

# 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

### *Asthma Hospitalizations*

For more information go to: <http://dhs.wisconsin.gov/eh/asthma/>

### *Myocardial Infarction Hospitalizations*

For more information go to: <http://dhs.wisconsin.gov/health/cardiovascular/>

### *Reproductive Outcomes*

For more information go to: <http://dhs.wisconsin.gov/wish/>

## About this report:

This report was created by the Wisconsin Environmental Public Health Tracking (EPHT) program.

For more information go to: <http://dhs.wisconsin.gov/epht/>

## Lafayette 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/atw/nata1999/tables.html>.

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

County	Lafayette							
	<1/million		1 to <10/million		10 to <100/million		>=100/million	
Lifetime Cancer Risk	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop	Total Concentration	% Pop
<b>Pollutant</b>								
Arsenic compounds	0.000002	100.0%	.	.	.	.	.	.
Benzene	.	.	0.306189	100.0%	.	.	.	.
Benzidine	0.000000	100.0%	.	.	.	.	.	.
Beryllium compounds	0.000001	100.0%	.	.	.	.	.	.
Bis(chloromethyl)ether	0.000000	100.0%	.	.	.	.	.	.
Cadmium compounds	0.000002	100.0%	.	.	.	.	.	.
Chloromethyl methyl ether	0.000000	100.0%	.	.	.	.	.	.
Chromium VI	0.000007	100.0%	.	.	.	.	.	.
Coke oven emissions	0.000000	100.0%	.	.	.	.	.	.
Diesel particulate matter	.	.	.	.	.	.	0.566641	100.0%
Ethylene oxide	0.000236	100.0%	.	.	.	.	.	.
Perchloroethylene	0.002746	100.0%	.	.	.	.	.	.
Trichloroethylene	0.043767	100.0%	.	.	.	.	.	.
Vinyl chloride	0.000031	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.

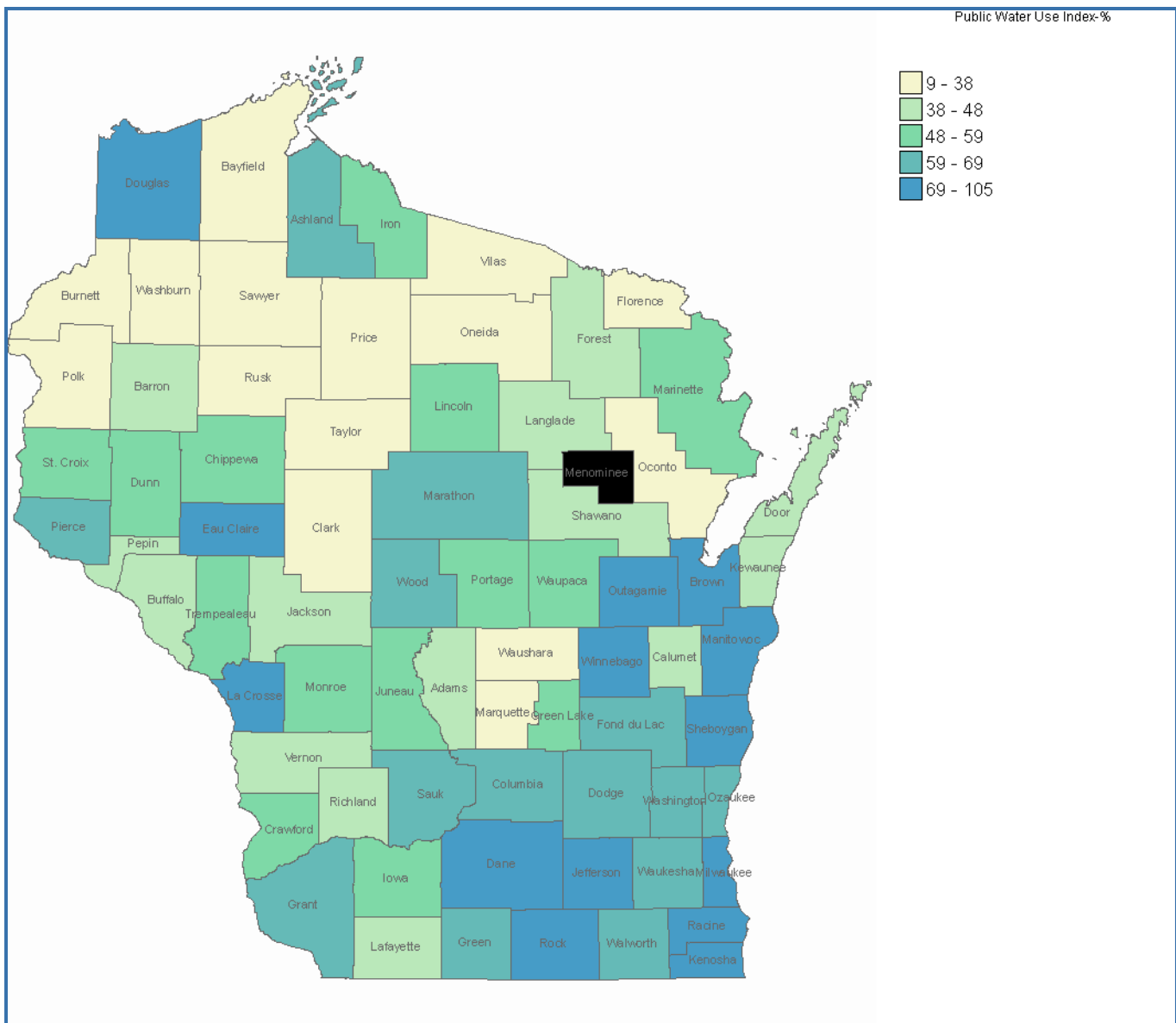
Population data from the U.S. Census Bureau (2000)

