



Michigan Critical Health Indicators

2007

**Michigan Department of Community Health**



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### **What is the Critical Health Indicators report?**

The Critical Health Indicators report describes Michigan's health and well-being and establishes a method for monitoring improvement. The report is organized by 17 specific health topics, and their 42 related measures or indicators. These indicators directly or indirectly measure the health and health behaviors of Michigan residents. The data reported in this document are based on numbers provided by state and federal sources. Links to state resources have been included to assist the reader interested in more detailed information.

This set of topics and indicators was developed through collaboration of various areas at the Michigan Department of Community Health. From the onset, there was interest in the relationship between health behavior and health outcomes in the forms of morbidity and mortality.

Focusing on morbidity/mortality data helps to identify opportunities for interventions to improve the health of Michigan's residents, particularly where deaths are premature or preventable. The report examines each indicator, providing 10 years of data when available. Trend data are plotted on graphs to illustrate annual changes. By considering past trends, state and local health agencies can plan for the future.

### **What do Critical Health Indicators tell us about Michigan's health?**

In general, the health of Michigan's population is improving. Most of the indicators, including Adolescents' Use of Tobacco, Heart Disease Deaths, Stroke Deaths, All Cancer Deaths, Breast Cancer Deaths, Cervical Cancer Deaths, Colorectal Cancer Deaths, Prostate Cancer Deaths, Mammography, Colonoscopy/Sigmoidoscopy, Teen Pregnancy, Abortions, Children's Blood Lead Levels, Infant Mortality, HIV/ AIDS New Cases, Childhood Immunizations, Syphilis, Childhood Injuries, Chlamydia, and Older Adult Flu Shots show improvement over time.

Relatively few indicators reported showed movement in the wrong direction including Teen Alcohol and Drugs, Pediatric Overweight, Adult Obesity, Diabetes Prevalence and Related Deaths, Kidney Disease and Related Deaths, Hepatitis C, and Employer-based health insurance coverage.

A few indicators did not change over the past ten years; these include Physical Inactivity, Nutrition/Diet, Tobacco Use – Adults, Adult Binge Drinking, Lung Cancer Deaths, Chronic Lower Respiratory Disease Deaths, Asthma, Gonorrhea, Suicide, Unintentional Injuries, Adequacy of Prenatal Care, and the Number of Uninsured Adults and Children.

While the overall health of Michigan appears to be improving, there are noticeable racial and gender disparities within many of the indicators reported. Minority populations and males were shown to have an increased risk of death in many of the mortality indicators reported.

An increasing demand for public health services continues to exist within an uncertain financial environment. This document provides information on many state initiatives to support better health in local communities and statewide.

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## 2007 Michigan Critical Health Indicators Trend Direction

### Right Direction

Tobacco Use – Adolescents  
Heart Disease Deaths  
Stroke Deaths  
All Cancer Deaths  
Breast Cancer Deaths  
Cervical Cancer Deaths  
Colorectal Cancer Deaths  
Prostate Cancer Deaths  
Mammography  
Colonoscopy/Sigmoidoscopy  
Teen Pregnancy  
Abortions  
Children’s Blood Lead Levels  
Infant Mortality  
HIV/ AIDS New Cases  
Childhood Immunizations  
Syphilis  
Childhood Injuries  
Chlamydia  
Older Adult Flu Shots

### Wrong Direction

Teen Alcohol and Drugs  
Pediatric Overweight  
Adult Obesity  
Diabetes Prevalence and Related Deaths  
Kidney Disease and Related Deaths  
Hepatitis C  
Employer-based health insurance coverage

### No Change

Physical Inactivity  
Nutrition/Diet  
Tobacco Use – Adults  
Adult Binge Drinking  
Lung Cancer Deaths  
Chronic Lower Respiratory Disease Deaths  
Asthma  
Gonorrhea  
Suicide  
Unintentional Injuries  
Adequacy of Prenatal Care  
Uninsured Adults and Children

### Trend Not Analyzed

Dental Disease Among Third Grade Children  
Depression  
Medicaid and MICHild Enrollment



## Comparison of Michigan to the United States

### Michigan Is Better

- Tobacco Use – Adolescents
- Prostate Cancer Deaths
- Cervical Cancer Deaths
- Mammography
- Colonoscopy/Sigmoidoscopy
- Teen Pregnancy
- Abortions
- Adequacy of Prenatal Care
- Childhood Immunizations
- HIV/AIDS New Cases
- Syphilis
- Uninsured Residents
- Unintentional Injuries
- Childhood Injuries
- Employer-based health insurance coverage

### United States Is Better

- Adult Obesity
- Tobacco Use – Adults
- Adult Binge Drinking
- Heart Disease Deaths
- Lung Cancer Deaths
- Diabetes Prevalence and Related Deaths
- Kidney Disease and Related Deaths
- Infant Mortality
- Asthma
- Children’s Blood Lead Levels
- Chlamydia
- Gonorrhea
- Hepatitis C
- Depression

### Michigan is the Same as United States

- Physical Inactivity
- Nutrition/Diet
- Pediatric Overweight
- Teen Alcohol and Drugs
- Stroke Deaths
- All Cancer Deaths
- Breast Cancer Deaths
- Colorectal Cancer Deaths
- Chronic Lower Respiratory Disease Deaths
- Older Adult Flu Shots
- Suicide

### Not Determined

- Dental Disease Among Third Grade Children
- Medicaid and MICHild Enrollment



## Topic: Risky Health Behaviors

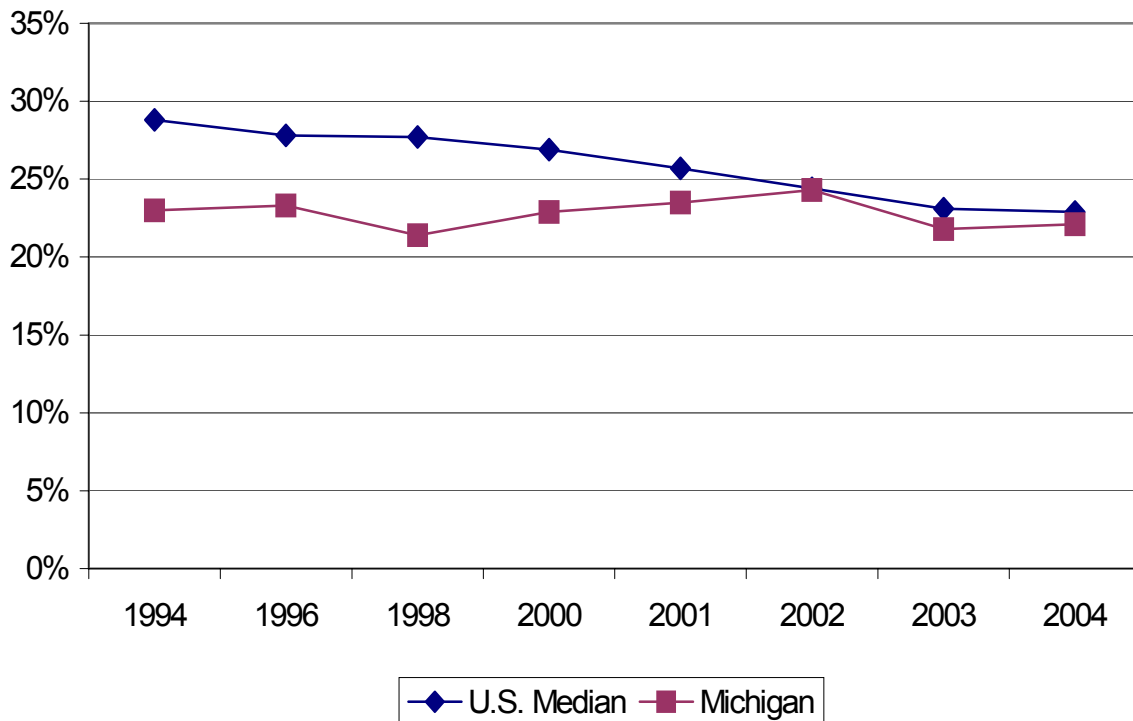
### 1. Physical Inactivity

Physical activity is a major factor in health. Lack of physical activity often results in overweight and obesity. Physical inactivity is a major contributor to serious medical conditions such as osteoporosis, obesity and diabetes. Adult physical activity is monitored through the Behavioral Risk Factor Survey (BRFS) with the variables: (1) any leisure time physical activity, (2) moderate leisure time physical activity, (3) strenuous leisure time physical activity, and (4) physical activity at work.

#### *How are we doing?*

Since 1999, the first year this BRFS information was available, the finding that about half of adults do not get adequate physical activity has been reasonably stable. Walking is by far the most common form of leisure time physical activity (56% of adults), followed by running (10%), gardening (10%), golf (8%), weight lifting (8%) and bicycling (6%). Among those trying to lose weight, there is a recent trend of increasing physical activity as a weight control strategy (77% of adults used it in 2003, compared to only 60% in 1998).

**Percent Indicating No Physical Activity in Michigan and United States, 1994-2004**



Inadequate physical activity trends have been influenced by changes in our society and culture, such as increased time driving due to urban sprawl; increases in time spent watching television, using a computer, and video games; neighborhoods where it is unsafe or infeasible to walk, due to crime, lack of sidewalks, etc.



Public health interventions should target both the individual and the policies and environments that make it easier for the individual to engage in healthier behaviors while overturning restrictive policies.

### ***How does Michigan compare with the U.S.?***

Since 2003, the percentage indicating no physical activity has been nearly the same for adults in Michigan and the United States (22% - 23%). At 49.5%, Michigan ranks 23rd highest among all states for the percentage of adults with 30+ minutes of moderate physical activity five or more days per week, or vigorous physical activity for 20+ minutes three or more days per week.

### ***How are different populations affected?***

Significant differences in the percentage of adults with inadequate physical activity occur within age groups and within household income groups. Forty percent of adults ages 18 to 24 engage in inadequate physical activity. This percentage increases steadily to age 75 and older where 67% have inadequate physical activity. Adults from households with incomes under \$20,000 average 58% inadequate physical activity, compared to households above \$75,000 where 45% of adults have inadequate physical activity.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH works with communities and organizations to help them make it easier for people to be active. Local health departments receive funds to increase access to programs such as walking and bicycling. Regional trainings provide coalitions with tools to assess physical activity and the nutrition environment, as well as developing action plans for implementing sustainable policy and environmental changes. Several assessment tools have been developed and promoted to provide specific information about needs and opportunities for improving physical activity. Grants are given to schools to implement policy and environmental changes to increase students' physical activity. The Michigan Steps Up Website, [www.michigan.gov/surgeongeneral/](http://www.michigan.gov/surgeongeneral/), under the leadership of the Michigan Surgeon General provides advice and educational information on physical activity and nutrition.





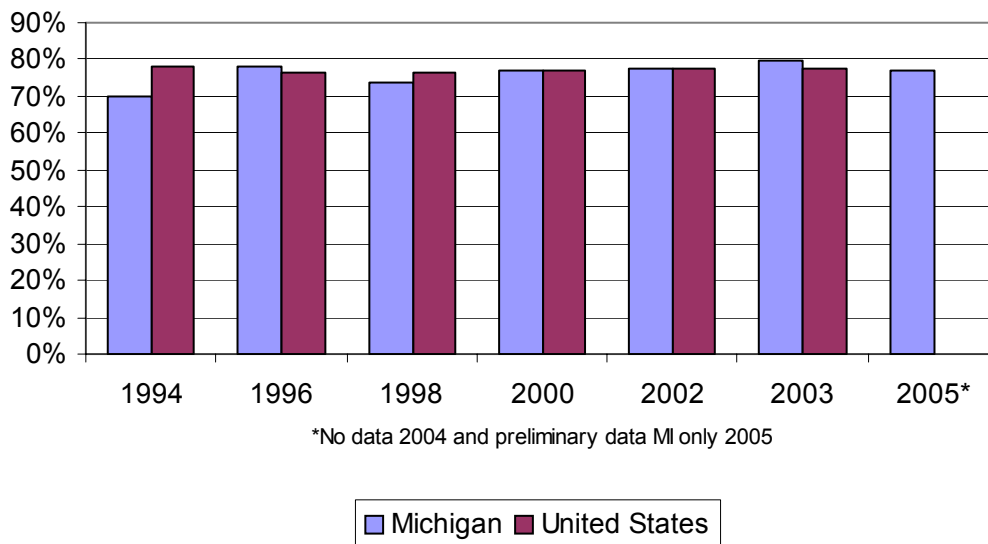
## Topic: Risky Health Behaviors

### 2. Nutrition and Diet

Good nutrition is necessary for a healthy, long life. Dietary factors are associated with cardiovascular disease, stroke, cancer and diabetes, which are estimated to cost society billions of dollars each year in healthcare costs and lost productivity. State-level monitoring of the nutrition status of Michigan residents includes program analysis, such as the Women, Infants and Children (WIC) Program, and evaluating statewide data for weight status, and fruit and vegetable consumption.

#### *How are we doing?*

**Percentage of Inadequate Fruit and Vegetable Consumption  
Among Adults in Michigan and the United States, 1994-2005**



Seventy-seven percent of Michigan adult residents eat less than the recommended five or more servings of fruits and vegetables a day, and therefore are considered to have inadequate consumption of fruit and vegetables. This trend has been relatively stable over the last ten years.

#### *How does Michigan compare with the U.S.?*

The percentage of Michigan adults with inadequate fruit and vegetable consumption is about the same as it is for the United States.



### ***How are different populations affected?***

Inadequate fruit and vegetable consumption is higher among Michigan adult males (83%), than adult females, 72%. Higher rates of inadequate fruit and vegetable consumption are also seen among Michigan high school graduates, 81%, than college graduates, 72%, but even this well-educated group has a relatively high rate.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH sponsors many programs to improve the nutrition of state residents, emphasizing disadvantaged groups, such as low-income children. The *Fruits & Veggies—More Matters*<sup>™</sup> program within the Cardiovascular Health, Nutrition and Physical Activity Section, works with local communities to promote fruit and vegetable access and consumption. The WIC Division's *Project FRESH* (Farm Resources Expanding and Supporting Health) provides access to Michigan-grown fruits and vegetables and nutrition education for low-income pregnant, breastfeeding and postpartum women, and children ages one through five, who are at nutritional risk. Additional resources provided on the Michigan Steps Up Website, [www.michigan.gov/surgeongeneral/](http://www.michigan.gov/surgeongeneral/), provide advice and educational information on physical activity and nutrition.

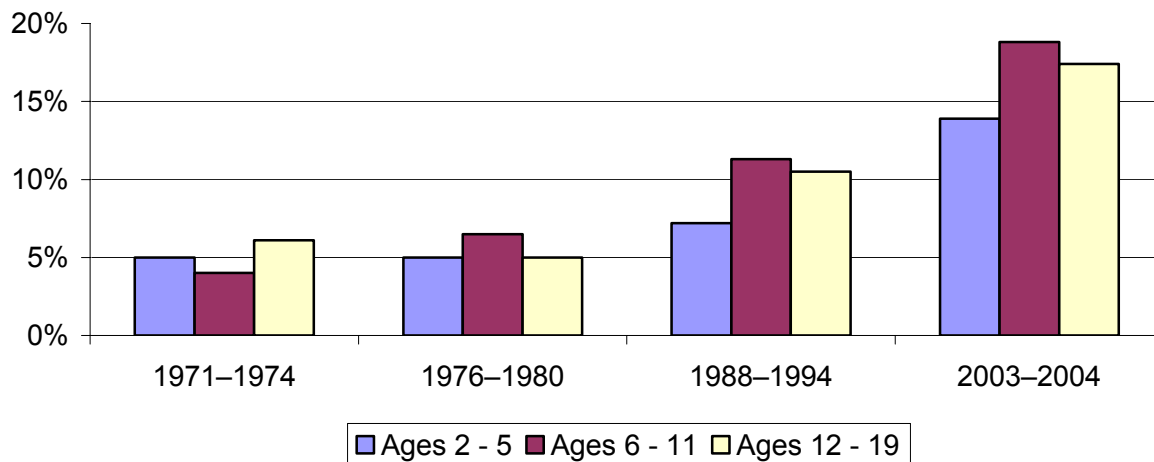


## Topic: Risky Health Behaviors

### 3. Pediatric Overweight

Over the last forty years, the proportion of American children who are overweight has increased dramatically. An understanding of this problem among children is easier to see in national statistics because Michigan does not survey all children. Instead, we monitor lower income children age 0 to 5 in programs providing assistance, and public school students in grades 9 to 12. Alternatively, statistics from the National Health and Nutritional Examination Survey (NHANES) are based on clinical measurements of height and weight to compute BMI, not less reliable self-reports or parental reports. The Centers for Disease Control and Prevention (CDC) uses the term ‘Overweight’ for children with a BMI-for-Age at or above the 95th percentile, and ‘At Risk of Overweight’ for children between the 85th and 95th percentile, based on BMI-for-Age growth charts published by the CDC. NHANES surveillance shows that nationally childhood overweight has increased dramatically. In the 1963-1970 era four percent of children ages 6 to 11, and five percent for ages 12 to 19 were classified as overweight. By the 1999-2002 survey the percentage of overweight children had tripled, 16% for ages 6 to 11, and 16% for ages 12 to 19. The percentages have steadily increased over three decades. Michigan statistics, where available, are not significantly different from national averages.

**Prevalence of Overweight Among  
U.S. Children and Adolescents (Aged 2–19 Years)  
NHANES Survey Periods 1971 - 2004**



#### *How are we doing?*

Recent data from the state-level estimates provided by the 2003-2004 National Survey of Children’s Health (NSCH)/Michigan, for children ages 10 to 17, estimated 14% were ‘At Risk of Overweight’ and another 14% were ‘Overweight.’ This is approximately the same as national estimates. The Michigan Youth Risk Behavior Survey (YRBS) conducted every two years by the Michigan Department of Education provides a slightly lower estimate: “Overweight” in 2005 was 12%, and up slightly from 10% in 1999. “At Risk of Overweight” in 2005 was 14%, almost the same as the 15% in 1999. Data for other age groups is less available. For ages 0 to 5, there is a limited amount of data available from surveillance systems such as Pediatric Nutrition Surveillance System (PedNSS) that tracks mostly lower income children. One estimate from 2003 PedNSS data is that approximately 13% of Michigan children ages 2 to



5 are overweight. The conclusion from all the available sources is that the percentage of Michigan children who are overweight has increased dramatically over the last few decades. Because childhood overweight often continues into adulthood, the long-term ramifications are significant.

According to the 2005 YRBS, one-third of students grades 9 to 12 do not receive the recommended amount of both moderate and vigorous physical activity during the week and many students watch hours of television daily. Most of the nutritional and physical activity trends have been stable over the last nine years. In 2005, about 61% of students exercised to lose weight or to keep from gaining weight. About 40% reported eating less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight. Some students engaged in unsafe weight loss practices: fasting for 24 hours or more, 11%; taking diet pills, powders or liquids without doctor's advice, 5%; and vomiting or taking laxatives, 5%.

2005 YRBS survey data on physical activity also demonstrate that a significant percentage of students do not get enough physical activity or engage in excessive television viewing: 33% did not participate in the recommended amount of weekly physical activity, 36% watched three or more hours of television on an average school day, and only 38% attended physical education class one or more days during an average school week.

Various other questions on the YRBS point to increasing numbers of youth at risk of weight gain from a lack of physical activity. National data demonstrate that this pattern occurs at younger ages as well. Much of the increase in weight among American children occurs between ages 6 and 13, but all ages are at risk of excessive weight gain. Overweight children, especially adolescents, are more likely to become obese adults than children with a healthy weight. Serious health conditions – high blood pressure, high cholesterol, hypertension, early maturation, and orthopedic problems – occur with increased frequency in overweight youth. Type 2 diabetes, once regarded as an adult disease, has increased among children and adolescents.

### ***How does Michigan compare with the U.S.?***

The 2003 National Survey of Children's Health looked at the weight status of children ages 10 to 17, using body mass index for age (BMI-for-age) and found Michigan children were similar to national measures. Nationwide 14.8% were overweight, and in Michigan, 14.4%. The Youth Risk Behavior Survey, 2005, looking at the weight status of children in grades 9 to 12, found 12% of Michigan children overweight, the same as the average (median) among other states, 12%.

### ***How are different populations affected?***

The noticeable differences are between grade 9-12 females and males, and between Whites and Blacks. The sample size for other ethnic/race groups was too small for comparison. As self-reported in the Michigan YRBS, only eight percent of the grade 9 to 12 females were overweight, compared to 16% of males. In the Michigan YRBS the high percentage of female students reporting that they were trying to lose weight, 59%, compared to male students, 31%, suggests that the percentage of overweight young females may be closer to that of young males. The percentage of White students overweight, 10%, was about half that of Black students, 22%.

### ***What is the Department of Community Health doing to improve this indicator?***

In response to the rising rates of pediatric overweight, the MDCH has concentrated on prevention and treatment initiatives. Some of the prevention projects include the development of "The Role of Michigan Schools in Promoting Healthy Weight", "Michigan Action for Healthy Kids", the "Healthy Schools Action Tools" (HSAT), and "Healthy Kids Healthy Weight." The Department awarded grants to schools and communities to improve healthy eating and increase physical activity. There are published clinical



## Critical Health Indicators

guidelines for the prevention, identification and treatment of childhood overweight and obesity. The Department collaborated with the Michigan Quality Improvement Consortium (MQIC) and drafted guidelines based on a comprehensive review of literature, input of an expert advisory committee and discussion with the Consortium.



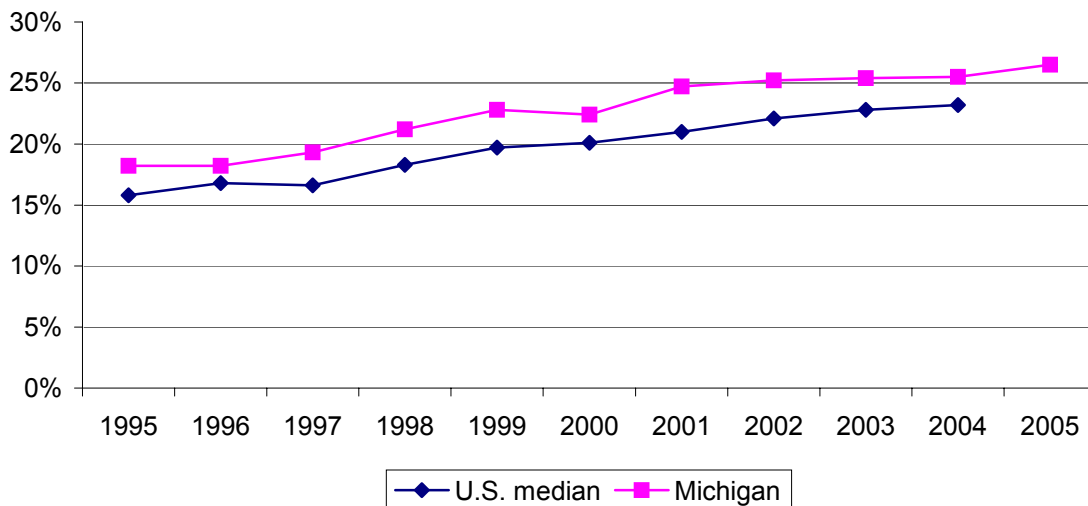
## Topic: Risky Health Behaviors

### 4. Adult Obesity

Adult obesity is defined by a BMI of 30 or greater. Eighty percent of Michigan adults report that they are actively trying to either lose weight or maintain their weight. Higher weights are associated with chronic disease. Obesity increases the risks for long-term health problems such as osteoporosis, heart disease, stroke and cancer among people at all weights. Some conditions can be improved without weight loss if physical activity is increased and eating patterns are improved.

#### *How are we doing?*

**Obesity Trends 1995 - 2005  
Michigan and the United States**



An estimated 26.5% of Michigan adults were obese in 2005, according to the BRFSS survey. Obesity has increased by nearly 50% in Michigan over the past decade, from 18.2% in 1995 to 26.5% in 2005.

#### *How does Michigan compare with the U.S.?*

Michigan consistently has higher obesity rates than the U.S. median. In 2005, Michigan had the fifteenth highest obesity rates among all states.

#### *How are different populations affected?*

Adults aged 45 to 64 were the most likely to be obese (one in three). Substantially lower rates were found in younger adults (14% of 18-24 year olds) and in adults age 75+ (17%). As of 2002, the percentage of obesity among older adults age 65 and older (25.2%) was higher in Michigan than in any other state.

The 2005 Michigan BRFSS obesity estimates by race and gender show serious health disparities, with 38.7% of adult Black females obese, compared to 26.5% of adults generally. White females and White males have similar rates, 24.2% vs. 26.6%; however, Black females have a higher percentage than Black males, 38.7% vs. 32.9%.



### ***What is the Department of Community Health doing to improve this indicator?***

The obesity prevention program of the Michigan Department of Community Health focuses limited governmental resources on two major causes of obesity – lack of physical activity and poor food choices.

Funding from the Centers for Disease Control and Prevention permitted the development, in 2005, of a five-year plan to address the epidemic of obesity. This plan includes strategies for the MDCH and partner agencies to create environments that support healthy behaviors in communities, schools, healthcare systems, faith-based organizations, and worksites. The Department awards grants to local health departments to conduct assessments and create plans for healthier community environments in their jurisdictions, and works with other partners to support local efforts to improve access to healthy foods and physical activity.

Lower-income Michigan pregnant and postpartum women receive nutrition services locally under the WIC Program: Special Supplemental Nutrition Program for Women, Infants and Children. These services include counseling and education regarding diet, weight management, optimal prenatal weight gain, and breastfeeding promotion and support.

The MDCH works with faith-based organizations to promote fruit and vegetable consumption and healthier diets, and has a healthy weight pilot project based on the “Sisters Together” program in the Detroit area.

The Michigan Steps Up website provides a variety of tools for individual use in creating a plan for losing weight and adopting a healthier lifestyle at: <http://www.michigan.gov/surgeongeneral/>.



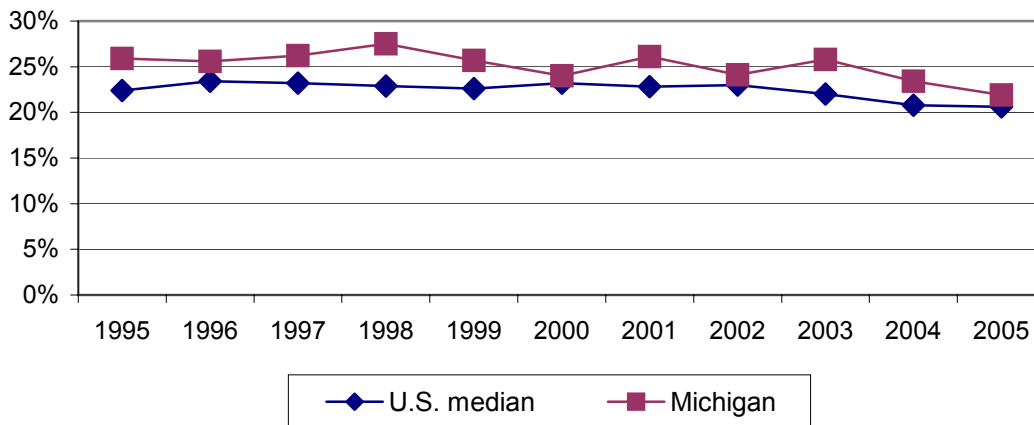
## Topic: Risky Health Behaviors

### 5. Adult Tobacco Use

Cigarette smoking is the single most preventable cause of premature death. An estimated 16,000 Michigan residents die each year from tobacco-caused illnesses. On average, smokers die almost seven years earlier than nonsmokers.

#### *How are we doing?*

**Percent of Current Smokers  
Michigan and the United States,  
1995-2005**



Though smoking prevalence has remained relatively steady over the past 10 years, cigarette consumption in Michigan has dropped almost 22% since 1993. In 2005, an estimated 21.9% of Michigan adults used tobacco products daily.

#### *How does Michigan compare with the U.S.?*

Since 2001 there has been a statistically significant difference between Michigan and the nation in the prevalence of adult smokers. The percentage of adults smoking in 2005 in Michigan was 21.9%, while the median among all the states was 20.6%.

#### *How are different populations affected?*

Michigan Behavioral Risk Factor Survey (BRFS) respondents with less than a high school education were almost 2.8 times more likely to report being a current cigarette smoker than respondents who graduated from college. In addition, the proportion of current cigarette smokers tended to decrease with household income levels and older age groups, beginning with the age group 45-54. There is no significant difference between the prevalence of current smokers among African-Americans and Caucasians. American Indians smoke at a rate almost double that of Michigan adults in general (41.2% vs. 21.9%). The smoking rate among Asian American adults is approximately 62% lower than Michigan adults in general (13.6% vs. 21.9%). The smoking rate among Hispanic adults is approximately 30% higher than Michigan adults in general (28.4% vs. 21.9%).





### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH tobacco cessation initiatives include programs to promote strong public and voluntary policies that increase the awareness of the dangers of tobacco use and secondhand smoke; prevent the sale and promotion of tobacco to youth; and supports a statewide media campaign with prevention, cessation, and secondhand smoke messages. Resources include free self-help cessation kits, expectant mother quit kits, and tobacco-related information. Legal assistance is offered to businesses and individuals on smoke-free policy development, along with research and information on tobacco-related laws.

A network of 60 local tobacco reduction coalitions focus on raising awareness of tobacco issues, mobilizing communities to support tobacco-free policies and decrease the social acceptability of smoking. A statewide quit-line has received over 28,000 phone calls on its toll-free line: 1-800-480-7848.



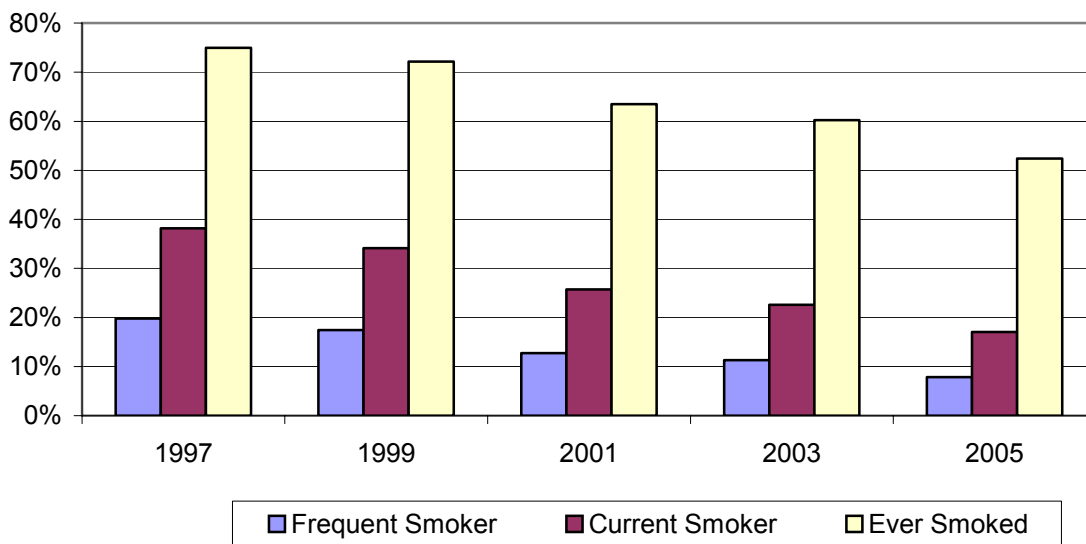
## Topic: Risky Health Behaviors

### 6. Adolescent Tobacco Use

Adolescent tobacco use is often referred to as a pediatric disease because most addiction to tobacco happens in youth under the age of 18. Among adult smokers in Michigan, approximately 90% of them began smoking before they were 18 years old.

#### *How are we doing?*

**Cigarette Use among Michigan Youth, 1997-2005**



In Michigan, over 50% of high school students have ever tried smoking a cigarette and 17% of the students smoked a cigarette in the last month, an indication of current smokers. Current cigarette smoking among high school students in Michigan has declined over 55% since 1997, yet according to the Campaign for Tobacco Free Kids, everyday in Michigan about 60 youth become new daily smokers. Eventually, one-third of them will die from their addiction.

#### *How Does Michigan compare with the U.S.?*

In 2005, Michigan’s current youth smoking rate of 17% was much lower than the U.S. youth smoking rate of 23%.

#### *How are different populations affected?*

White students and Hispanic students were more likely than Black students to have smoked a cigarette within 30 days. White and Hispanic students had smoking rates of 18.1% and 27.3%, respectively. In comparison, Black students had a smoking rate of 7.6%. Many attribute the lower rates of tobacco use among Black adolescents to greater parental disapproval of smoking and less exposure to peers who smoke.



### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH provides support and assistance to local community agencies and tobacco reduction coalitions to increase youth involvement in tobacco-free policy activities, such as educating tobacco retailers on the Michigan Youth Tobacco Act (YTA) to prevent underage access to tobacco.

Youth access to tobacco has decreased through the enforcement of the YTA. This act prohibits the sale of tobacco by retailers to minors, prohibits youth from purchasing tobacco and adults from purchasing tobacco for youth, and also prohibits possession of tobacco among minors. Local prosecuting attorneys and other law enforcement agencies support the YTA. The MDCH conducts annual, random, unannounced inspections to ensure compliance with existing laws. Illegal sales of tobacco products to minors from tobacco retailers have decreased almost 70% since 1994.

The MDCH promotes, implements and enforces local smoke-free work site and public regulations, such as 24/7 tobacco-free campus policies for public and private schools in Michigan. These policies prohibit the use of tobacco in any form, at any time (including non-school hours) while on school grounds and during any school-sponsored functions held off campus.

Studies have shown that smoke-free policies help prevent kids from smoking. The Department uses the Michigan Model for Comprehensive School Health Education to help improve students' health behaviors. In kindergarten through twelfth grades, over one million students in Michigan receive education concerning tobacco use and other substance abuse.

