

Healthiest Wisconsin 2010 Health Priority:  
**Environmental and  
Occupational Health Hazards**

Final Review  
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Wisconsin Public Health Council

State Planning Committee

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# Environmental and Occupational Health Hazards: Five Overarching Objectives

1. Decreasing illness from microbial or chemical contamination of food and drinking water;
2. Reducing illness and death from respiratory disease;
3. Reducing occupational injury, illness and death;
4. Reducing illness and death related to chemical and biological contaminants in the home;
5. Improving environmental health indicators for air, land and water in Wisconsin.

**Objective 1:** By 2010, decrease the incidence of illness resulting from microbial or chemical contamination of food and drinking water.

Objective 1a: By 2010, reduce CDC risk factor violations for food (**\*Not Achieved**) and water by 25 percent, based on a 2004 baseline.

CDC Risk Factors	Percent of Violations based on 2004-2005 data
Food from Unsafe Sources	1%
Inadequate Cooking	2%
Improper Holding Temperatures	24%
Contaminated Equipment	23%
Poor Personal Hygiene	24%
Other: Consumer Advisory Awareness, Demonstration of Knowledge, Chemical Storage	26%

All CDC violations (except one out of 18) increased from 2005-2008. This increase may be attributed to an increase of

**Recommendation:** Consider the use of an electronic data system (such as HealthSpace) within local health departments so that reporting of food safety violations are standardized.

Objective 1a: By 2010, reduce CDC risk factor violations for food and water (**\*Achieved**) by 25 percent, based on a 2004 baseline.

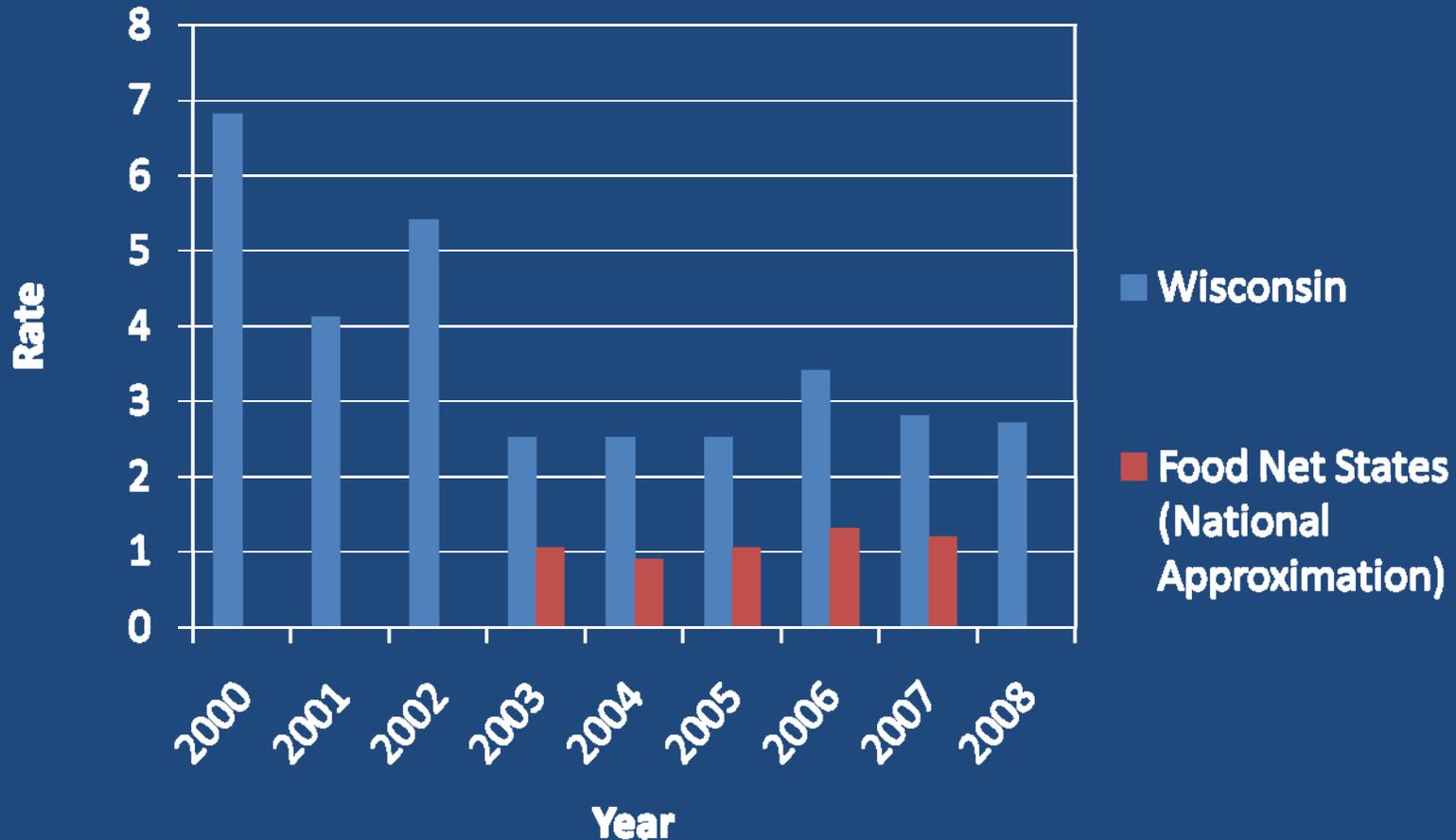
Contaminant	Wisconsin Public Drinking water violations (2008)
Coliform Bacteria	353
Arsenic	17
Nitrate	14
Radium	10
Gross Alpha	8
DBP	4
Synthetic Organic	2
Other Organic	1

Total annual violations fell from 3.9% in 2004 to 3.7% in 2008.

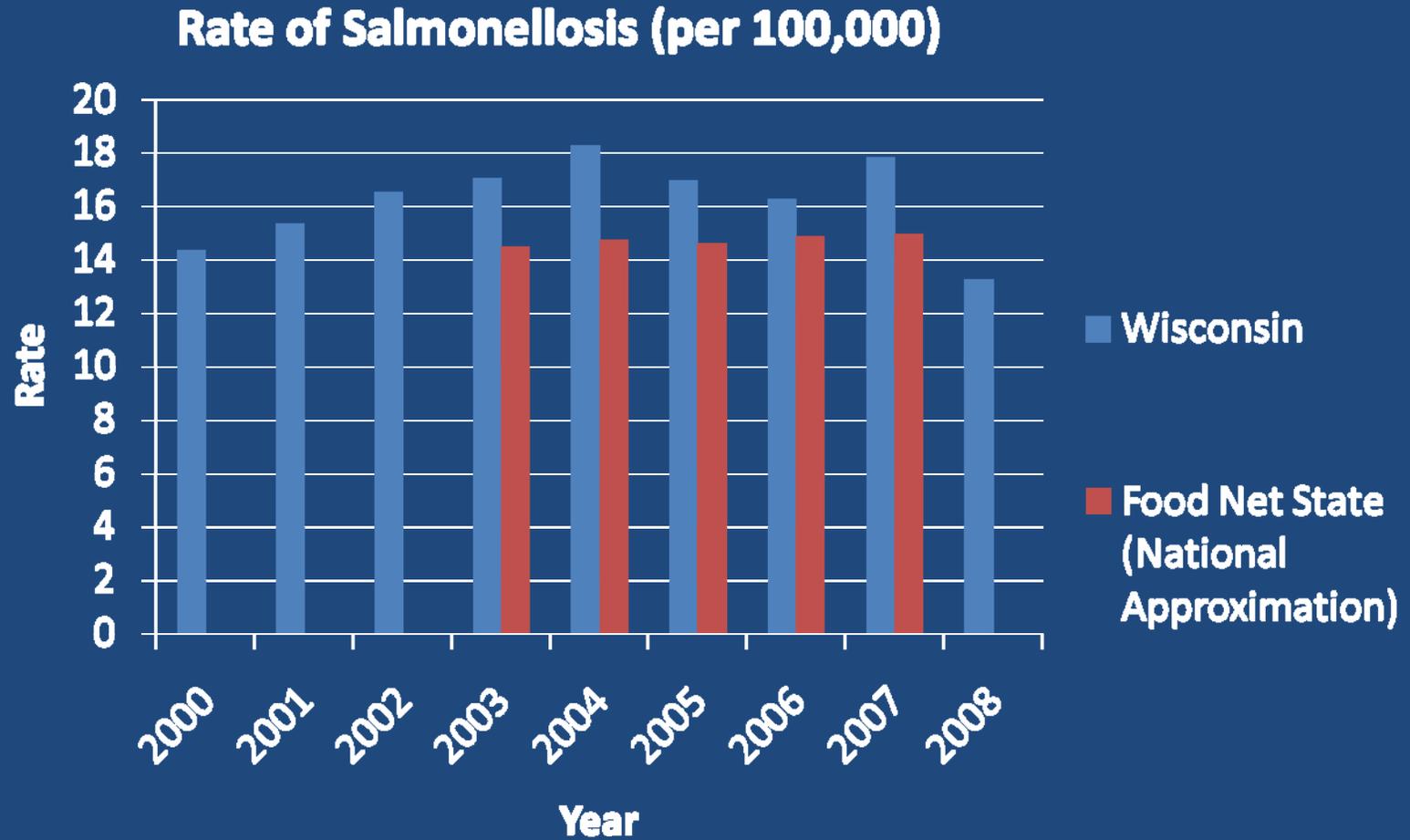
Radium violations fell from 31 in 2007 to 10 in 2008.

