis, Visualization and Reporting component (AVR)**
- **Describe the data available**
  - **Core topic areas**
- **Demonstrate the County Environmental Health Profiles**
  - **Provide local health departments with information to use when communicating with the general public and stakeholders**
  - **Provide a report that is flexible and customizable**
  - **Summarize data from each core topic area in tables, graphs, and maps**
  - **Provide instant access to summarized data that are comparable across counties**



# County Level Profiles

- **Templates are developed by EPHT staff and provided to local health department users with approved access to AVR,**
- **Template is provided, but allows for interaction by the user,**
- **Specific data displayed with the template are selected by the user via query feature,**
- **Underlying data can be exported as an Excel or CSV file, and**
- **A static PDF copy of the data tables/figures is made, then posted on the EPHT public website.**



**Wisconsin Public Health Information Network**

Home My Reports Demo Vital Records **EPHT**

Shicky: PHIN User

---

**Announcements** Shared: PHIN Users

Welcome to the Wisconsin Environmental Public Health Tracking Network. To learn more about the Environmental Public Health Tracking program, visit <http://dhs.wisconsin.gov/epht>. The Network provides access to environmental hazard and health outcome data to help users identify trends and make public health decisions. Currently the Network provides data and information about:

- childhood lead poisoning
- hospitalizations for asthma
- hospitalizations for acute myocardial infarctions
- reproductive outcomes
- drinking water quality
- carcinogenic emissions
- poison center calls

Detailed air quality data for measures of ozone and fine particulate matter (PM<sub>2.5</sub>) can be found at <http://dnrmaps.wisconsin.gov/imf/imf.asp?site=wisards>. Using the map on the opening page provides up to date information. For historical data, please use the WISARDS Reports tab located at the bottom of the opening page.

**Environmental Health Profiles** Shared: PHIN Users

Click here to refresh collection.

- Adams County Environmental Health Profile.srx
- Ashland County Environmental Health Profile.srx
- Barron County Environmental Health Profile.srx
- Bayfield County Environmental Health Profile.srx
- Brown County Environmental Health Profile.srx
- Buffalo County Environmental Health Profile.srx
- Burnett County Environmental Health Profile.srx
- Calumet County Environmental Health Profile.srx
- Chippewa County Environmental Health Profile.srx

---

**Data Access** Shared: PHIN Users

**Data Access**  
(Updated: 2/4/09)

The EPHT program provides datasets for various topic areas on the EPHT tab. Your user role determines the level of access you have to a particular dataset. The EPHT tab automatically provides datasets that either are publicly accessible or have been modified from their original data source to ensure confidentiality. The confidential data can become available through a request to the data owner (data steward). Please use the list of data stewards below if you would like access to the confidential data.

**Childhood Lead Poisoning** Shared: PHIN Users

Click here to refresh collection.

- Childhood Blood Lead Confidential Data Documentation
- Childhood (Under 6) Blood Lead Confidential Data (Cube)
- Childhood Blood Lead Public Data Documentation
- Childhood (Under 6) Blood Lead Public Data (Cube)

**Hospitalizations for Asthma and Acute Myocardial Infarctions** Shared: PHIN Users

Click here to refresh collection.

- Asthma and MI Hospital Discharge Data Documentation
- Asthma and MI Hospital Discharge Data (Cube)

Hospital discharge data where asthma or myocardial infarction is one of the diagnoses.

**Reproductive Outcomes** Shared: PHIN Users

Click here to refresh collection.

- Wisconsin Birth Data - EPHT - Documentation
- Wisconsin Birth Data - EPHT (Cube)

**Drinking Water Quality** Shared: PHIN Users

Click here to refresh collection.