In 2004, the cigarette tax was increased from \$1.25 per pack to \$2.00 per pack. Studies have shown that every 10% increase in the price of cigarettes will reduce youth smoking by about seven percent and overall cigarette consumption by about four percent.



## Topic: Risky Health Behaviors

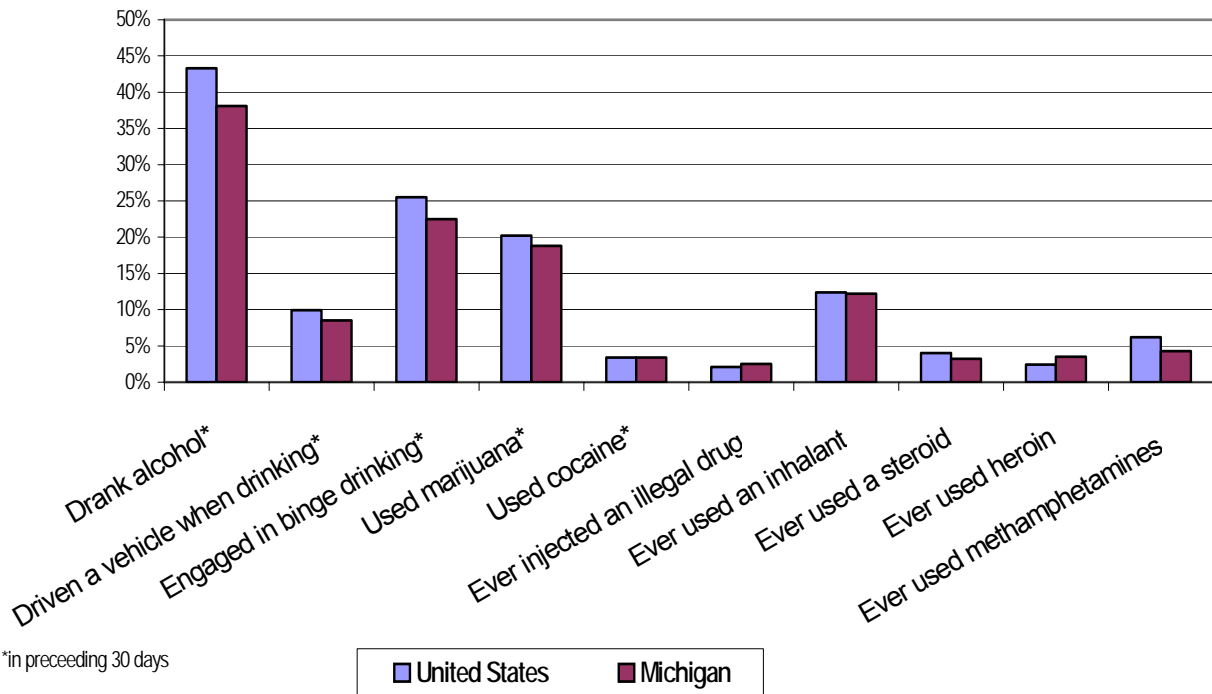
### 7. Adolescent Alcohol and Drug Use

Substance abuse affects not only an individual and his/her family, but also the welfare of the community. As a major contributing factor to crime and the need for social services, the costs of substance abuse far outweigh the resources committed to its prevention and treatment. The lifetime prevalence estimate of substance abuse and/or alcohol disorders is approximately one in seven Michigan residents, including about 100,000 youth.

Adolescent use of alcohol, tobacco, and other drugs is measured by the biennial Michigan Youth Risk Behavior Survey (YRBS). People who begin drinking before age 15 are four times more likely to develop alcoholism than those who begin at 21.

#### *How are we doing?*

**Drug and Alcohol High Risk Behavior in Adolescents  
Michigan and the United States, 2005**



The 2005 Michigan YRBS reports 73% of its respondents had tried alcohol and 38% were current drinkers, 23% had their first full drink of alcohol before age 13, and 23% engaged in binge drinking, defined as the consumption of five or more alcoholic beverages during one occasion. There was a statistically significant increase between the 1999 and 2005 results for all of these alcohol use indicators.



### ***How does Michigan compare with the U.S.?***

According to the YRBS, the percent of adolescents who identified themselves as having used alcohol and other drugs in Michigan was similar to the U.S. average.

### ***How are different populations affected?***

Twelfth graders were more likely than students in 9th and 10th grade to drink and binge drink. In general, White students were more likely than African-American students to be current alcohol drinkers and engage in binge drinking. Males were more likely than females to have reported using heroin. Females were less likely than males to have ever tried various illegal substances or to report recent use.

### ***What is the Department of Community Health doing to improve this indicator?***

Twenty-one programs within the state offer specialized substance abuse assessment, outpatient, intensive outpatient, and residential services to adolescents. The Department also continues to offer leadership and advisory support to Child and Adolescent Health Centers. They provide primary healthcare services to adolescents, including an evaluation of alcohol, tobacco, and other drug use and support for secondary and tertiary services. Health promotion and education are also offered.

Departmental prevention initiatives include information dissemination through newsletters and presentations, education, problem identification and referral, support for coalitions that raise awareness and mobilize communities for change, and environmental activities such as point-of-sale reduction activities and promotion of healthy lifestyles. The Department supports peer counseling, mentoring, life skills development, information and help lines, and other prevention programs.

Approximately \$13 million in substance abuse prevention and treatment block grant funds support substance abuse prevention efforts to communities. Substance abuse prevention needs in each region of the state are prioritized and addressed by incorporating the needs of the general population and the needs of high-risk groups, including youth. In addition, local agencies provide specialized services to additional populations, including African-American youth, gay/lesbian youth and Arab/Chaldean youth.

To address substance abuse among Michigan's citizens, the MDCH contracts with 16 coordinating agencies to develop comprehensive plans for substance abuse treatment and rehabilitation, and prevention services. Coordinating agencies provide treatment services to substance abusers, including women of childbearing age, pregnant women and children. Coordinating agencies develop and evaluate a network of funded, licensed substance abuse treatment providers within the geographic area.

The Department works with local criminal justice agencies, education providers, grassroots organizations, and other state agencies to reduce and prevent adolescent substance abuse, to restore neighborhoods, and to educate the children of Michigan about the dangers of substance abuse. Programs such as the Michigan Coalition to Reduce Underage Drinking (MCRUD), a coalition of prevention partners, focus on underage drinking issues through grant awards and support of local coalitions.



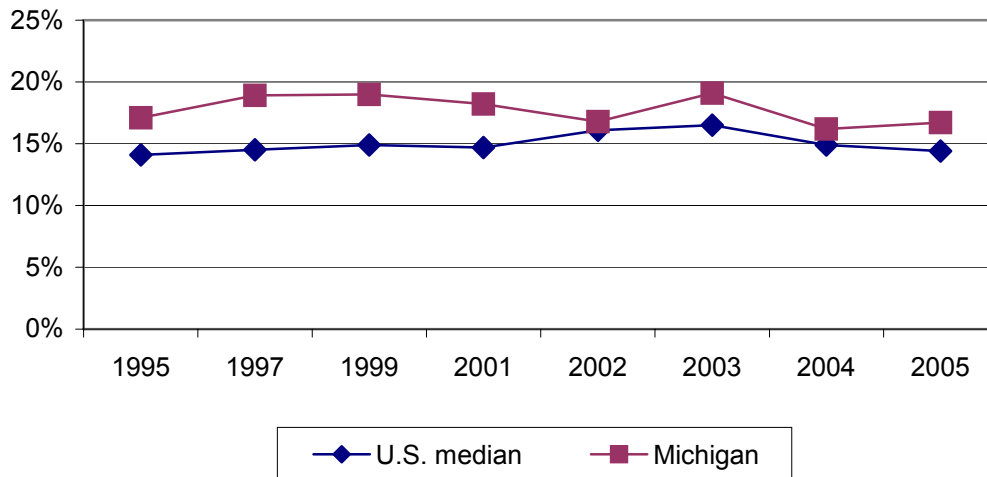
## Topic: Risky Health Behaviors

### 8. Adult Binge Drinking

Drinking patterns associated with rapid intoxication, such as binge drinking, carry with them potential for social and physiological harm. One of the commonly used thresholds for binge drinking is five or more drinks on at least one occasion in the last 30 days.

#### *How are we doing?*

**Binge Drinking in Michigan and the United States  
1995-2005**



In 2005, 16.7% of Michigan adults were estimated to have engaged in binge drinking in the previous month. The prevalence of binge drinking has remained fairly consistent among Michigan adults over the past eleven years, 17.1% in 1995 compared to 16.7% in 2005.

#### *How does Michigan compare with the U.S.?*

When compared to the United States, Michigan has consistently had a higher prevalence of binge drinking.

#### *How are different populations affected?*

The prevalence of binge drinking decreased with age, from 31.7% of those aged 18-24 years to 1.7% of those aged 75 years and older. Men were more likely than women (24.3% vs. 8.9%), and Whites were more likely than Blacks (17.2% vs. 10.8%) to have engaged in binge drinking.

#### *What is the Department of Community Health doing to improve this indicator?*

The MDCH began a Campus Alcohol Initiative in 1999 to address alcohol abuse on college campuses. These programs exist at Eastern Michigan University, Ferris State University, Grand Valley State University, Michigan State University, and the University of Michigan.



## Topic: Cardiovascular Disease

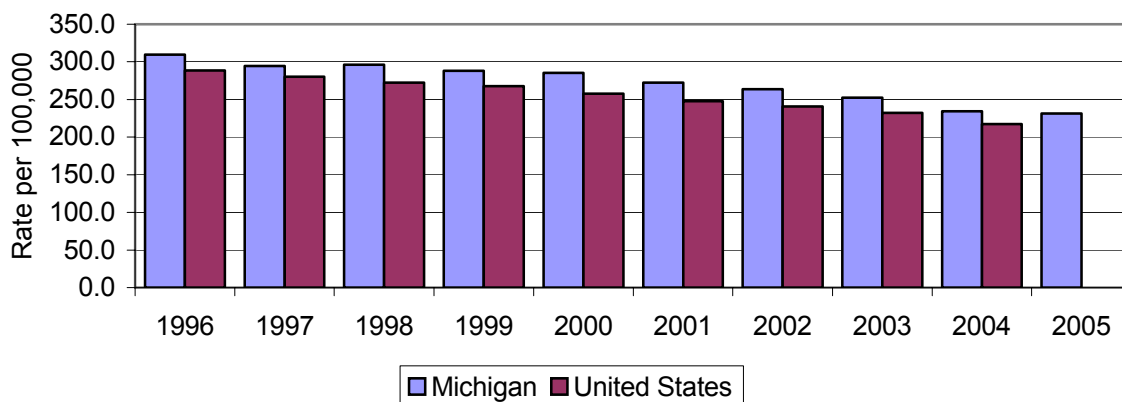
Cardiovascular disease includes a wide range of blood vessel and circulatory conditions, such as coronary heart disease, congestive heart failure, rheumatic heart disease, hypertensive heart disease, stroke and other categories, but it is primarily monitored through heart disease and stroke. Coronary heart disease accounts for about half of all heart disease deaths and is the most common and preventable form of cardiovascular disease.

### 9. Heart Disease Deaths

Coronary heart disease results in a diminished blood supply to the heart as the coronary arteries that supply the heart are blocked, and if untreated, usually results in a heart attack. Congestive heart failure is another major form of heart disease, caused when the heart starts losing its ability to pump blood.

#### *How are we doing?*

**Age-Adjusted Heart Disease Death Rate  
Michigan and the United States, 1996-2005**



In 2005 there were 25,098 deaths in Michigan due to heart disease, making it the number one cause of death in the state. Heart disease deaths have declined 26% percent over the past 10 years, from a rate of 309.3 per 100,000 residents in 1996 to 231.4 per 100,000 residents in 2005. Michigan is heading in the right direction and continued efforts will reduce death rates even more.

#### *How Does Michigan compare with the U.S.?*

Over the last two decades the age-adjusted heart disease death rate has been higher in Michigan than the national rate. National rankings in 2006 (using 2002 data) found Michigan sixth worst for coronary heart disease.

#### *How are different populations affected?*

Death rates for males at 291 per 100,000 were higher than for females at 194 per 100,000. Rates for Blacks at 332 per 100,000 were higher than for Whites at 224 per 100,000, indicating that Blacks are 1.5 times more likely to die from heart disease than Whites. The disparity that exists between Blacks and Whites for heart disease increased each year between 2000 and 2005. Native American and Hispanic mortality rates are also disproportionately higher than White rates, 283.7 and 262.7, respectively. While Blacks and Native



Americans have had rates consistently higher than Whites over the last five years, the rates for Hispanics were consistently lower than White rates from 2000-2003; in 2004 the rate jumped to 262.7 and exceeded the rate for Whites for the first time.

When assessing cardiovascular health it is important to also look at the disparities that exist in the risk factors that lead to disease. High blood pressure is an important risk factor, and 35% of Blacks living in Michigan have been told at some point in their lifetime that they have high blood pressure, compared to 27% of Whites who were given the same information.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department of Community Health has both primary and secondary program initiatives to reduce the burden of heart disease. Promoting healthier lifestyles is one major initiative and the Surgeon General's "Michigan Steps Up" campaign is a key component ([www.michigan.gov/surgeongeneral/](http://www.michigan.gov/surgeongeneral/)). This campaign urges Michigan's citizens to "move more", "eat better", and "don't smoke" by outlining what individuals, schools, communities, businesses, and healthcare professionals can do to improve the overall health of the state. Program initiatives focus on creating environments that support healthy behaviors in communities, schools, faith-based settings, healthcare systems and worksites.

There are also several other statewide initiatives aimed at decreasing the incidence and impact of heart disease. These include the support of programs to prevent and control cardiovascular risk factors and improve the quality of care provided for cardiovascular disease. Special projects were implemented targeting African-Americans, Arab-Americans and women.

Professional education programs are provided to increase awareness of evidence-based guidelines and clinical standards. A social marketing campaign is being launched to increase awareness of signs, symptoms, preventive aspirin use and appropriate responses to heart attacks. Programs emphasize continuous quality improvement in stroke, heart failure, and management of CVD risk factors in primary care and hospital settings.





## Topic: Cardiovascular Disease

Cardiovascular disease includes a wide range of blood vessel and circulatory conditions but it is primarily monitored through heart disease and stroke. Stroke is the third leading cause of death in Michigan.

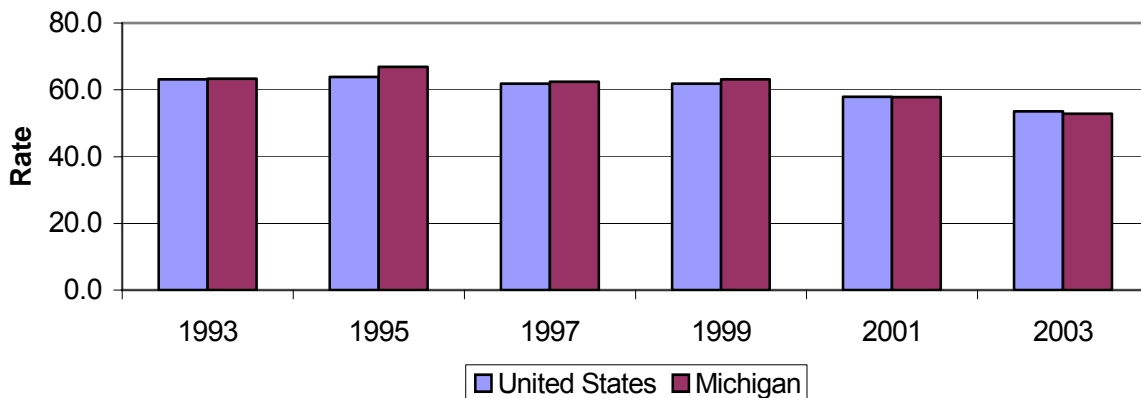
### 10. Stroke Deaths

An artery hemorrhage or blockage in the brain causes a stroke. High blood pressure is the most important risk factor for a stroke, with other risk factors being cigarette smoking, physical inactivity, high cholesterol, and obesity.

Stroke is not just a disease of the elderly. Stroke is the ninth leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75 in Michigan. Beyond the death statistics, stroke is a major cause of disability in Michigan. Stroke-related disability can have very high financial costs and major physical and mental consequences. However, prompt recognition of the signs and symptoms of stroke, and rapid and appropriate health care, can reduce the negative effects of stroke remarkably.

#### *How are we doing?*

**Age-Adjusted Stroke Death Rate  
Michigan and the United States, 1993-2003**



In 2005 there were 5,049 deaths in Michigan due to stroke (the third leading cause of death). While high, this was the lowest number of deaths due to stroke in the last 11 years. Over the decades the number and rate of stroke deaths have diminished. These lower death rates are associated with healthier behaviors, especially smoking cessation, and with improvements in the care of stroke patients.

#### *How does Michigan compare with the U.S.?*

The stroke death rate in Michigan is similar to that of the United States. A national ranking of states in 2006 found Michigan ranked 24th worst among states for stroke death rates using 2002 data.

#### *How are different populations affected?*

The 2005 age-adjusted stroke death rate in Michigan was 47.6 per 100,000 persons. Rates for males were 48.5 per 100,000 and for females 46.5 per 100,000. Stroke rates also reflect the health status disparity for minorities. The largest disparity exists between Whites and Hispanics, with Hispanics 1.4 times more likely to die from stroke than their White counterparts. The mortality rate for Hispanics is 65.4 per



## Critical Health Indicators

100,000, compared to Whites who have a mortality rate of 47.7 per 100,000 and Blacks who have a mortality rate of 63.4 per 100,000.

### ***What is the Department of Community Health doing to improve this indicator?***

The Michigan Department of Community Health convened a coalition of broad-based groups called the Michigan Stroke Initiative (MSI) whose mission is to describe and monitor the stroke burden, to provide guidelines for strategies to raise awareness, to prevent strokes, and to improve stroke care throughout Michigan. Since its inception the coalition has been instrumental in supporting education regarding stroke. MSI has collaborated on several projects, including the “National Paul Coverdell Registry” and the “Great Lakes Regional Stroke Network” whose mission is to “optimize collaboration and coordination among Great Lakes Regional States to reduce the burden of stroke and disparities.”



## Topic: Cancer and Cancer Screening

### 11. All Cancer Deaths

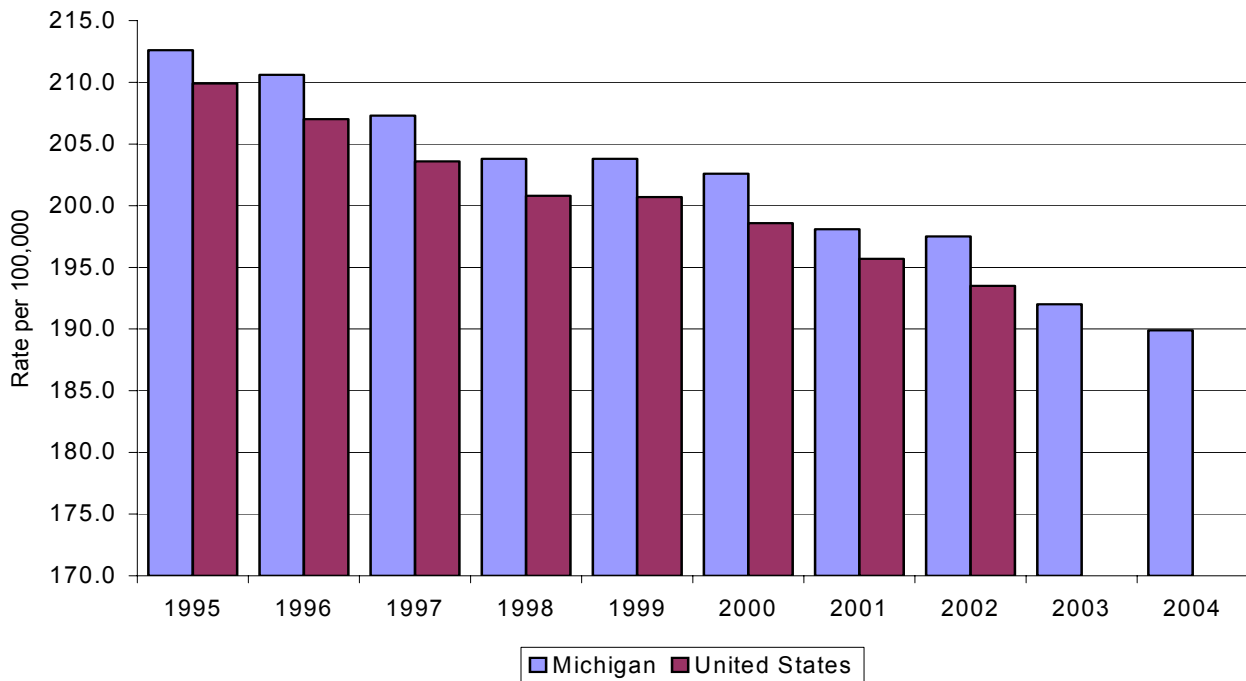
Cancer is the second leading cause of all deaths in Michigan and the leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75. Cancer refers to more than 100 different diseases, each characterized by the uncontrolled growth and spread of abnormal cells. The most common forms of the disease in Michigan are lung cancer, colorectal cancer, breast cancer, and prostate cancer.

#### *How are we doing?*

In 2004, there were 19,654 deaths due to cancer in Michigan, for an age-adjusted rate of 189.9 per 100,000 of the population. Cancer deaths have shown a continuous decline over the past ten years, from a rate of 212.6 per 100,000 residents in 1995.

#### *How Does Michigan compare with the U.S.?*

**Trend in Invasive Cancer Mortality Rates  
Michigan and the United States, 1995-2004**



Michigan's 2002 mortality rate, (197.5 per 100,000) for all types of cancer was higher than the U.S. rate of 193.5 per 100,000.



### ***How are different populations affected?***

In Michigan, 44.4% of cancer deaths occurred among individuals aged 75 or older in 2004. In the same year, individuals aged 50 to 74 years accounted for 48.1% of cancer deaths. Blacks had higher cancer death rates (232.7 per 100,000) in 2004 than Whites, 184.4 per 100,000. The cancer death rate for men (234.0) was nearly 32% higher than the rate for women (160.4). Black men had the highest cancer death rate of 301.8 per 100,000.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is working to decrease the incidence and impact of cancer by testing a variety of biological and environmental specimens for cancer-related toxins such as PCBs and pesticides. Ongoing surveillance focuses on incidence and mortality of five cancers of public health significance: breast, cervical, colorectal, lung and prostate. Public and professional education programs concentrate on breast, cervical, and prostate cancers. The Michigan Cancer Consortium, a statewide public-private partnership of eighty organizations, is implementing strategies to address its cancer control priorities (<http://www.michigancancer.org>).



## Topic: Cancer and Cancer Screening

### 12. Breast Cancer Deaths

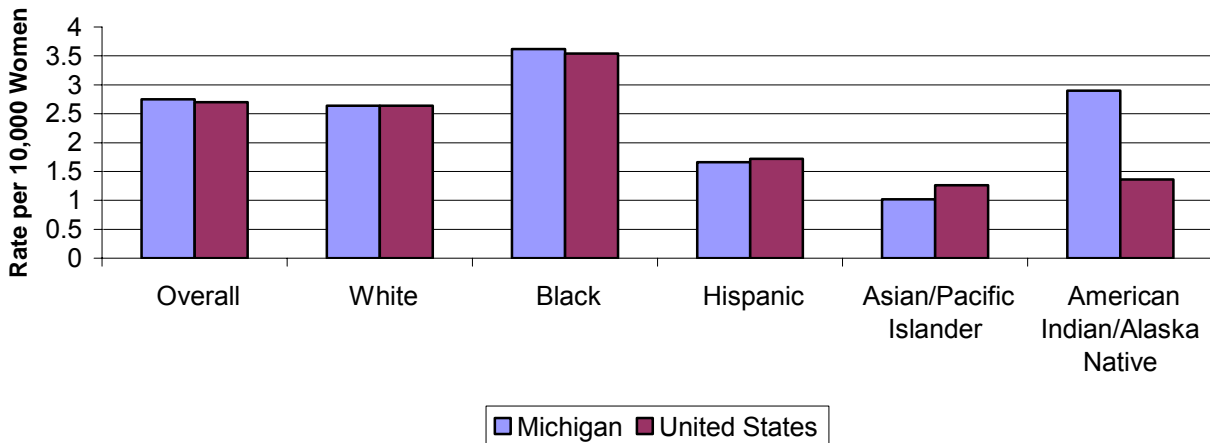
#### *How are we doing?*

Breast Cancer ranks second among cancer deaths in women in Michigan, as well as in the nation. The leading cause of cancer deaths for women, in Michigan and the nation, is lung cancer. During 2004, 1,417 Michigan women died from breast cancer. Death rates associated with breast cancer have decreased in Michigan, falling from 3.5 deaths per 10,000 women in the late 1980s to 2.4 deaths per 10,000 women in 2004. These rates are similar to national rates. Based on 2004 mortality data, Blacks are 47% more likely than Whites to die from breast cancer. Mortality rates have declined in recent years and will decline even more with improvements in screening for breast cancer.

In 2006, the American Cancer Society estimates that 7,070 Michigan women will be diagnosed with breast cancer and approximately 1,360 women in the state will die from the disease.

#### *How Does Michigan compare with the U.S.?*

**Age-adjusted Death Rates for Breast Cancer  
by Race, Five Year Average (1997-2001)  
Michigan and United States**



The mortality rates for Michigan are similar to the U.S. rates.

#### *How are different populations affected?*

Although the incidence of breast cancer is highest among White women, mortality rates are highest among certain racial minorities. Blacks are nearly 47% more likely than Whites to die from breast cancer, partly due to diagnosis at a later stage. However, even at the same stage of diagnosis, Black women have lower survival rates.



## Critical Health Indicators

### ***What is the Department of Community Health doing to improve this indicator?***

Free breast cancer screening and diagnostic services are available to underserved women in Michigan through the Department's Breast and Cervical Cancer Control Program (BCCCP). More information is available at their website: [www.michigan.gov/documents/BreastFacts\\_6647\\_7.pdf](http://www.michigan.gov/documents/BreastFacts_6647_7.pdf).



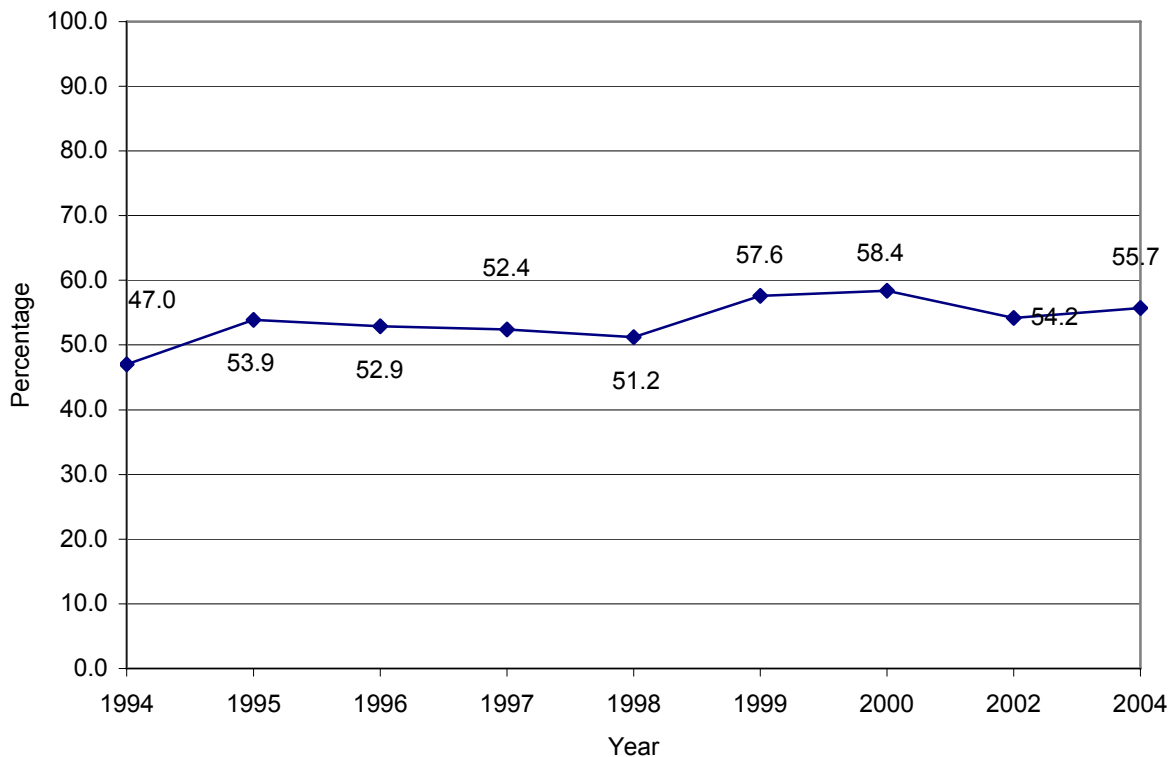
## Topic: Cancer and Cancer Screening

### 13. Mammography

Clinical breast exam and mammography utilization in Michigan is monitored by the MDCH through the use of the Behavioral Risk Factor Survey. One section of this survey focuses on issues related to women's health. Over the past several years, this section of the BRFSS has been implemented to gather information on the use of breast cancer screening procedures in Michigan women aged 40 years and older.

#### *How are we doing?*

**Trend in the Percentage of Michigan Women Age 40+ Who Had Appropriate Breast Cancer Screening\***



\* According to the Michigan Cancer Consortium Breast Cancer Screening Guidelines, appropriate breast cancer screening includes the combination of an annual mammogram and clinical breast exam.

In 2004, 55.7% of Michigan women aged 40 years and older reported that they had received both a clinical breast exam and a mammogram within the past year. The trend in the percentage of appropriate breast cancer screening (clinical breast exam and mammogram within the past year) over time has increased by approximately 18.5 percent since 1994.



### ***How Does Michigan compare with the U.S.?***

The proportion of Michigan women aged 40 years and older who received a mammogram within the past two years (78.9%) remains slightly above that of the U.S. median percentage (74.7%) for 2004.

### ***How are different populations affected?***

When investigating the use of appropriate breast cancer screening by different Michigan subpopulations, several trends appear. In 2004, the proportion of appropriate breast cancer screening increased with age, from 52.4% of those aged 40-49 years to 62.1% of those aged 60-69 years. On the other hand, for women age 70+ years the appropriate breast cancer screening rate dropped to 52.6%. Prevalence estimates for appropriate breast cancer screening in 2004 also increased with education and income level. Whites (58%) had slightly higher percentages than Blacks (51.8%) for appropriate breast cancer screening.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH has developed and sponsored many state- and community-based projects to increase the use of breast cancer screening services. Of particular note is the Breast and Cervical Cancer Control Program that provides breast cancer screening services to many low-income women throughout the state. The Department has also conducted several other projects, such as a statewide survey of mammography facilities focusing on breast cancer screening. More information about the program can be found at: [www.michigancancer.org/OurPriorities/breast\\_cervical-AboutTheMichiganBCCCP.cfm](http://www.michigancancer.org/OurPriorities/breast_cervical-AboutTheMichiganBCCCP.cfm).





## Topic: Cancer and Cancer Screening

### 14. Cervical Cancer Deaths and Screening

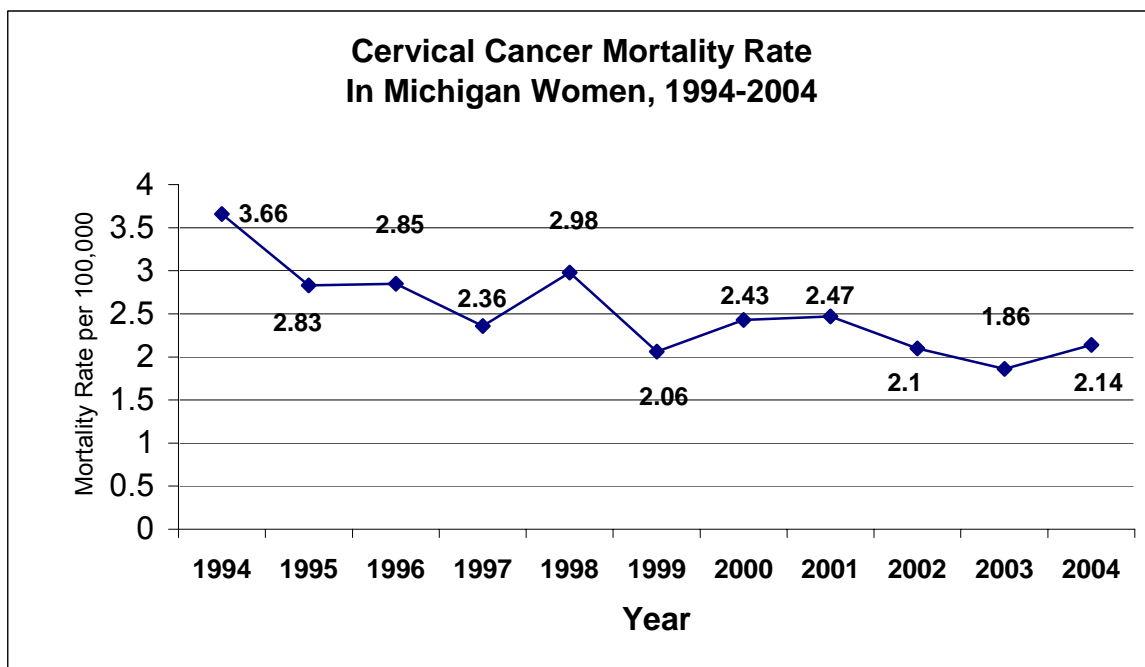
Each year nearly 400 Michigan women are diagnosed with invasive cervical cancer and in 2004, over 100 women died from the disease. Cervical cancer causes the greatest person-years of life lost per cancer death in Michigan; it was responsible for 2,899 person-years of life lost, an average of 24.6 years per person, in 2004.