Objective 1b: By 2010, the incidence of E.Coli 0157:H7 infection will be 3 per 100,000 population or less. **\*Achieved**

**Rate of E.Coli 0157:H7 (per 100,000)**

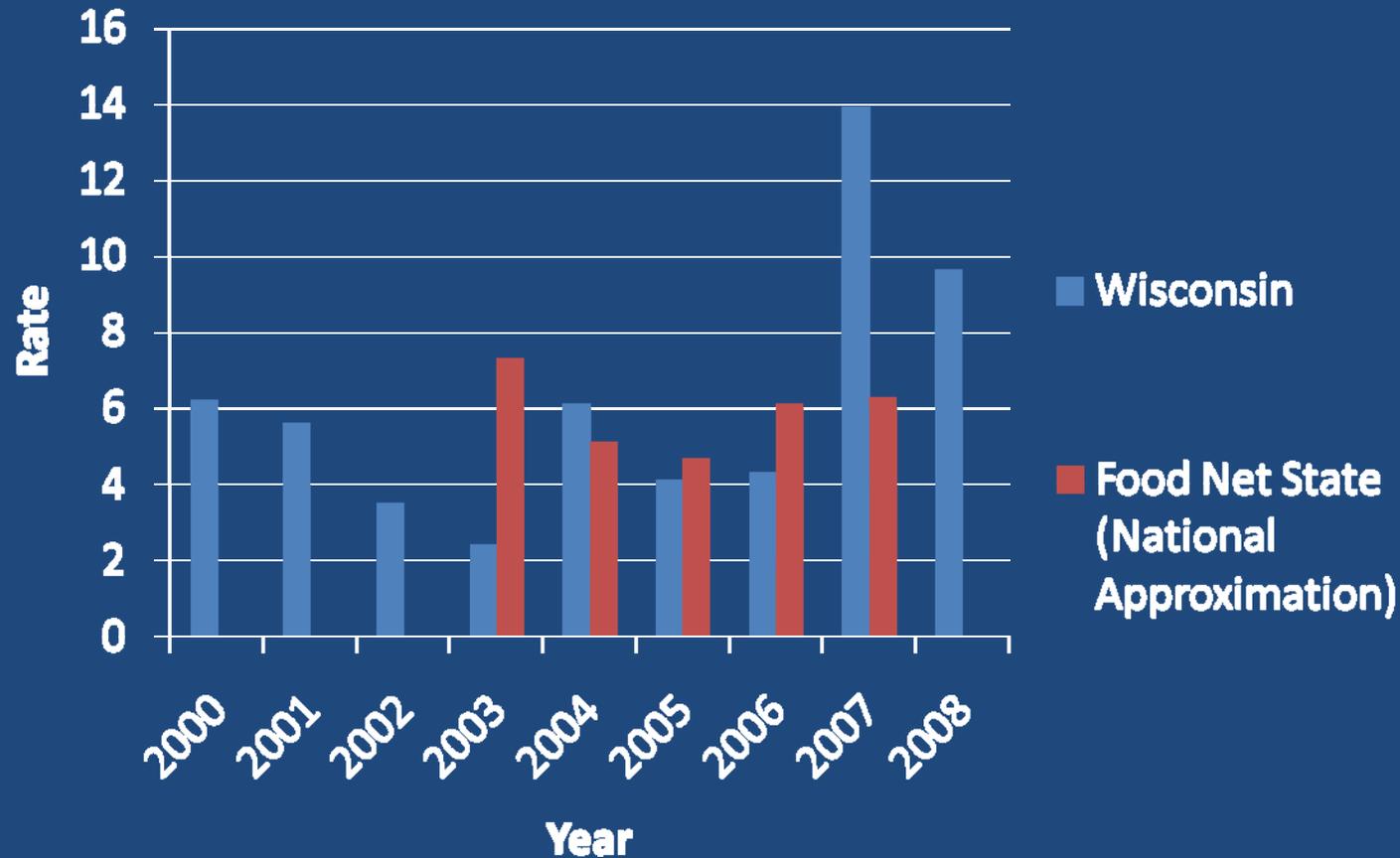


**Objective 1c:** By 2010, the incidence of Salmonellosis will be 8 per 100,000 population or less. **\*No Progress**

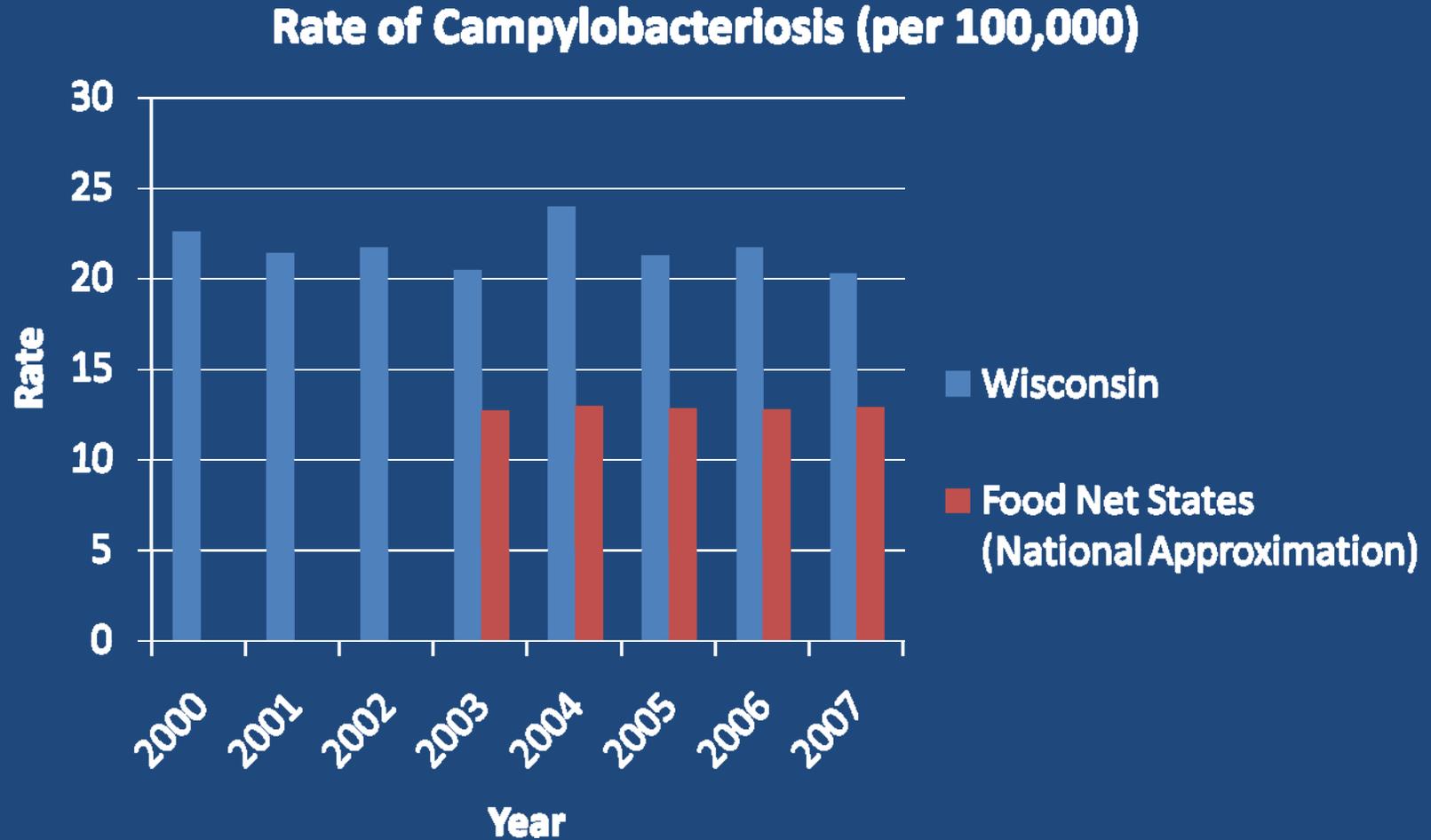


**Objective 1d:** By 2010, the incidence of Shigellosis will be 4 per 100,000 population or less. **\*No Progress**

**Rate of Shigellosis (per 100,000)**

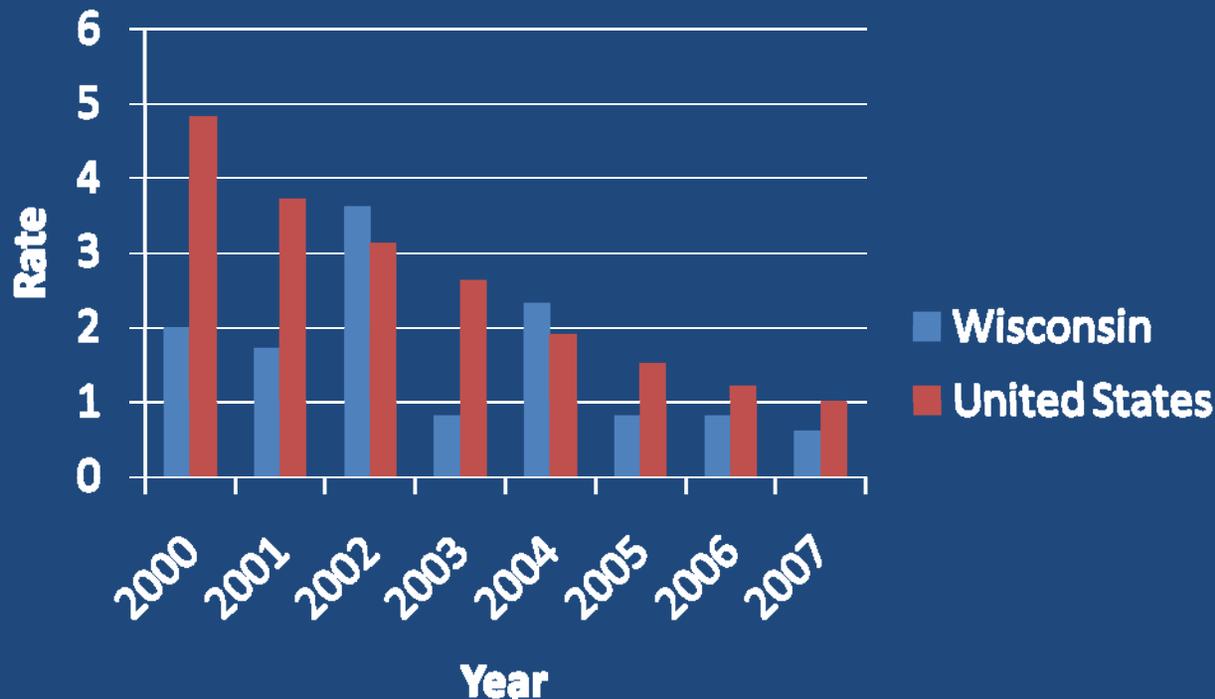


**Objective 1e:** By 2010, the incidence of Campylobacteriosis will be 11 per 100,000 population or less. **\*No Progress**



**Objective 1f:** By 2010, the incidence of Hepatitis A will be 1 per 100,000 population or less. **\*Achieved**

**Rate of Hepatitis A (per 100,000)**



In 2006, CDC vaccination guidelines changed to recommend all children aged 12-23 months receive the Hepatitis A vaccine (CDC: MMWR, 2006)

**Objective 1g:** By 2010, increase the awareness of health threats from arsenic in private water supplies, mercury in sports fish, and methemoglobinemia, by 50 percent in each case, over a 2002 (or future) baseline. \* **No Statewide Tracking**



78% of adults living in Wisconsin had ‘heard something’ about the issue of mercury contamination in fish, according to the 2004 BRFSS; however increased awareness was associated with race (highest among Native Americans and whites) and increases in income or education attainment (Wisconsin Department of Health and Family Services, Division of Public Health, 2005).

# Objective 1: Recommendations

1. Include *Listeria monocytogenes* among microbial pathogens tracked by Healthiest Wisconsin.
2. Track *Norwalk*-like virus as a communicable disease.
3. Promote awareness of arsenic, radium, nitrates, mercury, and PCB's in our waters and the risks to human populations.