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### Drinking Water

Drinking water that comes to your home, office or school through a tap is from either a public water supply or private well. Because people drink and use water every day, contaminants in drinking water have the potential to affect many people and be a major public health issue. Public water supplies are monitored to ensure public health protection. While there are many regulations in place to make sure new wells are constructed to protect drinking water quality, there are no regulations for ongoing monitoring of private wells unless properties are being sold. Individual well owners are responsible for monitoring and testing private wells. The public water use index estimates how many people are served by public water supplies. A number greater than 50 means more people are served by public water versus private wells. These data are from the Wisconsin Department of Natural Resources (DNR) Drinking Water and Groundwater Program, August 2008. For more information about the data, drinking water quality and private well testing go to: <http://www.dnr.state.wi.us/org/water/dwg/>. For more information about specific drinking water contaminants and public health in Wisconsin go to: <http://dhs.wisconsin.gov/eh/Water/index.htm>.

### Wisconsin Public Water Use Index, 2008



\* Note: Counties shaded in black indicate no data available

## Lafayette County Environmental Health Profile, November 2008

## Drinking Water

## County level community water supply characteristics, 2008

	Ground Water Population	Surface Water Population	Population Served	County Population	Public Water Use Index-%
County					
Lafayette	7,741	0	7,741	16,137	48

## Notes:

Only data for active community water systems (numbering 1,081) were included. Population estimates for each public water system are updated every one to five years depending upon water system purveyor. Black denotes missing data in the map. The data were downloaded on 8/8/2008 from the DNR website at [http://prodoasext.dnr.wi.gov/inter1/pws2\\$.startup](http://prodoasext.dnr.wi.gov/inter1/pws2$.startup).

*Ground Water Population* - Estimate of the population served by public water systems that have ground water sources. For water systems that use both water sources, the population is allocated according to the proportion of ground water source.

*Surface Water Population* - Estimate of the population served by public water systems that have surface water sources. For water systems that use both water sources, the population is allocated according to the proportion of surface water source.

*County Population* - Estimate of population served as provided to the Wisconsin Department of Natural Resources by public water systems.

*Population Served* - A rough estimate calculated by summing the population for all public water supplies which principally serve the county. Population data are from the 2000 US Census.