#### *How are we doing?*

Although most cases of cervical cancer are diagnosed in the early stages (93.6%), this could easily be increased to 100% with regular screening. With early detection and appropriate treatment virtually all deaths from this disease can be prevented. The Michigan Cancer Consortium (MCC) recommends an annual pap smear and pelvic exam beginning at age 21 or three years after the onset of sexual activity. Frequency of the Pap test may be reduced for women if they are not at high risk and once they have three consecutive normal annual tests.

There are various risk factors for cervical cancer, the most important of which is infection with Human Papilloma Virus (HPV), a common sexually transmitted disease which is also the cause for genital warts. Women who have had unprotected sex, especially at a young age, and women who have had many sexual partners are at an increased risk for HPV infection. Additional risk factors include smoking and HIV infection.

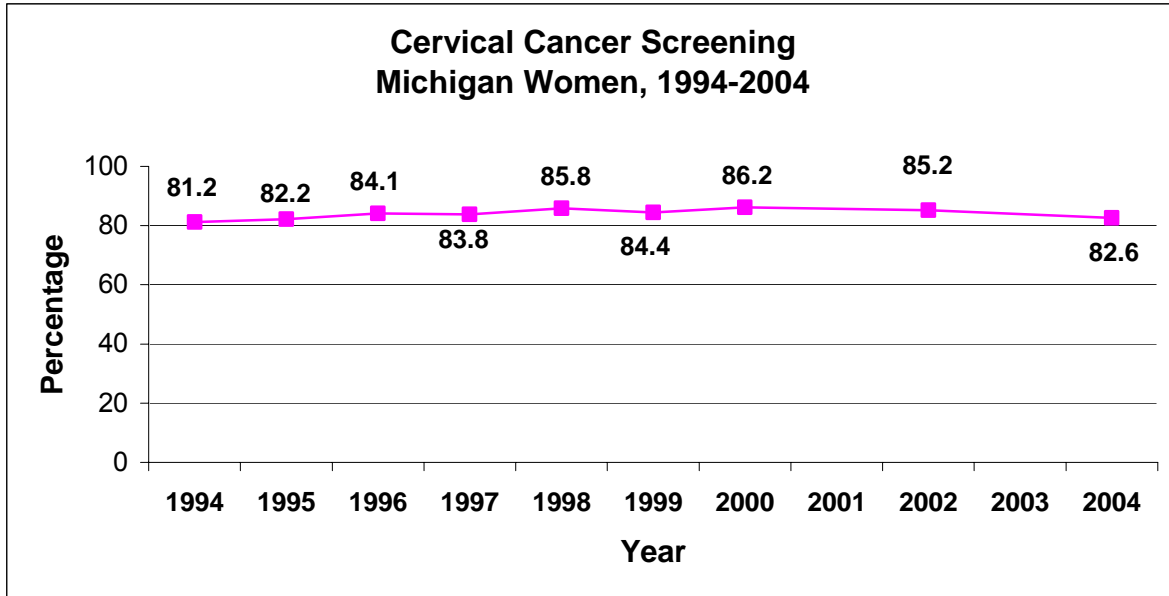
Because cervical cancer is a preventable disease, incidence of this cancer can be reduced through public health interventions, such as education on cervical cancer risk factors, especially HPV infection. Mortality could be reduced and virtually eliminated through regular screening and early detection of the disease.



In 2004, there were 399 new cases of cervical cancer diagnosed in Michigan women and 118 deaths from cervical cancer. The mortality rate for this disease was 2.14 deaths per 100,000 women. There has been



an overall decline in mortality rates during the past 10 years. Cervical cancer mortality rates declined approximately 41.5% from 1994 to 2004. There has also been a steady decline in the incidence of cervical cancer during this time. Incidence rates declined from 10.32 per 100,000 in 1994 to 7.56 per 100,000 in 2003, a 26.7% decline.



Cervical cancer screening rates among Michigan women have remained relatively high over the past 10 years. In 2004, 82.6% of women reported having had a Pap test within the last three years, however there is still room for improvement.

***How does Michigan compare with the U.S.?***

In 2003 Michigan had the 33<sup>rd</sup> highest cervical cancer mortality rate of all states. Cervical cancer mortality rates in Michigan (2.1 per 100,000) are similar to those of the general U.S. population (2.5 per 100,000). Cervical cancer mortality rates for both White and African-American women are similar in Michigan compared to the U.S.

Incidence of cervical cancer in Michigan (7.6 per 100,000) compared to the U.S. general population (7.1 per 100,000) is also similar. Rates for White women in Michigan and the U.S. are approximately equal, while incidence rates for African-American women are higher in Michigan than for the U.S. Michigan is ranked 27<sup>th</sup> for cervical cancer incidence.

The percentage of women ages 18 and older who have had a Pap test within the past three years is 86.5% for Michigan women and 86% for women in the U.S. general population. Screening trends are also similar between the U.S. and Michigan. Screening rates are highest for those between the ages of 25-44 and lowest for women ages 65 and older. Screening rates increase with increased income and education.

***How are different populations affected?***

Michigan's Black women have a significantly higher incidence rate at 11.7 per 100,000, than its White women at 6.6 per 100,000. Incidence for Blacks is also higher than that of the general population. Mortality rates for Black women at 4.0 per 100,000, are two times higher than the mortality rate for White women at 1.9 per 100,000, and nearly double that of the general population at 2.1 per 100,000. Five year survival rates for cervical cancer in Black women are lower than those for White women and lower than



the general population at all stages of diagnosis. Survival rates at all stages combined are approximately 10% lower for Blacks than for Whites.

In Michigan and the U.S., African-American women report getting screened at a slightly higher rate than White women. According to the 2004 Michigan BRFSS, 84.8% of Black women aged 18 and older reported having an appropriately timed Pap test within the past three years and 82.8% of White women reported having an appropriately timed test. Black women, however, continue to lag behind White women in the percentage diagnosed at early stages, 90.5% compared to 93%.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH administers the Michigan Breast and Cervical Cancer Control Program (BCCCP), which provides women age 40-64 screening and diagnostic services for cervical cancer. At least 20% of the women new to the BCCCP come from a group of women known to be at high risk for cervical cancer, those who have either never had a Pap test or have not had one within the last five years. Strenuous outreach efforts continue to be directed toward identifying these women and encouraging them to be screened for cervical cancer.

In addition, the BCCCP works with Title X/Family Planning agencies to provide indicated diagnostic testing to women under age 40 who have abnormal Pap tests indicating a possible cancer diagnosis. Women diagnosed with cervical cancer or pre-cancerous lesions through the BCCCP are eligible to apply for Medicaid for receiving needed treatment.

All women seen in the BCCCP with abnormal Pap tests that require follow-up diagnostic testing receive Case Management, which assures they receive timely and appropriate follow-up services. More information about the program can be found at: [www.michigancancer.org/OurPriorities/breast\\_cervical-AboutTheMichiganBCCCP.cfm](http://www.michigancancer.org/OurPriorities/breast_cervical-AboutTheMichiganBCCCP.cfm).



## Topic: Cancer and Cancer Screening

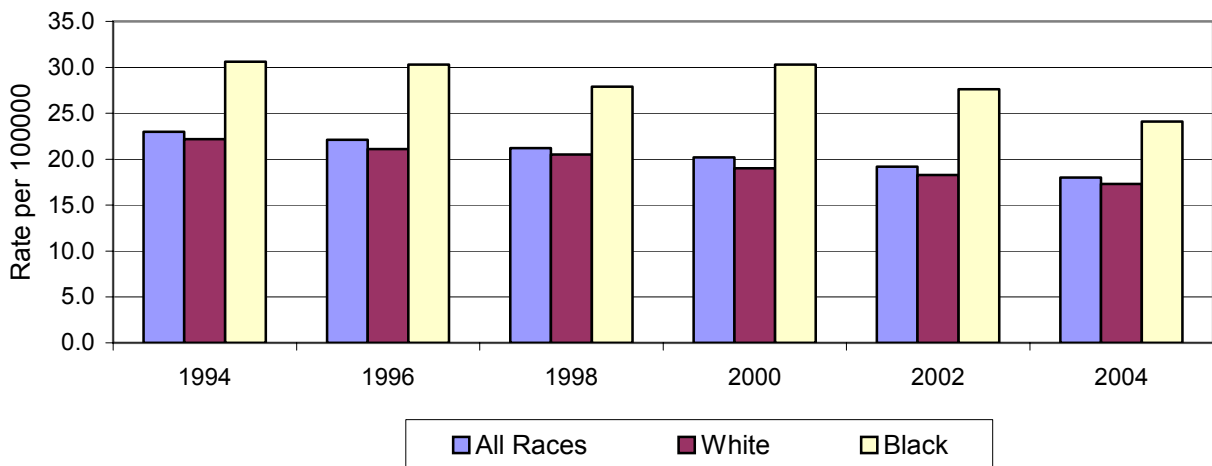
### 15. Colorectal Cancer Deaths

Even though colorectal cancer mortality rates for Michigan men and women have decreased over the past few years, colorectal cancer remains the second leading cause of cancer-related death in Michigan for men and women combined, with only lung cancer taking the lives of more men and women.

#### *How are we doing?*

During 2004, 1,872 Michigan men and women died from colorectal cancer. Death rates associated with colorectal cancer have decreased in Michigan, falling from 2.7 deaths per 10,000 men and women in the late 1980s to 1.8 deaths per 10,000 men and women in 2004.

**Colon and Rectal Cancer Death Rate  
By Race in Michigan, 1994-2004**



These rates are similar to the national rates. Based on 2004 mortality data, Blacks are approximately 40% more likely than Whites to die from colorectal cancer.

In 2006, the American Cancer Society estimates that 4,930 Michigan men and women will be diagnosed with colorectal cancer and approximately 1,830 men and women within the state will die from the disease. Michigan is currently headed in the right direction. Screening rates are increasing and death rates have decreased over the past ten years.

#### *How Does Michigan compare with the U.S.?*

Michigan ranks 31<sup>st</sup> among all states in colorectal cancer mortality.

#### *How are different populations affected?*

While continuing to decline, Blacks still have higher colorectal cancer incidence and mortality rates than Whites and other racial groups.



### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH has developed and sponsored many projects to increase the use of colorectal cancer screening services, and specifically, projects targeting communities within high colorectal cancer mortality counties, as well as registered primary care physicians throughout the state. To increase awareness of colorectal cancer and access to screening procedures, the Department has conducted community-based focus groups related to colorectal cancer screening barriers that are used to develop interventions within target communities. The Department has also updated the Knowledge, Attitudes, and Practices survey (KAP) of Michigan registered primary care physicians. The KAP survey will assess the current practices of Michigan's primary care physicians in colorectal cancer screening and how these practices compare with the approved screening guidelines. Based on survey findings, interventions will be planned.



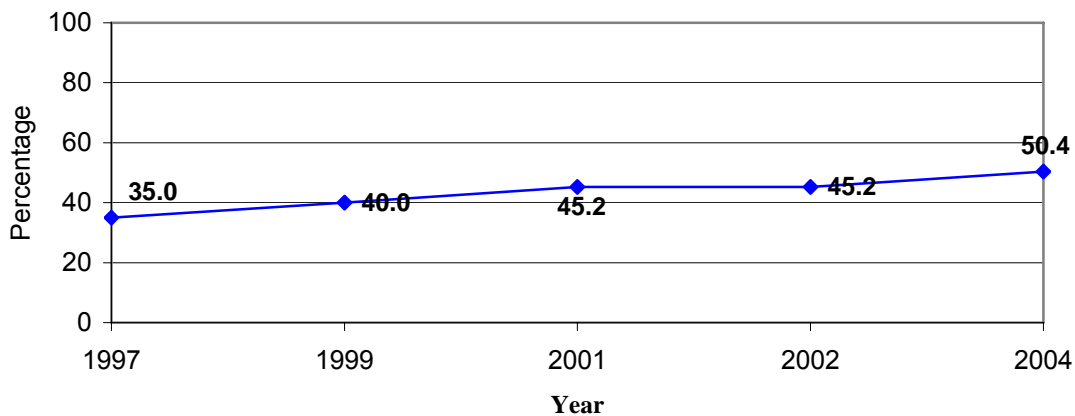
## Topic: Cancer and Cancer Screening

### 16. Colonoscopy and Sigmoidoscopy

The use of colorectal cancer early detection screening procedures completed in Michigan is monitored by MDCH through the Behavioral Risk Factor Surveillance System. Over the past several years, the colorectal cancer section of the BRFSS has been obtained information on the use of blood stool tests within the past two years and proctoscopic exams, such as sigmoidoscopies or colonoscopies, within the past five years for Michigan men and women aged 50 years and older.

#### *How are we doing?*

**Michigan Adults with Proctoscopic Exams  
Within the Past Five Years**



In 2004, an estimated 30.4% of Michigan adults aged 50 years and older had a blood stool test within the past two years. For the same reporting period, 60.3% of all Michigan adults aged 50 years and older reported having ever had a sigmoidoscopy or colonoscopy. Of this same group over half (50.4%) reported having had a sigmoidoscopy or colonoscopy within the past five years. It is evident that the use of these procedures has increased over the last several years. Michigan's proportion for sigmoidoscopies or colonoscopies completed within the past five years increased from 35.0% in 1997 to 50.4% in 2004, an increase of 44%.

#### *How Does Michigan compare with the U.S.?*

The proportion of Michigan adults aged 50 years and older who received a blood stool test within the past two years (30.4%) remains slightly above that of the U.S. median percentage (26.5%) for 2004. When comparing Michigan and the United States in terms of ever having had a sigmoidoscopy or colonoscopy, Michigan (60.3%) again has a greater percentage than that of the 2004 U.S. median value (53.0%) for this indicator.

#### *How are different populations affected?*

The proportions of blood stool tests completed within the past two years and sigmoidoscopies or colonoscopies completed within the past five years reported in 2004 both increased with age. The



completion of sigmoidoscopies or colonoscopies within the past five years (50-59 years = 47.8% vs. 70+ years = 57.9%; difference = 18.0%) increased less with age compared to that of the increase with age for blood stool tests within the past two years (50-59 years = 23.8% vs. 70+ years = 35.9%; difference = 12.1%).

Men and women were equally likely to have had a blood stool test within the past two years (30.8% vs. 30.0%); however, men were more likely than women to have had a sigmoidoscopy or colonoscopy within the past five years (52.9% vs. 48.3%). Whites were more likely than Blacks to have a blood stool test within the past two years (31.2% vs. 23.7%), but no noticeable difference was observed for the proportions of Whites (50.9%) and Blacks (50.3%) who had a sigmoidoscopy or colonoscopy within the past five years.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH sponsors many projects to increase the use of, or access to colorectal cancer screening services, including projects targeting communities within high colorectal cancer mortality counties and registered primary care physicians throughout the state. The Department has conducted community-based focus groups related to colorectal cancer screening barriers that are being used to develop intervention programs for several target communities. The goal of these intervention programs is to make each community more aware of what colorectal cancer is and how important screening is for the early detection and treatment of the disease. The Department has also updated the Knowledge, Attitudes, and Practices survey (KAP) of Michigan registered primary care physicians. The KAP survey will assess the current practices of Michigan's primary care physicians in colorectal cancer screening and how these practices compare with the approved screening guidelines for colorectal cancer. Based on survey findings, interventions will be planned.



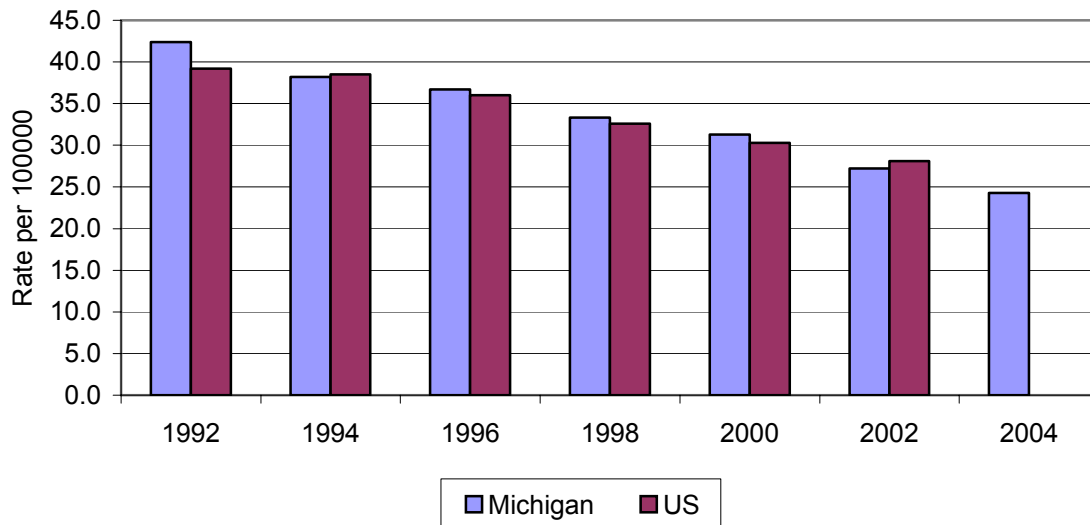
## Topic: Cancer and Cancer Screening

### 17. Prostate Cancer Deaths

Unlike other cancers, many prostate cancers grow slowly, never causing problems or affecting how long a man lives. However, some prostate cancers can become a serious health threat, growing quickly and spreading beyond the prostate gland to other parts of the body, and are sometimes fatal. We have no way of distinguishing between the early stages of these two types of cancer. Research is ongoing to discover ways of distinguishing virulent from indolent forms of cancer.

#### *How are we doing?*

**Invasive Prostate Cancer Death Rates  
Michigan and the United States, 1992-2004**



Since the development of the prostate specific antigen (PSA) test in the late 1980s, mortality associated with prostate cancer has declined fairly consistently. Even though prostate cancer mortality rates for Michigan men have decreased over the past few years, prostate cancer remains the second leading cause of cancer-related death in Michigan men. Michigan is currently ranked 13th lowest in the nation in prostate cancer mortality. During 2004, 967 Michigan men died from the disease. Death rates associated with prostate cancer have decreased in Michigan, falling from 3.8 deaths per 10,000 men in the late 1980s to 2.4 deaths per 10,000 men in 2004. In 2006, the American Cancer Society estimates that 7,370 Michigan men will be diagnosed with prostate cancer and approximately 860 men within the state will die from the disease.

There are now more than 80,000 Michigan men who are living after being treated for prostate cancer. As mortality rates continue to decrease, this number will continue to grow.

#### *How does Michigan compare with the U.S.?*

In 2002, the Michigan age-adjusted mortality rate for prostate cancer was 27.2 per 100,000 compared to the slightly higher U.S. rate of 28.1 per 100,000, and at that time Michigan ranked 13<sup>th</sup> lowest in the nation in prostate cancer deaths.





### ***How are different populations affected?***

African-American men have a higher incidence of prostate cancer and are also more likely than Caucasian men to die of the disease. The incidence of prostate cancer is 1.7 times greater and mortality is two times greater in the African-American population.

### ***What is the Department of Community Health doing to improve this indicator?***

Although screening with the PSA and digital rectal exam can detect prostate cancer at an earlier stage, we do not have definitive evidence that screening and early treatment of prostate cancer decrease prostate cancer mortality. In addition to the lack of evidence that screening saves lives, each prostate cancer treatment may result in lingering and sometimes lifelong problems that impact a man's quality of life. As of early 2007, the Centers for Disease Control and Prevention (CDC), the Michigan Department of Community Health and the United States Preventive Services Task Force for Clinical Preventive Services do not support population-based prostate cancer screening with PSA. The American Cancer Society and the American Urological Association recommend screening, and the MDCH and the Michigan Cancer Consortium recommend that each man weigh the pros and cons about screening.

Because of these uncertainties, screening for prostate cancer must be the result of shared decision making between the man and his healthcare provider. Shared decision making encourages the patient to actively participate in the decision, emphasizing the importance of the patient's values and preferences.

The MDCH and the Michigan Cancer Consortium have developed and offer high quality informational materials to empower men to more effectively decide whether to be tested and, if early prostate cancer is found, to decide among several treatment options, including watchful waiting.

Starting in 2006, the MDCH and the Michigan Cancer Consortium began a new initiative to address the needs of prostate cancer survivors and their families. By 2010, with the advice of men who have been treated for prostate cancer and prostate cancer experts, materials will be developed and available to assist men, their families, and their healthcare providers to manage the problems that develop after treatment, thereby enhancing their quality of life. More information can be found at:

[www.michigancancer.org/OurPriorities/Prostate\\_InformationForConsumers.cfm](http://www.michigancancer.org/OurPriorities/Prostate_InformationForConsumers.cfm)



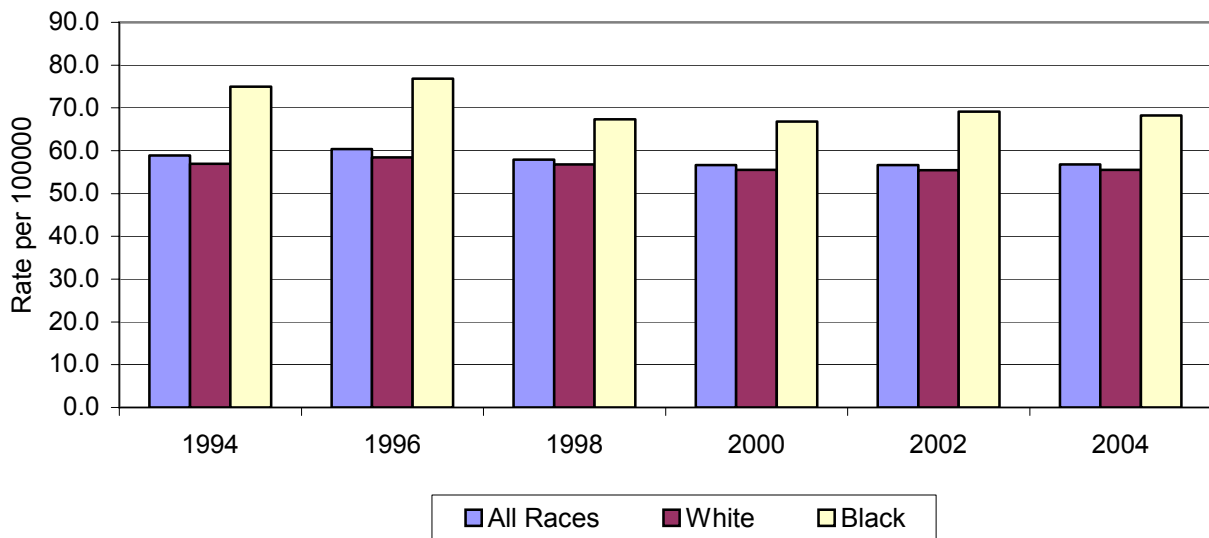
## Topic: Cancer and Cancer Screening

### 18. Lung Cancer Deaths

#### *How are we doing?*

Lung cancer is the leading cause of cancer-related death for both men and women in Michigan and in the United States. The primary prevention of lung cancer includes elimination of tobacco use and exposure to second-hand tobacco smoke. Michigan is currently ranked 21st in the nation in lung cancer mortality. During 2004, 5,822 Michigan men and women died from the disease. Death rates associated with lung cancer have remained approximately the same in Michigan over the past several years, from 5.8 deaths per 10,000 men and women in the late 1980s to 5.7 deaths per 10,000 men and women in 2004. Based on 2004 mortality data, Blacks are approximately 23% more likely than Whites to die from lung cancer, partly due to a later stage at diagnosis.

**Age-Adjusted Lung Cancer Death Rates  
By Race in Michigan, 1994-2004**



In 2006, the American Cancer Society estimates that 6,240 Michigan men and women will be diagnosed with lung cancer and approximately 5,810 men and women within the state will die from the disease. Mortality rates for lung cancer have remained the same in recent years and more efforts will be required to get Michigan headed in the right direction.

#### *How Does Michigan compare with the U.S.?*

Michigan ranks 21st in the nation in lung cancer deaths. The lung cancer mortality rate in 2003 was 54.9 per 100,000 nationally and 56.6 per 100,000 in Michigan. Michigan's incidence of lung cancer (75.2 per 100,000) is also higher compared to that of the U.S. (62.7 per 100,000).



### ***How are different populations affected?***

Incidence and death rates from lung cancer continue to decrease in men, and leveled off in women between 1990 and 2004. The mortality rate for Black males (99.7 deaths per 100,000) is significantly higher than the mortality rate for White males (72 deaths per 100,000). For Black females the mortality rate (46.6 deaths per 100,000) is only slightly higher than for White females (43.9 deaths per 100,000).

### ***What is the Department of Community Health doing to improve this indicator?***

The Michigan Department of Community Health (MDCH) Cancer Prevention and Control Section (CPCS) has staffed and supported a nationally recognized and award winning cancer control program that includes a statewide strategic plan for the prevention and reduction of the lung cancer burden in Michigan. This initiative has engaged public and private stakeholders who are experts in the prevention, control, and treatment of lung cancer. The Department collaborates with stakeholders throughout the state to implement evidence-based, measurable objectives and strategies to reduce the lung cancer burden. As a result, tobacco use and smoking prevalence have decreased for both adults and youth. The MDCH cancer and tobacco section staff developed an integrated program for tobacco control that includes policy promotion, professional education, and public education. The MDCH intra-agency initiatives to reduce the state's lung cancer burden include development of the Michigan Providers Tobacco Cessation Toolkit, position statements for consumers and providers regarding new scientific publications and studies about lung cancer early detection, and a study to identify participation in lung cancer clinical trials throughout the state. More information about the department's activities can be found at:

<http://www.michigancancer.org/OurPriorities/LungPriorityStrategicPlan.cfm> and at:

[http://www.michigan.gov/mdch/0,1607,7-132-2940\\_3182\\_22973---,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2940_3182_22973---,00.html).



## Topic: Diabetes and Kidney Disease

### 19. Diabetes Prevalence and Related Deaths

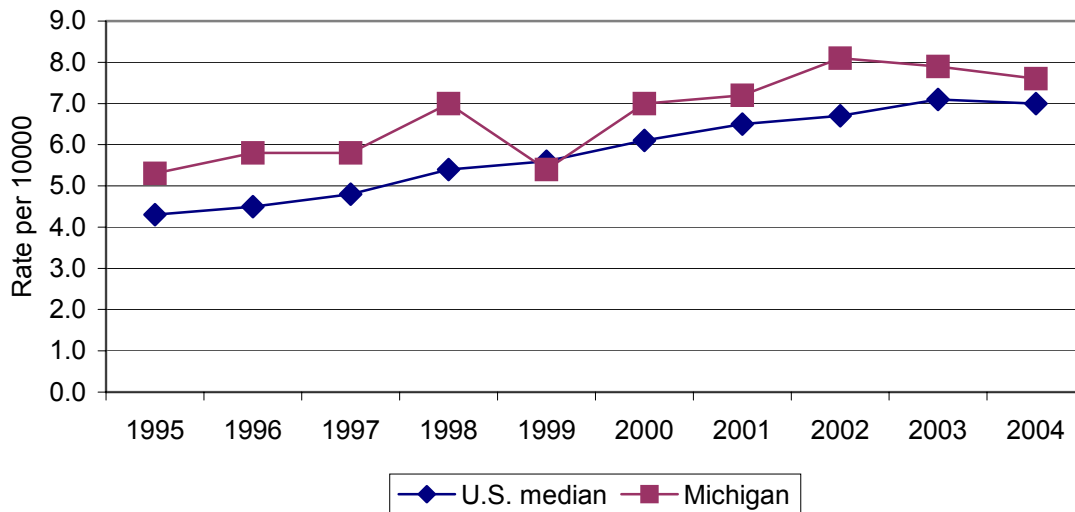
There are three common types of diabetes: Type 1, Type 2, and gestational diabetes. Type 1 diabetes was previously known as juvenile diabetes. In Type 1 diabetes, which accounts for five to ten percent of all diagnosed cases of diabetes, the body does not produce insulin. In Type 2 diabetes, the most common form of diabetes, either the body does not produce enough insulin or the cells ignore the insulin. It accounts for approximately 90% of people with diabetes. Gestational diabetes affects about four percent of pregnant women. It usually goes away after pregnancy, but once a mother has had gestational diabetes, her chances are two in three that it will return in future pregnancies. In Michigan, diabetes was the sixth leading cause of death in 2003 and was considered the primary cause in three percent of all deaths. Pre-diabetes is a condition that indicates a high risk of developing Type 2 diabetes. It is estimated that 1.5 million adults in Michigan have pre-diabetes.

#### *How are we doing?*

The prevalence of diabetes increased between 1995 and 2004. During this time, the prevalence of obesity, a risk factor for diabetes, also increased in the U.S. and in Michigan. Michigan adults who were obese were more than twice as likely (14.5%) as those who were overweight (6.5%) and over three times as likely as those who were not overweight or obese (4.1%) to have diabetes in 2004.

#### *How does Michigan compare with the U.S.?*

**Diabetes Trends in Michigan and the United States  
1995-2004**



With 1999 as an exception, Michigan’s prevalence estimate of diabetes has been consistently higher than the U.S. median.

#### *How are different populations affected?*

Diabetes disproportionately impacts African-Americans, American Indians, and Hispanics in the state. Mortality rates show that in 2004, the rate of diabetes among Whites was 26.3/100,000, compared to a



rate of 42.5 per 100,000 among Blacks. The greatest disparities are seen in the Hispanic and American Indian populations, where the mortality rates in 2004 were 60.3 per 100,000 and 52.6 per 100,000 respectively.

There are two distinct risk factors for diabetes which also disproportionately impact racial and ethnic minorities: obesity/overweight and lack of physical activity. From 2000 to 2004, 21.5% of White/Non-Hispanics reported no leisure time physical activity, in comparison to 31.4% of Non-Hispanic Blacks and 25.3% of Hispanics. In addition, 37% of Whites reported being overweight and 23.4% obese, whereas 35.5% of Black/Non-Hispanics reported being overweight and 34.2% obese, and 33.8% of Hispanics reported being overweight and 28.4% obese.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department of Community Health has several initiatives in place to reduce or prevent diabetes complications. In addition to statewide surveillance services, six regional diabetes outreach networks (DONs) provide community-based professional and consumer education and training, public and consumer awareness and linkages to services. A specialized CDC-funded prevention program provides detection services, education/training for WIC clients on gestational diabetes, and consultation/coordination for a multi-county prevention pilot program. Medicaid certification and support for 91 statewide Diabetes Self-Management Training programs is provided. Disparate populations are served through specific DON objectives aimed at the reduction of health disparities. The Department also supports other programs such as American Initiative for Male Health Improvement and the Morris Hood Outstate Outreach and Obesity Program, which target underserved and minority populations. These programs all seek to increase access to medical care and prevention services for people with diabetes or at risk for diabetes. The Health Disparities/Minority Health Section funds demonstration projects to reduce these disparities. These initiatives focus on individuals who are diabetic, high-risk, pre-diabetic, or have family members with diabetes. The projects impact childhood obesity, provide culturally sensitive screening opportunities and create innovative outreach involving education, mentoring, and monitoring of healthy behaviors.



## Topic: Diabetes and Kidney Disease

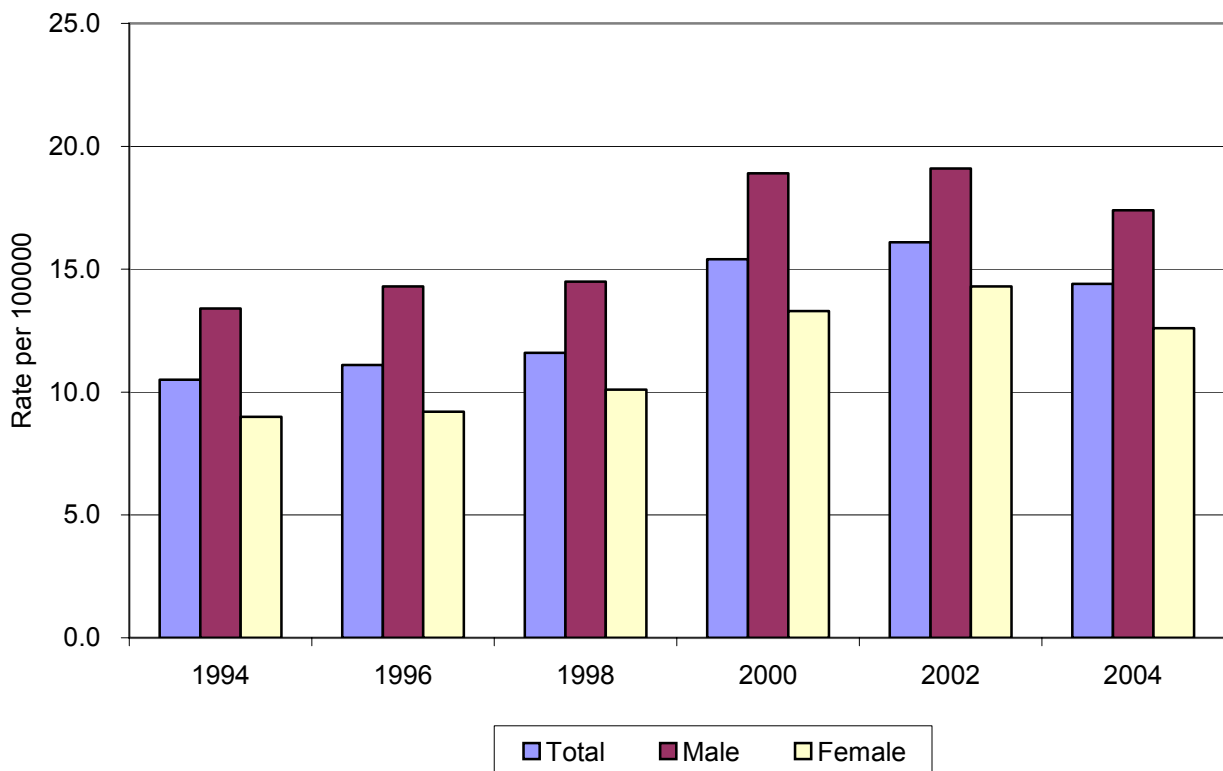
### 20. Kidney Disease and Related Deaths

Chronic kidney disease (CKD) is a progressive, permanent condition in which the kidneys are damaged and gradually lose their effectiveness. People at highest risk for CKD are those with diabetes and/or hypertension, family history of kidney disease, seniors, and minorities. Children who are diagnosed as overweight due to inactivity are also at high risk for Type 2 diabetes.