Trusted sites

- Calumet County Environmental Health Profile.srx
- Chippewa County Environmental Health Profile.srx
- Clark County Environmental Health Profile.srx
- Columbia County Environmental Health Profile.srx
- Crawford County Environmental Health Profile.srx
- Dane County Environmental Health Profile.srx**
- Dodge County Environmental Health Profile.srx
- Door County Environmental Health Profile.srx
- Douglas County Environmental Health Profile.srx
- Dunn County Environmental Health Profile.srx
- Eau Claire County Environmental Health Profile.srx
- Florence County Environmental Health Profile.srx
- Fond du Lac County Environmental Health Profile.srx
- Forest County Environmental Health Profile.srx
- Grant County Environmental Health Profile.srx
- Green County Environmental Health Profile.srx
- Green Lake County Environmental Health Profile.srx
- Iowa County Environmental Health Profile.srx
- Iron County Environmental Health Profile.srx
- Jackson County Environmental Health Profile.srx
- Jefferson County Environmental Health Profile.srx
- Juneau County Environmental Health Profile.srx
- Kenosha County Environmental Health Profile.srx
- Kewaunee County Environmental Health Profile.srx
- La Crosse County Environmental Health Profile.srx
- Lafayette County Environmental Health Profile.srx
- Langlade County Environmental Health Profile.srx
- Lincoln County Environmental Health Profile.srx
- Manitowoc County Environmental Health Profile.srx
- Marathon County Environmental Health Profile.srx
- Marinette County Environmental Health Profile.srx

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**Drinking Water Quality** Shared: PHIN User

Click here to refresh collection.

- Public Drinking Water Use Index Data Documentation
- Public Drinking Water Use Index Data (Cube)
- Public Drinking Water Use Index.srx

**Carcinogenic Emissions** Shared: PHIN User

Click here to refresh collection.

- Carcinogenic Emissions Data Documentation
- Carcinogenic Emissions Data (Cube)

1999 NATA (National-Scale Air Toxics Assessment) data from EPA.

**Poison Center Calls** Shared: PHIN User

Click here to refresh collection.

- ToxiTrack Data Documentation
- ToxiTrack Data (Cube)

Data from Wisconsin Poison Center.

- Daily Count of Exposure Calls

A calendar chart showing the daily count of exposure calls for the selected substance type.

---

**National Environmental Public Health Tracking Program** Shared: PHIN User

**National Environmental Public Health Tracking Program**

**CDC's National Environmental Public Health Conference**  
Submit Tracking Abstracts Now!  
**More...**

**Journal of Public Health Management and Practice: Tracking Edition.**  
The November-December 2008 issue of the Journal of Public Health Management and Practice (JPHMP) is devoted entirely to environmental public health tracking.

**SAS Web Report Viewer • Dane County Environmental Health Profile**

Report ▾

Table of Contents | Carcinogenic Emissions | Drinking Water | Childhood Lead Poisoning | Asthma Hospitalizations | Myocardial Infarction Hospi... | Repr

Dane County Environmental Health Profile, November 2008

## County Environmental Health Profile

### Environmental Topics

*Carcinogenic Emissions*  
For more information go to: <http://dnr.wisconsin.gov/air/emission/>

*Drinking Water*  
For more information go to: <http://dnr.wisconsin.gov/org/water/dwg/>

*Childhood Lead Poisoning*  
For more information go to: <http://dhs.wisconsin.gov/lead/>

**SAS Web Report Viewer • Dane County Environmental Health Profile**

Report ▾

Table of Contents | **Carcinogenic Emissions** | Drinking Water | Childhood Lead Poisoning | Asthma Hospitalizations | Myocardial Infarction Hospi... | Reproductive

Dane County Environmental Health Profile, November 2008

### Carcinogenic Emissions

Carcinogenic emissions are chemicals in the air that are known to cause or promote cancer. The compounds included here were selected because evidence indicates a link to cancer depending on the amount of the compound breathed and how long the person is exposed. The exact impact of environmental pollutants on cancer is unknown, but it is believed approximately 10% of all cancers are related to environmental factors. Cancer is caused by many factors including tobacco smoke, obesity, and excessive exposure to sunlight. The emission data presented here are based on models that estimate pollution concentration in outdoor air from industries' annual reports. If you would like specific information about emissions in an area, contact your regional Department of Natural Resources at <http://dnr.wi.gov/org/caer/cs/ServiceCenter/SSbyRegion.html>. The population data are from the 2000 U.S. Census. The emission concentration data are from the 1999 NATA (National-Scale Air Toxics Assessment) from the U.S. EPA <http://epa.gov/ttn/abw/nata1999/tables.html>.

