

2010

Marquette County

CRITICAL INDICATORS

Marquette County
Critical Health
Indicators

Health Outcomes

Health Related Behaviors

Health Systems

Social, Economic,
& Environmental Factors

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Introduction

What is the Critical Health Indicators report?

The Critical Health Indicators report describes Marquette County's health and well-being and establishes a method for monitoring improvement. The report is organized by four categories with 24 related indicators. These indicators directly or indirectly measure the health and health behaviors of Marquette County 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.

What do Critical Health Indicators tell us about Marquette County health?

A broad look at Marquette County's critical health indicators suggests there is significant room for improvement in Marquette County population health. For a large portion of health indicators, Marquette County rates are better than the state average. While many health outcomes measures are trending in the correct direction for Marquette County, a still improvement is needed in Marquette County. Impeding Marquette County's progress, however, are environmental/social conditions such as poverty and unemployment conditions and chronic disease health characteristics that are trending in the wrong direction.

Factors and indicators which contribute to improved health are moving in the correct direction, including immunizations, preventative services, and smoking. More children have health insurance coverage as compared to previous years. High school dropout rate and violent crime rates continue to be much better than state rates. The incidence rates of both cancer and heart disease continues to drop. Infant mortality also moved in the right direction.

Marquette County as well as Michigan has faced severe economic challenges, reflected through increased unemployment and poverty rates. Marquette County uninsured non-elderly adults are slightly lower in Michigan and significantly lower than the United States. Marquette County is higher than the state average in uninsured children. The overall health care expenditures in Michigan increased. The rates of preventable hospitalizations increased. Obesity, a major factor contributing to chronic disease, rose. In Michigan and Marquette County. The percent of the population suffering from chronic conditions such as diabetes, asthma, and chronic hepatitis C increased. While older women continued to get mammograms at an increased rate in Marquette County, the percentage of women getting pap tests, which impacts a larger age range, decreased.

A few indicators did not change over the past ten years; poor mental health, violent crime rate and incidence of cancer.

A look at the indicators vital statistic in Marquette County 2009-2010.

For more information regarding this report, please contact:

	VITAL STATISTICS—MARQUETTE COUNTY						State of Michigan
	2005	2006	2007	2008	2009	2010	2010
Population (1)	64,760	64,675	65,216	65,492	65,703	67,077	9,883,635
Live Births	600	636	712	641	697	642	114,717
Live Birth Rate (2)	9.3	9.8	10.9	9.8	10.6	9.6	64.1
# of Low Weight Live Births (3)	36	40	46	53	44	47	9,685
% Low Birth Weight Infants	6.0	6.3	6.5	8.3	6.3	5.8	8.4
% Preterm Infants	10.2	7.4	8.7	11.4	8.6	10.0	10.5
% Of Births To Teens (<20 Yrs)	6.3	5.8	7.2	6.4	5.0	4.8	9.5
Est. Teen Pregnancy Rate (4)	22.5	19.7	15.3	20.6	17.5	16.1	47.9
Deaths	640	586	579	616	612	585	85,561
Age-Adjusted Death Rate (5)	845.6	759.4	727.9	769.4	794.5	794.5	746.2
Infant Deaths	3	4	2	3	4	3	817
Annual Infant Mortality Rate (6)	5.0	6.3	2.8	4.7	*	*	7.1
Average Infant Mortality Rate (7)	2.1	3.8	4.6	4.5	4.4	4.5	7.5
Marriages	458	464	483	484	472	446	54,182
Divorces	209	215	206	195	217	215	34,956

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* Indicates that data does not meet the standards of precision or reliability.

(1) Estimated by U.S. Census Bureau
Females Age 10-19

(2) Rate Per 1,000 Population
(3) Weight Below 2500 Grams

(4) Rate Per 1,000
(5) Rate Per 100,000 Population

(6) Rate Per 1,000 Live Births

(7) 3 Yr Moving Average/ 1,000 Live Births

Introduction

2010 Critical Health Indicators Report

The Marquette County Critical Health Indicators 2010 report had twenty-four different topic areas and seventy-six different indicators.

State of the USA Health Indicators

The Institute of Medicine's *State of the USA Health Indicators* report was developed by a committee of 14 individuals varying from physicians, medical school directors, public health school directors, epidemiologists, policy analysts, and health researchers. The committee was charged with developing a set of indicators that would best reflect: 1) the overall health of the nation and the factors that are important in determining the current and future health of the nation and 2) the effectiveness and efficiency of the U.S. health care and public health systems. Also, they were asked to choose indicators that: 1) have quality data available at the national level that can be broken down by subpopulation and geographic region, 2) had reliable data and data sources, 3) are issues relevant to the intended audience, 4) are sensitive to changes in societal domains, and 5) permit cross-country comparisons. The committee reviewed numerous studies and surveys in order to determine which indicators should be used. The committee also reviewed information on the public's perception of issues of importance.