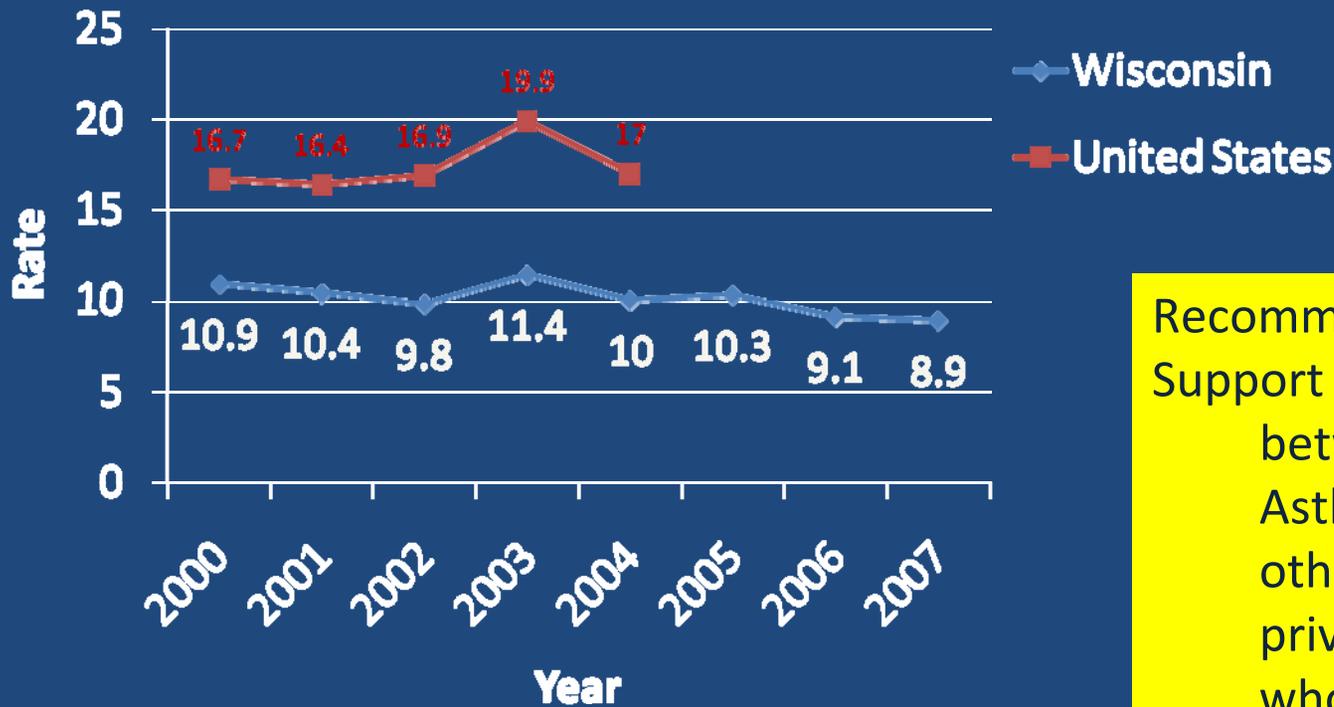
# Objective 1: Recommendations

4. Support legislation to restrict Bisphenol A (BPA) use.
5. Monitor the use of hormones within the agricultural setting.
6. Ban the use of non-therapeutic use of antibiotics in animals. Enforce infection prevention measures such as overcrowding prevention and isolation procedures for ill animals.
7. Support the collection of pharmaceutical and agricultural wastes through initiatives such as the Clean Sweep Program.

**Objective 2:** By 2010, reduce the incidence of illness and death from respiratory diseases related to or aggravated by environmental and occupational exposures.

**Objective 2a:** By 2010, reduce the asthma hospitalization rate to 8.5 per 10,000 population from the 2000 baseline asthma hospitalization rate of 10.6 per 10,000. \* **Improved**

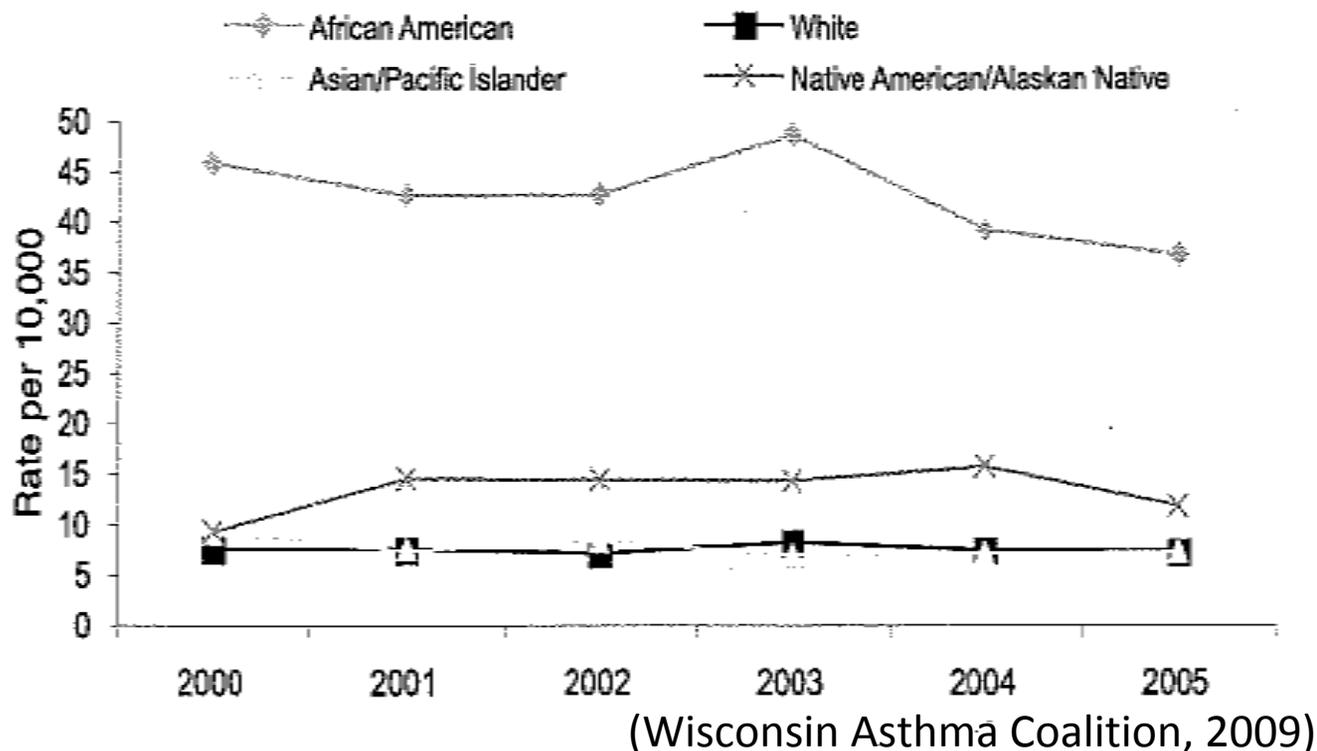
### Asthma Hospitalization Rate (per 10,000)



**Recommendation:**  
Support the collaboration between the Wisconsin Asthma Coalition and other public and private organizations who work toward the prevention and treatment of asthma.

**Objective 2a:** By 2010, reduce the asthma hospitalization rate to 8.5 per 10,000 population from the 2000 baseline asthma hospitalization rate of 10.6 per 10,000. **\*Improved**

**Age-Adjusted Asthma\* Hospitalization Rates\*\* by Race and Year, Wisconsin, 2000-2005.**

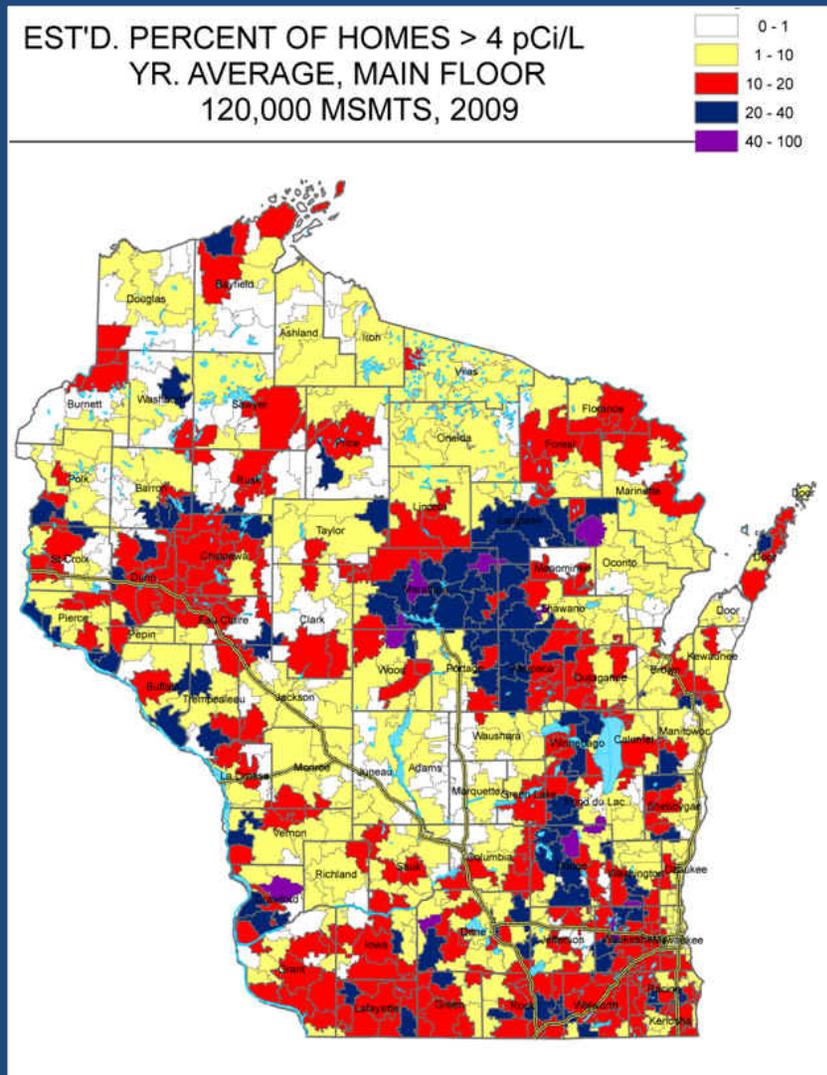


**Sex Disparity:** Females are hospitalized 20% more frequently than males.

**Mortality Disparity:** African American mortality 3.5 times higher than whites.

**Objective 2b:** Reduce public exposures to indoor radon in all buildings with radon concentrations  $>4$  pCi/L in occupied spaces.