*Public Water Use Index (%)* - Population served by public water systems / county population (Census 2000 estimate) × 100. This measure is available only by county. When used without filtering (subsetting), it estimates the percentage of the county population served by public water systems. Note, however, that some water systems (for example, those in Milwaukee county) serve populations of neighboring counties. This is therefore a very rough estimate.

## Lafayette County Environmental Health Profile, November 2008

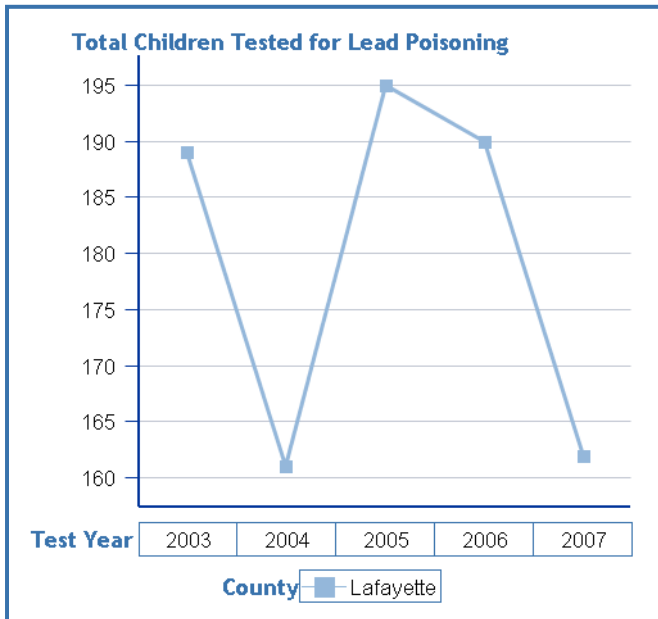
### Childhood Lead Poisoning

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		
		Total Children Tested for Lead Poisoning	Total Children Lead Poisoned	Lead Poisoning Prevalence
County	Age Group			
Lafayette	0-<1	17	0	0.00%
	1-<2	90	1	1.11%
	2-<3	31	1	3.23%
	3-<6 NPT	9	0	0.00%
	3-<6 PT	15	1	6.67%
<b>Total</b>		<b>162</b>	<b>3</b>	<b>1.85%</b>

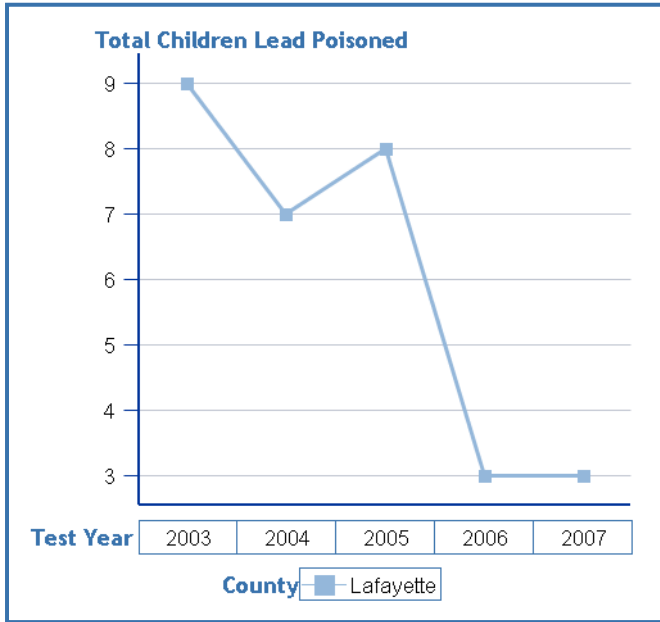
### Number of children tested for lead poisoning under age six, 2003-2007



