

# **Maternal and Child Health Indicators: Three State Profile**

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# Master of Public Health Program

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Department of Population  
Health Sciences

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# Great Lakes Inter-Tribal Council / Great Lakes Epi Center



- Located on the Lac du Flambeau Band of Chippewa Indians Reservation lands outside Lac du Flambeau about 12 miles from Woodruff
- The Epi Center is housed in the GLITC offices but is a separate entity funded, in part, by a competitive grant from the Indian Health Service

# Great Lakes Epi Center

- Serves a total of 34 American Indian Tribes and 3 urban programs within the Bemidji Area (Minnesota, Wisconsin, Michigan)
- Provides public health training and technical assistance to the Bemidji Area Tribes in the areas of: program planning and evaluation, health survey design, health data collection, data management, analysis and interpretation
- The epidemiologists were previously dedicated one to each state. However, the Epi Center is reorganizing so that each epidemiologist serves all three states in a particular area. Maternal and child health is one of the areas.
- My project, developing an MCH focused report, had the added benefit of assisting the MCH epidemiologist in researching issues in MCH.



# **Maternal and Child Health Data Indicators**

In general, anything related to the health of women and children can be considered an MCH indicator.

# **Maternal and Child Health Data Indicators**

Therefore: What MCH data are available and are relevant to American Indians in the 3-state area?

# **Report Development: Step 1**

Basic research

Literature search, and search for available data.

# Report Development: Step 2

Consult with Great Lakes Epi Center staff

Briefings on Minnesota, Wisconsin and Michigan Tribes.

Access to basic vital statistics data.

Briefings on the mission of the Epi Center and their interest in MCH.

# **Report Development: Step 3**

Consult with Bemidji Area Tribes  
Meetings with Tribal Health Directors  
in each of the three states.

Teleconference with Tribal staff with  
interest in MCH.

# Maternal and Child Health Data Indicators

Total Population

Total Women 15-44

Total Children 0-17

American Indian Population

American Indian Women 15-44

American Indian Children 0-17

Percent American Indian Population

Percent American Indian Children

Percent American Indian Women

Bridged-Race Resident Population Estimates United States, State and County for 2004. Downloaded from <http://wonder.cdc.gov/wonder/help/bridged-race.html>

# Maternal and Child Health Data Indicators

American Indian Births  
Average Age of Mother  
Average Birthweight (gms)  
Average Prenatal Visits  
Average Gestational Age (wks)  
Percent Low Birthweight  
Percent High Birthweight  
American Indian Deaths  
Average Age at Death  
Percent Natural Deaths

State vital statistics, Wisconsin, Minnesota and Michigan. Averages calculated using SAS. Natural deaths exclude homicides, suicides, accidental and intentional fatal injuries.

# Maternal and Child Health Data Indicators

Poverty Rate All Races

Poverty Rate All Children

USDA Economic Research Service, State-Level Financial Data. Retrieved from:

<http://www.ers.usda.gov/statefacts/>

Estimated Number CYSHCN

Estimated American Indian CYSHCN

SLAITS CSHCN Survey summaries downloaded from

<http://www.cdc.gov/nchs/about/major/slaits/cshcn.htm>. Number of CYSHCN calculated using county prevalence for all races and national prevalence for American Indian/Alaska Native children.

# Maternal and Child Health Data Indicators

Total Adult Arrests

Total Juvenile Arrests

Adult Drug Arrests

Juvenile Drug Arrests

Total Drug Arrests

% Adult Drug-Related

% Juvenile Drug-Related

% Total Drug Related

Wisconsin: Office of Justice Assistance, 2004 Crime and Arrests Report. Downloaded from:

<http://oja.state.wi.us/category.asp?linkcatid=1324&linkid=709&locid=97>. Minnesota: Department of Public Safety, Minnesota Crime Information 2004. Downloaded from:

<http://www.dps.state.mn.us/bca/CJIS/documents/crime2004/mci2004.pdf>. Michigan: State Police, Uniform Crime Reports. Downloaded from: [http://www.state.mi.us/msp/cjic/ucrstats/crime\\_reports.htm](http://www.state.mi.us/msp/cjic/ucrstats/crime_reports.htm)

# Maternal and Child Health Data Indicators

## Induced Abortions All Women Abortion Rate/1,000 Women

Wisconsin: Bureau of Health Information and Policy, Reported Induced Terminations of Pregnancy in Wisconsin 2004. Minnesota: Center for Health Statistics, Induced Abortions in Minnesota January-December 2004: Report to the Legislature. Michigan: Department of Community Health, Abortion Numbers by County of Residence, 1995-2005.