**\*No Statewide Tracking**



Between 5-10% of homes in Wisconsin have radon levels  $> 4$  pCi/L

All testing and mitigation is voluntarily. Current policy is enforced at the local level.

# Objective 4: Recommendations (Radon)

1. Supporting radon risk reduction activities to emphasize the importance of this environmental health concern.
  - a. Require the real estate seller to disclose knowledge of radon hazards to the buyer.
  - b. Require that all radon testing be completed by certified professionals and reported to the state.
  - c. Require licensed real estate professionals to be educated about radon issues and provide buyers with general information.
  - d. Radon resistant new-construction standards, currently active in Madison, should be adopted statewide.

Objective 2c: By 2010, reduce occupational mesothelioma, illness and death by 30 percent below the 2000 baseline. **\*No Progress**

**Malignant Mesothelioma Incidence and Mortality Rate (per 100,000)**



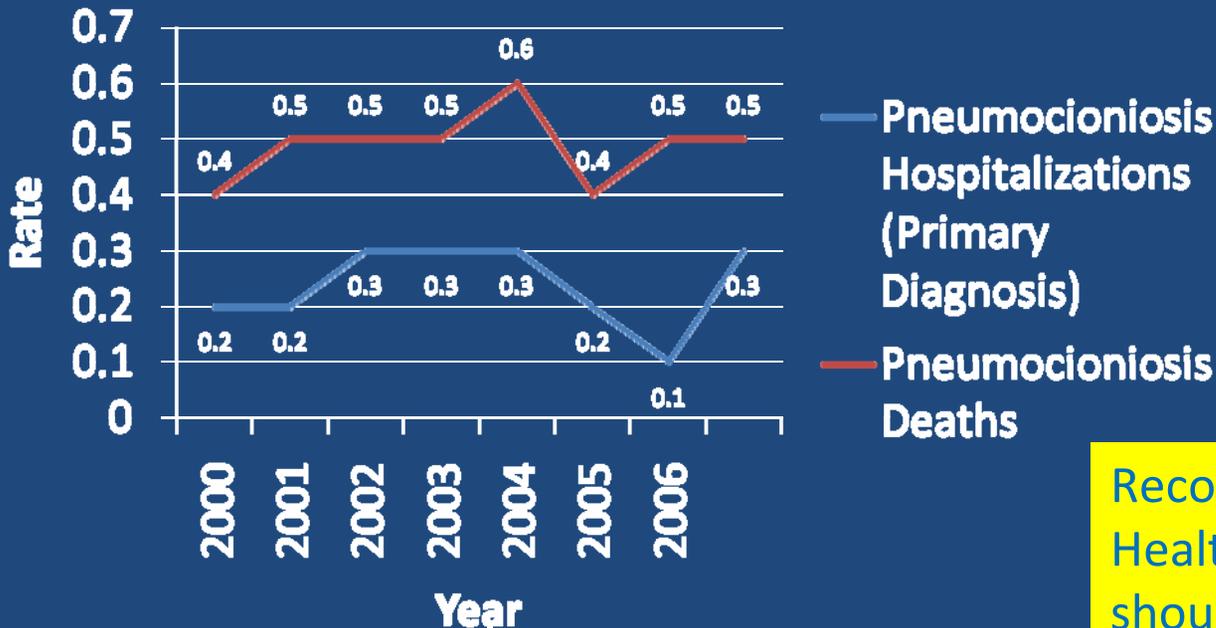
Due to restrictions placed on the manufacture and use of asbestos in the United States and the predicted duration to illness after exposure, the incidence of mesothelioma is estimated to peak at 2010.

Recommendation: Due to the restriction of asbestos and the current indeterminate cause of background mesothelioma cases; tracking incidence of mesothelioma should not be a priority in Healthiest Wisconsin 2020.

**Objective 2d:** By 2010, reduce occupational pneumoconiosis illness and death by 30 percent below the 2000 baseline.

**\*No Progress**

### Wisconsin Pneumoconiosis Hospitalizations and Deaths (per 100,000)



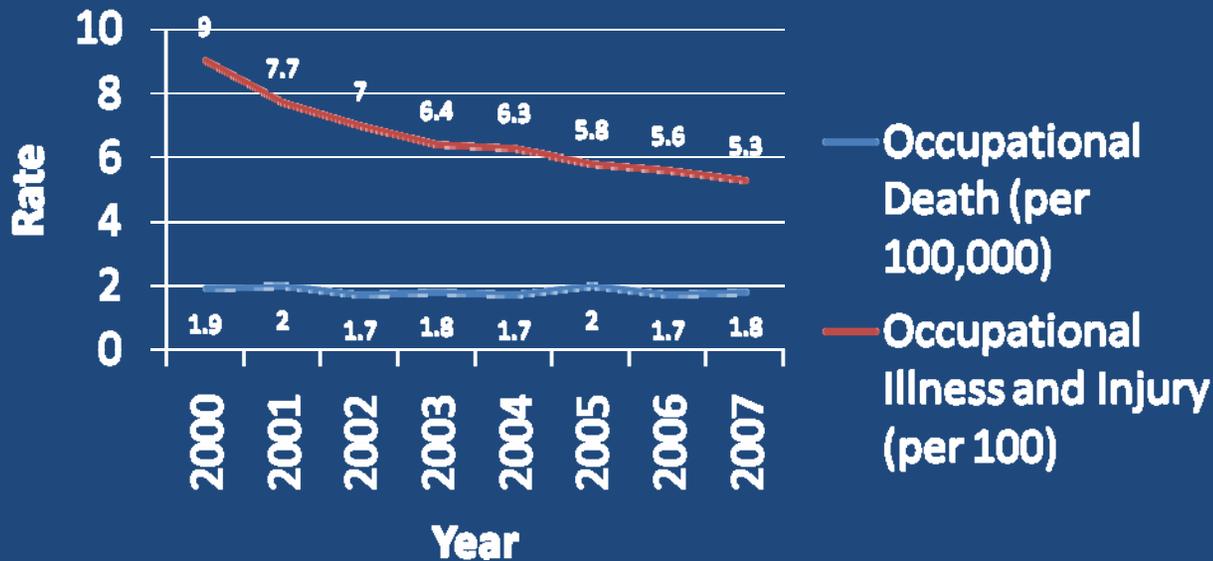
The hospitalization and death rate related to silicosis is more than twice the national average in 2000 and 2001; this is thought to be related to the many foundries and ceramics companies located in Wisconsin

**Recommendation:**  
Healthiest Wisconsin 2020 should focus on silicosis (the type of pneumoconiosis which is a risk for Wisconsin residents).

**Objective 3:** By December 31, 2010, the incidence of occupational injury, illness, and death will be reduced by 30 percent.