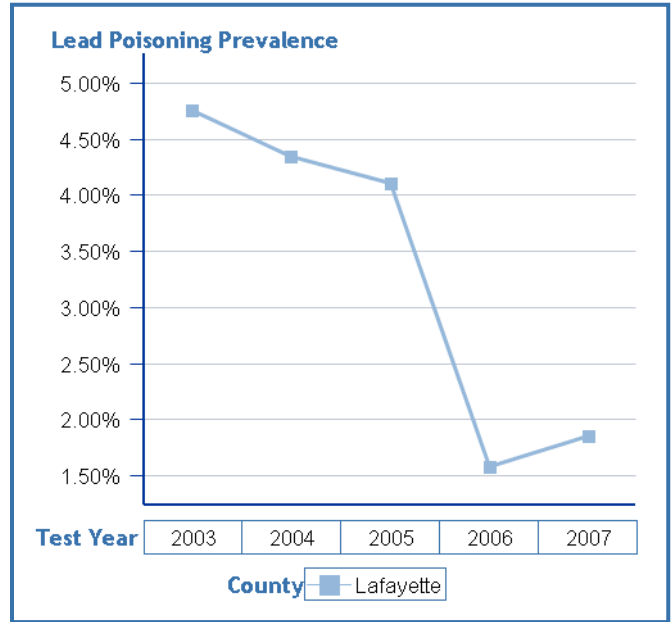
Lafayette County Environmental Health Profile, November 2008

Childhood Lead Poisoning

**Number of children lead poisoned under age six, 2003–2007**



**Percent of children found to be lead poisoned under age six, 2003-2007**



Notes:

*Number of Children Tested for Lead Poisoning* – Number of children who had a capillary or venous blood lead test. Only one test per child per year is used. The first test result  $\geq 10$  mcg/dL is used if there is at least one test  $\geq 10$  mcg/dL during the year. Otherwise the first test during the year is used. If a capillary test was followed by a venous test within 3 months, the result of the venous test is used.

*Number of Children Lead Poisoned* – Number of children tested who are found to be lead poisoned (having blood lead level of 10 mcg/dL or higher).

*Lead Poisoning Prevalence* – Percentage of children tested who are found to be lead poisoned. Number of Children Lead Poisoned / Number of Children Tested for Lead Poisoning (in percent).

*Age Group* - Children are grouped according to their age at time of testing.

*PT* - Previously tested for lead poisoning.

*NPT* - Not previously tested for lead poisoning.