The committee acknowledged that no single measure can capture the health of the nation. Indicators are needed that reflect a broad range of factors such as health, risk for illness, and health system performance. It is intended that official federal statistics will be the initial sources of indicator data. Over time, as new information becomes available and the source of indicator data expands, indicators for the State of the USA Health Indicators Report may change. The framework used by the committee to determine the most important indicators looks at health outcomes and determinants that impact these health outcomes. The topic areas for Social and Physical Environment, Health Related Behavior, and Health Systems all play a part in Health Outcomes. Once the framework was developed, each committee member presented his/her top twenty potential indicators, resulting in over two hundred indicators to be categorized and reviewed. During the elimination process, the committee eliminated or combined similar indicators, looked at available data sources, and tried to balance indicators in health versus health-care categories.

State of the USA Health Indicators by Topic Area:

Health Outcomes	Health Related Behaviors	Health Systems
Life expectancy at birth	Smoking	Health care expenditures
Infant mortality	Physical activity	Insurance coverage
Life expectancy at age 65	Excessive drinking	Unmet medical, dental, and prescription needs
Injury related mortality	Nutrition	Preventative services
Self-reported health status	Obesity	Childhood immunization
Unhealthy days physical and mental		Preventable hospitalizations
Chronic disease prevalence		
Serious psychological distress		

State of the USA Health Indicators: Other areas of consideration

One of the important factors in the State of the USA Health Indicators was the ability or flexibility to be able to look at health disparities, drill down to subpopulations, and compare across geographic regions. It was the recommendation of the committee to look at all twenty indicators by sub-population, if the data was available. Due to the variation in data availability for the different indicators, the recommendations of sub-population and/or regional analysis also varies. The committee determined that any indicator that is measured at the individual level can also be analyzed for disparities as long as the data source can be linked to data on race/ethnicity and/or a measure of socioeconomic status (SES). The committee report notes the appropriateness of disparity reporting in each indicator description.

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2010 Marquette County Critical Health Indicators Trend Direction Over Time

Right Direction	Wrong Direction	
<p>Low Birth Weight Babies</p> <p>Repeat Teen Birth Ages 15-19</p> <p>All Fatal Injuries</p> <p>Disease Prevalence-Heart Attack</p> <p>Disease Prevalence-Diabetes</p> <p>Disease Prevalence-Stroke</p> <p>Disease Prevalence-Asthma</p> <p>Disease Prevalence-Arthritis</p> <p>Infectious Disease-Chronic Hep C</p> <p>Infectious Disease-Chlamydia</p> <p>Infectious Disease-Gonorrhea ?</p> <p>Births to Mothers who Smoked During Pregnancy</p>	<p>Infant Mortality Rate</p> <p>General Health Status</p> <p>Social and Emotional Support</p> <p>Poor Mental Health</p> <p>Inadequate Fruit and Vegetable Consumption</p> <p>Immunization-Flu Shot</p> <p>Poverty Children Age 0-17</p> <p>Pap Test</p> <p>Poverty</p> <p>Smoking</p> <p>Unemployment Rate</p> <p>Violent Crime Rate</p>	
<p>Inadequate Physical Activity</p> <p>No Leisure Time Activity</p> <p>Binge and Heavy Drinking</p> <p>No Health Care Coverage Among Those Aged 18-64</p> <p>Obesity</p> <p>Mammograms*</p> <p>Colorectal Cancer Screening</p> <p>Had Cholesterol Checked</p> <p>Immunization-Pneumonia Shot</p> <p>High School Dropout</p> <p>Children Ages 0-18 insured by Medicaid</p>	<th data-bbox="820 1184 1523 1272">No Change</th> <p data-bbox="820 1272 1523 1883">Disease Prevalence-Incidence Cancer</p>	No Change

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2010 Marquette County Critical Health Indicators Comparison to Michigan