**\*No Progress for Death; \*Achieved for Illness and Injury**

**Wisconsin Occupational Illness, Injury  
(per 100 full time workers) and Death (per  
100,000)**



Achieved a 41% reduction rate in occupational illness and injury

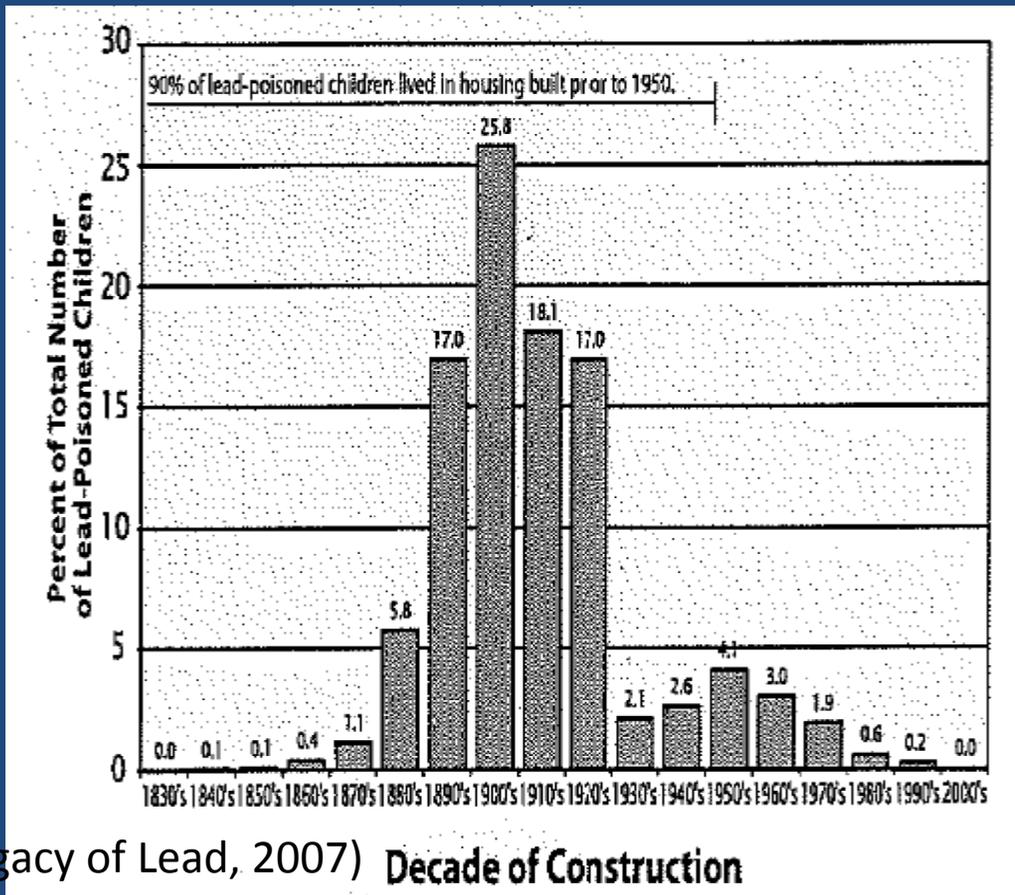
# Objective 3: Recommendations

1. Support legislation which offers tax based incentives for companies to reduce injury and death as well as to promote the overall health of employees.
2. Develop objectives related to reduction in workplace fatalities, particularly within the industries of farms and construction.
3. According to the recommendation made by the American Medical Association, increase the number occupational health professionals from 63 to 100 per 100,000 residents.

**Objective 4:** By December 31, 2010,  
reduce by 50 percent the incidence of  
illness and  
death related to chemical and  
biological contaminants in the home.

# Objective 4a: By 2010, rehabilitate 120,000 dwellings in Wisconsin with lead hazards present and occupied by children under six years old. **\*No Statewide Tracking**

Age of housing associated with lead-poisoned child under age 6, 1996-2006.



625,291 occupied houses in Wisconsin built before 1950

Savings of \$45,608 for each Wisconsin child under age six who is protected from lead poisoning by living in housing with new lead-free windows

**Objective 4b:** By 2010, all (100%) Wisconsin children enrolled in Medicaid will receive age appropriate blood lead tests.

**\*Improved**

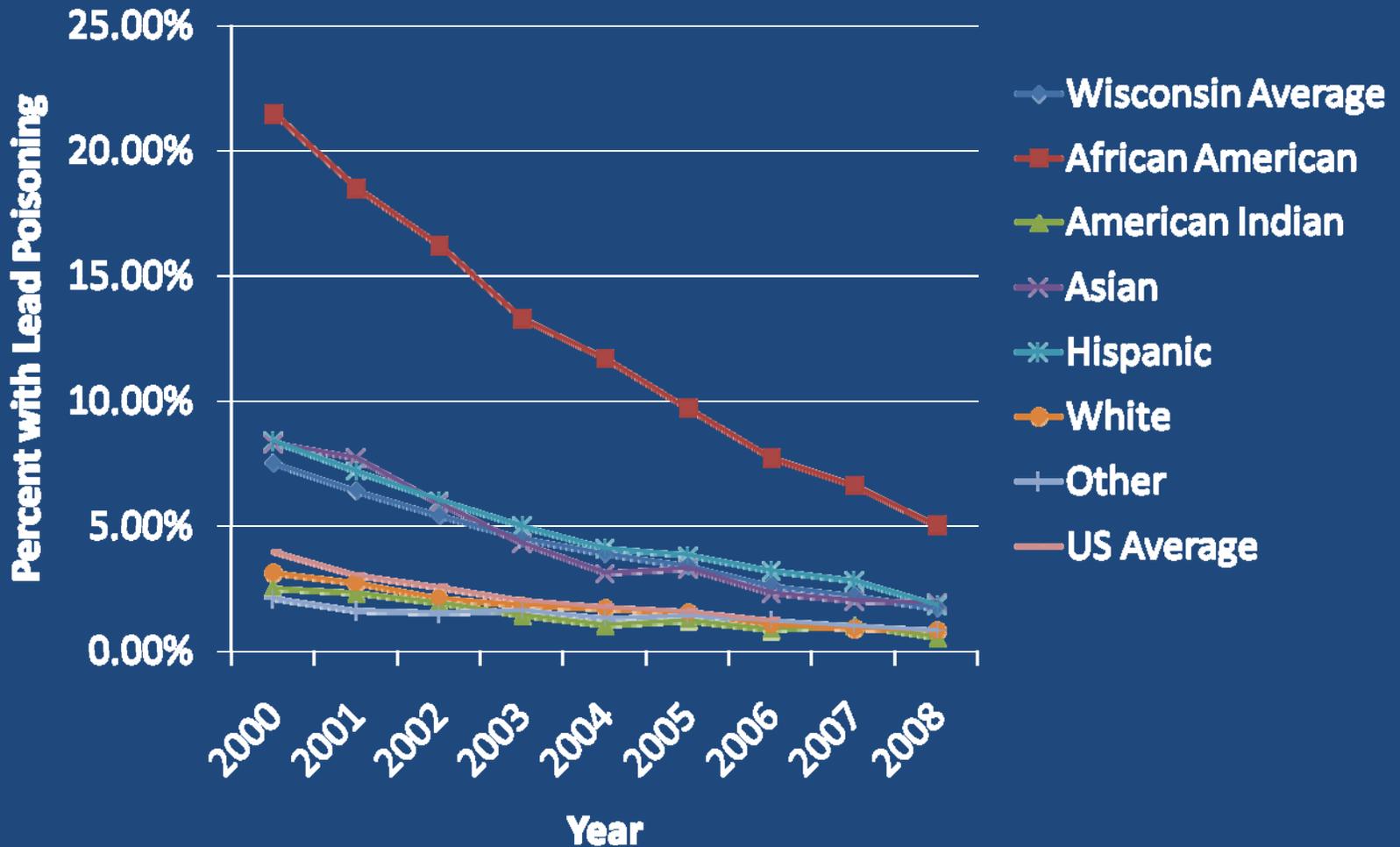
**Percent of Wisconsin Medicaid/BadgerCare Recipients who Received a Blood Lead Test during the Year**



**Objective 4c:** By the end of 2010, no Wisconsin children, age six or younger, will be newly identified with lead poisoning.