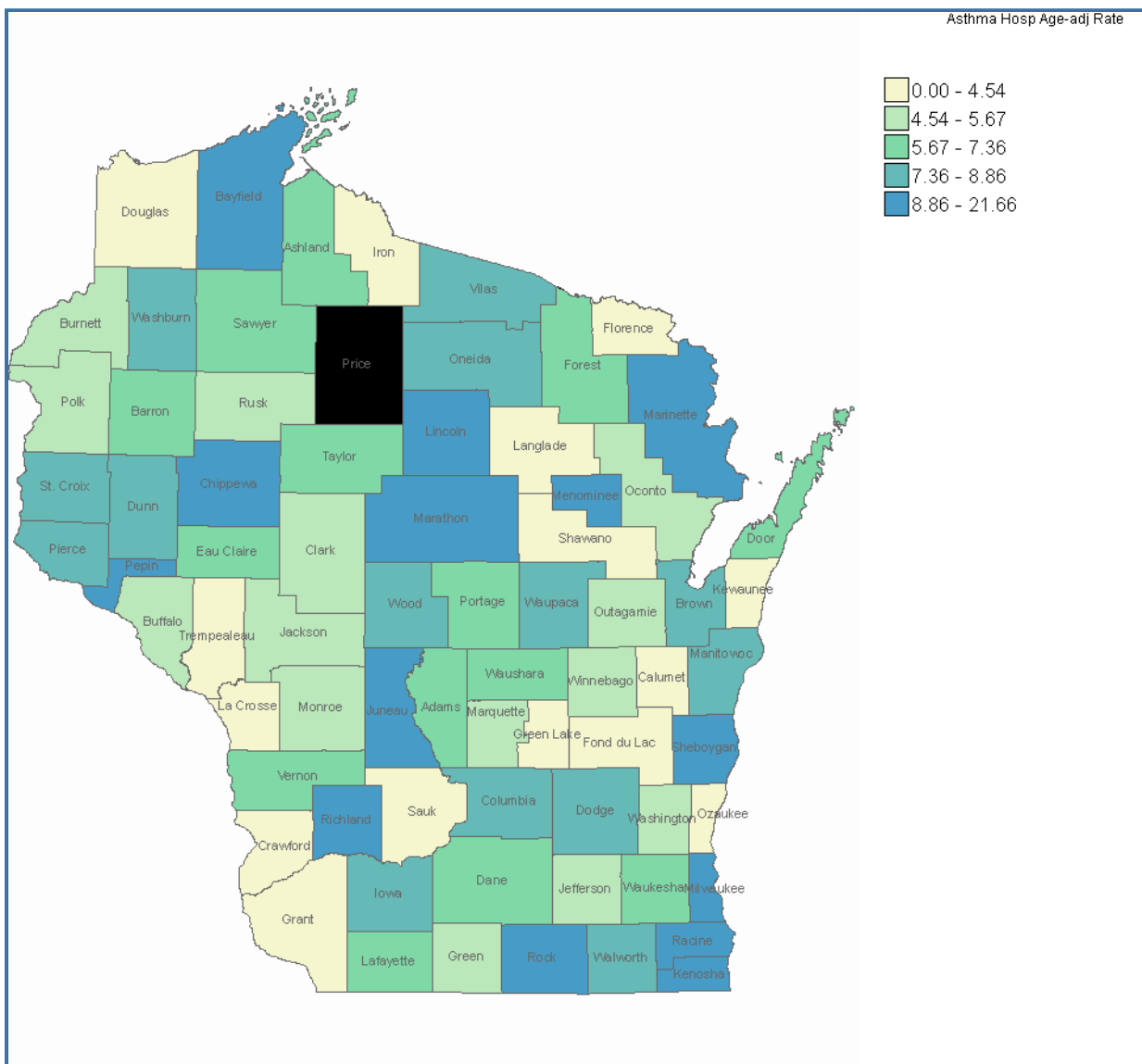
*Test Year* - Year in which the blood lead test was done. The data is for Jan 1, 2000 to Dec 31, 2007.

## Lafayette County Environmental Health Profile, November 2008

### Asthma Hospitalizations

Asthma is a respiratory disease that causes the airways that carry oxygen to the lungs to become blocked and inflamed. People with asthma may be prone to attacks following exposure to asthma triggers such as particulate matter, ozone, seasonal allergens, tobacco smoke, and dander from pets, rodents, and cockroaches. Asthma is one of the most common chronic diseases in childhood, and is a leading cause of school absenteeism. While asthma does not have a cure, it can be controlled by the use of short- and long-acting medications and by reducing exposure to asthma triggers. Poorly-controlled asthma can lead to frequent emergency department visits and inpatient hospitalizations. For this reason, the inpatient hospitalization and emergency department data collected by the Wisconsin Hospital Association and distributed by the Wisconsin Division of Public Health's Bureau of Health Information and Policy (BHIP) provide an important source of information on 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

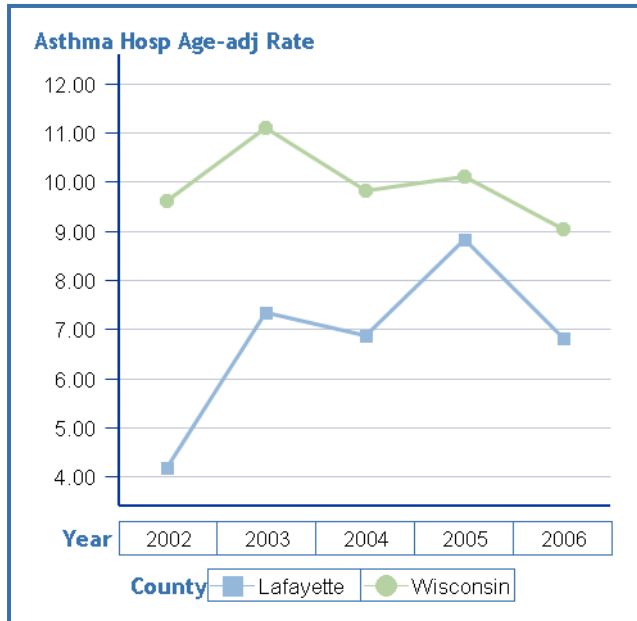


\* Note: Counties shaded in black indicate a small number of hospitalizations (between 1 and 4) and rates are too unstable to publish.