**Percent of the population in the county in each lifetime cancer risk category for several pollutants, 1999**

Pollutant	Dane							
	<1/million		1 to <10/million		10 to <100/million		>=100/million	
	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop
<b>Arsenic compounds</b>	0.000061	88.1%	0.000239	11.9%	.	.	.	.
<b>Benzene</b>	.	.	1.050657	57.6%	1.597177	42.4%	.	.
<b>Benzidine</b>	0.000000	100.0%	.	.	.	.	.	.

Benzene			1.050657	57.6%	1.597177	42.4%		
Benzidine	0.000000	100.0%						
Beryllium compounds	0.000010	100.0%						
Bis(chloromethyl) ether	0.000000	100.0%						
Cadmium compounds	0.000033	100.0%						
Chloromethyl methyl ether	0.000000	100.0%						
Chromium VI	0.000028	83.2%	0.000095	16.8%				
Coke oven emissions	0.000000	100.0%						
Diesel particulate matter							1.025850	100.0%
Ethylene oxide	0.005790	92.8%	0.020360	7.4%				
Perchloroethylene	0.141636	31.2%	0.212951	68.8%				
Trichloroethylene	0.085949	100.0%						
Vinyl chloride	0.057824	100.0%						

Notes:  
*1 in a Million Cancer Risk* - A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day, 7 days a week) to the specific concentration over 70 years (an assumed lifetime). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people. Note that this assessment looks at lifetime cancer risks, which should not be confused with or compared to annual cancer risk estimates. If you would like to compare an annual cancer risk estimate with the results in this assessment, you would need to multiply that annual estimate by a factor of 70 or alternatively divide the lifetime risk by a factor of 70. A 1 in a million lifetime risk to the public in 1996 was 250 cancer cases over a 70 year period.  
 % Pop (Population) - Percent of population in each category of Lifetime Cancer Risk.

Population data from the U.S. Census Bureau (2000)

Percent of the population in the county in each lifetime cancer risk category for several pollutants, 1999

Pollutant	Dane							
	Total Concentration	% Pop	1 to <10/million		10 to <100/million		>=100/million	
			Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop
Arsenic compounds	0.000061	88.1%	0.000239	11.9%				
Benzene			1.050657	57.6%	1.597177	42.4%		
Benzidine	0.000000	100.0%						
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Bis(chloromethyl) ether	0.000000	100.0%						
Cadmium compounds	0.000033	100.0%						
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Chromium VI	0.000028	83.2%	0.000095	16.8%				
Coke oven emissions	0.000000	100.0%						
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Ethylene oxide	0.005790	92.8%	0.020360	7.4%				
Perchloroethylene	0.141636	31.2%	0.212951	68.8%				
Trichloroethylene	0.085949	100.0%						
Vinyl chloride	0.057824	100.0%						

SAS Web Report Viewer: View Report - Microsoft Internet Explorer provided by DHFS - State of Wisconsin

Filter and Rank - Microsoft Internet Explorer provided by DHFS - State of Wisconsin

Category Filters Measure Filter or Rank

Item Filter

Lifetime Cancer Risk

Pollutant Under 5, 5-9, 10-14, 15-19

Age

Sex

Race

Filter type: Select category values

Select filter values:

Under 5

5-9

10-14

15-19

20-24

25-29

30-34

35-39

40-44

OK Cancel Help

Percent of the population in the county in each lifetime cancer risk category for several pollutants, 1999

County

Lifetime Cancer Risk

Pollutant

Arsenic compounds

Benzene

Benzidine

Beryllium compounds

Bis(chloromethyl) ether

Cadmium compounds

Chloromethyl methyl ether

Chromium VI

Coke oven emissions

Diesel particulate matter

Ethylene oxide

Perchloroethylene

Trichloroethylene

Vinyl chloride

SAS Web Report Viewer: View Report - Microsoft Internet Explorer provided by DHFS - State of Wisconsin