#### *How are we doing?*

Chronic Kidney Disease is a serious public health problem; there are approximately 370,000 people in the U.S. with kidney failure and this number is expected to double by the year 2010. In Michigan, the prevalence of CKD is estimated at 816,000 (10.9%) of Michigan adults. It is estimated that 11% of the adults living in Michigan age 20 years of age or older in 2002 have CKD, and many do not know it. Even more Michigan residents (769,000) were at increased risk of developing the disease.

**Kidney Disease-Related Death Rate  
By Gender in Michigan, 1994-2004**



Starting in 1999, cause of death is coded using ICD-10, a different coding system than ICD-9. Thus, for certain causes of death, differences in numbers and rates of death in pre- and post-1999 data may be due to this change. For kidney-related mortality, the new coding scheme identifies approximately 23 percent more deaths than the previous coding scheme.



### ***How does Michigan compare with the U.S.?***

Research indicates that there is a steady, alarming growth in incidence of CKD nationally, especially kidney failure, which has been doubling every 10 years in the United States. Nationally, one in nine adults over 20 years of age (20 million) have CKD. Michigan's End Stage Renal Disease (ESRD) incidence rate of 350 per million exceeds the nation's rate of 337 per million.

### ***How are different populations affected?***

There are significant racial and ethnic disparities within kidney failure morbidity and mortality rates. Blacks are 4.7 times more likely than Caucasians to be treated for kidney failure, and they develop kidney failure at an earlier age. Although they comprise approximately 14% of the population in Michigan, Blacks account for more than 47% of the dialysis population.

Blacks, Native-Americans, Hispanics and Asian-Americans are all at increased risk for both CKD and kidney failure. In 2000, Blacks had a kidney failure rate of 777 cases per million, Native-Americans had a rate of 501 cases per million, Asian-Americans had a rate of 281 cases per million, and Hispanics had a rate of 276 cases per million. The kidney failure rate for Whites that same year was 269 cases per million.

### ***What is the Department of Community Health doing to improve this indicator?***

Since kidney disease can be prevented or significantly delayed, the Michigan Department of Community Health joined with the National Kidney Foundation of Michigan (NKFM) to develop a plan for intervention. School prevention programs and a Beauty Salon/Barber shop initiative aimed at reaching African-Americans with detection and prevention activities are provided by NKFM. Finally, a public awareness program and a continuous quality improvement initiative seek to prevent kidney disease and improve care.



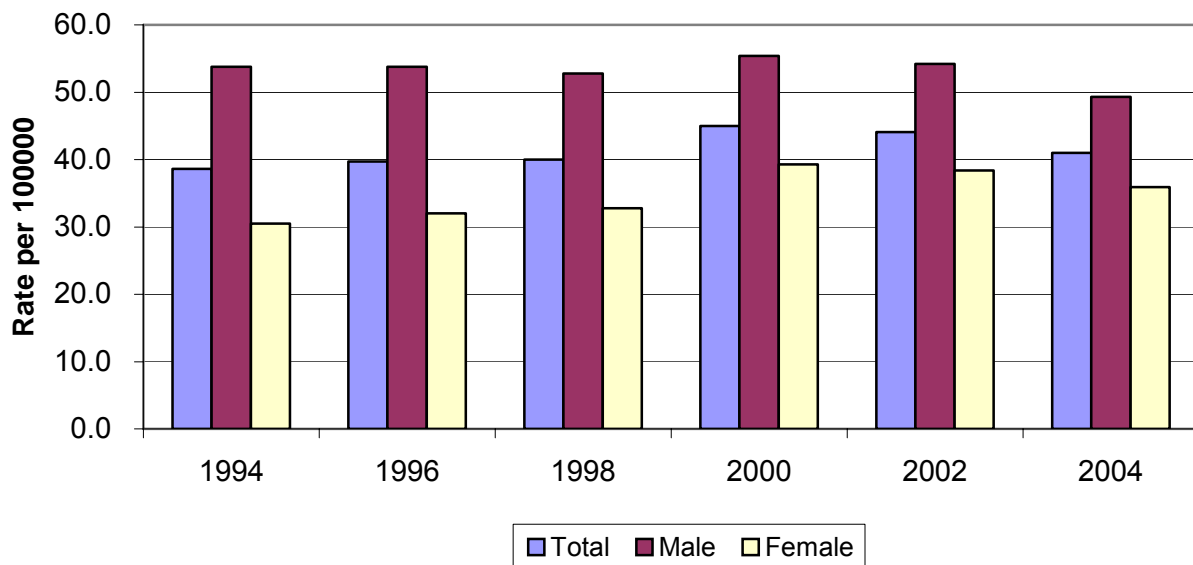
## Topic: Respiratory Diseases

### 21. Chronic Lower Respiratory Disease Deaths

Chronic Lower Respiratory Disease (CLRD) is comprised of many conditions such as emphysema and chronic bronchitis. In emphysema, the small air sacs in the lung (called alveoli) are destroyed. With bronchitis, the lining of the airways that lead to the lungs becomes irritated, inflamed, and swollen. CLRD deaths can be reduced by changes in lifestyle, such as quitting smoking.

#### *How are we doing?*

**Chronic Lower Respiratory Disease Death Rates  
In Michigan, 1994-2004**



Chronic lower respiratory disease (CLRD) is currently the fourth leading cause of all deaths in Michigan and the seventh leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75.

#### *How does Michigan compare with the U.S.?*

Michigan's 2000 age-adjusted death rate of 45.2 per 100,000 was similar to the U.S. rate of 44.3 per 100,000. CLRD was the fourth leading cause of all deaths in the U.S. and the tenth leading cause of YPLL in 1999. Starting in 1999, cause of death is coded using ICD-10, a different coding system than ICD-9. Thus, for certain causes of death, differences in numbers and rates of death in pre- and post-1999 data may be due to this change. For CLRD-related mortality, the new coding scheme identifies approximately five percent more deaths than the previous coding scheme. This may account for the increased rate of death caused by CLRD beginning in 1999.





### ***How are different populations affected?***

CLRD occurs most often in older people. In Michigan, 60% of CLRD deaths occurred to individuals aged 75 or older in 2001. Men are also more likely to die of CLRD than women.

In 2001, the age-adjusted rate was 55.9 per 100,000 for men and 35.9 per 100,000 for women. The difference between men and women is becoming less pronounced. This may be related to changing patterns of smoking.

The age-adjusted rate of death from CLRD is generally higher for Whites than for Blacks. In 2001, the rate for Whites in Michigan was 44.4, while the rate for Blacks was 30.4 per 100,000.

### ***What is the Department of Community Health doing to improve this indicator?***

As smoking is a major cause of CLRD, the MDCH works to decrease tobacco use. Programs include promoting strong public and voluntary policies to increase awareness of the dangers of tobacco use and secondhand smoke; preventing the sale and promotion of tobacco to youth; and a statewide media campaign with prevention, cessation, and secondhand smoke messages.



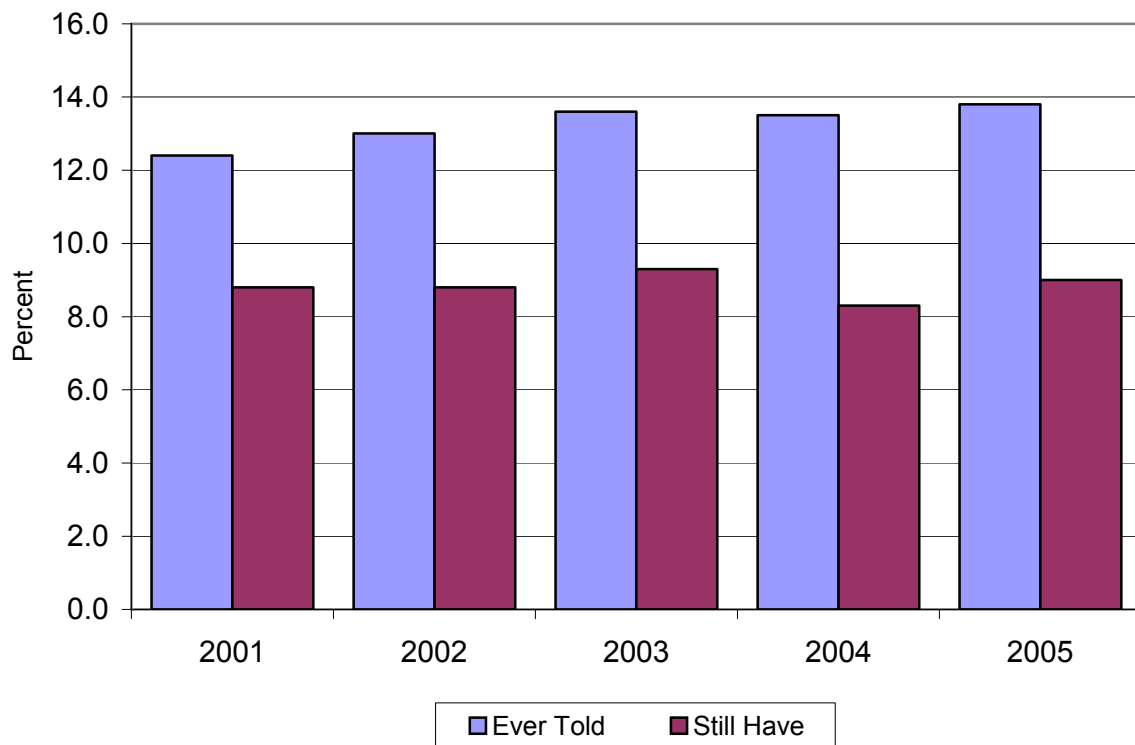
## Topic: Chronic Lower Respiratory Disease

### 22. Asthma and Preventable Asthma Hospitalizations

Asthma is a chronic respiratory disease characterized by episodes or attacks of inflammation and narrowing of small airways which result in shortness of breath, wheeze, cough, and/or chest tightness in response to asthma triggers. Asthma attacks can vary from mild to life-threatening and involve shortness of breath, cough, wheezing, chest pain or tightness, or a combination. Many factors can trigger an asthma attack, including allergens, infections, exercise, abrupt changes in the weather, or exposure to airway irritants, such as tobacco smoke.

#### *How are we doing?*

**Michigan Adults Told They Have Asthma  
And Those That Still Have Asthma, 2001-2005**



The estimated proportion of Michigan adults ever told by a health care professional that they had asthma was 13.8% in 2005. Women were more likely than men to have ever been told this (15.8% vs. 11.6%). Among those who had ever been told that they had asthma, 65.2% were estimated to still have asthma. The most recent Michigan data indicate that 213,600 children and 654,100 adults currently have asthma. The percentage of adults who currently have asthma in Michigan has stayed the same between 2001 and 2005.

Asthma is the fourth leading cause of Ambulatory Care Sensitive (ACS) hospitalizations in Michigan, causing 6.4% of all these hospitalizations in the year 2004. ACS conditions refer to those conditions for

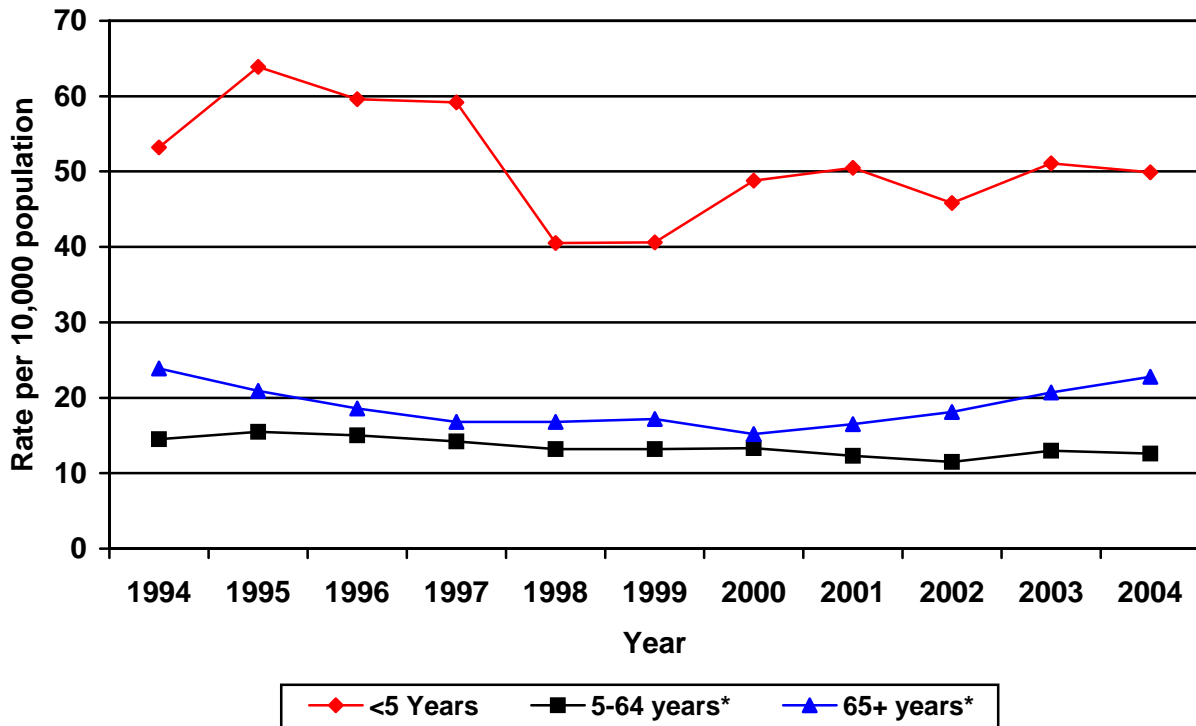


which hospitalizations could have been avoided, or conditions that could have been less serious, if they had been treated early and appropriately.

Approximately 863,000 people in Michigan have asthma. Although there is no cure, asthma can be controlled using long-term control medications and rescue medications, regular assessment of lung function, and avoidance of exposures that make asthma worse. Hospitalizations due to asthma are preventable with good disease management but it is clear that, at least among adults, these techniques are not being practiced according to national guidelines. Over one-half of adults with asthma have had an asthma attack in the past 12 months. Only 46% report that they use a daily medication to control their asthma and 41% of them did not see their health care professional for a routine check of their asthma in the last year.

In 2004, there were 16,410 hospitalizations due to asthma in Michigan, costing an estimated 115 million dollars in hospital charges alone. Hospitalization rates in young children and older adults dropped significantly during the 1990s but did not change between 1999 and 2004.

**Michigan Asthma Hospitalization Rates 1994 - 2004**



***How does Michigan compare with the U.S.?***

Asthma is the leading chronic illness of children in the United States. The prevalence of asthma in Michigan adults is very similar to that for the nation as a whole, and decreases with increasing income among adults.

Asthma hospitalization rates for children and adults in the Michigan are significantly lower than those for the nation as a whole. Rates among White residents of Michigan are lower than the rate for the United States; however, rates for Black residents of Michigan are significantly higher than for the United States.



Asthma Hospitalization Rates per 10,000 (age-adjusted)  
By Age Group and Race, Michigan and the United States, 2002

Age Group	United States	Michigan
Children <18 years	27	21.3 (20.7, 21.8)
Adults 18+ Years	13	12.5 (12.2, 12.7)
All Ages	17	14.7 (14.5, 15.0)
Whites	11	9.9 (9.7, 10.1)
Blacks	36	42.0 (41.0, 43.1)

### ***How are different populations affected?***

A higher proportion of adult women (11.3%) than men (6.5%) reported they currently had asthma in Michigan during 2005. The proportion of Michigan adults with asthma was higher in low-income households and among adults with less than a college degree. The proportion of Black and Hispanic adults with asthma appears higher than the proportion of White adults, but this difference is not statistically significant.

Asthma is the number one cause of Ambulatory Care Sensitive hospitalizations among children (younger than 18 years) in Michigan, causing 23.2% of all ACS hospitalizations in this age group during 2004. Asthma hospitalization rates are highest in younger children (0-4 years of age); however, the largest numbers of hospitalizations occur in adults. During childhood, rates are higher among males than females. After age 15 rates among females are higher than rates for males.

Asthma hospitalization rates in Michigan are three to five times higher in Blacks than in Whites, depending on age group, in 2004. Asthma hospitalization rates for people living in poor areas were four times higher than those for people living in highest income areas (top 20% of median household income) (2000-2002 data). The racial disparity in hospitalization rates persists across all income groups, with Black residents of high-income ZIP codes having rates 3.8 times higher than White residents of high-income ZIP codes.

Genesee, Wayne and Saginaw counties have asthma hospitalization rates that are higher than the rate for the state for both children and adults.

### ***What is the Department of Community Health doing to improve this indicator?***

In 2000, the Michigan Department of Community Health convened 125 asthma experts with knowledge in clinical care, education, environmental quality and surveillance to develop a strategic plan for asthma. This resulted in the Asthma Initiative of Michigan (AIM). AIM includes the Michigan Asthma Communication Network, which created a website with the help of experts in statistics and epidemiology, the environment, patient care, and provider education. AIM also includes eleven local asthma coalitions which provide education and outreach to people with asthma, health care providers, schools and workplaces across Michigan. A state-level advisory committee guides and monitors the strategic plan implementation. For further information, please visit: <http://www.getastmahelp.org/> or call the toll-free information line 1-866-EZLUNGS.

With federal and state funding, the MDCH Asthma Control Program is identifying and eliminating asthma disparities, assessing asthma burden and response, supporting partnerships to address asthma, improving systems of care, reducing barriers to self-management in people with asthma, and reducing exposures to environmental factors that cause and/or exacerbate asthma.

There are also projects that focus on schools and the importance of the relationships between environmental triggers and asthma. Standardized emergency department discharge instructions are being



## Critical Health Indicators

promoted to emergency departments to encourage patients with asthma to access care according to national guidelines. The MDCH is also reviewing all asthma deaths in children and young adults to identify ways to prevent these deaths in the future.

Michigan is currently one of six states selected by the Agency for Health Care Quality to participate in the Learning Partnership to Decrease Disparities in Pediatric Asthma. This includes an action plan to address Michigan's disparities in pediatric asthma.

For more information about asthma, go to [www.GetAsthmaHelp.org](http://www.GetAsthmaHelp.org)



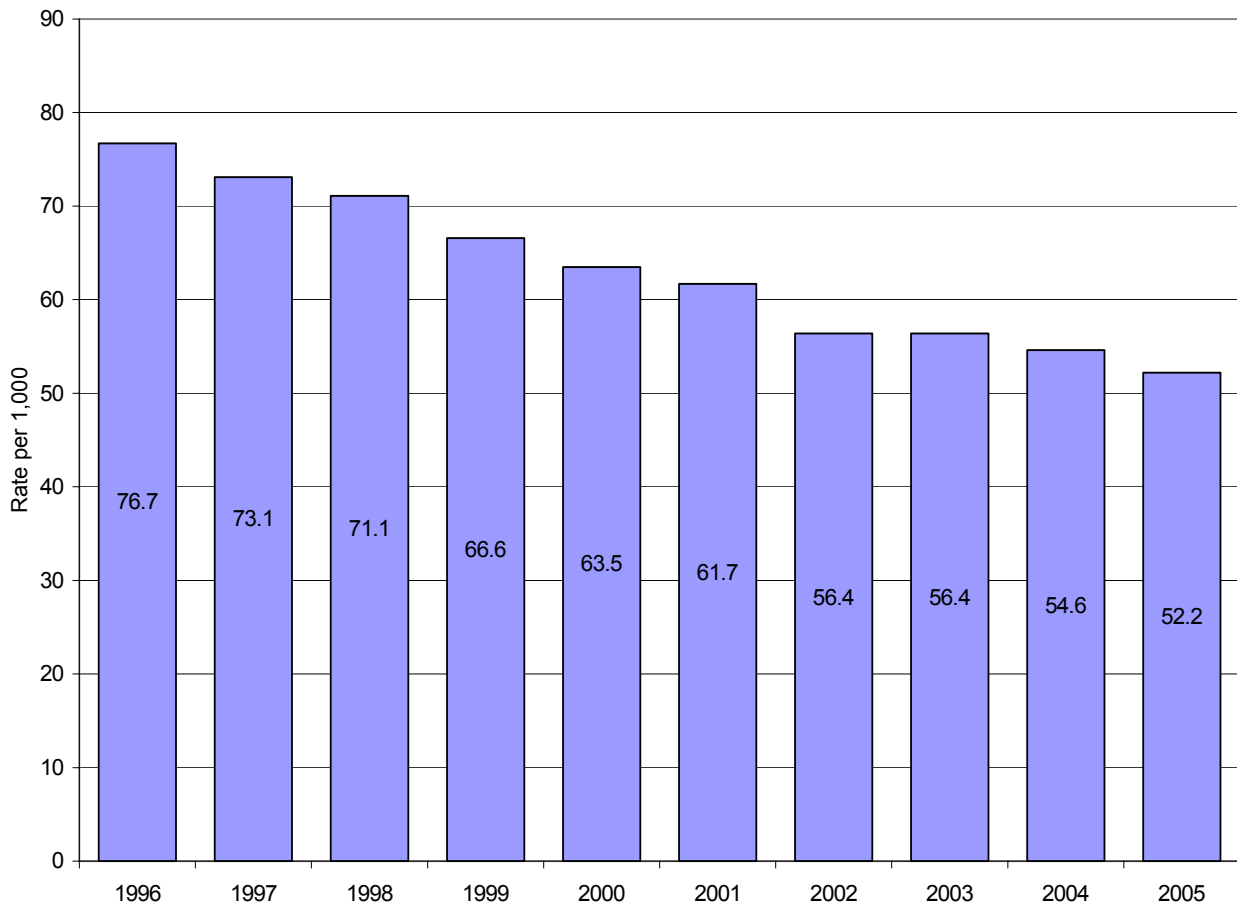
## Topic: Maternal Health

### 23. Teen Pregnancy

The teen pregnancy rate is an estimate of the proportion of women aged 15-19 who had a live birth, induced abortion, or miscarriage during a given year. Teen mothers are more likely than adult mothers to have dropped out of high school, be unemployed, and lack parenting skills. In addition to increased lifetime risks of social and economic disadvantage to both the teens and their children, there are additional health risks for infants born to teen-aged mothers. These increased risks include low birth weight, pre-term delivery, fetal distress, and other adverse outcomes.

#### *How are we doing?*

**Michigan Teenage Pregnancy Rate  
Age 15-19, 1996-2005**



In 2005, there were an estimated 18,997 pregnancies among Michigan teenagers, or a rate of 52.2 per 1,000 females, ages 15-19 years old. The teen pregnancy rate in Michigan has declined by over 32% since 1996, translating into more than 8,900 fewer teen pregnancies in 2005. Estimates from the 2003 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) survey indicate that about 86.7% of births to teens were unintended.



### ***How does Michigan compare with the U.S.?***

In 2002, the most recent year for which national figures are available, the Michigan teen pregnancy rate of 56.4 per 1,000 was lower than the U.S. rate of 75.4 per 1,000.

### ***How are different populations affected?***

In Michigan, pregnancy rates for ages 15-17 are lower than for those ages 18-19 and both rates have declined in recent years. Pregnancy rates for ages 15-17 decreased from 56.5 per 1,000 in 1992 to 27.8 per 1,000 in 2005. For those aged 18-19, pregnancy rates have decreased from 148.3 per 1,000 in 1992 to 91.0 per 1,000 in 2005.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH works to prevent teen pregnancies through family planning services and efforts of the Michigan Abstinence Partnership (MAP), Child and Adolescent Health Centers, and the Talk Early & Talk Often Initiative.

Family planning providers offer contraceptives and reproductive health services to encourage fertility control. The educational and counseling components of the programs help to reduce health risks and promote healthy behaviors. Services include encouraging abstinence and parental involvement as appropriate for sexually active teens. The Family Planning program maintains a teen advisory group on the provision of teen-friendly services. One-third of the populations served by the Family Planning program are teens.

The Michigan Abstinence Partnership (MAP) aims to positively impact adolescent health problems by promoting abstinence from sexual activity and related risky behaviors such as the use of alcohol, tobacco and other drugs. A comprehensive approach targets 9-17 year old youth (up to 21 years of age for special education populations), and their parents. Community coalitions plan, implement and evaluate community awareness activities to create a community environment supportive of an abstinent lifestyle for teens. Education targeted at parents encourages them to talk openly with their children about sexuality and the benefits of abstinence.

A parent education program entitled Talk Early & Talk Often is a grassroots effort to give parents of middle school students the tools they need to talk to their children about the important issue of sexuality. Talk Early & Talk Often town hall meetings and training sessions in local school districts have been held across the state to help parents increase their comfort level in talking with their children about this important topic.



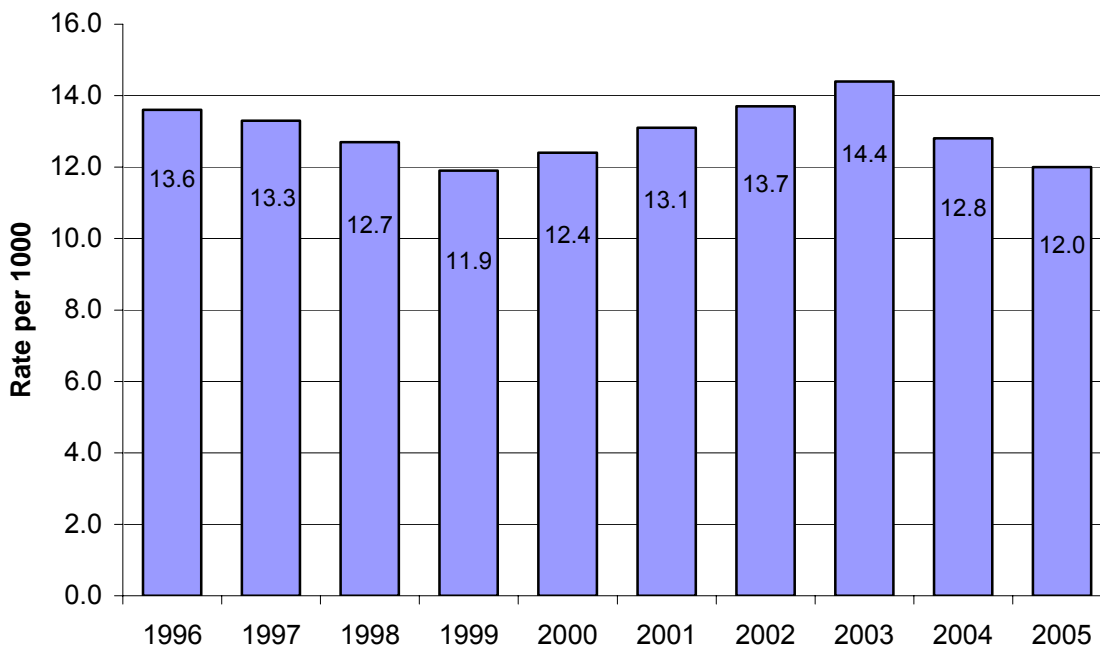
## Topic: Maternal Health

### 24. Abortions

Induced abortions typically result from unintended pregnancies. While abstaining from sex is the most effective means of avoiding unintended pregnancies, effective family planning services can reduce the number of abortions.

#### *How are we doing?*

**Michigan Abortion Rates 1996 - 2005**



There were a total of 25,209 induced abortions among Michigan women in 2005, resulting in a rate of 12.0 per 1,000 women aged 15-44. Abortion rates have declined 22.6% since 1992 when the abortion rate was 15.5 per 1,000. In 2005, 51% of Michigan women who obtained an induced abortion had no previous induced abortion. A gradual increase has been observed in the proportion of women reporting two or more induced abortions from 17.3% in 1992 to 22.9% in 2005.

#### *How does Michigan compare with the U.S.?*

The Michigan abortion rate has been lower than the U.S. rate. In 2002, the most recent year for which national figures are available, the Michigan abortion rate of 13.7 per 1,000 was lower than the U.S. rate of 16.0 per 1,000.

#### *How are different populations affected?*

Eighty-six percent of induced abortions were to unmarried women in 2004. In 1990, 58.2% of abortions were to Michigan women under 25 years old; this percentage decreased to 51.3% in 2005. Abortions to





## Critical Health Indicators

teenagers account for most of the decline to women under 25 years old; the proportion of abortions to teenagers decreased from 25.3% in 1990 to 18.7% in 2005.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH makes family planning services available and supports the Michigan Abstinence Program, Adolescent Health Centers, and the Talk Early & Talk Often Initiative. Family planning providers offer contraceptives and reproductive health services to encourage fertility control that promotes the health and well-being of women, children, and families. The educational and counseling components of the program help to reduce health risks and promote healthy behaviors. In 2006, family planning services were provided to 165,795 women and 5,344 men.



## Topic: Maternal Health

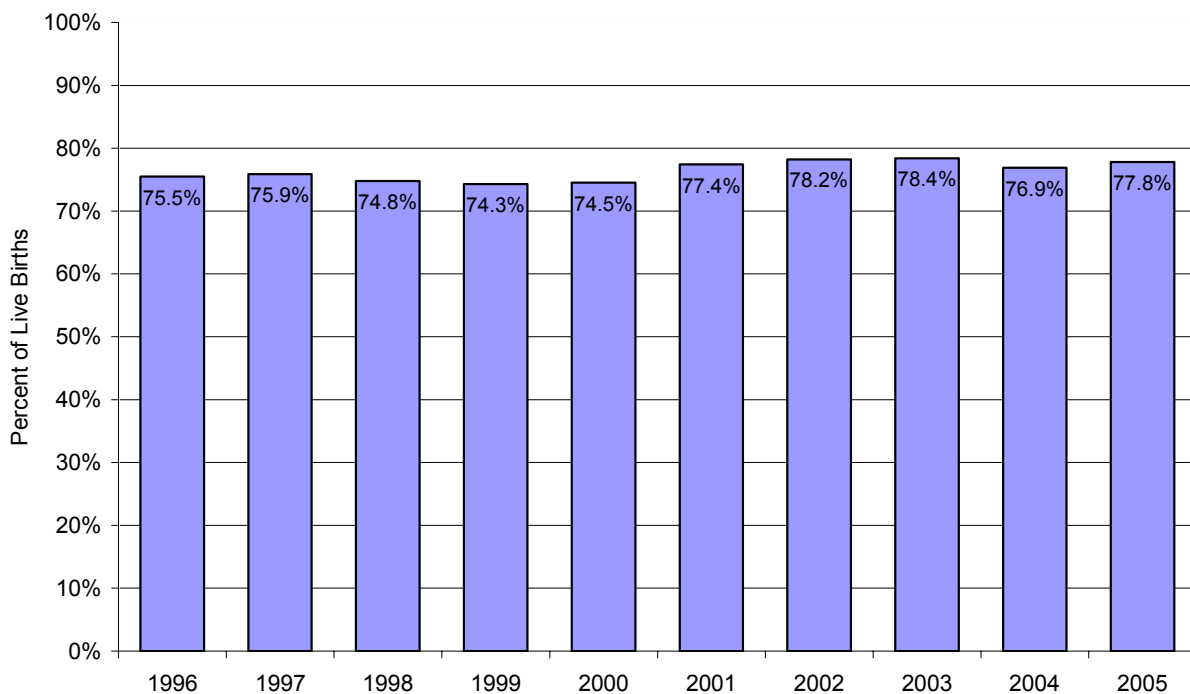
### 25. Adequacy of Prenatal Care

Adequate prenatal care, including initiating care in the first trimester and receiving regular care until delivery, can be an indicator of access to care and may result in fewer birth complications and healthier babies. The effect of early prenatal care is strongest for high-risk groups such as teens and low-income women.

The Kessner Index is a standard measure of prenatal care based on information obtained from birth certificates. It combines information on the month prenatal care began, the gestational age at birth, and the number of prenatal visits.

#### *How are we doing?*

**Adequate Level of Prenatal Care, Michigan Women  
1996-2005**



In 2005, 77.8% of live births in Michigan were to mothers with an adequate level of prenatal care, 14.6% were to mothers with an intermediate level of care, and 7.1% were to mothers with an inadequate level of care. The percentage of mothers with adequate levels of prenatal care increased slightly over the past 10 years from 76.6% in 1996 to 77.8% in 2005. Michigan is slowly heading in the right direction.



### ***How does Michigan compare with the U.S.?***

The percentage of live births to mothers with an adequate level of prenatal care in Michigan is slightly higher than the U.S. level. In 2002, the most recent year for which national figures are available using the Kessner Index, 76.2% of mothers received adequate levels of prenatal care in the U.S. At that time, Michigan was ranked 27th among the states for this indicator.

### ***How are different populations affected?***

Women age 30-34 and 35-39 years are most likely to start prenatal care in the first trimester (88.8% and 88.1%) while women under age 20 are least likely to initiate early prenatal care (69.2%). Black women are least likely to receive adequate levels of care (63.3%) compared to Whites and other races (81.3% and 74.6%, respectively). Of Michigan women enrolled in WIC, 76.7% reported entering prenatal care in the first trimester, the same percentage as women enrolled in WIC in the first trimester nationwide.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is working to improve the quantity and quality of prenatal care. The Maternal and Infant Health Program (MIHP) provides services to pregnant Medicaid beneficiaries identified as needing assistance to assure adequate and appropriate medical care and support services. Transportation to medical appointments and services is a frequently used service of MIHP.

The Prenatal Care Clinic program is a demonstration project designed to facilitate healthy pregnancy outcomes in high-risk communities around Kalamazoo. The current project is addressing bereavement and provides preconception home visits to families who have had a fetal or infant loss in Kalamazoo County. The project's goals are to prolong the pregnancy interval, plan the next pregnancy and reduce morbidity, and mortality in subsequent pregnancy outcomes.