## Lafayette County Environmental Health Profile, November 2008

## Asthma Hospitalizations

**County age-adjusted asthma hospitalization rate compared to the overall state rate, 2002-2006**



## Notes:

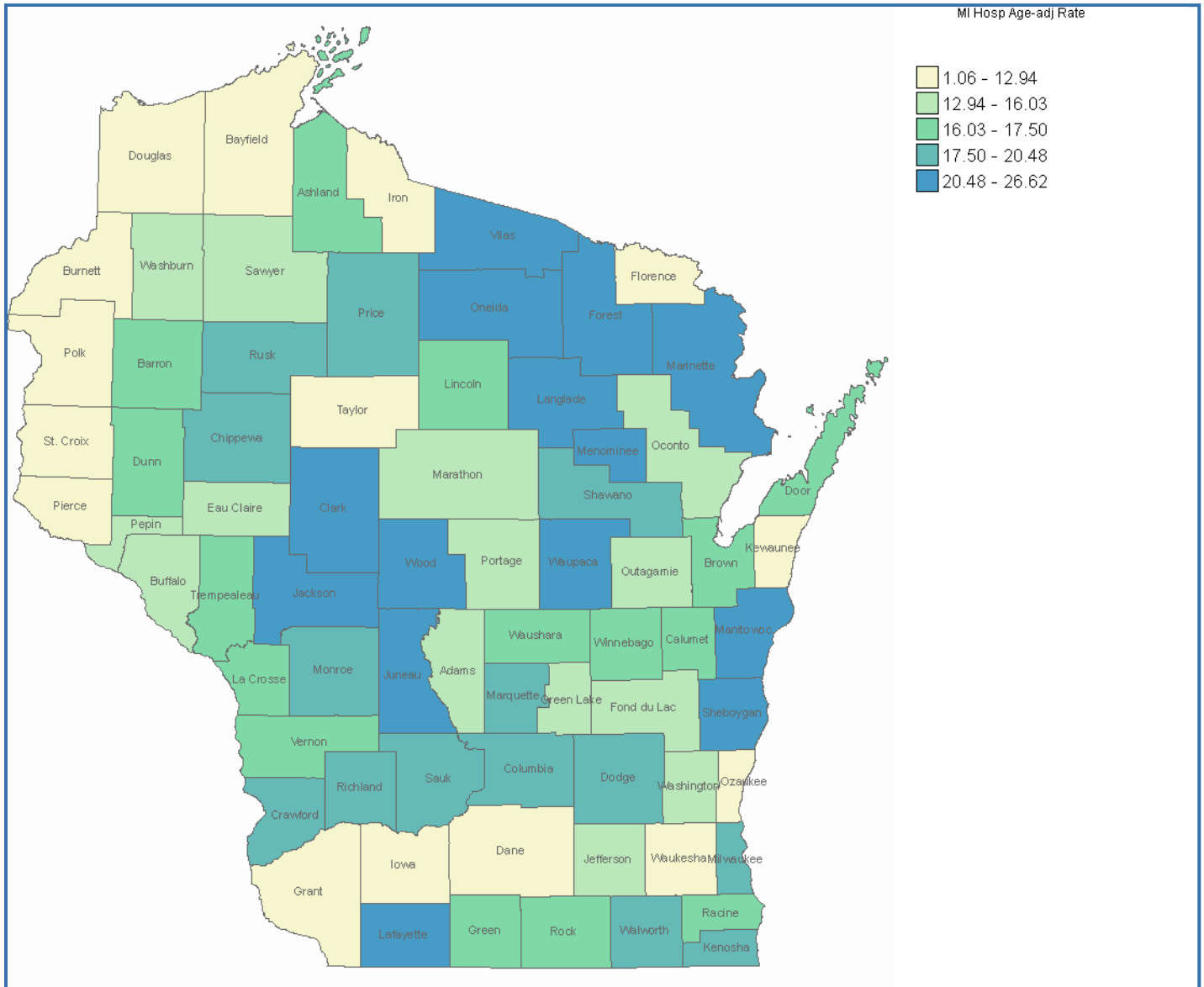
It is important to note that rates are based on the number of hospitalizations per 10,000 county population and not the number of individuals admitted to hospitals. A missing rate, indicated by black, a period, or a blank, means the numerator is 1-4 and therefore is too small to publish. All rates are age-adjusted based on age groups 0-4, 5-14, 15-34, 35-64, 65+.