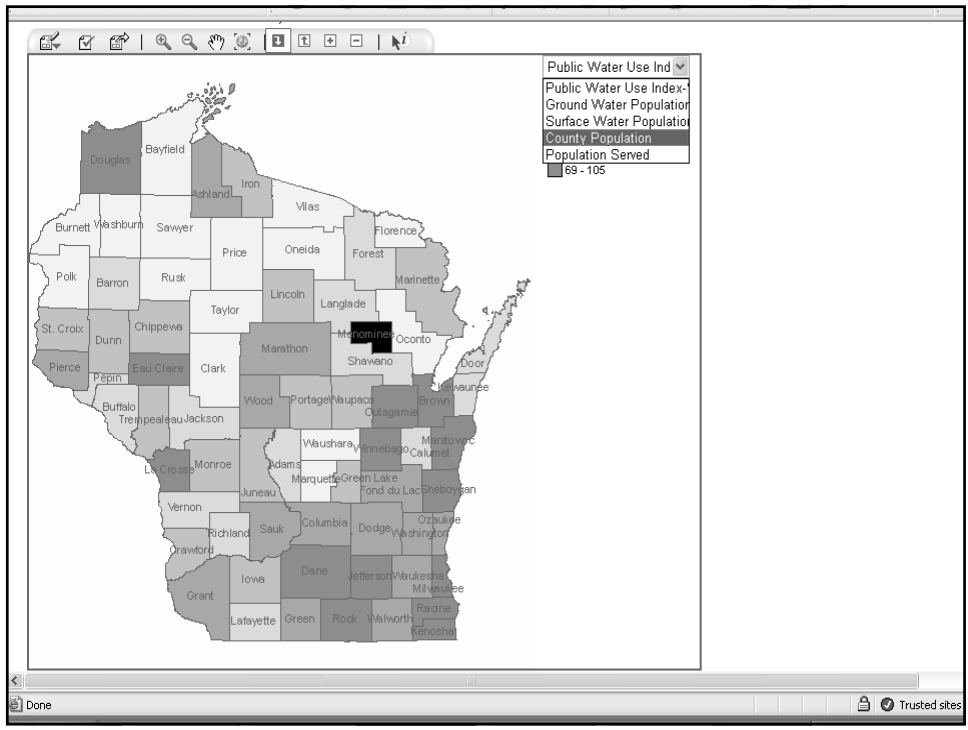
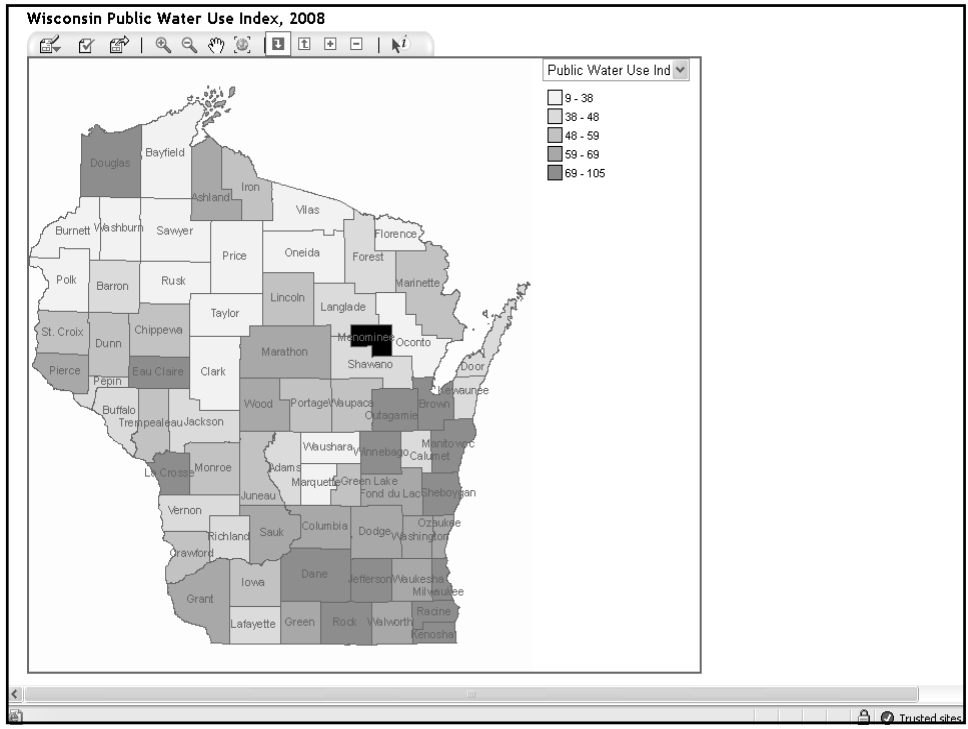
Percent of the population in the county in each lifetime cancer risk category for several pollutants, 1999