The Department provides Healthy Kids Medicaid for pregnant women who need health insurance and meet the expanded income eligibility criteria. In this special program, women will have Medicaid coverage for health care services, including prenatal care through the second month postpartum for follow-up care.

The Department also provides another option for pregnant women when the woman does not meet the criteria for Healthy Kids. She may qualify for the Maternity Outpatient Medical Services (MOMS) program which offers outpatient antepartum care and in-patient labor and delivery.

The WIC program refers pregnant women to healthcare and social services during pregnancy. The WIC Division's Project FRESH provides access to Michigan-grown fruits and vegetables and nutrition education for low-income pregnant women.

The Department provides prenatal and perinatal testing services that assist in diagnosing life-threatening maternally-transmitted infectious diseases. Appropriate treatment can be rendered through testing and accurate diagnosis.

In four select communities, the Nurse Family Partnership provides intensive prenatal care support and education services to help a limited number of first-time mothers to seek and stay in prenatal care.

Finally, to encourage early access to prenatal care, the Title X Family Planning program offers care referrals to women at the time of a positive pregnancy test.



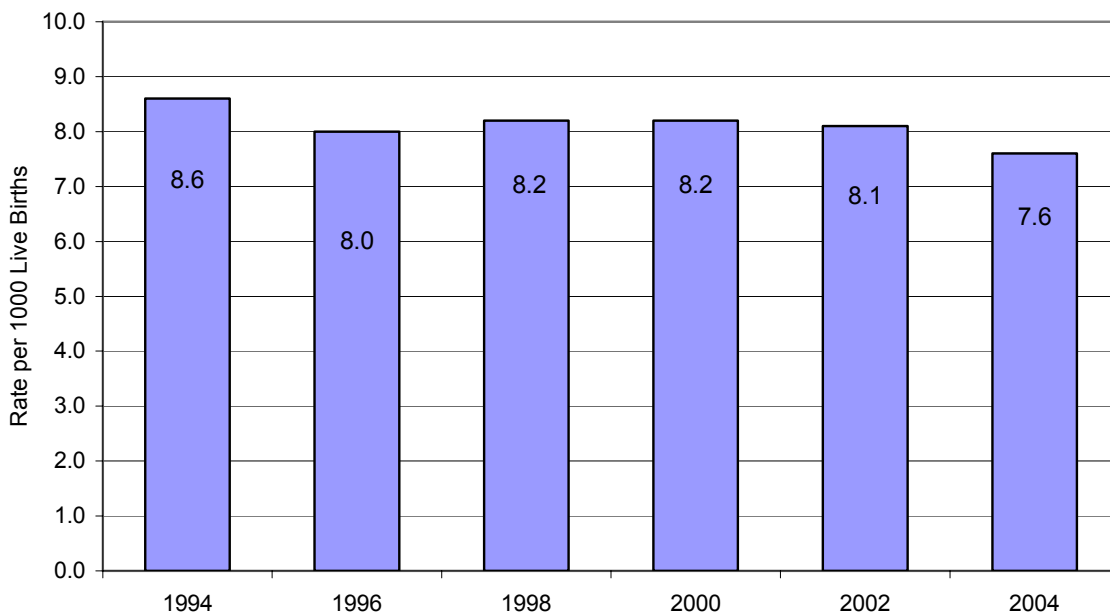
## Topic: Infant and Child Health

### 26. Infant Mortality

Infant mortality measures the number of deaths to children under age one. Infants with low birth weight or pre-term delivery have a higher risk of infant death. Socioeconomic status, lifestyle behaviors, prenatal care, and medical care for the infant are factors that impact mortality.

#### *How are we doing?*

**Infant Mortality in Michigan, 1994-2004**



In 2004, there were 984 infant deaths in Michigan, resulting in a death rate of 7.6 per 1,000 live births. During the past 10 years, the state’s infant mortality rate declined almost 12%. However, this decline leveled off between 1996 and 2004. In 2004, the state dropped below the 8.0 per 1,000 level for the first time.

#### *How does Michigan compare with the U.S.?*

Michigan’s infant mortality rate is generally above the national average. In 2004, Michigan’s infant mortality rate of 7.6 per 1,000 was higher than the U.S. rate of 7.0 per 1,000 live births.

#### *How are different populations affected?*

Infant mortality rates are higher for babies born to teen mothers. In 2004, children born to Michigan mothers under age 20 had an infant death rate of 11.3 per 1,000. Historically, the Black infant mortality rate is more than two-and-a-half times that of the White infant mortality rate. For example, in 2004, the



Michigan infant mortality rate for Blacks was 17.3 per 1,000, while for Whites it was 5.2 per 1,000 live births.

### ***What is the Department of Community Health doing to improve this indicator?***

The Governor signed into law the Safe Delivery of Newborns Act of 2001 which encourages the placement of unwanted newborns in a safe environment. The law allows for an anonymous surrender of an infant, less than 72 hours of age, to an Emergency Service Provider.

The Prenatal Care Clinic program is a demonstration project to facilitate healthy pregnancy outcomes. The project addresses unique community needs to assure access to prenatal care, medical care and WIC services. The project also addresses preconception care for high risk women who have experienced a fetal/infant loss. Michigan's Maternal Child Health (MCH) hotline, 1-800-26-BIRTH, provides information about the availability of health care services.

The Michigan Women, Infants, and Children program (WIC) provides nutrition, education, and referral services to more than 400,000 low to moderate-income women and families annually, including breastfeeding education and support, infant formula, and nutrition education referrals to other community health services. WIC services generally result in increased birth weight, longer gestational age, and lower incidence of pre-term birth.

Infant Mortality Reduction Coalitions are funded in these counties: Berrien, Genesee, Ingham, Kalamazoo, Kent, Macomb, Oakland, Saginaw, Washtenaw, Wayne and in Detroit to collaborate on educating residents about preventing infant mortality. These coalitions developed case management projects to improve birth outcomes for women who have experienced a fetal death, a low birth weight infant, or a premature infant. Their goals are to reduce the number of premature and low birth weight babies, increase time intervals between pregnancies, and increase the number of pregnancies which are planned.

The Maternal and Infant Health Program (MIHP), through contracts with the Department and other providers, offers services to Medicaid-eligible pregnant women and infants who receive support services from a nurse, social worker, and nutritionist.

The Nurse-Family Partnership (NFP) is a program in which nurses visit low-income women in their homes during their first pregnancies through the first two years of their children's lives. The major goals are to improve pregnancy outcomes by helping women improve health behaviors; improve child health and development by teaching competent and responsible parenting skills; and improve families' economic self-sufficiency. The Nurse-Family Partnership program is available in Benton Harbor, Detroit, Grand Rapids and Pontiac.

The MDCH informs the public and providers about measures to reduce the risk of Sudden Infant Death Syndrome (SIDS). A four-part strategy for the Safe Sleep campaign includes: 1) institutionalizing Safe Sleep education and practices in hospitals, 2) working with health plans to include Safe Sleep practices and education, 3) training and education for child care providers, and 4) focus groups to develop culturally appropriate public messages.

Fetal and Infant Mortality Review and Child Death Review Teams systematically examine child deaths to determine their contributing factors. These factors are then analyzed to develop recommendations to prevent future deaths. In addition, all Michigan newborns are tested for seven potentially fatal and/or debilitating diseases to provide accurate diagnosis and appropriate treatment.



## Topic: Infant and Child Health

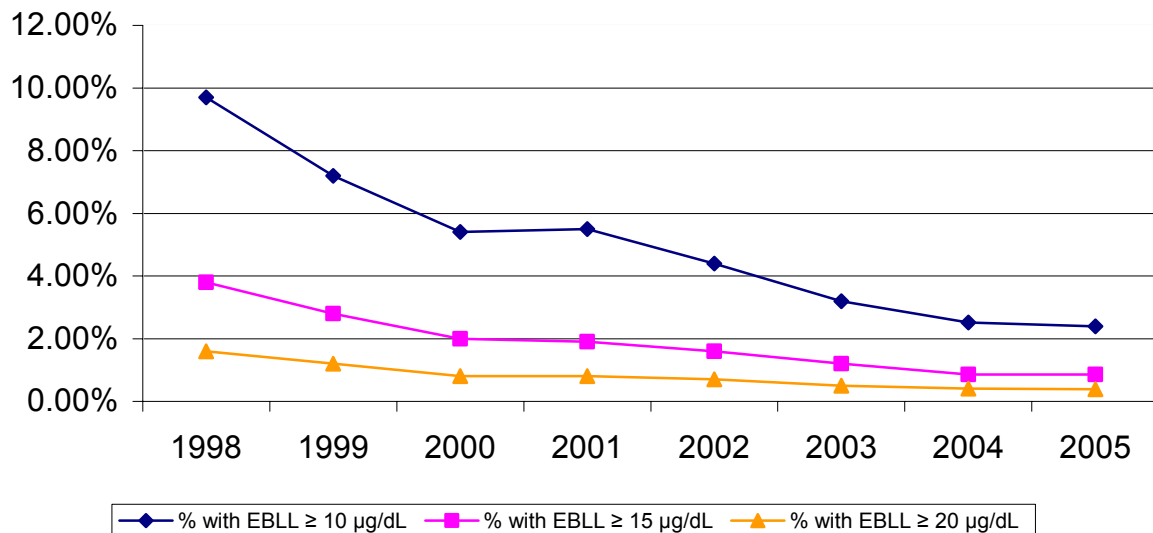
### 27. Children's Blood Lead Levels

Lead exposure adversely affects the cognitive development and behavior of young children. For children under six years of age, CDC has defined an elevated blood lead level (BLL) as  $>10 \mu\text{g}/\text{dL}$ , but serious health effects have been seen at even lower levels. Data show that average BLLs in children decreased since the late 1970s but that elevated BLLs remain more common among low-income children, urban children, and those living in older housing.

The dramatic decline in BLLs from the late 1970s through the early 1990s resulted primarily from the phase-out of leaded gasoline and the resulting decrease in lead emissions, although other exposures also decreased. While air lead levels and lead emissions continued to decrease during the 1990s, most of this decline occurred before 1995. The primary remaining sources of childhood lead exposure are deteriorated lead paint and soil and dust in and around old housing. New housing construction and the demolition and rehabilitation of older housing may be contributing to a continued decline in BLLs. Data from a 1988-1994 National Health and Nutrition Examination Survey showed that low-income children living in older housing had more than a 30-fold greater prevalence of BLLs  $>10 \mu\text{g}/\text{dL}$  than do middle-income children in newer housing. From 1993 to 1997, the number of low-income children living in pre-1940s and 1940-1974 housing declined by 31% and 14%, respectively, while the number of low-income children living in post-1974 housing increased by five percent in that period.

#### *How are we doing?*

**Percentage of Children in Michigan  
With Elevated Blood Lead Levels, 1998-2005**



An estimated 2.4% of the population of children in Michigan from birth to six years is lead-poisoned, with the majority of these children eligible for publicly-funded services such as Medicaid, MI Child, WIC, Head Start and Early Head Start. In fact, children in the WIC program in Michigan have been found to be lead poisoned at a rate nearly double that of the rest of the state (5%).



Ten year trend data show an expected continuing decline in the number of children poisoned, but something less than one percent of children will still be identified as lead poisoned after 2010, when CDC indicates that lead poisoning in children should be eliminated.

### ***How does Michigan compare with the U.S.?***

Michigan ranks sixth in the nation in the number of children potentially lead poisoned, primarily due to deteriorating housing and the resulting paint dust. While significant strides have been made during the last ten years, children in Michigan are still nearly twice as likely to become lead poisoned as children nationwide.

### ***How are different populations affected?***

Lead poisoning is more likely to be seen in low-income populations living in sub-standard or deteriorating housing, so while it is found in children statewide; it tends to be concentrated in older urban areas. All children living in the City of Detroit are considered to be at risk, but risk is found statewide, with about half the Zip codes in Michigan identified as high-risk due to the high percentage of pre-1950 housing. Children can be poisoned if lead hazards are exposed during renovation or remodeling of houses built before 1950.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department has identified 13 communities that represent the areas of greatest risk. Several activities occurring in these target communities include: Coalition-building that identifies and engages stakeholders in strategic planning to address lead poisoning and lead hazard issues in specific communities; case management of children with blood lead levels of  $\geq 20$   $\mu\text{g}/\text{dL}$ ; ombudsman activities that assist families in securing low-interest loans and other funding for removal of lead hazards in homes; public awareness for parents on the importance of testing for their children and for individuals involved in remodeling or renovation activities; abatement activities; and support for the Lead Poisoning Prevention and Control Commission named by the Governor in 2005 (required by PA 400 and 431 of 2004).

Over 1,000 children have received case management services during the last three years. The intent of case management is to ensure that children who are poisoned at significant levels receive appropriate follow-up and treatment in order to decrease their blood lead levels.



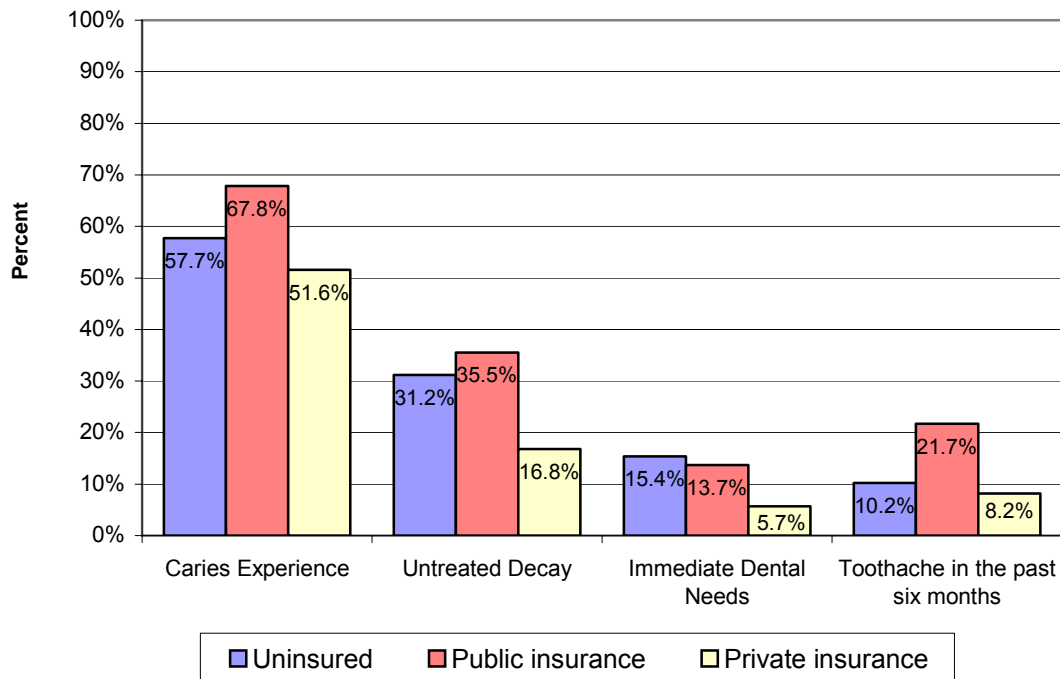
## Topic: Oral Health

### 28. Dental Disease Among Third Grade Children

Dental caries (tooth decay) is the single most common chronic childhood disease. Measures of oral health are based upon Healthy People 2010 objectives and include: the proportion of children who have dental caries in their primary or permanent teeth; the proportion of children who have untreated dental decay; the proportion of children who have received sealants on their molar teeth; the prevalence of preventative dental care during the previous 12 months for low-income children and adolescents; and the prevalence of preventative community water fluoridation.

#### *How are we doing?*

**Dental Disease Among Michigan Third Grade Children  
By Insurance Coverage, 2005 - 2006**



In Michigan, 28% of children account for 75% of dental disease. Nearly one in ten of third grade children in Michigan has immediate dental care needs, with signs or symptoms of pain, infection or swelling. One in eight parents of third grade children report that their child has had a toothache when biting or chewing in the past six months. One in four Michigan third grade children has untreated dental disease. Michigan is making progress in reducing dental disease in 59 counties with the Healthy Kids Dental Program. A recent study (*Low-Income Children Find Easy Access to Dental Care*) found dental visits were 50% higher for children enrolled in Healthy Kids Dental compared with children enrolled in the traditional Medicaid dental program.

#### *How does Michigan compare with the U.S.?*

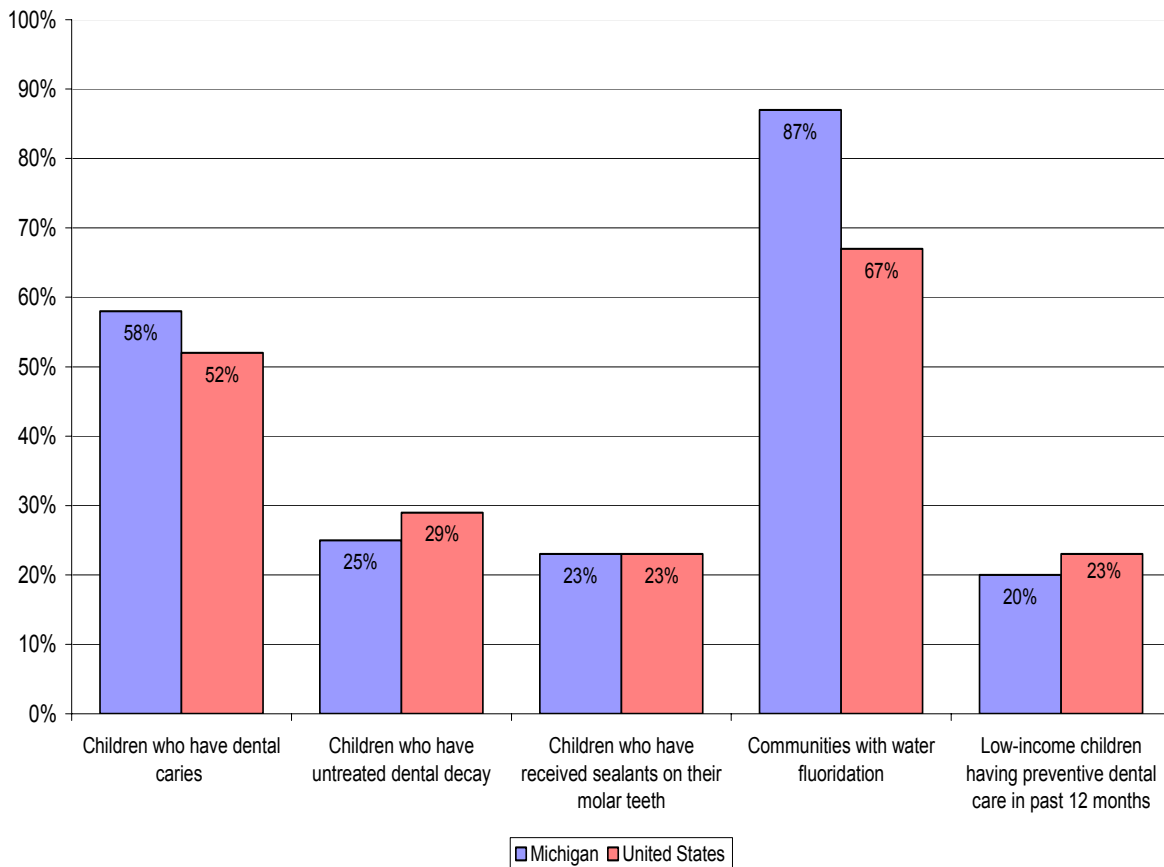
Michigan falls behind the United States average in the percentage of children with dental caries and preventative dental care. With 23% of Michigan third grade children having at least one dental sealant on





a first molar, Michigan trails the Healthy People 2010 objective of 50%. Beginning in October 2007, the MDCH Oral Health Program will launch a statewide school-based, school-linked dental sealant program targeting third grade children in schools with at least 50% participation in the free and reduced lunch program. Michigan exceeds the Healthy People 2010 objective for community water fluoridation; however, many rural areas and small community water systems do not have the decay-reducing benefit of fluoridation. Expansion of community water fluoridation could significantly reduce the number of teeth affected by dental caries.

**Michigan and United States Attainment of HP2010 Objectives 2006**



***How are different populations affected?***

Roughly one in nine Michigan third grade children, 11.2%, encountered problems that prevented them from obtaining dental care in the past year. Increased difficulty in obtaining dental care is common among all racial and ethnic minorities as well as children not covered by private dental insurance. Cost and a lack of dental insurance were the two most frequently cited reasons for failure to obtain dental care.

Low-income children and some racial/ethnic minorities are affected by early childhood caries (ECC) at higher rates. The social costs of ECC are enormous. In addition to the obvious pain and suffering, the social costs of ECC include: poor eating habits, speech problems, low self-esteem and distraction in learning.



Disparities in populations for dental disease exist among geographic regions of the state:

- Upper Peninsula and Northern Lower Peninsula children had the highest rates of caries experience and untreated decay. However, evidence suggests that expansion of community water fluoridation could significantly reduce the number of teeth that have been affected by caries in the region.
- The rural Southern Lower Peninsula had the lowest rates of sealant placement and the highest proportion of children without dental insurance. In addition, children in a free or reduced cost lunch program encountered significantly more dental disease.
- The urban Southern Lower Peninsula had the highest rates of immediate dental needs with 17.4% of children showing signs or symptoms of pain, swelling, or infection. The disease burden was substantially higher for African-American and Hispanic children in this region.
- Children who attend school in Wayne County experience dental disease at higher rates compared to children who attend school in either Macomb or Oakland County. Significant social and racial disparities exist in both dental disease and access all across the Detroit Metropolitan area.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH is working to build a sustainable and effective oral health infrastructure. Programs that are being developed to address dental disease in children include: Dental Sealant Program, Fluoride Varnish Program, Oral Health Intervention Program for High Risk Pregnant Women and Infants, and provision of preventive dental hygiene measures (sealants, fluoride varnish) to underserved children by dental hygienists.



## Topic: Mental Health

### 29. Depression

Research has identified two types of depression. The first type is a major depressive disorder which may be recurrent and is characterized by at least one major depressive episode of five or more symptoms for at least two weeks. The second type is dysthymia, which is a chronic moderate type of depression that often goes undiagnosed because it does not greatly impair functioning. Dysthymia is characterized by disturbances in eating (poor appetite or overeating), sleeping (insomnia or oversleeping) and low energy or fatigue symptoms.

#### *How are we doing?*

In Michigan, the prevalence of depression mirrors the U.S. statistics. Across the U.S., depression affects about 10% of adults every year. Therapies for depression improve symptoms for over 80% of those treated, but less than 25% of people with depression are diagnosed and treated. Without treatment, depression itself can become a chronic condition, and it is expected that by 2020, the burden of depression will be second only to heart disease.

#### *How does Michigan compare with the U.S.?*

Forty percent of Michigan residents surveyed reported at least one day of stress-related depression or emotional problems in the prior 30 days, compared with 34% of the U.S. population. In 2003, Michigan ranked fourth among the 50 states with highest prevalence of poor mental health. Based on the 2004 Behavior Risk Factor Survey (BRFS), 11% of Michigan adults reported poor mental health, which included stress, depression, and problems with emotions, for at least 14 days in the past month.

#### *How are different populations affected?*

Depression is more prevalent in vulnerable populations such as persons who live in poverty and persons who have one or more physical health problem. The likelihood of having poor mental health was higher for women than for men (13% compared to 8.9%), and for individuals whose household income levels were below \$20,000 (22.7% compared to 8.3% for those with a household incomes of \$35,000 to \$49,999).

The prevalence of depression increases dramatically among those with chronic diseases. Research has shown, for example, that depression is associated with increased occurrence of cardiovascular disease, heart attack, and stroke, diabetic-related complications among people with diabetes, and increased asthma symptoms among those with asthma.

Children of depressed mothers are more likely than other children to have behavioral, cognitive, socio-emotional, health and academic problems. Seventy percent of children or adolescents who experience childhood depression will have another episode of depression before adulthood. Estimates indicate that one in 33 children and one in eight adolescents experience depression.

In adults over 65 years of age, the prevalence of depression is higher among the institutionalized (25%) and individuals living in community-based settings (15%) than among those in the general population (10%). Untreated depression is the most common psychiatric disorder and leading cause of suicide in the elderly.



### ***What is the Department of Community Health doing to improve this indicator?***

In 2005, a group of over 80 stakeholders developed a strategic plan to address prevention and control of depression in Michigan. Several common needs were identified: 1) public awareness campaigns to reduce the stigma associated with depression diagnosis and treatment; 2) programs to address the prevalence of mental illness in poor communities; 3) parity in health plan coverage for mental health; 4) programs to address racial and ethnic disparities in prevalence, early detection and referral efforts, and access to quality treatment; and 5) surveillance to monitor needs and evaluate outcomes. Addressing these needs is essential to achieving the plan goals, which include increasing screening for depression in at risk populations, improving the quality of management and treatment services for depression, and building a public-private infrastructure to address depression.

In 2006, the MDCH applied for federal funding to implement a depression and anxiety module in the 2006 BRFSS. If funded, the module will provide an estimate of the prevalence of depression in Michigan's adult population, and will allow better estimates of depression among people with chronic disease diagnoses.

The Diabetes, Kidney and Other Chronic Diseases Section, in partnership with the Michigan State University College of Nursing, is funding a pilot study of a decision-making aid to assist people with diabetes to make choices about managing depression, and is exploring additional funding sources to initiate elements of the strategic plan.



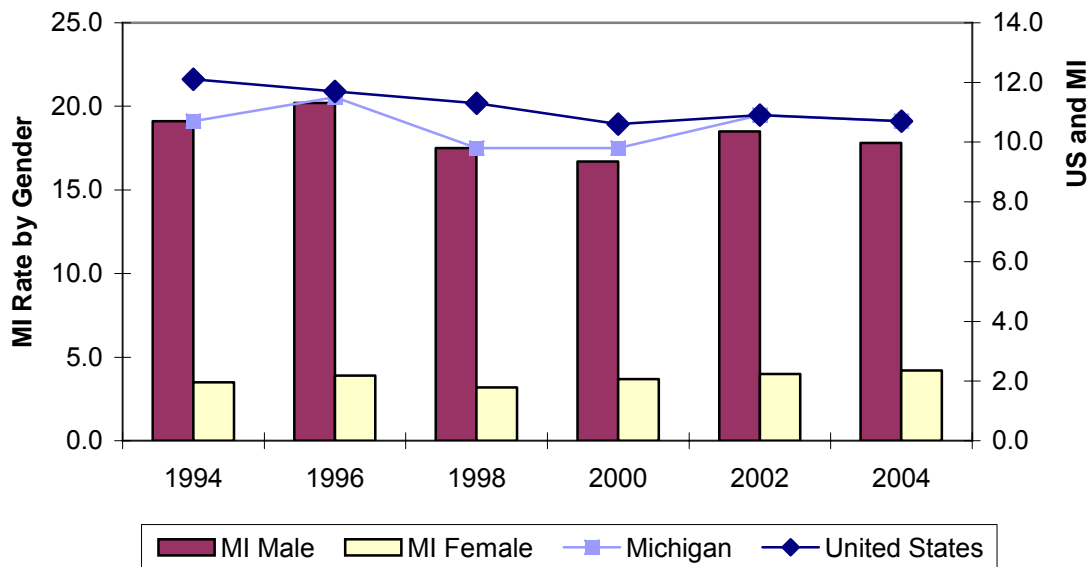
## Topic: Mental Health

### 30. Suicide

Suicide is death caused by injury (including suffocation and poisoning) where there is either implicit or explicit evidence that the injury was self-inflicted and the decedent intended to kill himself or herself. Almost all people who kill themselves have a diagnosable mental or substance abuse disorder or both, and the majority have depressive illness. The most promising way to prevent suicide and suicidal behavior is through early recognition and treatment of depression and other psychiatric illnesses. Suicide is the fifth leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75 in Michigan.

#### *How are we doing?*

**Number of Suicides in Michigan and the United States  
Suicide Death Rates by Gender in Michigan 1994-2004**



In 2005, there were 1,103 suicide deaths in Michigan. The age-adjusted rate for suicide was 10.8 per 100,000 of the population. The suicide rate has remained statistically stable over the past decade.

#### *How Does Michigan compare with the U.S.?*

In 2004, the latest year in which national data is available, the age-adjusted rate for suicide was the same for Michigan and the United States. Suicide was the 10th leading cause of death for people of all ages in Michigan, and 11th in the United States.

#### *How are different populations affected?*

In 2005, older men (ages 65+) had the highest rate of completed suicide, with men 45–54 years old having the second highest rate, followed closely by men 35–44 years old. Michigan men are over four times more likely to die by suicide than women (17.5 per 100,000 and 4.5 per 100,000, respectively), but women are three times more likely to attempt suicide. Firearms are the most common method used for completing suicide.



Suicide was the third leading cause of death in Michigan in 2005 for persons ages 15-34 (13.5%). That year, 16% of high school students reported having seriously considered suicide, and one in every 11 high school students (9.3%) reported having attempted suicide one or more times in the past year with three percent of respondents requiring medical attention after an attempted suicide. In 2004, White residents were more than twice as likely (12.0 per 100,000) to die by suicide than Black residents (5.5 per 100,000).

### ***What is the Department of Community Health doing to improve this indicator?***

The Department responds directly to persons who are at risk as a result of mental illness by providing psychiatric inpatient care at three adult and one child and adolescent state-operated psychiatric hospitals, as well as one community hospital. Community Mental Health Service Programs (CMHSPs), through contract with the department, offer services such as psychiatric inpatient care, hospital-based crisis observation care, intensive crisis residential and stabilization services, and assertive community treatment. CMHSPs offer wrap-around services to minors with serious emotional disturbances or serious mental illness and their families, and include treatment and personal support services to maintain children in their homes. Currently, five grants support suicide prevention in the older adult population. All CMHSPs continue to provide and expand their services to persons with serious mental illness who reside in county jails, detention facilities, or are under court supervision and on parole.

In 2005, the Surgeon General released the Suicide Prevention Plan for Michigan, which was developed by the Michigan Suicide Prevention Coalition. Based on the national suicide prevention strategy, the plan's goals are to increase awareness, develop and implement best clinical and prevention practices, and advance and disseminate knowledge about suicide and effective methods for prevention. As part of the plan's implementation process, the MDCH has established the Michigan Suicide Prevention Program and has published a resource directory of organizations and programs in the state working on suicide prevention. The Suicide Prevention Plan for Michigan can be found at: [www.michigan.gov/documents/Michigan\\_Suicide\\_Prevention\\_Plan\\_2005\\_135849\\_7.pdf](http://www.michigan.gov/documents/Michigan_Suicide_Prevention_Plan_2005_135849_7.pdf).

In 2006, the MDCH was awarded a Garret Lee Smith Youth Suicide Prevention Grant from the Substance Abuse and Mental Health Service Administration. Grant activities over three years include a health communication campaign, training of trainers in evidence-based prevention programs, and community suicide prevention program development grants.



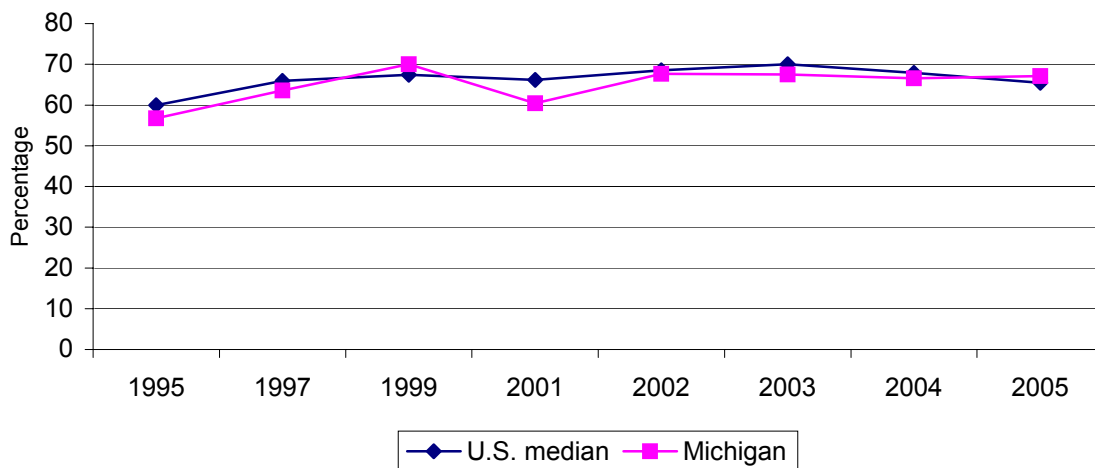
## Topic: Immunizations

### 31. Older Adult Flu Shots

Vaccination programs, traditionally associated with protecting young children from diseases, are increasingly focusing on the lifelong benefits that immunizations bring. One of the greatest public health challenges is extending the success in childhood immunization to the adult population. Illnesses, such as influenza, caused by vaccine-preventable diseases are expensive both in terms of dollars and human lives. In the United States, billions of dollars are spent annually treating adults for vaccine-preventable illnesses, and each year, on average, more than 47,000 adults die from diseases that could have been prevented. Vaccines are available to prevent many potentially debilitating diseases, including influenza, pneumococcal disease, and Hepatitis B virus infection.

#### *How are we doing?*

**Adults Aged 65 and Over Having a Flu Shot in the Past Year  
Michigan and United States, 1995 - 2005**



Results from the 2005 MI BRFSS indicate that two-thirds (67.1%) of Michigan adults aged 65 years and older were immunized against influenza in the past year. Compared to 1995, the prevalence of immunization in Michigan among adults 65 years and older increased 18.3%, from 56.7% in 1995 to 67.9% in 2005 for influenza. The trend in Michigan is staying the same.

#### *How does Michigan compare with the U.S.?*

Adult immunization rates in Michigan as measured by the BRFSS have remained consistent with those for the United States. Michigan and the nation must work to improve adult immunization rates. As the Michigan Care Improvement Registry (MCIR) expands to adult populations, we will better be able to measure our successes.