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### Myocardial Infarction Hospitalizations

A heart attack (or myocardial infarction) is an acute health event in which one of more regions of the heart muscle experience a severe or prolonged decrease in oxygen supply caused by a blocked blood flow to the heart muscle. People with cardiovascular diseases such as hypertension are at particularly high risk for heart attacks. Cardiovascular disease is the most common cause of death in Wisconsin. Tobacco use, obesity, and poor diet are primary risk factors for cardiovascular disease. Exposure to particulate matter has also been shown to contribute to heart attack risk. Because heart attacks generally lead to hospitalization, the inpatient hospitalization data collected by the Wisconsin Hospital Association and distributed by the Wisconsin Division of Public Health's Bureau of Health Information and Policy (BHIP) provide an important source of data on heart attacks in Wisconsin. For more information about heart attacks and cardiovascular disease go to: <http://dhs.wisconsin.gov/health/cardiovascular>.

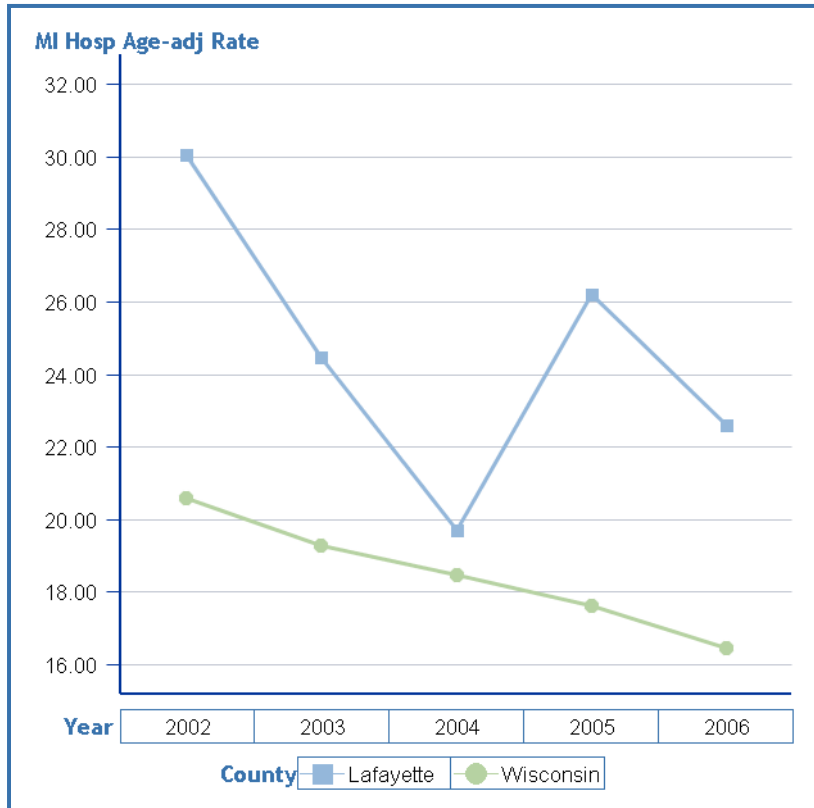
### Age-adjusted myocardial infarction hospitalization rates per 10,000 population by county, 2006



## Lafayette County Environmental Health Profile, November 2008

## Myocardial Infarction Hospitalizations

**County age-adjusted myocardial infarction hospitalization rate compared to the overall state rate, 2002-2006**

**Notes:**

It is important to note that rates are based on the number of hospitalizations per 10,000 and not the number of individuals admitted to hospitals. A missing rate, indicated by a period, black shading, or blank, means the numerator is 1-4 and therefore is too unstable to publish. All rates are age-adjusted based on age groups 0-34, 35-44, 45-54, 55-64, 65-74, 74-84, 85+.