Applied filters: Geography equal to Dane AND Age equal to Under 5, 5-9, 10-14, 15-19 AND Sex All AND Race All

County

Dane

Pollutant	<1/million		1 to <10/million		10 to <100/million		≥100/million	
	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop
Arsenic compounds	0.000052	90.7%		9.3%				
Benzene			0.855997	59.5%		40.5%		
Benzidine	0.000000	100.0%						
Beryllium compounds	0.000010	100.0%						
Bis(chloromethyl) ether	0.000000	100.0%						
Cadmium compounds	0.000033	100.0%						
Chloromethyl methyl ether	0.000000	100.0%						
Chromium VI	0.000026	82.9%		17.1%				
Coke oven emissions	0.000000	100.0%						
Diesel particulate matter							1.025850	100.0%
Ethylene oxide	0.005645	92.4%		7.6%				
Perchloroethylene		35.1%	0.198196	64.9%				
Trichloroethylene	0.000000	100.0%						



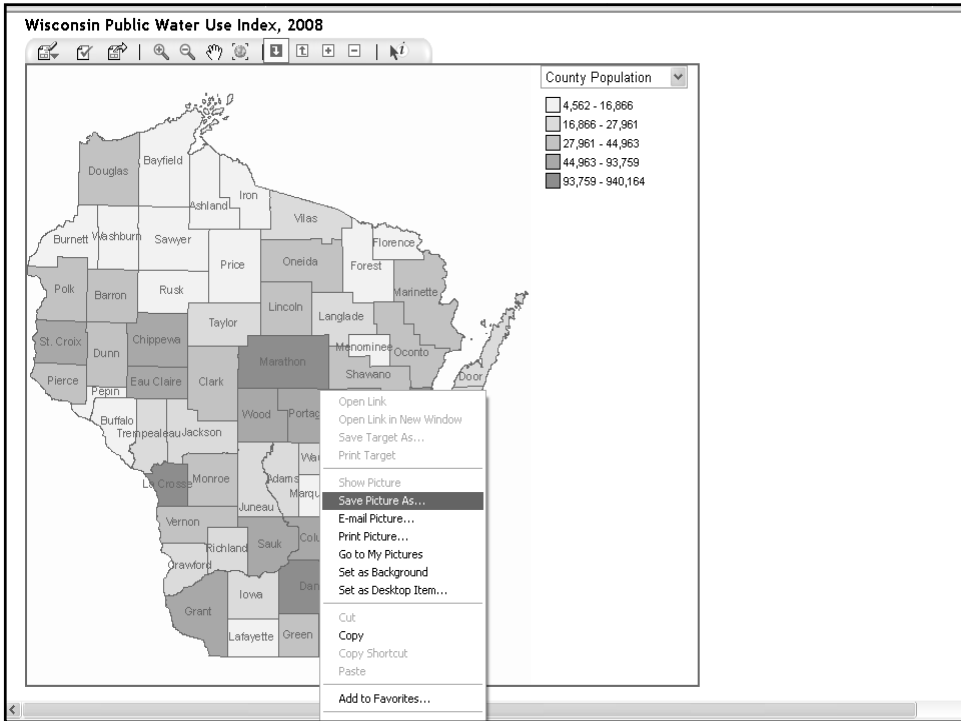
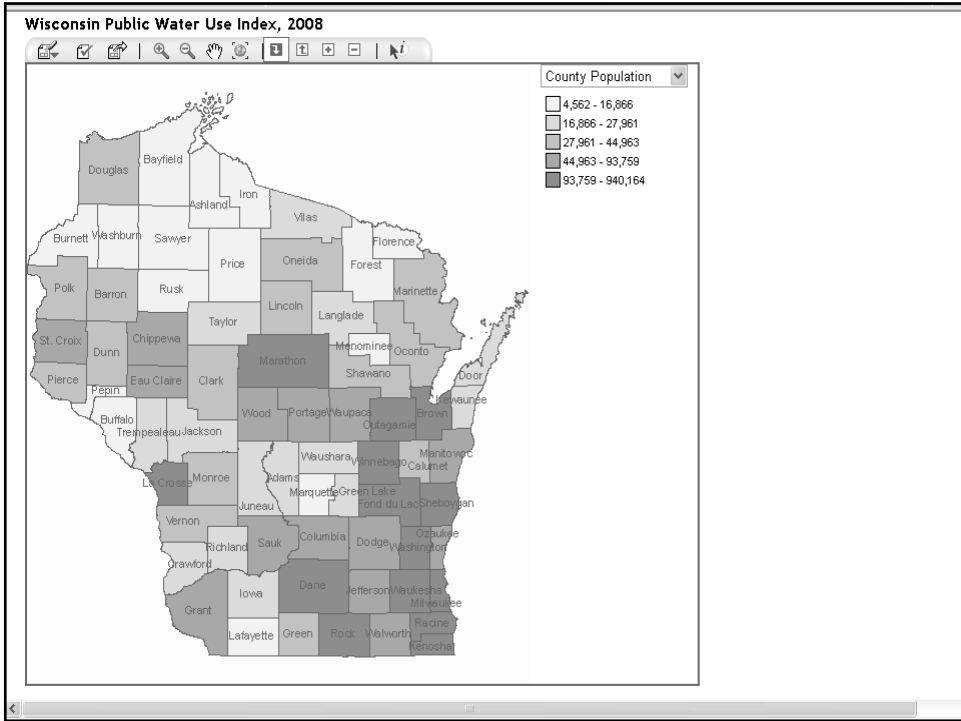