#### *How are different populations affected?*

BRFSS shows that only 46.9% of Blacks aged 65 years or older received an influenza vaccine in the past year compared to 69.4% of Whites. This is similar to the national averages which showed that 46.3% of Blacks compared to 67.6% Whites received an influenza vaccine in the past year.



### ***What is the Department of Community Health doing to improve this indicator?***

The Department continues to coordinate with local health departments to present educational programs focusing on adult immunizations to private provider practices and physician groups. These programs promote adult immunizations and provide guidance on improving adult immunization programs.

Michigan recently expanded the use of the Immunization Registry, now known as the Michigan Care Improvement Registry (MCIR) to help in tracking adult immunizations. Prior to this expansion, the MCIR only held records for individuals younger than 20 years of age. This expansion allows providers to track and assess vaccines for all individuals.





## Topic: Immunizations

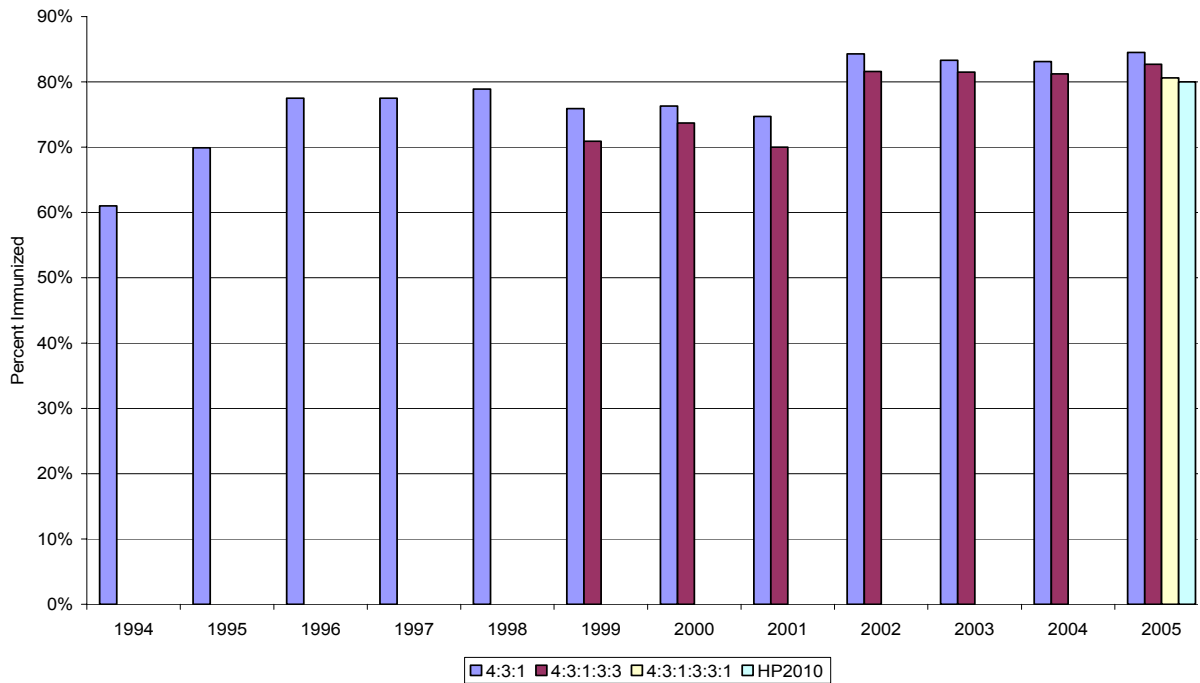
### 32. Childhood Immunizations

Childhood immunization, the process by which children are rendered immune or resistant to a specific disease, has grown in scope over the years. There are an increasing number of vaccines being licensed and added to the routine immunization schedule resulting in more diseases becoming vaccine-preventable. The ultimate goal is to eliminate vaccine preventable diseases or at a minimum, reduce the number of serious vaccine preventable diseases occurring in Michigan. Childhood immunizations provide protection against: Diphtheria, Haemophilus influenza type B, Hepatitis A, Hepatitis B, Measles, Mumps, Pertussis (whooping cough), Pneumococcal disease, Polio, Rubella, Rotavirus, Tetanus, and Varicella (chickenpox).

Prior to 1999, immunization levels in Michigan were measured by the percentage of children who, at two years of age, had received four doses of a vaccine containing diphtheria, tetanus and pertussis components (DTP or DTaP), three doses of polio vaccine, and one dose of a vaccine containing measles, mumps and rubella components (4.3.1). In 1999, three doses of *Haemophilus influenzae* type B vaccine (Hib) and three doses of Hepatitis B vaccine (Hep B) were added to the list of vaccines used to assess the extent to which Michigan’s children were appropriately immunized (4.3.1.3.3). Varicella vaccine is the most recent vaccine that has been added to the National Immunization Survey (NIS), creating a current standard of 4:3:1:3:3:1.

#### *How are we doing?*

Immunization Levels for Michigan Children  
19-35 Months of Age



The 2005 NIS indicates that 80.6% of Michigan’s two-year olds were fully immunized using the 4:3:1:3:3:1 standard assessment.



### ***How does Michigan compare with the U.S.?***

Results for the NIS conducted from January through December of 2005 showed that the 4:3:1:3:3:1 vaccination coverage level for children aged 19 through 35 months in Michigan was 80.6 percent ( $\pm 5\%$ ). The national average is 76.1 ( $\pm 1.1\%$ ).

Michigan has come a long way in protecting children from vaccine-preventable diseases. Michigan now has the ninth highest immunization rates compared to other states. In 1994, Michigan had the lowest immunization rates in the country (61%) for the 4:3:1 assessment. In just the last year, the state has increased one-and-a-half percent; Detroit alone increased 4.9 percent.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is working to increase childhood immunization. The federal Vaccines for Children (VFC) and the MI-VFC programs make vaccines available to children from low-income families. This eliminates a major financial barrier to children being vaccinated. In 2005, 1,738,863 doses of vaccine were distributed from the Michigan Department of Community Health. All recommended vaccines are available for eligible children.

The Michigan Care Improvement Registry (MCIR) is a statewide registry of immunizations administered to children and adults that can be accessed by approved users anywhere in the state to reduce missed opportunities. In addition to maintaining an immunization record for each person, MCIR generates recall letters for individuals. Providers and local health departments can generate profiles of the immunization levels in their clinic or community to determine whether additional interventions should be developed. MCIR contains over 50 million shot records on more than 4.2 million citizens.

It is important for parents to receive accurate information about vaccines so they can make informed decisions about their children's health. Federal law mandates that Vaccine Information Statements must be given to individuals or parent(s) to read prior to any immunization of their children. In addition, the Department produces informational pamphlets on immunization and specific vaccines. Information on new vaccines, vaccine schedules, appropriate storage, and handling of vaccines is made available to providers through newsletters, seminars, conferences, and videoconferences and the MDCH website ([http://www.michigan.gov/mdch/0,1607,7-132-2942\\_4911\\_4914-138197--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2942_4911_4914-138197--,00.html)). Immunization field representatives work with local health departments to encourage immunization as part of maternal and child health services.

The Migrant Outreach and Immunization Services program works to assure that all children (birth – 18 years) served in Migrant Health Centers are age-appropriately immunized, and that all immunizations (historical and newly administered) are entered into the Michigan Care Improvement Registry (MCIR).

The Department provides testing services for the diagnosis of many vaccine-preventable diseases. This is essential in assessing vaccine failure and disease control in unvaccinated populations.



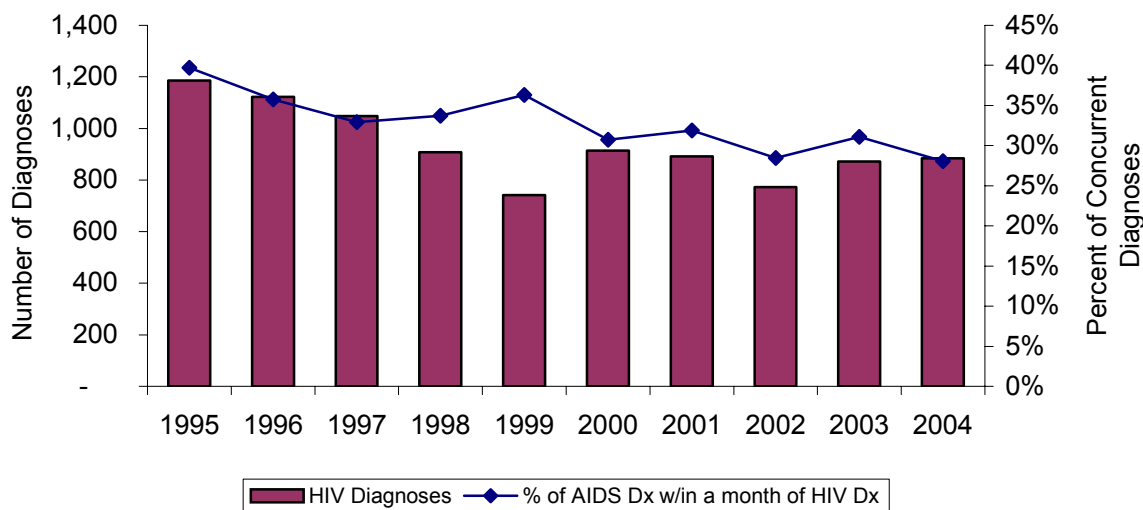
## Topic: HIV/AIDS

### 33. HIV/AIDS New Cases

Two strains of HIV infect humans: HIV-1 and HIV-2. HIV-1 is more virulent and more easily transmitted; it is the source of the majority of HIV infections throughout the world. HIV-2 is less easily transmitted and is largely confined to Africa.

#### *How are we doing?*

**New HIV Diagnoses Michigan Residents, 1995-2004**



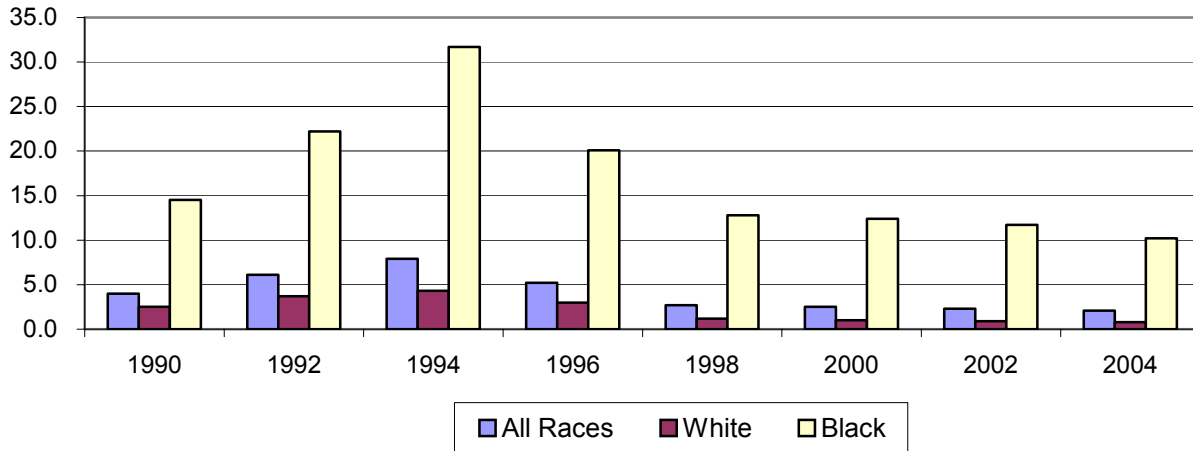
Since 1995, the number of persons in Michigan diagnosed each year with HIV has declined 20% from 1,186 new cases in 1995 to 884 new cases in 2004. Since 2000, the number of HIV diagnoses has stabilized at around 890 cases per year. These new diagnoses include persons who learned of their HIV infection status after developing AIDS symptoms. Each year, there are more new diagnoses of HIV infection than deaths. Therefore, the reported number of persons living with HIV/AIDS in Michigan is increasing. The MDCH estimates that 17,000 residents are living with HIV infection in Michigan (including those with AIDS).

We have seen improvements in treatment and care since the mid-1990s, especially after the advent of anti-retroviral therapy. The number of new diagnoses is stabilizing. While it is encouraging that we are not seeing increases in diagnoses, prevention remains an important focus.

HIV-related deaths overall decreased sharply between 1995 and 1997, and continued to decline, though less sharply, between 1998 and 2005. The reduction in deaths, however, is not equally distributed according to race/sex group. For instance, between 1995 and 2001, the decline in deaths among White males (79%) was statistically higher than declines among Black males (65%) and Black and White females (47%). We also saw an additional 41% decline in death among Black males between 2001 and 2005, which was sharper than the declines in other groups.



### Age-Adjusted AIDS Death Rate By Race in Michigan, 1990-2004



#### *How does Michigan compare with the U.S.?*

Nationally, the estimated number of HIV cases in the 35 states and territories that have had confidential name-based HIV reporting since 2000 decreased from 2001 to 2003, with a slight increase from 2003 to 2004. The estimated number of new HIV diagnoses in Michigan was level between 2000 and 2004. While Michigan showed no change in the proportion of HIV diagnoses according to race/sex group, nationally, there were decreases seen in Blacks and Hispanics in both sexes, and increases seen in all other groups. Among the 35 areas that have had confidential name-based HIV reporting, as of October 2004, Michigan ranks tenth in reported cases of HIV infection and twenty-first in rate of HIV diagnoses. Michigan's rate of new diagnoses in 2004 (6 per 100,000) was lower than the overall rate for the 35 states and territories (15 per 100,000). Michigan's prevalence rate (118 per 100,000) was also lower than the prevalence rate among the 35 areas (259 per 100,000) at the end of 2004.

#### *How are different populations affected?*

Although trends in new HIV diagnoses among Black males and females are level, they are still impacted disproportionately to their numbers in the population. Black persons make up 14% of the general population of Michigan, but account for 62% of new HIV diagnoses in 2004 and 58% of persons living with HIV/AIDS. Alternately, Whites comprise 32% of new diagnoses, 36% of persons living with HIV/AIDS, and 79% of Michigan's population.

There are increases in new diagnoses among men who have sex with men (MSM) and decreases among Injection Drug Users (IDU). Of the 971 new HIV diagnoses in 2004, there were 550 (57%) among MSM, 246 (25%) among High Risk Heterosexuals (HRH), 120 (12%) among IDUs, 41 (4%) among MSM/IDUs, and 14 (1%) among persons with other risks. Other risks include transmission from blood product exposure, perinatal exposure, and those with no identified risk. One percent of diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. Less than one percent of diagnoses were among infants born to HIV-infected mothers.



### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH focuses its prevention efforts on early identification of HIV infection through testing and reduction/elimination of behaviors associated with HIV transmission. Early access to care is essential to maintain optimal health for persons infected with HIV. To ensure that persons living with HIV/AIDS receive appropriate and effective care and treatment, The Department offers active counselor-assisted referrals to care and support services for all newly identified persons who test positive (confidentially) and agree to such referral.

The Department also supports a comprehensive continuum of care including a drug assistance program, a dental assistance program, medication adherence programs, immune system monitoring, viral load and genotype testing, as well as case management services. In addition, the Department also supports a community re-entry program for HIV positive parolees newly released from Michigan Department of Corrections facilities, to assist them in obtaining medical care and medication.



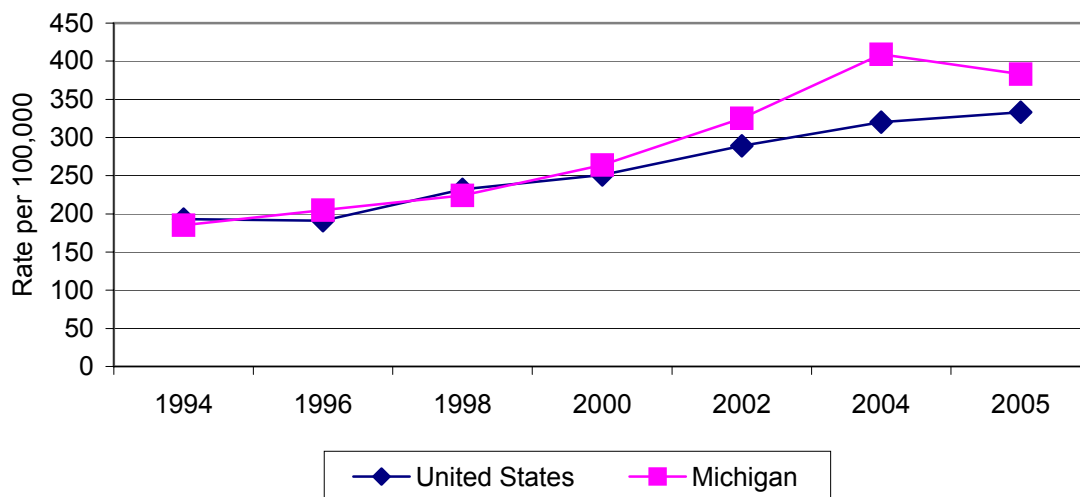
## Topic: Sexually Transmitted Disease

### 34. Chlamydia

Chlamydia is a bacterial infection predominately spread through sexual contact. It is one of the most common sexually transmitted diseases (STDs) in the United States, responsible for an estimated one million cases each year.

#### *How are we doing?*

**Chlamydia Rates in Michigan and the United States  
1994-2005**



The rates of chlamydia increased since Michigan began reporting cases in 1992. This was due to several factors, including improved reporting, increased levels of testing, and advances in testing technology. In 2005, there were 38,729 reported cases of chlamydia, a six percent decrease from 2004. In 2006, 36,746 cases were reported, a five percent decrease from 2005. This represents a two-year decline in number of cases. Michigan has continued efforts to screen the populations at highest risk. Additionally, improved data systems have resulted in more accurate counting of cases. Michigan’s goal is to continue to see a decrease in the number of reported chlamydia infections by maintaining current screening and surveillance practices.

Based on data from the Michigan Infertility Prevention Project (IPP), over 90% of reported chlamydia cases are treated.

#### *How does Michigan compare with the U.S.?*

The rate of chlamydia in Michigan of 409 per 100,000 population in 2004 was significantly higher than the national rate of 320 per 100,000; however, the increased rate is likely due to a surveillance data system change. The rate of chlamydia in Michigan was 382 per 100,000 population in 2005, significantly higher than the national rate of 333 per 100,000. Michigan ranks tenth among all states for its rate of chlamydia.



### ***How are different populations affected?***

The highest rates of chlamydia are found among the 15-19 and 20-24 year old age cohorts. These two groups combined accounted for 72% of the 2005 morbidity. The rates are highest among women in this age range, especially Black women. The rate among Blacks is 8.5 times that of Whites. The rate among Black women is seven times higher than for White women. Given that sexual activity does not vary by race, this rate is evidence that once a pathogen is in a community or social network, the likelihood of acquiring that infection increases significantly, thus resulting in higher transmission rates.

The overall rate among women is 3.4 times higher than in men, largely due to targeted screening towards females. Males are more often symptomatic and treated presumptively (without testing), based on symptoms. Additionally, young females are at increased risk for infection because of an immature cervix which has a thin layer of epithelium that provides less protection from bacteria than a mature cervix.

The highest rates of chlamydia, in 2005, were in the City of Detroit, and in Genesee, Muskegon, Ingham, and Saginaw Counties.

### ***What is the Department of Community Health doing to improve this indicator?***

Because chlamydia causes costly complications such as pelvic inflammatory disease (PID), the Department is working to decrease the prevalence of chlamydia and its health consequences. The MDCH participates in the National Infertility Prevention Project (IPP) which targets adolescents and young adults (15-24 year olds). Adolescents and young adults are a population on which Michigan places special emphasis; IPP is the core of these efforts. The IPP provides chlamydia screening in STD and Family Planning clinics, as well as school-based clinics, juvenile detention centers, and alternative adolescent sites, such as runaway shelters and alternative schools.



## Topic: Sexually Transmitted Disease

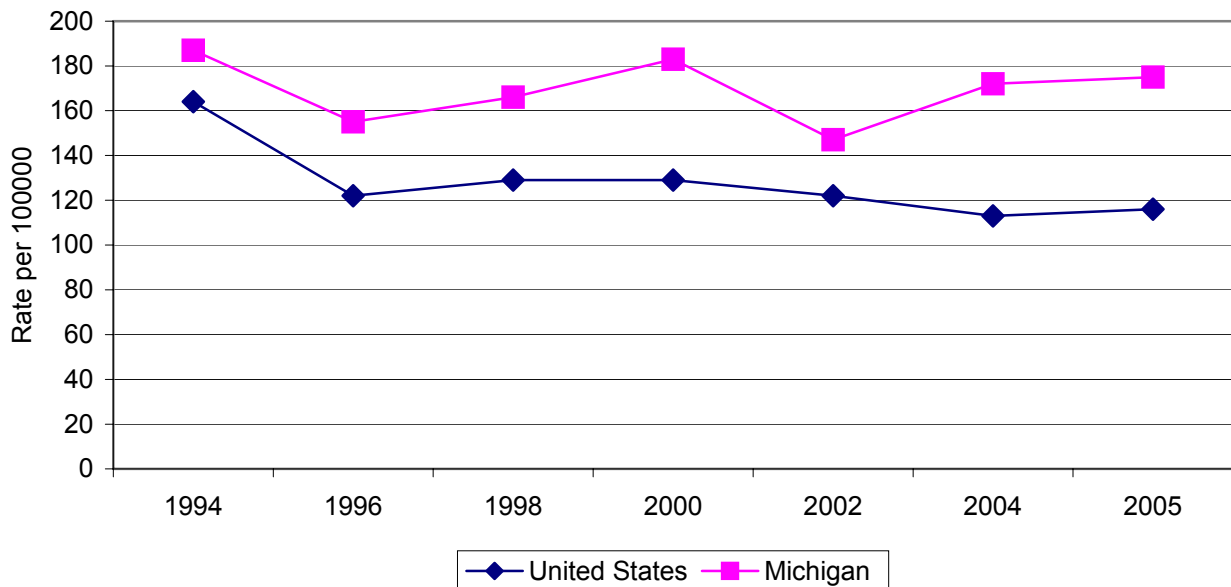
### 35. Gonorrhea

Gonorrhea is a bacterial infection spread through sexual contact. It is one of the most common sexually transmitted diseases (STDs) in the United States, responsible for over 600,000 cases each year.

Gonorrhea can be successfully treated with antibiotics, but individuals infected with gonorrhea remain infectious until they are diagnosed and treated. Many infections are asymptomatic, and, therefore, difficult to diagnose. Current program resources make it difficult to identify, treat, and provide partner referral to every person infected with gonorrhea.

#### *How are we doing?*

**Gonorrhea Rates in Michigan and the United States, 1994-2005**



The rate of gonorrhea in Michigan has fallen from a high of 187 per 100,000 population in 1994 to a low of 147 per 100,000 in 2002, and currently stands at 175 per 100,000 based on 2005 data. The highest rates of gonorrhea were in the City of Detroit, and in Genesee, Saginaw, Calhoun, and Berrien Counties. As rates and number of reported cases remain steady while targeting screening to those populations at highest risk, Michigan's goal is to continue current screening and surveillance practices.

Quinolone-Resistant Neisseria Gonorrhea (QRNG) is a type of gonorrhea resistant to commonly used antibiotics called quinolones. This type of gonorrhea has been increasing in prevalence in the past few years, especially in White men who have sex with men (MSM). The number of cases has increased 40% since 2002, with Kent and Oakland Counties having the highest prevalence. The prevalence of QRNG in Michigan in select screened populations is approximately 5.5%, which is similar to the five percent detected by the Centers for Disease Control and Prevention.





### ***How does Michigan compare with the U.S.?***

The rate of gonorrhea in Michigan at 175 per 100,000 population in 2005 is significantly higher than the national rate of 116 per 100,000. The increased rate is likely due to a surveillance data system change, as well as highly targeted screening. Michigan ranks eighth among all states for its rate of gonorrhea.

### ***How are different populations affected?***

The highest rates of gonorrhea are found among those 15-24 years old, who accounted for 60% of the cases in 2005. Rates of gonorrhea are similar among men (42% of all cases) and women (57%), however are significantly higher among Blacks, regardless of gender. The rate among Black women is 13 times higher than for White women. The rate among Black men is 42 times higher than for White men. Rates are somewhat higher among Hispanic men and women when compared to rates for White men and women. Given that sexual activity does not vary by race, this rate is evidence that once a pathogen is in a community or social network, the likelihood of acquiring that infection increases significantly, and higher rates of transmission are the result.

Males are more often symptomatic and treated presumptively (without testing), based on symptoms. Young females are at increased risk for infection because an immature cervix has a thin layer of epithelium; this provides less protection from bacteria than a mature cervix.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH is working to decrease the prevalence of gonorrhea and its health consequences. The Department participates in the national Infertility Prevention Project (IPP). Adolescents and young adults are populations on which Michigan places special emphasis; IPP is the core of these efforts. Adolescents, for both psychological and physical reasons, are vulnerable to STDs, and particularly to gateway diseases such as gonorrhea.

The MDCH and local public health personnel provide follow-up and partner referral to persons testing positive for gonorrhea, with priority placed on females of child bearing age. The Department is exploring innovative methods of partner management, including expedited partner therapy. The MDCH distributes antibiotics to local health department clinics to treat gonorrhea and also provides presentations on the gonorrhea epidemic in Michigan. Increased screening is encouraged as part of local health department reviews, Health Plan Employer Data and Information Set (HEDIS) reports, and IPP program evaluation.



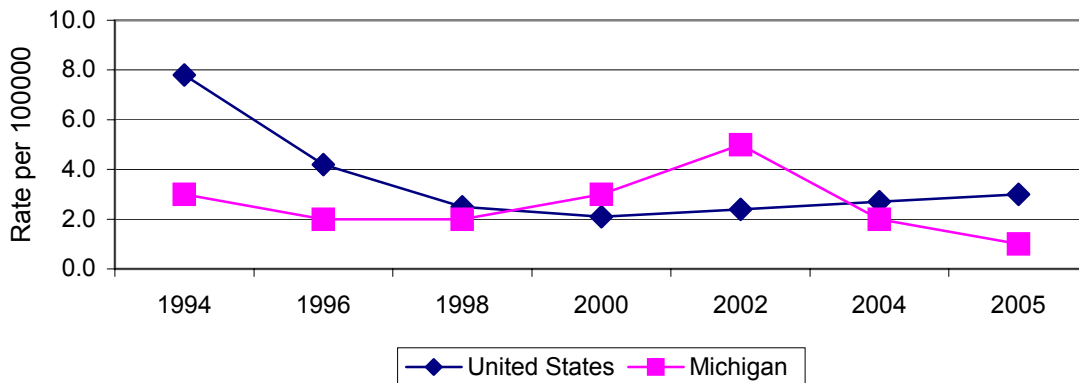
## Topic: Sexually Transmitted Disease

### 36. Syphilis

Primary and secondary (P&S) or infectious syphilis is a bacterial infection predominately spread through sexual contact. It can also be spread from mother to child. Syphilis is relatively difficult to transmit. The social networks at risk for syphilis include individuals who, in the past 12 months: 1) had four or more partners, 2) had unknown or anonymous partners, 3) exchanged money or drugs for sex, and/or 4) used hard drugs like crack, cocaine or heroin. People are infectious for a short period of time, and the incubation period is long, providing opportunity for treatment and prevention. P&S syphilis can be successfully treated with antibiotics.

#### *How are we doing?*

**Primary and Secondary Syphilis Rates  
Michigan and the United States, 1994-2005**



The total number of reported primary and secondary syphilis cases in Michigan decreased in 2005, following a downward trend that started in the latter half of 2002.

After years of steady increases, Detroit morbidity dropped 53% in 2003, 30% in 2004, and 57.1% in 2005. Numbers of infectious syphilis cases in outstate Michigan have stayed at low levels, with 64 cases in 2003, 66 in 2004, and 27 in 2005. Michigan's goal is to maintain these historically low levels.

#### *How Does Michigan compare with the U.S.?*

The rate of primary and secondary syphilis cases in Michigan was 1 per 100,000 population in 2005, which was lower than the national rate of three per 100,000 population. Michigan ranks 35<sup>th</sup> in the United States in the rate of syphilis cases reported.

#### *How are different populations affected?*

The rates of primary and secondary syphilis are more evenly distributed among different age groups than gonorrhea and chlamydia, which primarily affect younger age groups. In 2005, the rates of infectious syphilis were higher among men, reflecting increased transmission in men who have sex with men. Blacks still account for 66% of the syphilis cases; however, there have been increases among White men in the past several years. Given that sexual activity does not vary by race, the increased rate is evidence that once a pathogen is in a community or social network, the likelihood of acquiring that infection



increases significantly. The highest rates of infectious syphilis, in 2005, were in the City of Detroit and Wayne, Grand Traverse, Saginaw, Ingham, Kent, and Oakland Counties.

### ***What is the Department of Community Health doing to improve this indicator?***

As part of the National Syphilis Elimination Campaign, collaboration between the City of Detroit, the State of Michigan and local community-based organizations resulted in a model program that targets interventions to individuals most at risk. Michigan currently is at the lowest rate of infection since 1999. This level of effort must continue to keep that rate low.

The MDCH has developed many tools to assist community-based organizations. The most helpful partnerships are with community-based organizations that can reach high-risk communities. The Department collaborates with Partner Counseling and Referral Services (PCRS) staff in providing integrated HIV and syphilis prevention services targeting men who have sex with men (MSM) in Detroit and Oakland County.

Partnerships with various programs have been successful in providing onsite services to high-risk populations. MDCH collaborations have brought STD education and care services to populations who rarely seek medical services and, more importantly, may not otherwise have had access to health care. The rapport between The MDCH and these community-based organizations has reduced the stigma often attached to syphilis interventions and provided opportunities for high risk populations to access services.



## Topic: Other Communicable Diseases

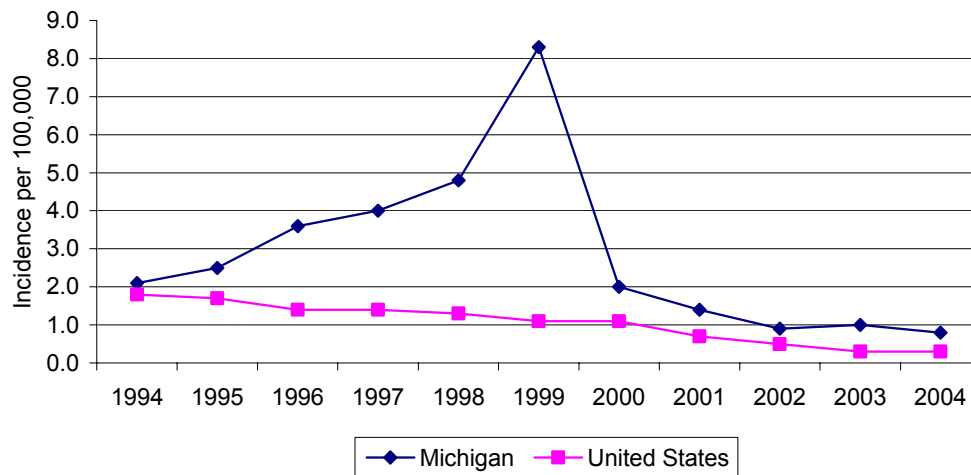
### 37. Hepatitis C

Hepatitis C is a disease of the liver caused by infection with the hepatitis C virus, in which the newly acquired (or acute) infection can progress to a chronic, long-term infection. Fifteen to 25% of those newly or acutely infected will resolve the infection on their own. However, the majority of infected people, 75% to 85%, will develop chronic infection. Disease progression in those chronically infected is variable but it can move from fibrosis, to cirrhosis, to end-stage liver disease and death. Ten to 20% of those chronically infected will develop cirrhosis within 20 to 30 years after infection. Hepatitis C is the leading indicator for liver transplantation.

The primary mode of transmission for the hepatitis C virus is through the sharing of needles, syringes, and other drug paraphernalia. It is estimated that 60-90% of injection drug users are infected with the virus. Other routes of transmission include sexual contact, from mother to unborn child during the birth process, and via occupational exposure to blood. In addition, the virus was transmitted through blood transfusions prior to 1992 and during receipt of blood products developed before 1987.

#### *How are we doing?*

**Infection Rates Hepatitis C  
In Michigan and the United States, 1994-2004**



Differentiating between acute and chronic hepatitis C is complicated and requires extensive case investigation. When chronic cases are incorrectly reported as acute cases, the acute infection rates become erroneously inflated. Additionally, before 2000, when a chronic hepatitis C case definition was developed and chronic hepatitis C cases became reportable, chronic hepatitis C cases may have been more often inaccurately reported as acute cases. This can be seen in the above graph by the increase in reported acute hepatitis C cases until 1999 followed by the substantial decrease in reported acute cases in 2000 when the new chronic hepatitis C case definition was introduced.

Since 2000, Michigan's rate of acute infection has decreased steadily to a current rate of 0.8 per 100,000. However, since individuals with acute infection often have no symptoms and remain undiagnosed until later in the disease course, acute infection rates underestimate the actual number of hepatitis C cases. To gauge the true hepatitis C disease burden we often rely on estimates derived from national data. It is



estimated that 160,000 Michigan residents have ever been infected with hepatitis C and approximately 128,000 individuals are chronically infected with hepatitis C. A significant concern is that 60-70% of those chronically infected do not know they have the virus. As a result, Michigan is headed in the wrong direction with respect to meeting the need for increased hepatitis C screening, education and prevention.

### ***How does Michigan compare with the U.S.?***

The rate of acute infection for Hepatitis C in Michigan has been significantly higher than in the United States. Michigan's current rate of 0.8 per 100,000 is nearly three times higher than the U.S. median rate of 0.3 per 100,000. Michigan ranks as the fifth highest state in the United States for rate of acute hepatitis C. However, state hepatitis C data can be unreliable for a number of reasons.