## Lafayette County Environmental Health Profile, November 2008

## Reproductive Outcomes

## Reproductive outcome measures by county compared to the state of Wisconsin, 2003-2006

Year County	2003		2004		2005		2006	
	Wisconsin	Lafayette	Wisconsin	Lafayette	Wisconsin	Lafayette	Wisconsin	Lafayette
Birth Count	69,999	173	70,130	223	70,934	207	72,302	196
Low Birthweight Count	4,773	7	4,906	13	4,992	15	4,994	10
Low Birthweight Percent	6.82%	4.05%	7.00%	5.83%	7.04%	7.25%	6.91%	5.10%
Premature Birth Count	7,733	13	7,702	26	8,033	19	8,104	20
Premature Birth Percent	11.05%	7.51%	10.98%	11.66%	11.32%	9.18%	11.21%	10.20%
Birth Rate	12.73	10.61	12.66	13.66	12.71	12.69	12.89	12.02
General Fertility Rate	60.39	54.49	60.33	70.46	61.15	66.13	63.41	64.26
Total Fertility Rate	1,932.57	1,986.13	1,915.95	2,412.45	1,926.75	2,268.14	1,985.30	2,180.36
Sex Ratio	1,041.44	1,162.50	1,053.74	1,027.27	1,052.07	1,178.95	1,051.35	814.81
Percent of Low Birthweight among Singleton Births	1.99%	.	2.21%	.	2.15%	.	2.09%	.
Percent of Very Low Birthweight among Singleton Births	1.01%	0.00%	0.93%	.	0.96%	0.00%	0.98%	0.00%
Percent of Premature among Singleton Births	9.43%	6.43%	9.41%	9.22%	9.66%	5.26%	9.74%	10.53%
Percent of Very Premature among Singleton Births	1.53%	.	1.44%	.	1.55%	.	1.64%	0.00%

Notes: Data are for all infants born to mother's who are Wisconsin residents at the time of birth. Some of the births occurred outside of Wisconsin. Gestational age is based on the computed difference between the date of onset of last normal menses (LMP) and the date of infant's birth. If the date of LMP is missing or the computed difference is less than 16 weeks or more than 45 weeks, then the clinical estimate of gestational age reported by the attending physician is substituted.

A missing value indicated by black, a period, or a blank means the numerator or count is 1-4 and is too small to publish.

## Definitions:

*Birth Count* - Count of all live births.

*Low Birthweight Count* - Infant weighs less than 2,500 grams.

*Low Birthweight Percent* = Low Birthweight Count / Birth Count × 100.

*Premature Birth Count* - Gestational age is less than 37 weeks.

*Premature Birth Percent* = Premature Count / Count × 100.

*Birth Rate* - Number of live births per 1,000 population.

*General Fertility Rate* - Number of live births per 1,000 of females ages 15-44.

*Total Fertility Rate* - Calculated by multiplying the age-specific birth rate for each five-year age group from ages 10 through 49 by five (the number of years in the age group), and adding the results for each of the groups.

*Sex Ratio* - Male live births per 1,000 female live births.

*Percent of Low Birthweight Term Singleton Births* - Number of live born singleton infants born at term with a birthweight of less than 2,500 grams per 100 live term singleton births.

*Percent of Very Low Birthweight Singleton Births* - Number of live born infants with a birthweight of less than 1,500 grams per 100 live singleton births.

*Percent of preterm singleton births* - Number of live singleton infants born before 37 weeks of gestation divided by the total number of live singleton infant births.

*Percent of very preterm singleton births* - Number of live singleton infants born before 32 weeks of gestation to resident mothers divided by the total number of live singleton infant births.