Table of Contents | Carcinogenic Emissions | Drinking Water | **Childhood Lead Poisoning** | Asthma Hospitalizations | Myocardial Infarction Hospi... | Repor

Dane County Environmental Health Profile, November 2008

Childhood Lead Poisoning

Lead is a toxic metal that interferes with the normal development of a child's brain and can result in lower IQ and a greater likelihood of behavior problems, like aggression, hyperactivity, juvenile delinquency, and adult violent crime. Children under age six are the most vulnerable because of their rapid brain development and high absorption rate. Lead poisoning is more common in children two years of age, children in low income families, African American children, and children living in housing built before 1950. Children, at risk for lead poisoning, should be tested by a health care provider. Lead-based paint is the primary source of lead in a child's environment, and lead poisoning can be best prevented by removing this hazard. The data provided here are from the Wisconsin Childhood Lead Poisoning Prevention Program that works with other agencies throughout the state and out of state to collect and compile these data. For more information, please go to <http://dhs.wisconsin.gov/lead>.

**Number of children tested for lead poisoning, number poisoned and poisoning prevalence by age group, 2007**

Test Year		2007		
County	Age Group	Total Children Tested for Lead Poisoning	Total Children Lead Poisoned	Lead Poisoning Prevalence
Dane	0-<1	892	3	0.34%
	1-<2	1,978	3	0.15%
	2-<3	668	3	0.45%
	3-<6 NPT	354	2	0.56%
	3-<6 PT	270	4	1.48%
<b>Total</b>		<b>4,162</b>	<b>15</b>	<b>0.36%</b>

**Number of children tested for lead poisoning under age six 2003-2007**

Test Year	Total Children Tested
2003	3,250
2004	3,350
2005	3,350
2006	3,450
2007	4,150

Table of Contents | Carcinogenic Emissions | Drinking Water | Childhood Lead Poisoning | Asthma Hospitalizations | Myocardial Infarction Hospi... | Repro

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**Filter and Rank - Microsoft Internet Explorer provided by DHFS - State of Wisconsin**

Category Filters | Measure Filter or Rank

Item Filter

Test Year: Equal to 2007, 2006, 2005, 2004, 2003

County: Dane, Jefferson

Age Group:

Filter type: Select category values

Select filter values:

- Green
- Green Lake
- Iowa
- Iron
- Jackson
- Jefferson
- Juneau
- Kenosha
- Kewaunee
- Lincoln

OK Cancel Help

Table of Contents | Carcinogenic Emissions | Drinking Water | **Childhood Lead Poisoning** | Asthma Hospitalizations | Myocardial Infarction Hospi... | Reproduc...