## State % Ever Breastfed State % Breastfed 12 months

2004 National Immunization Survey, Table 2: Geographic-specific Breastfeeding Rates, 2004. Retrieved from [http://www.cdc.gov/breastfeeding/data/NIS\\_data/data\\_2004.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/data_2004.htm).

# Maternal and Child Health Data Indicators

## State 2004 WIC Participation

USDA Food and Nutrition Service, National Level Annual Summary. Retrieved from:

<http://www.fns.usda.gov/pd/wichome.htm>.

## State Diabetes Prevalence

## State Gestational Diabetes

## State % Smoke Everyday

CDC, Behavioral Risk Factor Surveillance System 2004. Retrieved from:

<http://apps.nccd.cdc.gov/brfss/index.asp>.

# Maternal and Child Health Data Indicators

## State Immunization Rates

National Immunization Survey, Estimated Vaccination Coverage with Individual Vaccines and Selected Vaccination Series Among Children 19-35 Months of Age by State and Immunization Action Plan Area US, 2004. Retrieved from: <http://www.cdc.gov/nchs/nhis.htm>.

State % Children w/ Excellent or Very Good Health

State % Children w/ Asthma

State % Children w/ Socio-Emotional Difficulties

State % Children w/ Medical Home

The National Survey of Children's Health state summaries. Downloaded from:  
<http://www.cdc.gov/nchs/about/major/slait/nsch.htm>.

# Maternal and Child Health Data Indicators

## Infant Deaths by Race

CDC, MMWR Weekly, June 23, 2006 / 55(24); 683.

## 1999-2003 Leading Causes of Death

All Races

American Indian/Alaska Native

WISQARS data produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC. Data Source: NCHS National Vital Statistics System. Retrieved from:

<http://www.cdc.gov/ncipc/wisqars/>.

# Maternal and Child Health Data Indicators

## Overweight % Age 2-5

US Department of Health and Human Services, Pediatric Nutrition Surveillance 2004 Report. Available at:

<http://www.cdc.gov/pednss/>.

## Physical Education Requirements, Grades 6-12

CDC School Health Profiles 2004: Characteristics of Health Programs Among Secondary Schools.

<http://www.cdc.gov/healthyyouth/profiles>.

## Adult Obesity Rates by State

CDC Behavioral Risk Factor Surveillance System, Obesity Trends Among U.S. Adults 2004. Retrieved from:

<http://www.cdc.gov/nccdphp/dnpa/>.

# Maternal and Child Health Data Indicators

## Adult Inactivity Rates by Race

CDC, MMWR Weekly, October 7, 2005 / 54(39); 991-994.

## Mental Health by Race

Self-assessed symptoms of serious psychological distress

CDC MMWR Weekly, July 28, 2006 / 55(29); 801.

# **Maternal and Child Health Draft Report**

Produced as a Word template with merge fields populated from an Excel spreadsheet.

# Bemidji Area

## Bemidji Area - 2004

<b>Population: All Races</b>	<b>American Indian/ Alaska Native</b>	<b>Percent American Indian/ Alaska Native</b>
Total: 20,722,604	Total: 177,225	0.9%
Women 15-44: 4,363,147	Women 15-44: 42,974	0.8%
Children (0-17): 5,081,705	Children (0-17): 55,109	1.1%

### **American Indian/Alaska Native Births/Deaths:**

Total Births:	3,788	Total Deaths:	1,118
Average Age of Mother:	25.8	Average Age at Death:	59.9
Average Prenatal Visits:	10.7	Percent Natural Deaths:	85%
Average Gestational Age (weeks):	38.8		
Average Birthweight (grams):	3,390		
Percent Low Birthweight:	6.9%		
Percent High Birthweight:	14.2%		

## **Children and Youth with Special Health Care Needs:**

Estimated County Total CYSHCN:	527,592	State % Children w/Asthma	8.0%
Estimated County AI-AN CYSHCN:	9,148	National % AI-AN Children w/ Asthma	12.5%
State % Children w/ Excellent or Very Good Health	87.1%	State % Children w/ Socio- Emotional Difficulties	9.7%
State % Children w/ Medical Home	48.0%		

## **Community Indicators – All Races:**

Poverty Rate (All Ages/All Races):	9.7	Total Adult Arrests:	617,966
Poverty Rate (All Children):	13.2	Total Juvenile Arrests:	152,990
Induced Abortions (All Women):	47,976	Total Drug Arrests:	77,422
Abortion Rate (Per 1,000 Women):	11.0	Percent Arrests Drug-Related:	7.0%