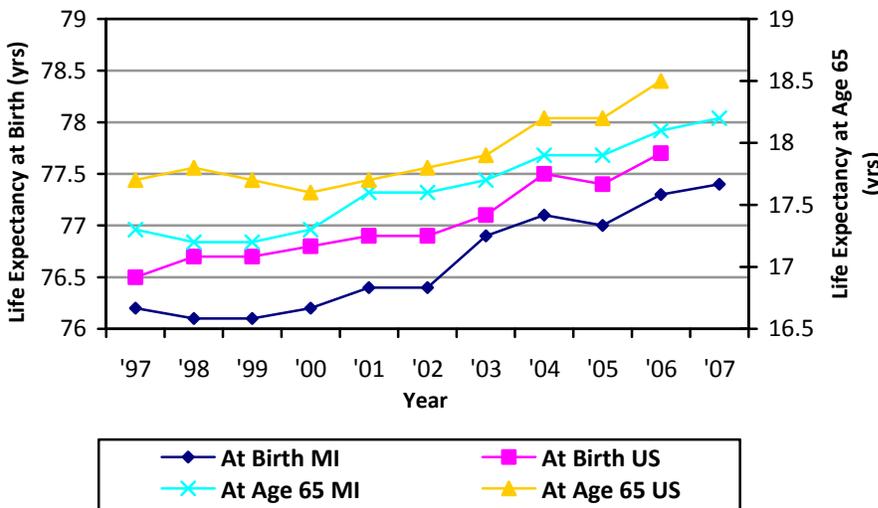
Marquette County is Worse	Marquette County is Better
<p>Asthma</p> <p>Births to Mothers who Smoked During Pregnancy</p> <p><u>Pap Test</u></p> <p><u>Colorectal Cancer Screening</u></p> <p><u>Smoking</u></p>	<p>Infant Mortality</p> <p>Low Birth Weight Babies</p> <p>Birth with less than Adequate Prenatal Care</p> <p>Birth to Mothers with no Diploma or GED</p> <p>Teen Pregnancy Rate 15-19</p> <p>Repeat Teen Birth Ages 15-19</p> <p><u>Heart Attack</u></p>
Marquette County is the Same as Michigan	<p><u>Preventative Services- Diabetes</u></p> <p>Incidence Cancer</p> <p>Poor Mental Health</p> <p><u>Social and Emotional Support</u></p> <p>Inadequate Physical Activity</p> <p><u>No Leisure Time Activity</u></p> <p><u>Obesity</u></p> <p>Binge Drinking</p> <p>Children Ages 0-18 Insured by Medicaid</p> <p>No Health Care Coverage Among Those Aged 18-64</p> <p>Had Cholesterol Checked</p> <p>Immunization-Flu Shot</p> <p><u>Immunization-Pneumonia Shot</u></p> <p>High School Dropout</p> <p>Unemployment Rate</p> <p>Violent Crime Rate</p>
<p><u>All Fatal Injuries</u></p> <p>General Health-Fair or Poor</p> <p><u>Stroke</u></p> <p><u>Arthritis</u></p> <p><u>Heavy Drinking</u></p> <p><u>Preventive Service-Mammogram</u></p> <p>Adequate Fruit & Vegetable Consumption</p> <p>Poverty</p>	

Indicator Definition: Life Expectancy at Birth is the number of years that a newborn is expected to live if current mortality rates continue to apply. Life Expectancy at Age 65 is the number of years of life remaining to a person at age 65 if current mortality rates continue to apply.

Indicator Overview:

- Life Expectancy at Birth is a standard for comparing populations both within countries and internationally. It reflects the overall mortality pattern of a population across all age groups and is often used as an overall measure of the state of a population's general health. Life Expectancy at Birth is also commonly used to identify disparities among populations.
- Life Expectancy at Age 65 is a measure used as a general indicator of the overall health of those over 65, as well as the quality of, and access to, health care services among the elderly. It is also an indicator used to examine inequalities across populations and for international comparisons.

Life Expectancy at Birth and at Age 65, United States and Michigan, 1997-2007



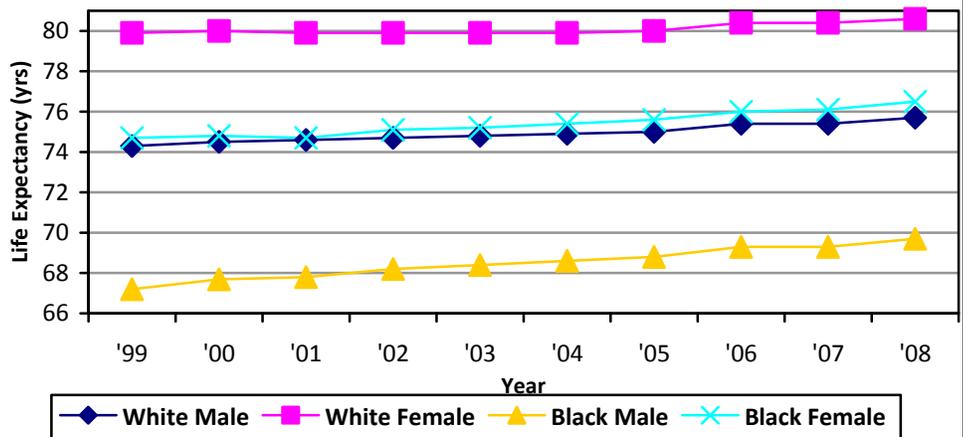
← Trends:

Life expectancy at Birth and Life Expectancy at Age 65 are both trending upward. In 1997, life expectancy at Birth for Michigan and the US was at 76.3 and 76.5, respectively and then increased to 77.3 and 77.7 years by 2006. Similarly, the life expectancy at age 65 increased from 17.3 to 18.1 years in Michigan and 17.7 years to 18.5 years for the US. Michigan residents continue to have a slightly lower life expectancy than the United States population as a whole, both at birth and at age 65.