Dane County Environmental Health Profile, November 2008

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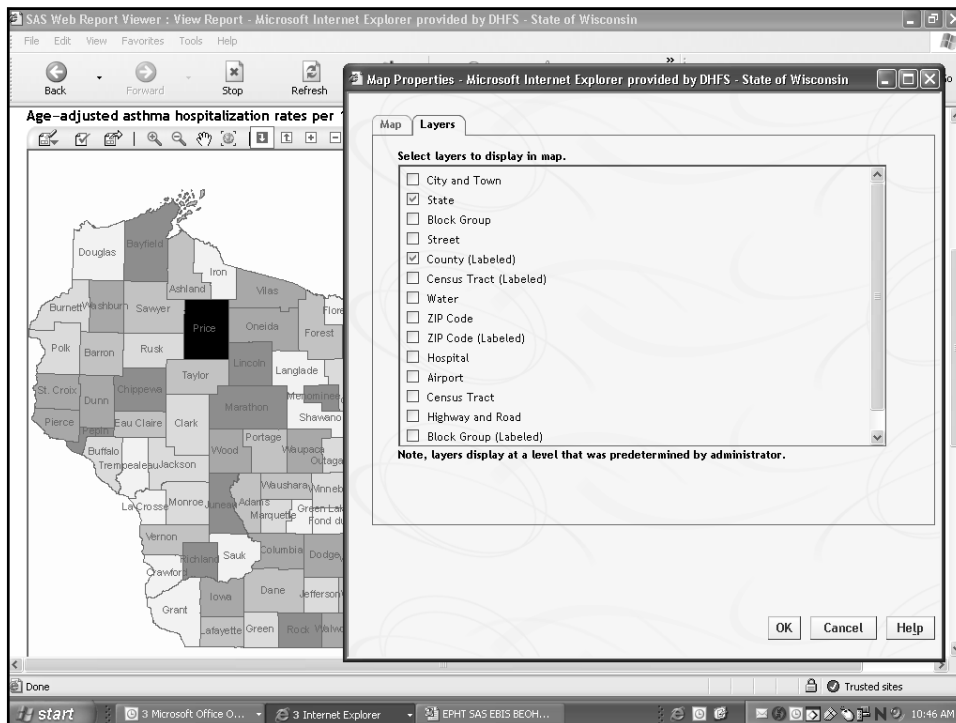
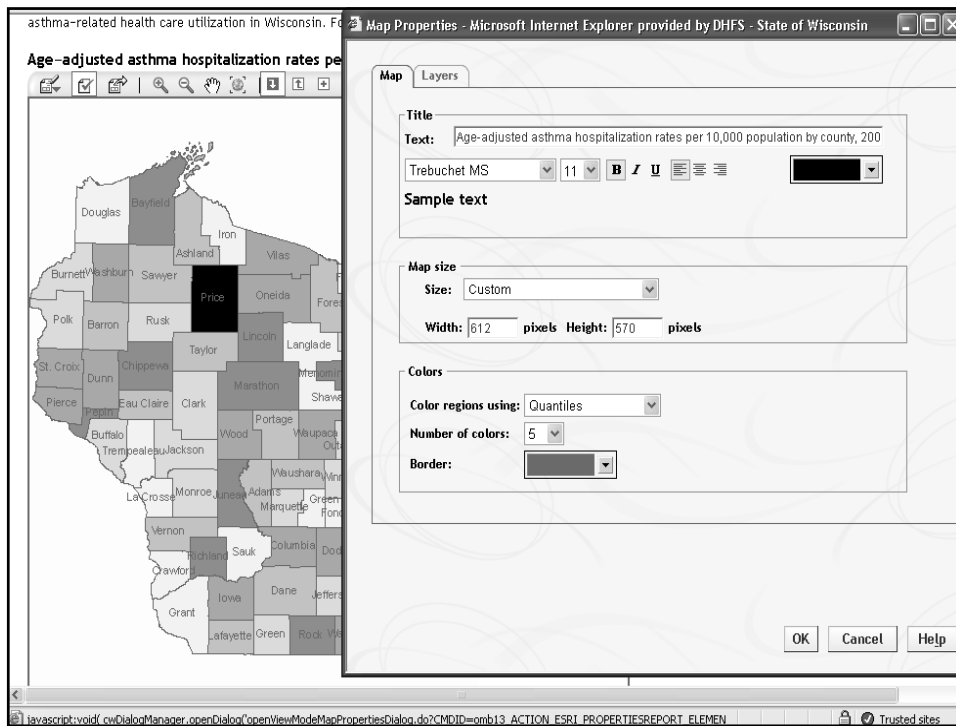
Year	Dane	Jefferson
2003	~3,200	~1,200
2004	~3,300	~1,200
2005	~3,300	~1,100
2006	~3,400	~1,100
2007	~4,100	~1,300