### ***How are different populations affected?***

National data indicate that African-Americans are approximately two times more likely to have been exposed to the hepatitis C virus than Caucasians. The Centers for Disease Control and Prevention estimate that approximately 1.6% of the total U.S. population has ever been infected with hepatitis C. However, it is estimated that three percent of the African-American population in the U.S. has ever been infected with hepatitis C, accounting for 23% of all the individuals with hepatitis C in this country. While the reasons for the higher rate of infection in African-Americans are not completely understood, it is thought to be due to more occupational blood exposures, more blood transfusions before 1992, more intravenous drug use and limited access to hepatitis C information and preventative medical care among the African-American population.

Additionally, men of all races are more likely to have been infected with hepatitis C than women. Also, individuals between 40 and 49 years of age, regardless of race or sex, have the highest prevalence rate of hepatitis C among all age groups. The increased rate of infection in men and in individuals between 40 and 49 years of age is thought to be attributed to an increased likelihood of participating in high-risk behaviors such as intravenous drug use.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is working to increase hepatitis C education among health care professionals, local health department staff, social service professionals and the public. The first statewide hepatitis C conference was held in October 2005 and planning is underway for the second statewide conference to be held in December 2007. The conference will provide education on many of the issues surrounding hepatitis C including prevention, treatment, substance abuse, co-infection, and advocacy. Additionally, Department of Community Health staff regularly present hepatitis C trainings throughout the state to smaller professional groups.

The MDCH recently developed a hepatitis C fact sheet and revised hepatitis C surveillance guidelines for dissemination to local health departments. The Department also developed an Internet-based survey to determine current hepatitis C services provided by local health departments and to identify the training and technical assistance needs of local health departments. Survey results will enable the Department to improve educational support services to local health department staff.

Public Act 238, which was passed in June 2006, calls for the development of a hepatitis C advisory task force. As indicated in the bill, the task force will consist of eleven members to be appointed by the Governor, including the director of the Department of Community Health and her designee. The task force is currently being formed.

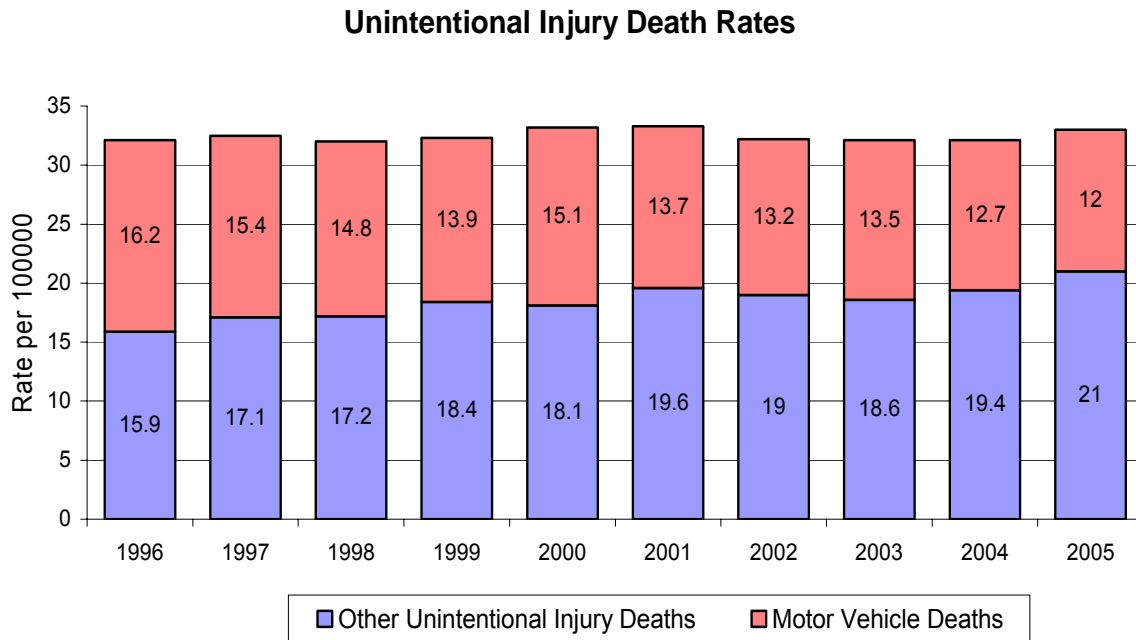


## Topic: Unintentional and Childhood Injuries

### 38. Unintentional Injuries

Unintentional injuries are the fifth leading cause of all deaths in Michigan and the third leading cause of Years of Potential Life Lost (YPLL) for people below the age of 75.

#### *How are we doing?*



Motor vehicle crashes are the most common cause of unintentional injury deaths, representing 41 percent of the total. The trend for motor vehicle deaths has improved since 1996; the age-adjusted death rate has decreased by 26 percent. The introduction of advanced safety equipment in cars, combined with stricter laws regarding use of seatbelts and child restraints, and drinking and driving, has pushed the trend downward since the late 1970s.

In 2005, there were 3,426 Michigan resident deaths due to all causes of unintentional injury. The age-adjusted unintentional injury death rate was 33.0 per 100,000 population. This rate has remained relatively stable since 1992, although the change to ICD10 coding artificially increased the rate by three percent.

#### *How Does Michigan compare with the U.S.?*

The unintentional injury death rate for Michigan has been consistently lower than the U.S. rate. In 2003, the most recent year for which national data are available, Michigan's age-adjusted death rate of 32.1 per 100,000 was 14% lower than the U.S. rate of 37.2 per 100,000. Unintentional injuries were the fifth leading cause of all deaths in the U.S. and the third leading cause of YPLL in 2003.

#### *How are different populations affected?*

Unintentional injuries are the leading cause of death to Michigan residents who are at least one year of age but under age 35. Between 1999 and 2005, unintentional injuries due to fires, motor vehicle crashes, drowning, and poisonings accounted for more than one-third of all deaths to Michigan residents aged 15 to 24 and about



one-fifth of all deaths to residents aged 25-34. During this period, the unintentional fall death rate for those aged 65 years and older was 25 times greater than the rate for those under age 65.

Men are more than twice as likely as women to die of unintentional injuries. In 2005, the Michigan age-adjusted unintentional injury death rate was 45.3 per 100,000 for men and 21.8 per 100,000 for women. The rate for Black men was the highest at 49.0 per 100,000.

Unintentional injury-related deaths disproportionately affect Blacks. The Michigan 2005 age-adjusted rate for Blacks was 33.4 per 100,000 compared to 32.6 for per 100,000 Whites.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is decreasing the incidence and burden of unintentional injuries by providing leadership, training, public education, data collection and analysis, funding support and technical assistance related to the leading causes of injuries. With statewide stakeholders, several injury prevention plans have been developed over the last few years addressing key injury issues in Michigan. One such plan is the Michigan Plan for Injury Prevention which contains recommendations to build the core capacity of the state injury program as well as impact the top four priority causes of injury in Michigan (motor vehicle crashes, firearms, falls and poisoning).

From 2002-2006, under a CDC cooperative agreement, the Department developed, implemented and evaluated hospital-based fall prevention clinics through a randomized, controlled study. A major focus was the development of training courses for interdisciplinary healthcare professionals in fall risk assessment skills, evidence-based interventions to reduce fall risk, geriatric skills and interdisciplinary collaboration. The training methodology consisted of statewide conferences, seminars, a 110-page instructional manual, one-on-one instruction and mentoring. Evaluation results from this study indicate that older adults treated in a fall prevention clinic (intervention group) had 34% fewer falls than those in the control group. These results are not statistically significant but demonstrate a trend that is encouraging.

The Department compiles fatality, hospitalization and emergency department data on injuries to determine the magnitude of the problem, describe the characteristics of the populations at risk, and determine causes of injuries so that prevention programming can be effectively targeted. Several reports have been prepared and are available at: [www.michigan.gov/injuryprevention](http://www.michigan.gov/injuryprevention). In addition, strategic plans, program descriptions and reports, educational materials and injury prevention links are also available at this website.



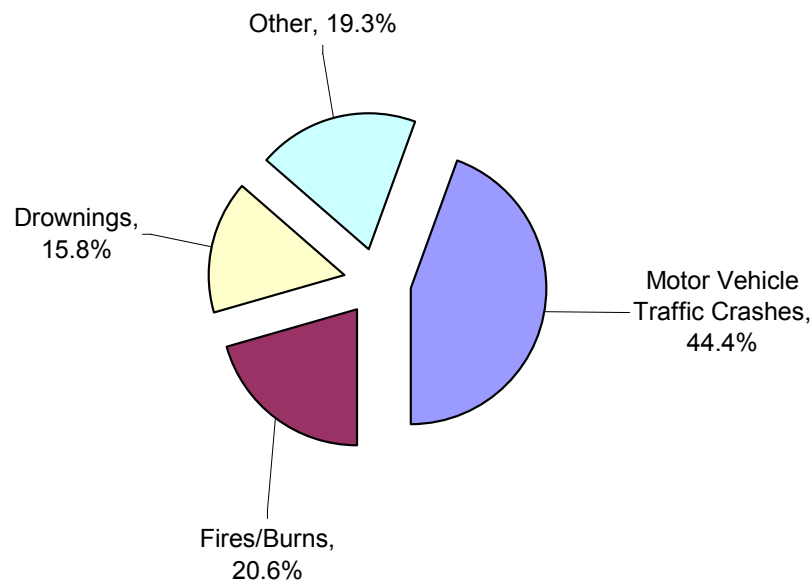
## Topic: Unintentional and Childhood Injuries

### 39. Childhood Injuries

Unintentional injuries are the leading cause of death for children ages 1-14 in Michigan, resulting in 850 deaths from 1999-2003. During this time, motor vehicle crashes were the most common cause of unintentional injury death to this age group (377 deaths, 44.4%). Fire/burn was the second leading cause of death (175 deaths, 20.6%), and drowning was the third leading cause of death (134 deaths, 15.8%).

#### *How are we doing?*

**Leading Causes of Unintentional Injury Deaths  
Children Ages 1-14, 1999-2003**



In 2003, there were 166 deaths due to all unintentional injuries in Michigan for children ages 1-14, a crude rate of 8.42 (number of deaths per 100,000 residents). This is a substantial decrease from 1999, when there were 196 deaths and a crude rate of 9.65.

#### *How does Michigan compare with the U.S.?*

The unintentional injury death rate for Michigan children has been consistently lower than the U.S. rate. Michigan's death rates in the categories of drowning, falls, motor vehicle crashes, poisoning, and traumatic brain injury for the period of 1999-2003 are all lower than the U.S. rate. Michigan's fire and burn-related death rate is higher than the U.S. rate.

#### *How are different populations affected?*

For the period of 1999-2003, Hispanic children ages 1-14 in Michigan had a slightly higher proportion of unintentional injury death as a percentage of all deaths versus the U.S. (41.7% vs. 35.6%). During the





same period, Michigan children ages 1-14 of all races and both genders had nearly twice the proportion of deaths caused by fire and/or burns. Michigan children ages 1-9 of all races and both genders had lower proportions of death caused by motor vehicle crashes compared to the U.S. rate. Michigan children ages 10-14 of all races and both genders had a substantially lower proportion of death due to drowning compared to the U.S. rate.

Of Michigan children ages 1-14, the proportion of African-American children that died as a result of fire/burn was over twice the percentage of Caucasian children from 1999-2003. For females ages 1-14, over half (51.5%) of the unintentional injury deaths were due to motor vehicle crashes, compared to males ages 1-14 where 40.5% of the unintentional injury deaths were due to motor vehicle crashes. In Michigan, for the period of 1999-2003, children ages 1-4 died as a result of drowning at a substantially higher proportion than those ages 5-14. Michigan children ages 5-14 had a substantially higher rate of motor vehicle-related death from 1999-2003 than children ages 1-4.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department is decreasing the incidence and burden of unintentional injuries by providing leadership, training, public education, data collection and analysis, funding support and technical assistance related to the leading cause of injuries.

A Child Passenger Safety (CPS) strategic planning process was coordinated by the MDCH, which resulted in a five-year plan. Law enforcement, health care, injury prevention, auto insurance, research institutes, and auto manufacturers were represented on the strategic planning team and contributed to the plan. The five-year plan includes recommendations in: Education and Training, Public Information and Education, Health Care and Family Service Providers, Research, and Funding. The MDCH is in the final year of a four-year grant with the Centers for Disease Control and Prevention to develop interventions for reducing motor vehicle-related injuries to children. The Department is in the process of expanding its CPS program to include injury prevention activities directed toward the 9-18 year-old population.

The MDCH coordinates distribution of child safety seats, bicycle helmets, and safety education materials with a focus on at-risk populations such as rural, non-English speaking, minority, and low-income families. The Department also offers training to certify child passenger safety technicians so that they can conduct child safety seat inspections. To increase booster seat use, the Department conducted public education campaigns that included radio public service announcements to reach Hispanic and inner city populations. The Department works with hospitals to provide training and car seats as incentives for them to establish or strengthen policies for discharging infants in car seats.

Safe Kids Worldwide is a non-profit organization with the mission of preventing accidental injury to children age 14 and under. The MDCH is the lead agency for Safe Kids Michigan, a state coalition comprised of local coalitions and chapters. Local Safe Kids groups are comprised of firefighters, medical and health professionals, law enforcement officers, educators, parents and other child safety advocates. Local groups conduct events and programs designed to teach parents, caregivers and children how to prevent unintentional injuries. Currently, there are 24 local Safe Kids coalitions and chapters in Michigan that address major risk areas for children (motor vehicle crashes, bicycle-related injuries, pedestrian injuries, fire/burn injuries, drowning, scald burns, poisoning, choking and falls).

The Department compiles fatality, hospitalization and emergency department data on injuries to determine the magnitude of the problem, describe the characteristics of the populations at risk, and determine causes of injuries so that prevention programming can be effectively targeted. Several data reports have been prepared and are available at: [www.michigan.gov/injuryprevention](http://www.michigan.gov/injuryprevention). In addition, strategic plans, program descriptions and reports, educational materials and injury prevention links are also available at this website.

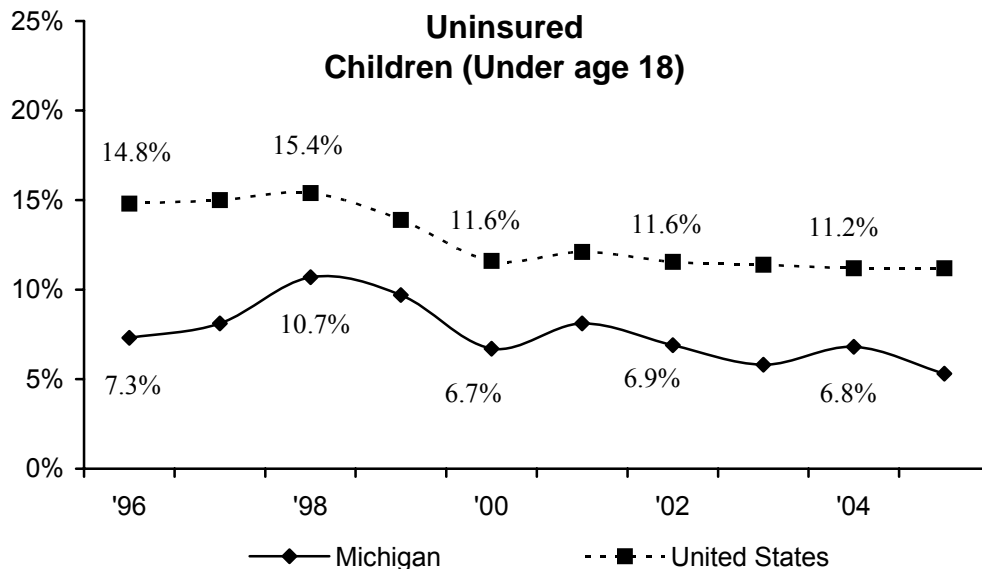
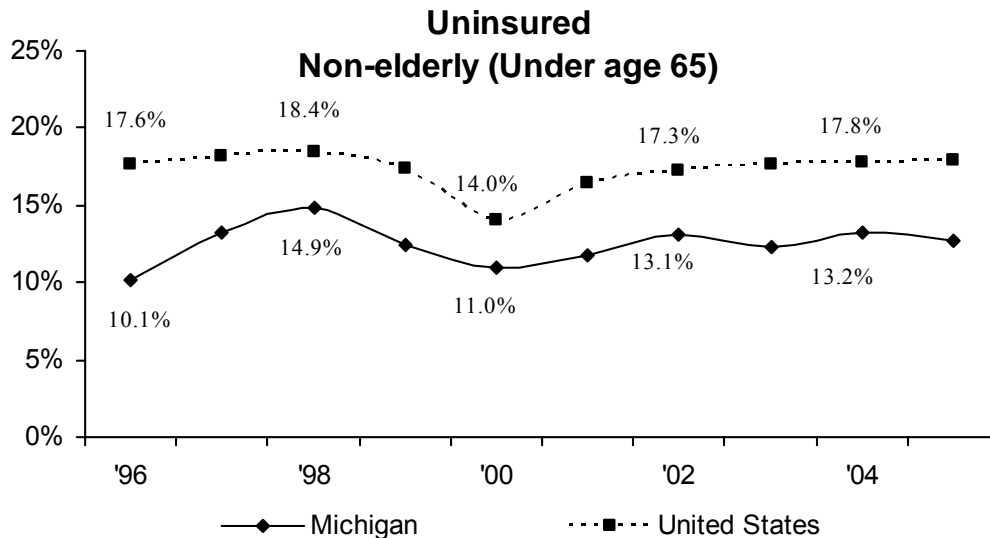


Topic: Health Insurance Coverage

**40. Uninsured Adults and Children**

*How are we doing?*

The percentage of uninsured in Michigan has remained fairly constant since 2001, with the number of individuals covered by public programs increasing while the number of individuals covered by employer-based coverage decreased.



*How does Michigan compare with the U.S.?*

According to the U.S. Census Bureau's Current Population Survey, 12.7% of Michigan's non-elderly residents (0 to 64 years) were uninsured in 2005, compared to 17.9% of all non-elderly Americans. The



percentage of uninsured in Michigan has been consistently lower than the U.S. rate. The rates of uninsurance for children (0 to 17 years) are lower in Michigan than throughout the United States. In 2005, 5.3% of Michigan's children were uninsured, compared to 11.2% of all children in the U.S. Michigan's rate for children was the second lowest in the nation, behind only Massachusetts.

Michigan also ranked below the national average in the percentage of uninsured adults. In 2005 15.8% of Michigan's non-elderly adults (18 to 64 years) were uninsured, while the national average was 20.5%.

### ***How are different populations affected?***

The likelihood of being insured increases with income and firm size in which an individual is employed. Almost two-thirds of the uninsured live in households with an income of less than 200% of the federal poverty level. As for firm size, over one-quarter of individuals employed in firms of less than 24 workers are uninsured compared to 18% of those employed by firms with 25 to 99 employees, 11% of those employed by firms with 100 to 499 workers and 9% of those who work for firms with 500 to 999 workers.

For the non-elderly population (0 to 64 years), males are slightly more likely to be uninsured, with 11.9% of females and 13.6% of males being uninsured. Blacks are disproportionately uninsured with a rate of 19.4%, as compared with an uninsured rate of 11.3% for Whites.

The 2005 Michigan Household Health Insurance Survey included a sufficiently large sample to allow for regional analysis about the uninsured in Michigan. The state was divided into the following six multi-county regions: Upper Peninsula, Northern Lower Peninsula, West Central, East Central, Southwest and Southeast, with the City of Detroit being a seventh region. The survey found that the City of Detroit has the highest adult uninsured rate at 17.5%, with the Northern Lower Peninsula following closely with 16.5% uninsured. The lowest rate, 8.6%, was found in southeast Michigan, excluding the City of Detroit. The statewide uninsured rate for children at 3.7% was much lower than the adult rate and more evenly distributed throughout the state.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH is submitting a Medicaid waiver that if approved, would establish the Michigan First Healthcare Plan. This Plan targets uninsured adults who live in households with incomes below 200% of the federal poverty level. Individuals and businesses will secure coverage that best meets the needs of the uninsured through an exchange that also encourage healthy behaviors.

Additionally, to lower the rate of uninsurance the Department continues to engage in and support various programs to encourage eligible Michigan residents to enroll in Medicaid and MICHild.

In 2004 the MDCH received a State Planning Grant from the U.S. Dept. of Health and Human Services, Health Resources and Services Administration (HRSA) to develop realistic strategies to ensure that all Michigan residents have access to health insurance. A component of the grant was to engage in data collection activities designed to uncover unmet need, barriers to insurance coverage, and system changes that need to occur for insurance to be universally available. Michigan's data collection efforts included Household and Employer Surveys, Focus Groups and Town Hall Meetings. An Advisory Council developed a number of recommendations including support for a public education initiative to inform residents and policymakers of the nature, severity and impact of uninsurance; public information about the availability of low-cost health insurance options to cover the uninsured; expansion of the employer-based insurance system; implementation of the Michigan First Healthcare Plan; enrollment of uninsured individuals into employer-sponsored and public programs for which they are eligible; and establishment of a Successor Council to focus on securing health insurance coverage for all Michigan residents.



## Topic: Health Insurance Coverage

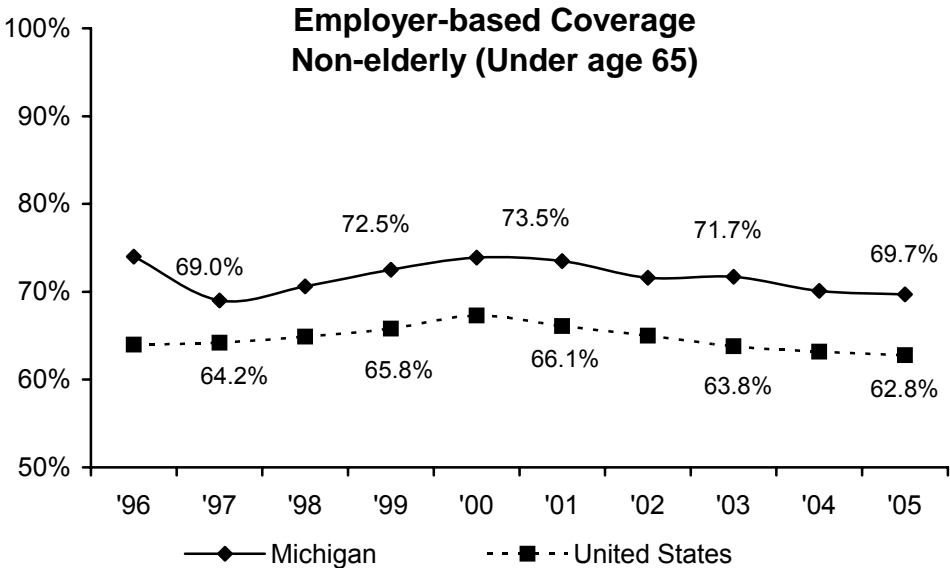
### 41. Employer-Based Coverage

#### *How are we doing?*

Most Americans, including Michigan residents, receive their health insurance through some type of employer-sponsored plan. According to the U.S Census Bureau Current Population Survey (CPS), in 2005, 69.4% of adults (18 to 64 years) and 70.4% of children (0 to 17 years) in Michigan had employer-sponsored health insurance. These rates of employer coverage, although still high, are a reduction from previous years.

#### *How Does Michigan compare with the U.S.?*

According to the CPS, rates for employer-based coverage are higher in Michigan than the rest of the U.S. In 2005, 62.8% of non-elderly Americans (0 to 64 years) had employer-sponsored health insurance, while 69.7% of Michigan residents had employer-sponsored coverage.



#### *How are different populations affected?*

Rates of insurance in Michigan vary by race, with 73.7% of Whites and 47.1% of Blacks having had employer-based coverage in 2005.

Varying incomes produce disparate levels of coverage. In 2005, those with incomes above 200% of the federal poverty level received employer-based coverage at a rate of 82.2%; those 100% to 199% of poverty received coverage at a rate of 52%; and only 18.9% of those below 100% of poverty had employer-sponsored coverage.



***What is the Department of Community Health doing to improve this indicator?***

The Michigan First Healthcare Plan will be a vehicle through which employers can offer low-cost health insurance to their employees. It is anticipated that the availability of this coverage will allow employers previously closed out of the market due to cost to purchase coverage for their employees.

Since costs for the uninsured are shifted onto those who purchase health insurance, implementation of the Michigan First Healthcare Plan will reduce the cost of insurance premiums for all purchasers. In the Michigan Employer Health Insurance Survey, one of the factors that employers not offering insurance indicated would encourage them to provide insurance to their workers was lower premium costs. The Michigan First Healthcare Plan could provide this needed reduction in health insurance premiums.



## Topic: Health Insurance Coverage

### 42. Medicaid and MICHild Enrollment

#### *How are we doing?*

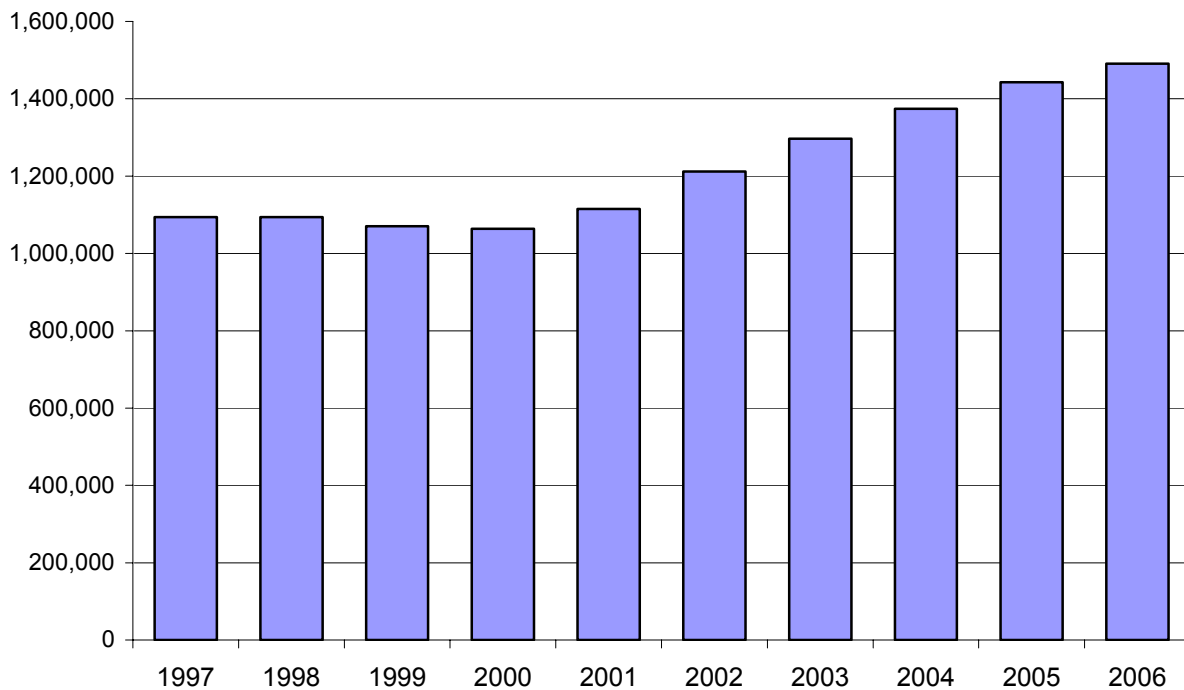
Michigan’s child health insurance initiative, MICHild, which began in 1998, provides health insurance to children of low-income and moderate-income families. Children under the age of one year with family incomes between 185% and 200% of the federal poverty level, and children age one to 18 without health coverage and whose family income is between 150 and 200% of the federal poverty level are eligible. MICHild enrollment is coordinated with Healthy Kids enrollment since both programs share a single application.

Healthy Kids is Michigan’s Medicaid program for children whose family income is below 150% of the federal poverty level. Children under the age of one and pregnant women with family incomes up to 185% of the federal poverty level are covered.

Enrollment in MICHild and Healthy Kids has risen steadily over time. For MICHild, enrollment increased from 28 children in June of 1998 to 34,218 in June 2006. Healthy Kids enrollment has risen from 164,190 in May 1998 to 431,233 children in May 2006.

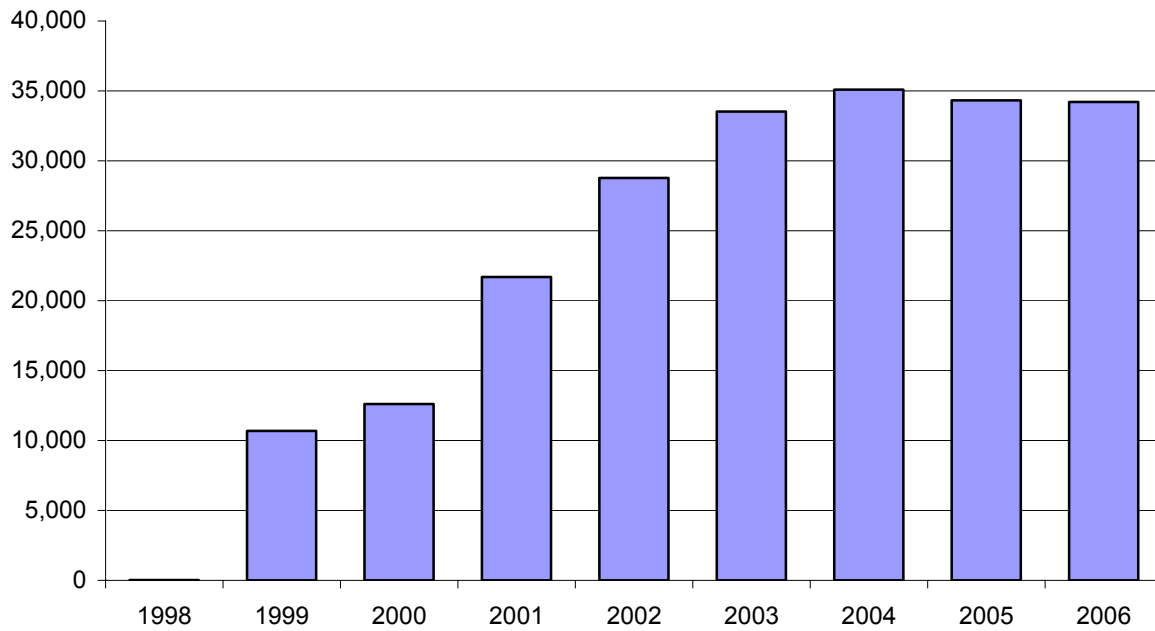
Total enrollment in the Michigan Medicaid program in 2005 was 13.6% of the population. Over the past few years, the Michigan Medicaid program has continued to cover an increasing number of residents, including low-income children who have lost dependent coverage and adults who have lost their jobs and exhausted their unemployment benefits.

**Medicaid Enrollment in Michigan, 1997-2006**

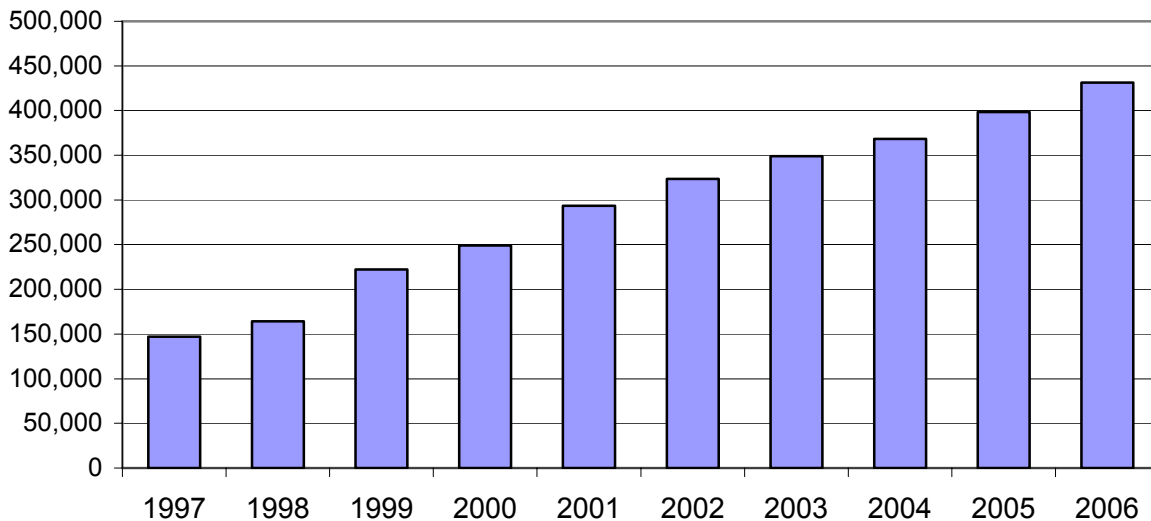




### MIChild Enrollment in Michigan, 1998-2006



### Healthy Kids Enrollment in Michigan



#### *How Does Michigan compare with the U.S.?*

Michigan's Medicaid rolls increased by 4.1% between June 2004 and June 2005 while the average increase across the nation was only 3.2%. For eight of the past 10 years, the percentage of Michigan residents receiving Medicaid has exceeded the national average.



### ***How are different populations affected?***

A much larger percentage of children are eligible for Medicaid than adults. In 2005, 26.8% of Michigan's children were eligible for Medicaid, as were 9.5% of adults. In 2005, Michigan Medicaid covered 10.5% of Whites and 32.4% of Blacks.

### ***What is the Department of Community Health doing to improve this indicator?***

The MDCH has comprehensive outreach efforts for the MICHild program, including a combined Medicaid and MICHild application, pamphlets, and posters. Toll-free telephone lines (1-888-988-6300) offer translation services for other languages as well. In addition, the Department is very active in outreach to the Native-American community. The Department has trained many of the tribal health centers in Medicaid and MICHild eligibility and has enrollment assistance workers at each tribal health center.

The Department also provides preventive and primary health care to its dually-eligible Children's Special Health Care Services (CSHCS) and MICHild enrollees. Eligible families may choose to enroll in one of the CSHCS's managed care programs that also provide MICHild services or receive services on a fee-for-service basis.