**\*Improved**

**Percent of Children Identified with Lead Poisoning**



# Objective 4: Recommendations (Lead)

1. Support the childhood lead poisoning prevention recommendations made by the Public Health Council in 2007.
  - a. Lower the public health investigation and intervention level to 10 mcg/dL, and fund the additional public health work load.
  - b. Enact legislation creating an annual fund of \$10 million for lead hazard control measures.
  - c. Enact legislation to allow local governments to establish fees/taxes specifically for the establishment of housing trust funds at the local level.
  - d. Require partners to develop and coordinate housing action plans that make lead hazard control a priority.

## Objective 4: Recommendations (Lead)

2. Enact legislation that would require that paint on property built before 1978 be tested for lead and in intact condition before property is rented or sold.
3. In order to increase the percentage of at risk children tested for elevated blood levels, support a pay for performance incentive for physicians and include blood lead testing recommendations on immunization schedules.

**Objective 4d:** By 2010, increase the capacity of local health departments to address environmental health issues in the home. **\*No Statewide Tracking**

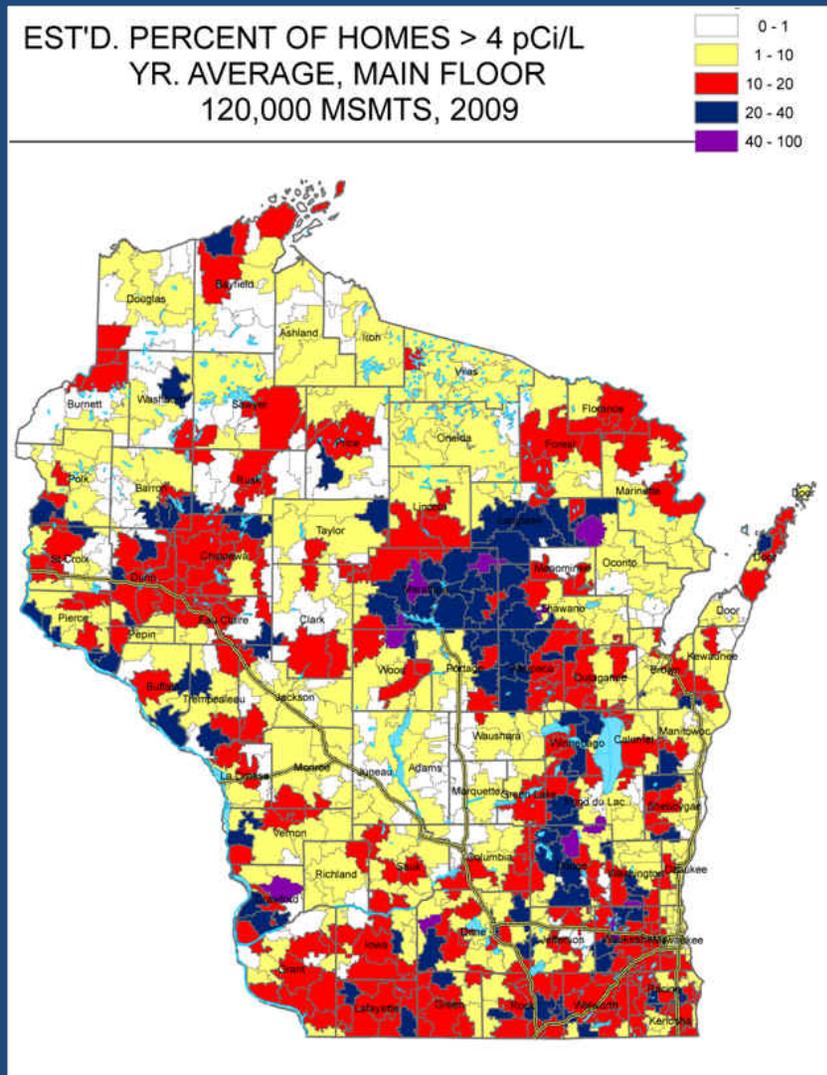
Wisconsin ranks 46<sup>th</sup> in the nation with regard to health department per capita spending (\$79)

For 2006-2007, Wisconsin local health departments had 1.0 public health nurses per 10,000; the Association of State and Territorial Directors of Nursing (2008) recommends 2 per 10,000.

**Recommendation:**  
Funding of local public health departments should be increased and allocated according to need as determined by the county health rankings provided by the Population Health institutes (2008).

**Objective 4e:** Reduce public exposures to indoor radon in all buildings with radon concentrations  $>4$  pCi/L in occupied spaces.

**\* No Statewide Tracking**



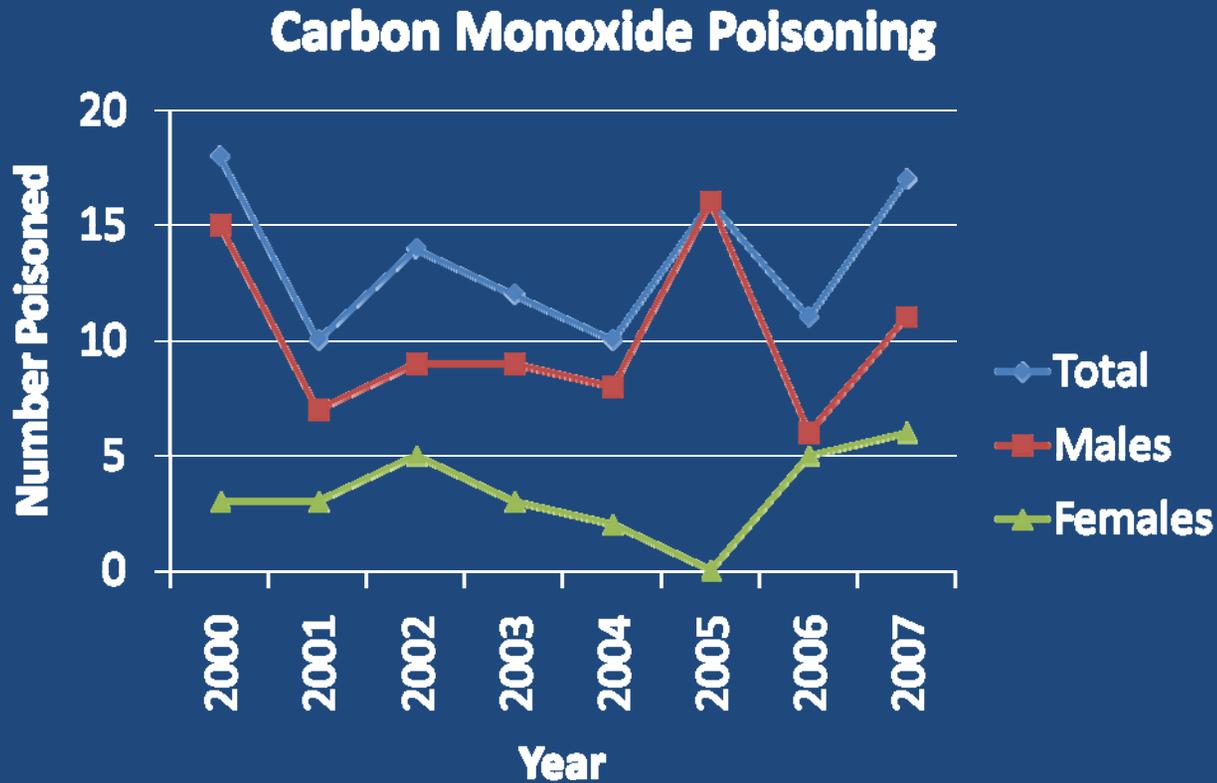
Between 5-10% of homes in Wisconsin have radon levels  $> 4$  pCi/L

All Testing and mitigation is voluntarily

# Objective 4: Recommendations (Radon)

1. The state of Wisconsin must pass a resolution supporting radon risk reduction activities to emphasize the importance of this environmental health concern.
  - a. The state of Wisconsin should require the seller to disclose knowledge of radon hazards to the buyer prior to the real estate sale.
  - b. The state of Wisconsin should require that all radon testing be reportable to the state so that continuous hazard assessment and reduction occur.
  - c. Licensed real estate professionals must be educated about radon issues and provide buyers with general information or specific radon test results.
  - d. Radon resistant new-construction standards, currently active in Madison, should be adopted statewide.