asthma-related health care utilization in Wisconsin. For more information about asthma go to: <http://dhs.wisconsin.gov/eh/asthma>.

**Age-adjusted asthma hospitalization rates per 10,000 population by county, 2006**

Asthma Hosp Age

- 0.00 - 4.54
- 4.54 - 5.67
- 5.67 - 7.36
- 7.36 - 8.86
- 8.86 - 21.66



Portal Welcome Jennifer Boyce

## SAS Web Report Viewer - Dane County Environmental Health Profile

Report

Export Page Setup ... Print ...

Dane County Environmental Health Profile, November 2008

Report Properties Outcomes

Reproductive outcomes include disorders that occur as a result of poor reproductive health. Low birth weight, preterm birth, reduced fertility, infertility and infant mortality are a few examples. Reproduction is the result of a complex process. Many factors can interfere, including environmental exposures such as tobacco smoke and high levels of mercury in fish. Still many questions remain unanswered. Environmental contaminants may be especially toxic to the developing fetus. A healthy diet, not smoking, exercise and regular check-ups with a health care provider for both men and women can help prevent poor reproductive outcomes. These data are from Wisconsin resident birth and death certificates from the Wisconsin Division of Public Health's Bureau of Health Information and Policy (BHIP). For more information on birth and infant death statistics go to: <http://dhs.wisconsin.gov/births>.

### County level Reproductive Outcomes characteristics, 2006

Low Birthweight Per

- 0.00% - 5.08%
- 5.08% - 5.73%
- 5.73% - 6.64%
- 6.64% - 7.59%
- 7.59% - 11.97%

Portal Welcome Jennifer Boyce

## SAS Web Report Viewer - Dane County Environmental Health Profile

Report

Table of Contents Carcinogenic Emissions Drinking Water Childhood Lead Poisoning Asthma Hospitalizations Myocardial Infarction Hospitalizations Reproductive Outcomes

Reproductive Outcomes

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### County level Reproductive Outcomes characteristics, 2006

6.64% - 7.59%

7.59% - 11.97%

Print - Microsoft Internet Explorer provided by DHFS - State of Wisconsin

Print range

Current page (includes all table rows and columns)

All pages

Page(s) from: Table of Contents to: Table of Contents

Page breaks

Insert page breaks between report sections

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Back Forward Stop Refresh Home Search Favorites

1 / 12 102% Find

1

Dane County Environmental Health Profile, November 2008

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## County Environmental Health Profile

### Environmental Topics

*Carcinogenic Emissions*  
For more information go to: <http://dnr.wisconsin.gov/air/emission/>

*Drinking Water*  
For more information go to: <http://dnr.wisconsin.gov/org/water/dwg/>

*Childhood Lead Poisoning*  
For more information go to: <http://dhs.wisconsin.gov/lead/>

### Health Topics



WISCONSIN DEPARTMENT OF HEALTH SERVICES



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Environmental Public Health Tracking [Glossary](#) | [FAQs](#) | [Contact](#) | [Help](#)

Query

Topic  
--- Select ---

About Map Topic Links County Profiles

To view a County's Environmental Health Profile, please select a County from the drop down list below:

-- Select a County --

The profile will open as a PDF file in a new window.

Submit

## Summary

- **The WI EPHT program is addressing the need to integrate health and environmental data and information**
  - Meeting national, state, and local objectives
- **Using AVR as our web-based tool for data analysis, visualization & reporting**
- **The tool facilitates:**
  - Use of standardized and creation of customized reports
  - Vetting of analytical expertise between users
  - Exploration of raw data including visual representations