The MDCH has worked with local Multi-Purpose Collaborative Bodies and Child and Adolescent Health Centers and Programs to develop locally-driven, innovative outreach programs throughout the state. Outreach materials are provided through schools and local organizations. The Department has also offered widespread training assistance to community-based groups and contacted community business organizations (small businesses, self-employed persons, etc.) for outreach efforts.

One other asset of the MICHild and Healthy Kids program is the co-location of Medicaid eligibility workers at the MICHild administrative site of business. This allows faster Medicaid determinations, better communication between the two programs, and continuity of care for children transferring between programs.





### Topic: Public Health Preparedness

The Office of Public Health Preparedness (OPHP) was formally established in 2002 to coordinate development and implementation of Public Health and Medical Management Services preparedness and response to acts of bioterrorism, infectious disease outbreaks and other public health emergencies. The mission of the office has expanded to encompass “all hazards” preparedness and response. Funding for the program is provided exclusively through two federal cooperative agreements: the Centers for Disease Control and Prevention (CDC) Public Health Preparedness and Response for Bioterrorism and the Health Resource Services Administration (HRSA) Bioterrorism Hospital Preparedness Program.

This program works to strengthen existing partnerships (through cooperative agreements) among public health, healthcare and emergency management planning communities; build and sustain an aggressive collaborative response to public health emergencies of any nature; and assure effective and efficient application of human, monetary and other resources, during a period of public health emergency response. Achievement of these goals will be evidenced by vertical and horizontal integration of planning, preparedness and response activities at all levels of government.

Planning and development activities must comply with the National Response Plan (NRP) and the National Incident Management System (NIMS). Two national and state priorities of the NRP that pertain to the state partnerships are Mass Prophylaxis and Medical Surge. An additional priority is intrastate regionalization of planning and response activities. At the MDCH, this regionalization occurred in 2002 as one of the HRSA bioterrorism funding requirements, and utilized the already established eight Michigan State Police Districts. Regional resources continue to expand but currently include: Regional Hospital/Prehospital Medical Directors, Regional Hospital/Prehospital Bioterrorism Coordinators, Regional Epidemiologists, Regional Laboratories, 45 Local Health Emergency Preparedness Coordinators who participate in the Regions, and the Regional Trauma System.

Additional information can be found at: [www.michigan.gov/ophp](http://www.michigan.gov/ophp).



## Topic: Health Disparities

The elimination of racial and ethnic health disparities have been a concern in segments of the health policy community for many years. A long-stated goal has been to eliminate disparities in six health categories by 2010: Adult immunization, cardiovascular health, cancer care, diabetes, HIV/AIDS and infant mortality.

The term **health disparities** is often used as an umbrella for two related concepts: **Disparities in health**, which refer to differences in health outcomes and status; and **Disparities in health care**, which refers to differences in the preventive, diagnostic and treatment services offered to people with similar health conditions.

In Michigan, as well as nationally, racial and ethnic health disparities exist in the leading causes of morbidity and mortality.

An understanding of social determinants and their potential role in the development of disease is important in reducing disparities in morbidity and mortality.

In Michigan, adult members of racial and ethnic minority groups are less likely than their White counterparts to have completed both high school and college. Studies have shown a direct correlation between education level and understanding the importance of preventive medical care. According to the 2005 Michigan Behavioral Risk Factor Survey, minority residents in Michigan are also more likely to lack health care coverage, less likely to have a personal health care provider, and more likely to report that they were not able to access health care in the last year due to cost.

Michigan Adults, 2005	No health coverage	No personal care provider	Unable to access health care due to cost
Whites	13.1%	12.6%	10.9%
Blacks	18.5%	21.0%	19.6%
Asian/Pacific Islanders	9.0%	29.2%	16.0%
American Indian/Native Americans	31.1%	22.9%	20.1%
Hispanic/Latinos	26.6%	22.6%	18.9%

### *What is the Department of Community Health doing to address disparities?*

The Michigan Office of Minority Health (OMH) was established in 1988 by executive order. In 2004 the Michigan Department of Community Health changed the name of the OMH to the Health Disparities Reduction and Minority Health Section (HDRMH). The HDRMH serves five populations of color: African-Americans, Hispanics and Latinos, Native Americans and Alaskan Natives, Asians and Pacific Islanders and Arab/Chaldeans. The Section’s goal is to reduce health disparities by supporting a portfolio of social/behavioral interventions that target populations at greatest risk and provide services that have documented health promotion and management potential. This responsibility is carried out primarily through grants to local health departments and community-based organizations.

In addition, the Section works to promote and advance the principles published in the 2004 Commonwealth Report which identified eight key areas that state and national policymakers must consider to eliminate racial and ethnic disparities. They include: consistent racial/ethnic data collection; effective evaluation of disparities-reduction programs; minimum standards for culturally and linguistically competent health services; greater minority representation within the health care workforce; expanded health screening and access to services (e.g., through expanded insurance coverage); establishment or enhancement of state offices of minority health; involvement of all health system



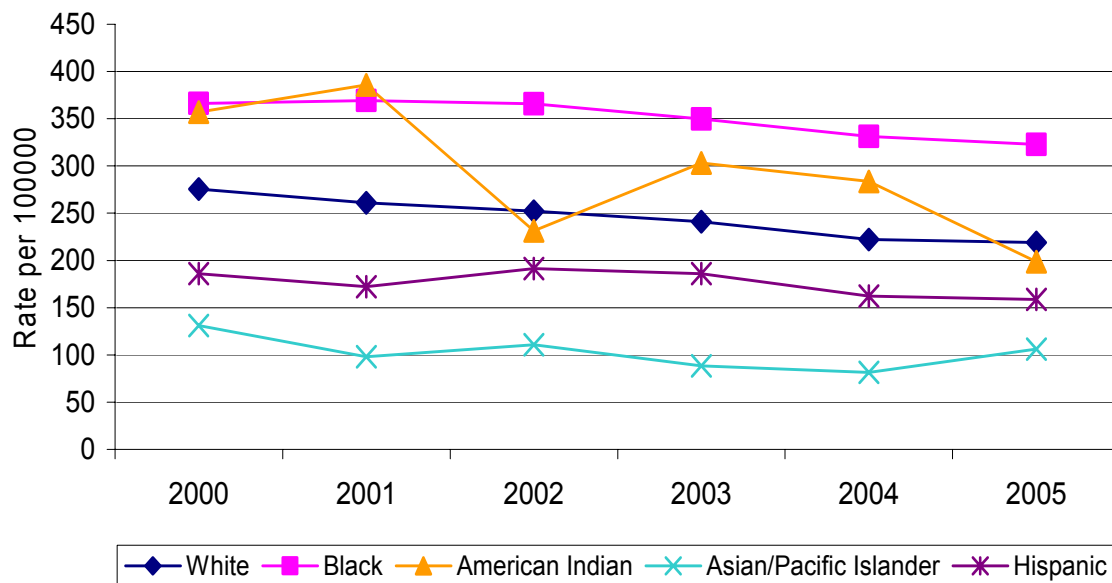
stakeholders in minority health improvement efforts; and creation of a national coordinating body to promote continuing state-based activities to eliminate racial and ethnic health disparities.

## Cardiovascular Disease

### *How are we doing?*

Poor cardiovascular health, in particular, heart disease, is the number one cause of death for all residents in Michigan; however, it is also one area in which disparities can clearly be seen by racial/ethnic population. For example, Blacks are nearly 1.5 times more likely to die from heart disease than Whites, with mortality rates of 322.7 per 100,000 and 219.0 per 100,000 respectively. While Blacks have had rates consistently higher than Whites over the last five years, the rates for Hispanic/Latinos and Asian/Pacific Islanders were consistently lower than White rates during the same time period. Heart disease death rates for the American Indian/Alaskan Native population are less stable. A rise in death rates in 2001 gave this population the highest heart disease death rate of all groups; since that time, the rates have reduced significantly, with a 2005 death rate below that of Whites.

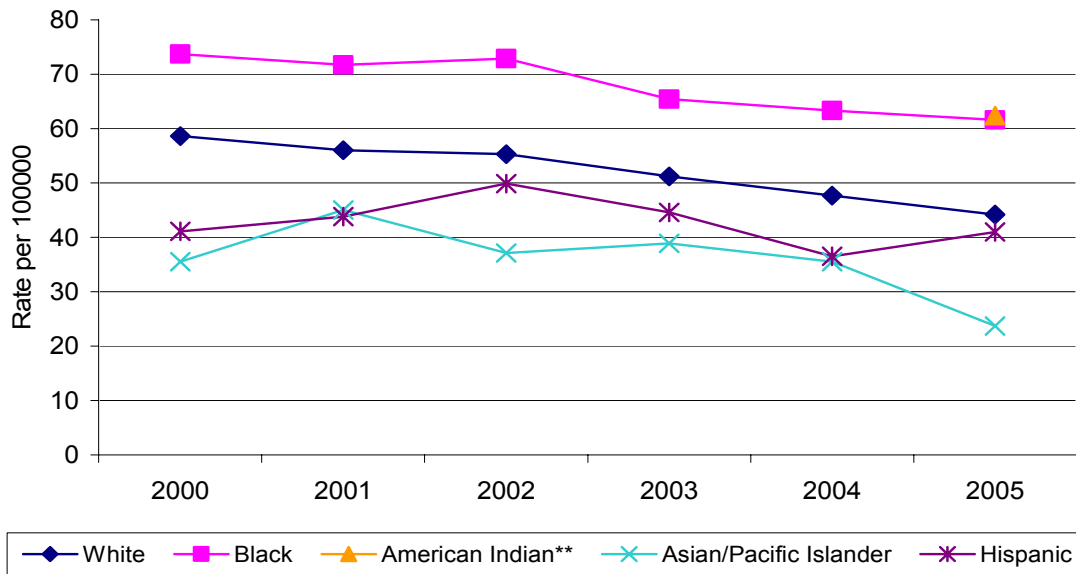
**Heart Disease Death Rates by Race in Michigan, 2000-2005**



Stroke rates also depict the disparity in health status that exists for racial and ethnic minorities. The largest disparity exists between Whites and American Indians/Alaskan Natives, with American Indian/Alaskan Natives being 1.4 times more likely to die from stroke than their White counterparts in 2005. The mortality rate for this population is 62.4 per 100,000 compared to Whites who have a mortality rate of 44.2 per 100,000 and Blacks who have a mortality rate of 61.6 per 100,000.



### Stroke Death Rates by Race, Michigan 2000-2005



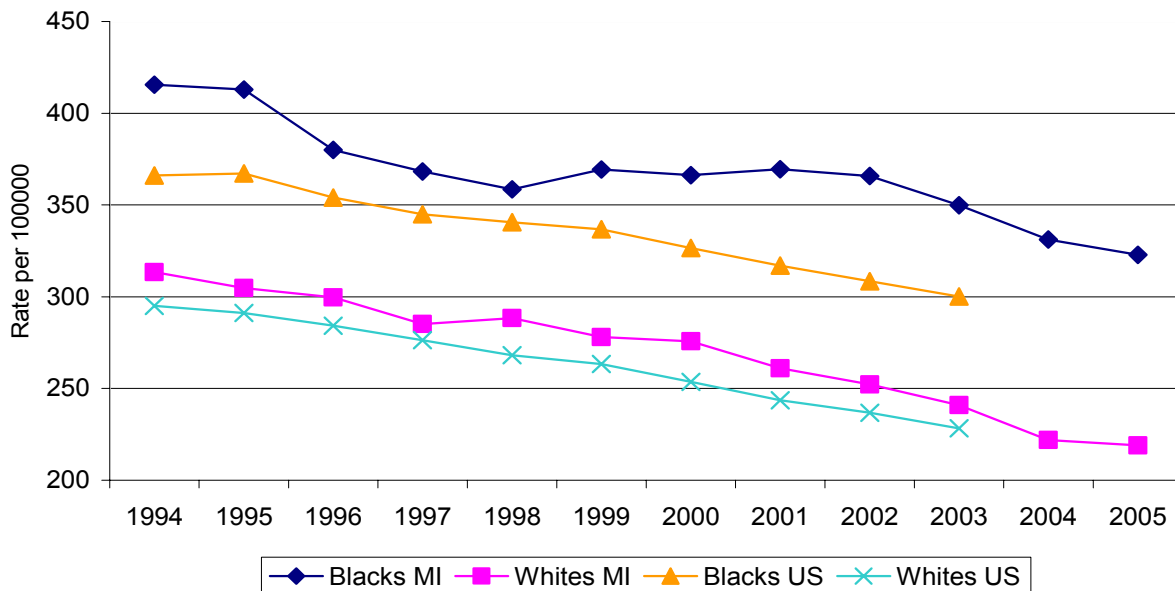
Heart disease and stroke mortality rates could not be calculated for Arab/Chaldean residents due to unstable population estimates; however mortality numbers for this population suggest this population is disproportionately impacted by both heart disease and stroke. The Asian/Pacific Islander community has rates of heart disease and stroke that are significantly less than those rates found among Whites.

#### ***How Does Michigan compare with the U.S.?***

Using 2003 data, the most current data available for the United States, disparities that exist for cardiovascular health in the Michigan are greater than those that exist for the U.S. The Michigan heart disease death rate is greater than the U.S. heart disease death rate, for both White and Black populations (U.S.: 228.2 per 100,000 for Whites, 300.2 per 100,000 for Blacks; MI: 241.0 per 100,000 for Whites, 349.9 for Blacks). Not only are the heart disease rates higher in Michigan, but the disparity between Whites and Blacks is greater as well. In the U.S., Blacks have a 30% higher heart disease death rate than Whites, while in Michigan Blacks have a 45% higher heart disease death rate than Whites.

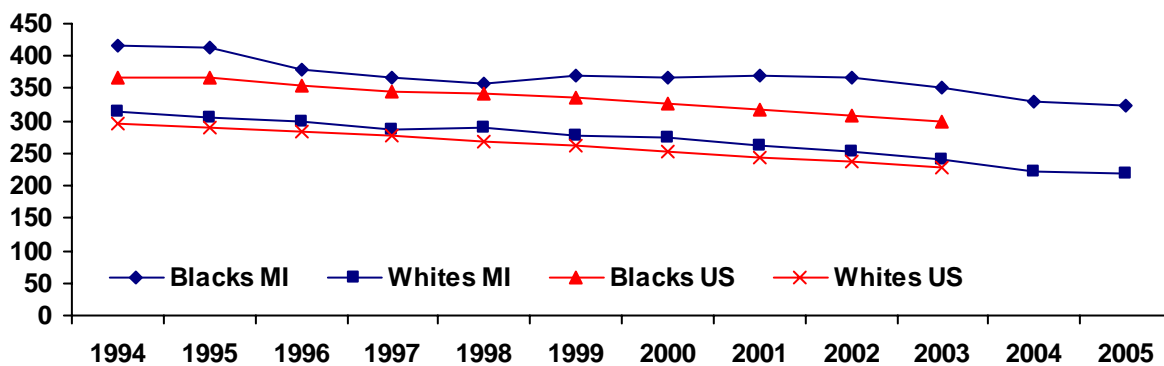


**Heart Disease Death Rates, Blacks and Whites, MI vs U.S. 1994-2005**



When looking at disparities in stroke death, Michigan fares better than the United States. This is most likely due to the large impact of the “stroke belt” (approximately 11 states with substantially higher rates of stroke, found disproportionately in Blacks). Blacks living in Michigan are 30% more likely to die from stroke as Whites, whereas in the U.S., Blacks are 45% more likely to die from stroke as Whites.

**Stroke Death Rates, Blacks and Whites  
MI vs U.S., 1994-2005**



***What is the Department of Community Health doing to improve this indicator?***

The Department of Community Health’s main initiative that correlates to decreasing morbidity and mortality in cardiovascular health, is the Surgeon General’s “Michigan Steps Up” campaign. This campaign urges Michigan’s citizens to “move more”, “eat better”, and “don’t smoke” by outlining what



individuals, schools, communities, businesses, and healthcare professionals can do to improve the overall health of the state.

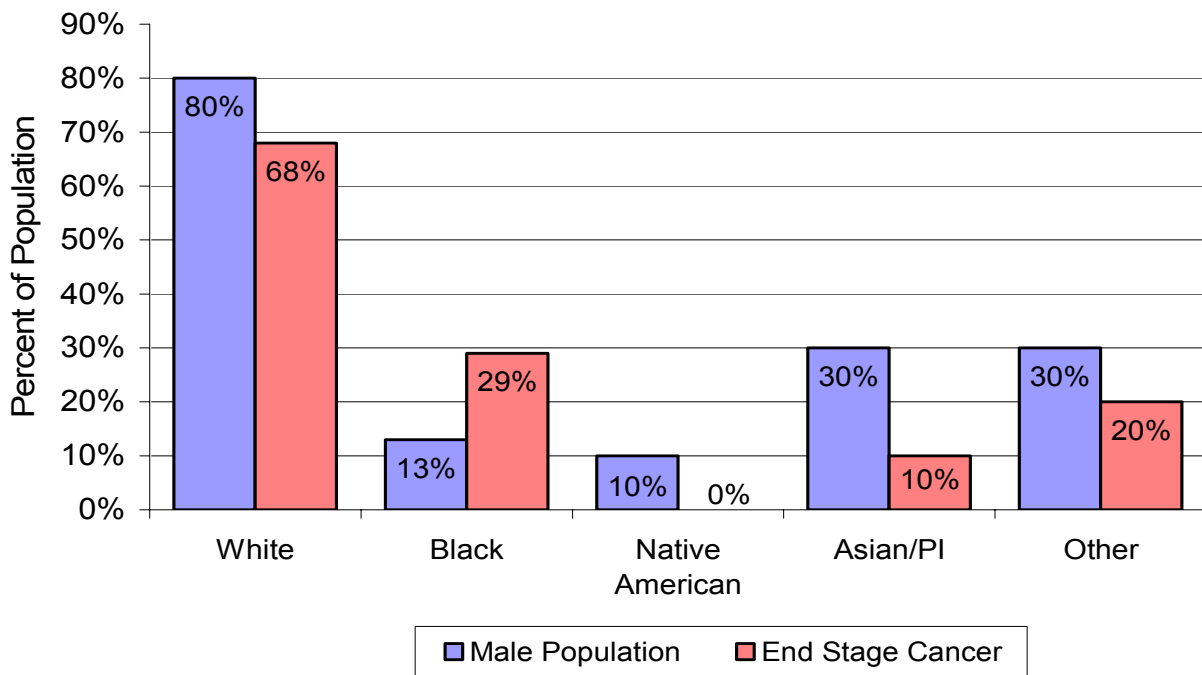
There are also other statewide initiatives aimed at promoting healthy eating, particularly in large urban areas such as Detroit, where fresh fruits and vegetables are not readily available. The Health Disparities/Minority Health Section funds a demonstration project to impact minority health. The project targets adults age 50 and older, primarily African-Americans, living in Detroit. The project activities seek to improve the overall health of participants through reduction/ control of their previously out-of-control hypertension. Participants in the program are demonstrating increased knowledge of hypertension management and increased health-seeking behavior.

### Cancer

Cancer incidence rates are higher for Blacks in four cancers traditionally monitored by public health: cervical, colorectal, lung, and prostate. In addition to African-Americans being disproportionately impacted by cancer, they are also getting into care later. Analysis of data by site and stage at diagnosis shows that Blacks are more likely to be diagnosed with cancer at later stages of disease progression.

#### *How are we doing?*

**End Stage Prostate Cancer and Population Distribution Among Males in Michigan, by Race in 2004**



Prostate cancer incidence rates for Blacks are more than two times those of Whites; in addition, over 30% of the prostate cancer cases identified in the final stage were among African-Americans.

The survival rate for many cancers improves dramatically with early detection. Mortality rates are higher for Blacks than for Whites for all cancer sites previously mentioned. This is of particular concern with regard to breast cancer where incidence rates are higher among White women, but death rates are higher



among Black women. The total cancer mortality rate for Blacks in 2005 was 225.7 per 100,000, which is nearly 20% higher than the rate in Whites at 186.5 per 100,000. The rate for Native Americans is also disproportionately high, in fact, 10% higher than Whites at 214.3 per 100,000.

Other racial and ethnic groups are not disproportionately impacted in the same magnitude as African-Americans. Cancer incidence and mortality for Asian/Pacific Islanders indicates that the level of cancer seen in these racial and ethnic groups is in proportion to their representation in the population. Due to unstable population estimates in the Arab/Chaldean population, rates cannot be tabulated; however, based on mortality numbers it is suspected that cancer mortality disproportionately affects this population as well.

### ***How Does Michigan compare with the U.S.?***

The disparities seen between Blacks and Whites for Cancer deaths in Michigan are similar to those seen across the U.S. Blacks in Michigan are 24% more likely to die from cancer as Whites; the same is true for the U.S.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department of Community Health has several initiatives to reduce the disparities that exist in cancer for racial/ethnic minorities, particularly African-Americans. The Department's Cancer Section conducted a study, released in 2005, characterizing cancer in African-Americans, and has interventions targeted specifically at increasing screening in this segment of the population. The Cancer Section has contracts with community agencies in the African-American, Native-American, Asian-American and Arab/Chaldean communities. The Health Disparities Reduction Section has added to the effort by funding a demonstration project in the Arab/Chaldean community to increase knowledge and awareness about cancer facts, increase participation in appropriate cancer screening activities, and increase participation in cancer clinical trials, with the ultimate goal of reducing health disparities in cancer morbidity and mortality among Michigan's diverse populations.

## **HIV/AIDS**

### ***How are we doing?***

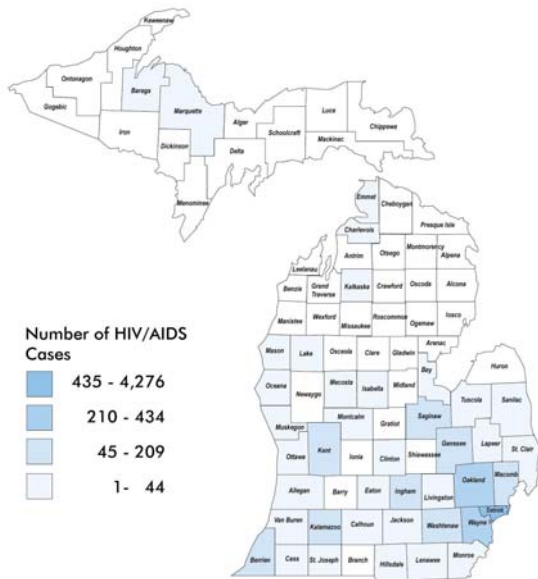
Black and Hispanic persons in Michigan are disproportionately affected by HIV/AIDS relative to other race/ethnicity groups. Blacks comprise 14% of Michigan's population yet make up over half (59%) of the cases currently living with HIV/AIDS. The MDCH estimates 9,960 Blacks are living with HIV/AIDS in Michigan. The rate of HIV infection among Blacks is 710 per 100,000, nine times higher than the rate among Whites. The Department estimates that as many as 1 of 100 Black males and 1 of 260 Black females may be HIV-infected.

Hispanics comprise four percent of cases and three percent of the population. The MDCH estimates 650 Hispanics are living with HIV/AIDS in Michigan. However, the relatively few cases are distributed among a small population and therefore they have a higher rate (201 per 100,000) than that among Whites. The Department estimates that as many as one out of 350 Hispanic males and one out of 1,030 Hispanic females may be HIV-infected. White persons comprise over one-third (36%) of reported HIV/AIDS cases and 79% of Michigan's population. The MDCH estimates 6,100 Whites are living with HIV/AIDS in the state. However, since these cases are dispersed among a much larger population they have a lower rate of HIV infection (78 per 100,000) than Blacks and Hispanics. The MDCH estimates that as many as one out of 730 White males and one out of 4,970 White females may be HIV-infected.

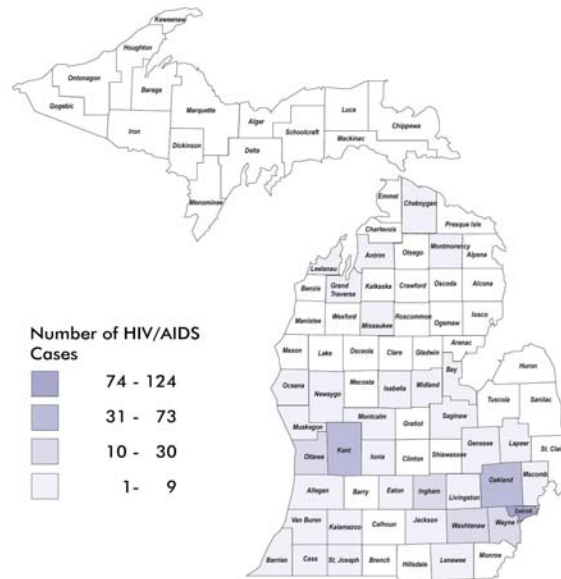
The following maps below show the distribution of reported HIV/AIDS cases and prevalence rates per 100,000 among Black, non-Hispanic and Hispanic persons by area (county and the city of Detroit) of

residence at diagnosis. As suggested above, both the number of cases and prevalence rates should be considered when evaluating HIV/AIDS data. When an area has a low number of cases, yet has a small population, that area's rate may be high. Likewise, an area with a high number of cases may have a low rate if that area's population is large. Thus, either piece of information alone may not accurately describe the distribution of HIV/AIDS in a population of interest. Furthermore, prevalence rates may become unstable with a small number of cases or a small population. These maps are based on residence at diagnosis, not current residence, and may thus show different patterns than other maps distributed by the MDCH.

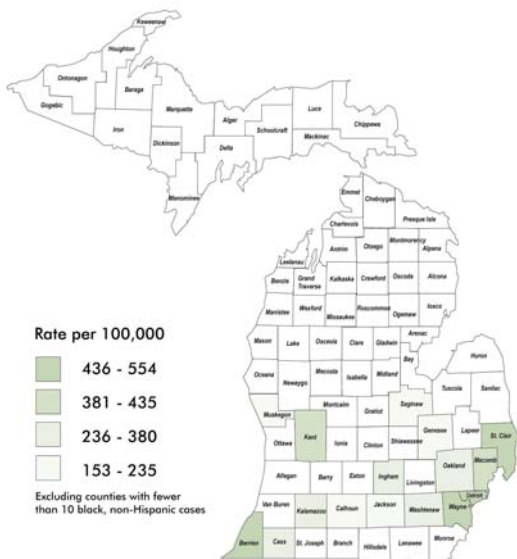
**Figure 1a: Prevalence of HIV/AIDS Among Black, Non-Hispanic Persons, Michigan Residence at Diagnosis, January 1, 2006**



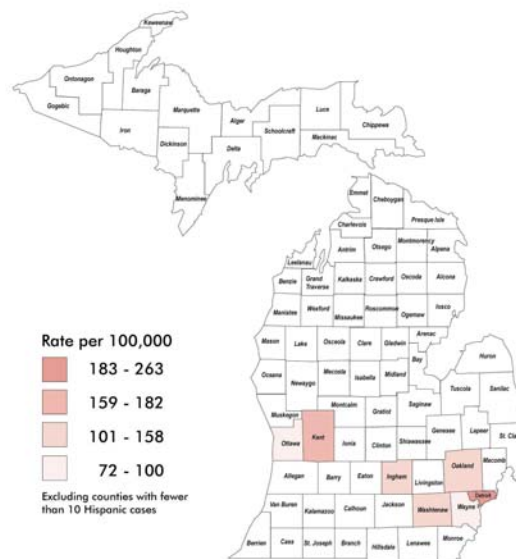
**Figure 1b: Prevalence of HIV/AIDS Among Hispanic Persons, Michigan Residence at Diagnosis, January 1, 2006**



**Figure 2a: Prevalence Rate of HIV/AIDS Among Black, Non-Hispanic Persons, Michigan Residence at Diagnosis, January 1, 2006**



**Figure 2b: Prevalence Rate of HIV/AIDS Among Hispanic Persons, Michigan Residence at Diagnosis, January 1, 2006**







The areas with the highest prevalence rates of HIV among Black, non-Hispanic persons include: Detroit (575), Berrien Co. (552), Wayne Co., excluding Detroit (516), Macomb Co. (501), St. Clair Co. (473), Kent Co. (452), Ingham Co. (407), Washtenaw Co. (402), Kalamazoo Co. (401), and Oakland Co. (398). In general, the areas with the highest rates surround the I-94 and I-75 interstate highway corridors. The areas with the highest prevalence rates of HIV among Hispanics include: Detroit (278), Kent Co. (217), Washtenaw Co. (192), Oakland Co. (152), Ingham Co. (148), Wayne Co., excluding Detroit (100), Macomb Co. (97), and Ottawa Co. (72). The majority of these areas are in southeast Michigan. Kent and Ottawa Counties, however, are both in southwestern Michigan, a region with a large migrant population.

### ***How Does Michigan compare with the U.S.?***

Among all persons living with HIV in the 33 states with name-based HIV reporting, 34% are White, non-Hispanic, 47% are Black, non-Hispanic, 17% are Hispanic, and 1% are other race/ethnicity. Although the proportion of HIV positive persons in Michigan who are White is similar (36%), a larger proportion is Black (59%) and a smaller proportion is Hispanic (4%). Similar race/ethnicity patterns are observed in new HIV diagnoses. In the 33 states with name-based HIV reporting, 31% of the new diagnoses in 2005 were White, 49% were Black, 18% were Hispanic, and 2% were other race/ethnicity. In Michigan, a similar proportion of 2005 HIV diagnoses was White (34%), whereas 60% was Black and 6% was other race/ethnicity.

### ***What is the Department of Community Health doing to improve this indicator?***

The Department's Division of Health, Wellness and Disease Control (DHWDC) focuses prevention efforts on early identification of HIV infection through testing, and reduction and elimination of behaviors associated with HIV transmission. The Department's prevention efforts are guided by Michigan's Comprehensive Plan for HIV Prevention developed through an evidence-based planning process. The Plan identifies priority populations to be addressed by Michigan's HIV prevention programming and makes recommendations for the best strategies to address prevention needs. Racial and ethnic minorities are prioritized as targets for prevention efforts. The Plan includes a section that highlights the disproportionate impact HIV/AIDS has on the African-American community.

The MDCH supports HIV testing in local health departments, community health clinics, substance abuse treatment facilities, hospitals and community-based organizations, to encourage and facilitate knowledge of HIV serostatus among individuals at risk for HIV infection and to assist with timely access to care and treatment among those found to be HIV-infected. The Department supports targeted HIV counseling and testing services in 16 high prevalence local health agencies and more than 50 community-based and other non-governmental organizations. Targeted testing efforts are complemented by culturally competent health communication and public information activities designed to ensure awareness of the impact of HIV among targeted communities, to encourage knowledge of HIV serostatus and to provide information on resources for HIV testing.

The MDCH also supports routine HIV testing in selected clinical settings operating in areas of the highest HIV prevalence in the state and which serve primarily African-American populations. Routine testing facilitates knowledge of HIV serostatus among populations who might not otherwise seek HIV testing. The Department provides technical assistance and guidance to providers to assist them in implementing routine HIV testing in clinical settings. In 2006, 67,704 HIV tests were performed in publicly-supported venues. Of these 53% were for African-American clients and six percent were for Hispanic/Latino clients.

The Department supports a range of evidence-based and culturally competent behavioral interventions targeted to communities at greatest risk for transmission/acquisition of HIV. Behavioral interventions are designed to promote adoption and maintenance behaviors to reduce the risk for transmitting HIV (among



those who are HIV-infected) or of acquiring HIV (among those who are HIV-negative). Racial/ethnic minorities receive emphasis in program efforts. DHWDC supports intervention models specifically endorsed by the Centers for Disease Control and Prevention for use with African-American communities including SISTA (Sisters Informing Sisters About Topics on AIDS), for African-American women, BSB (Brothers Saving Brothers) for African-American men, 3MV (Many Men, Many Voices) for African-American men who have sex with men, and Empowerment for younger (ages 18-24) African-American men who have sex with men. In 2006, over 26,000 individuals participated in such interventions, of which 83 percent were African-American.

### **Infant Mortality**

#### ***How are we doing?***

The overall infant mortality rate for the state increased from 7.6 deaths per 1,000 live births to 7.9 deaths per 1,000 live births. The higher rates of infant mortality experienced in Michigan can be attributed, for the most part, to the high rates of infant mortality in the African-American community. An African-American baby is over three times more likely to die in the first year than a White baby. The disparity between Blacks and Whites declined slightly between 2004 and 2005, but the infant mortality rate for both populations increased, African-Americans at 17.9 and Whites at 5.5.

Due to the high infant mortality rate in the African-American population, infant mortality in other races often goes unmentioned. The infant mortality rate for Hispanic/Latinos is two times higher than the infant mortality rate for Whites. In addition, the gap between Hispanic/Latinos and Whites has been increasing over the past five years. In 2000, the infant mortality rate for Hispanic/Latinos was 1.1 times that of Whites, in comparison with the most current rates of 11.2 for Hispanic/Latinos and 5.5 for Whites in 2005.

#### ***How Does Michigan compare with the U.S.?***

The infant mortality rate in Michigan is higher than the overall rate for the U.S.; the rate for African-Americans in Michigan is also higher than the U.S. African-American rate. The Black/White infant mortality rate ratio for Michigan has been consistently higher than the rate for the U.S. since 1996. In fact, in 2004, a jump in the infant mortality rate in Michigan caused the disparity seen between Blacks and Whites to be significantly greater than the disparity seen for the country as a whole.

#### ***What is the Department of Community Health doing to improve this indicator?***

Concentrating efforts on reducing the infant mortality rate for African Americans would reduce the overall infant mortality rate in Michigan. Eleven cities were selected through a series of epidemiological studies. Starting in 2004, each of these cities received funding to start community coalitions, as well as program and epidemiological support.

The Department currently funds a demonstration project called the Tomorrow's Child/Michigan SIDS/Back to Sleep Campaign. This campaign supports Henry Ford Hospital consistently teaching women about the safe sleep message. The goal is to reduce the incidence of deaths among African-American infants attributable to sleep position and sleep environment.

In addition, the state also conducted focus groups among African-American women to get gain a better understanding of the issues and concerns within this population.