**Objective 4f:** By 2010, there will be no unintentional carbon monoxide poisoning fatalities in Wisconsin. **\*No Progress**

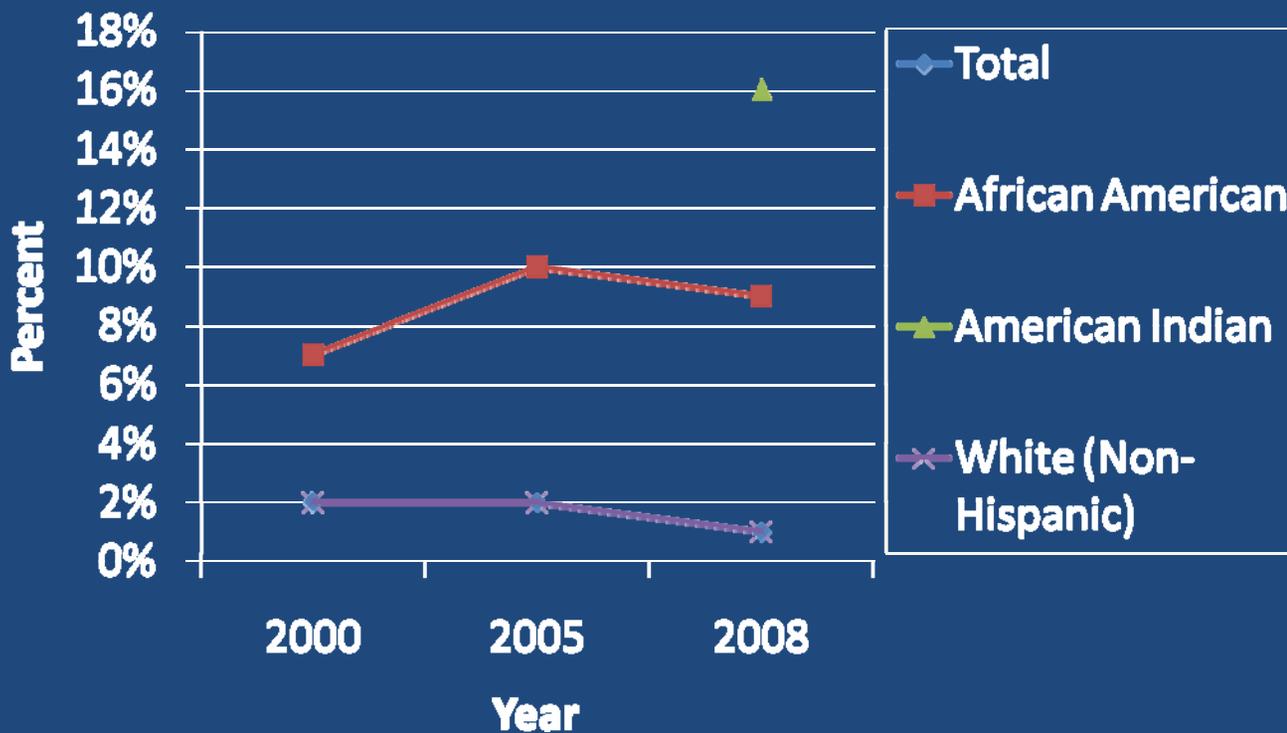


Men are more at risk because of high risk activities with engine-driven tools

**Recommendation:** Support passage of the Wisconsin State Assembly Bill 607 requiring carbon monoxide detectors in buildings containing one or more dwelling units.

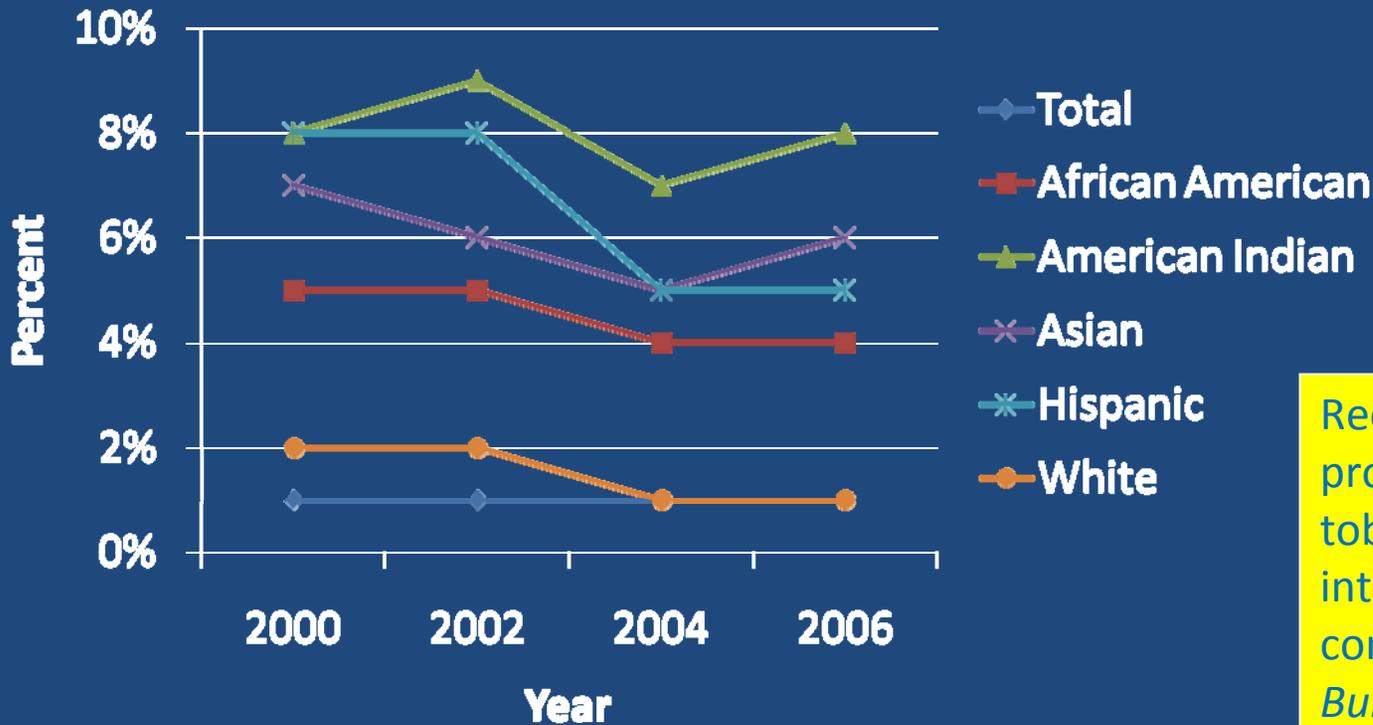
**Objective 4g:** By 2010, there will be no unwanted environmental tobacco smoke exposure in homes. \* **Improved**

**Percent of Wisconsin Adults Aged 18+  
exposed to Smoke at home in Past 30 Days**



**Objective 4g:** By 2010, there will be no unwanted environmental tobacco smoke exposure in homes. \* **Improved**

### Percent of Wisconsin Middle and High School Students Who Live with a Smoker, by Race/Ethnicity



Recommendation:  
promote targeted  
tobacco  
interventions  
consistent with the  
*Burden of Tobacco*  
(2006)

**Objective 5:** By 2010, enhance the quality of life in Wisconsin through improvements in environmental health indicators for air, land, and water.  
**\*No Statewide Tracking**

**Objective 5: Recommendation**  
Improve capacity to track statewide measurements of environmental health concerns.

Thank You

Questions?