## **State Health Indicators:**

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- **Diabetes:** Bemidji Area total diabetes prevalence is 6.5%. An additional 0.8% of women reported being diagnosed with gestational diabetes. CDC estimates that American Indians and Alaska Natives are on average about 2.2 times more likely to have diabetes than non-Hispanic whites. About 15.1% of American Indians and Alaska Natives 20 and older receiving care from the Indian Health Service have diabetes.
- **Tobacco:** 16.5% of Bemidji Area adults report smoking every day. Nationally, 18.5% of women and 28.5% of American Indian/Alaska Native women smoke. Women who smoke during pregnancy have a greater chance of complications, premature birth, low birth weight infants, stillbirth, and infant mortality.
- **Nutrition:** 71.0% of Bemidji Area women reported initiating breastfeeding. 17.1% reported breastfeeding at 12 months. In FY2004, 448,940 residents of the Bemidji 3-state area participated in the WIC program.
- **Weight and Activity:** According to the Pediatric Nutrition Surveillance System (PedNSS), 13.4% of children ages 2 to 5 in the Bemidji Area are overweight. Nationally, American Indian/Alaska Native children 2 to 5 are most likely to be overweight. 19% are overweight compared to 12.6% of white children and 12.2% of black children. In schools where physical education classes are required in any grade from grade 6 to grade 12, 93.9% of Bemidji Area schools teach a required physical education class in grade 9 compared to only 26.8% in grade 12. 20-24% of adults in Minnesota and Wisconsin and more than 25% of adults in Michigan are considered obese (BMI  $\geq$  30). 23.7% of adults nationwide report no leisure-time physical activity. 31.8% of American Indian/Alaska Native women and 23.8% of American Indian/Alaska Native men report no leisure-time physical activity compared to 21.6% of white women and 18.4% of white men. Hispanic men (32.5%) and Hispanic women (39.6%) were most likely to report no leisure-time physical activity.

- **Leading Causes of Death:** In the Bemidji Area, the top ten leading causes of death for American Indians and Alaska Natives for 1999-2003 are: (1) Heart Disease, (2) Malignant Neoplasms, (3) Unintentional Injury, (4) Diabetes, (5) Chronic Lower Respiratory Disease, (6) Cerebrovascular, (7) Liver Disease, (8) Suicide, (9) Nephritis, and (10) Influenza & Pneumonia. By comparison, the top ten leading causes of death for all races are: (1) Heart Disease, (2) Malignant Neoplasms, (3) Cerebrovascular, (4) Chronic Lower Respiratory Disease, (5) Unintentional Injury, (6) Diabetes, (7) Influenza & Pneumonia, (8) Alzheimer's Disease, (9) Nephritis, and (10) Suicide.
- **Infant Deaths:** Infant mortality decreased from 1995 to 2003. American Indian/Alaska Native infant mortality rates are lower than for blacks, but significantly higher than infant mortality rates for whites, Hispanics, and Asian/Pacific Islanders. In 2003, the infant mortality rate (deaths of infants less than 1 year per 1,000 live births) was 13.61 for blacks, 8.73 for American Indian/Alaska Natives, 5.7 for whites, 5.64 for Hispanics and 4.83 for Asian/Pacific Islanders.
- **Vaccination Coverage:** By 24 months of age, to be up-to-date on all vaccinations, children should have received 4 or more doses of DTP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MCV, 3 or more doses of Hib, and 3 or more doses of HepB. In the Bemidji Area, 76.6% of all children have met this standard.
- **Mental Health:** Nationally, for 2000-2004, American Indian/Alaska Native women were most likely to have self-assessed symptoms of serious psychological distress. The National Health Interview Survey compiled scores for six psychological distress questions that asked: “During the past 30 days, how often did you feel (1) so sad that nothing could cheer you up, (2) nervous, (3) restless or fidgety, (4) hopeless, (5) that everything was an effort, or (6) worthless?” A score of 13 or higher on a 24 point scale was used to define serious psychological distress. 9.7% of American Indian/Alaska Native women and 3.9% of American Indian/Alaska Native men scored 13 or higher. By comparison, only 3.5% of white women and 2.3% of white men reported serious psychological distress.

# Attachments

1. List of documentation.
2. List of literary sources.
3. List of MCH related websites.
4. List of suggestions for additional information to be added when available.

# Next Steps

- Great Lakes Epi Center will make decisions on what to include from the draft report in a final report.
- Results will be presented to the Tribes.
- The finalized MCH report will be produced every other year. In off years, the current community health data profile will be produced.

# Applicability to State Health

- Multiple data and other information sources are currently available.
- Many of the data sets are free and can be downloaded from a website. Other data sets can be purchased, such as vital records data.
- The move towards more uniform standards in data collection state by state, such as uniform crime reporting data, injury data, and vital statistics data, makes it fairly easy to access Wisconsin data and comparable data from selected states.

# Questions/Comments?

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