→ Health Disparities:

Gender and racial disparities continue to exist in life expectancy. White women in Michigan have the longest life expectancy. Black women and white men have a life expectancy of about four years less than white women, while black men have a shorter life expectancy than white women by more than 10 years.

Life Expectancy at Birth by sex and race, Michigan, 1999 - 2008



Links to Other Sources of Information:

FastStats Life Expectancy in U.S., CDC: <http://www.cdc.gov/nchs/fastats/lifexpec.htm>

Life Expectancy at birth by sex and race in Michigan, MDCH: <http://www.mdch.state.mi.us/pha/osr/deaths/lifexrctrend.asp>

Links to Related Public Health Programs:

MDCH: Physical Health & Prevention Programs: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955---,00.html

CDC: Chronic Disease Prevention & Health Promotion: <http://www.cdc.gov/chronicdisease/index.htm>

Health Outcomes - 2

Infant Mortality Rate

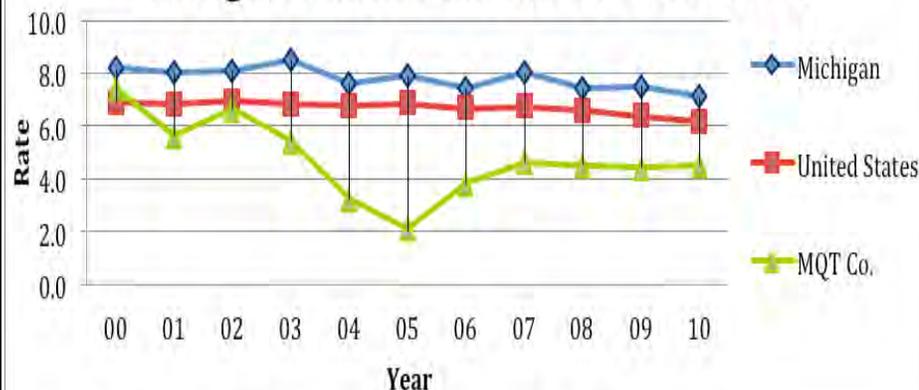
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Indicator Definition: Deaths of infants aged less than 1 year per 1,000 live births.

Indicator Overview:

- The infant mortality rate is a leading indicator used to compare populations both within and across countries.
- Infant mortality is used as an indicator of the level of child health and overall development and is often used to identify disparities among populations within a specific country.

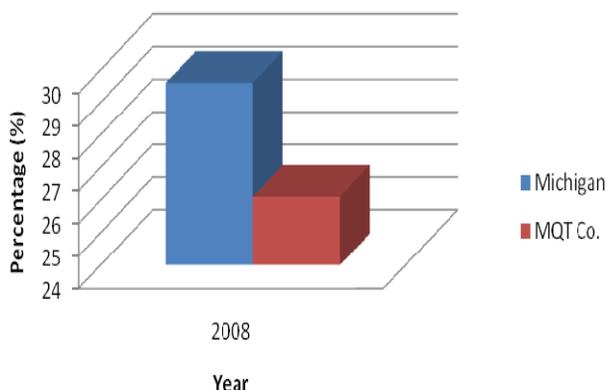
Infant Mortality Rate in MQT Co., Michigan and United States 2000-2010



←Trends: In 2010, Marquette County resulted in a death rate of 4.5 per 1,000 live births (infant mortality rate – IMR). During the past 10 years, Marquette County infant mortality rate has been fluctuating with a decline below 7.4 per 1,000 for the first time in 2004. The rate has remained below 7.0 in 2005 and 2006. 2007 in Marquette County saw another increase. Marquette County has a consistently lower IMR than the United State and Michigan for the given years (2001-2008).

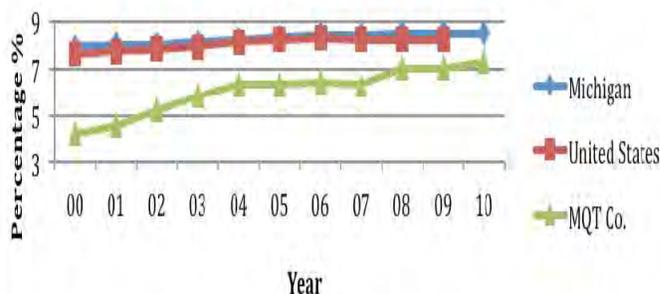
The below charts both show Marquette County has better prenatal care and low birthweight baby statistics than State or National averages. However, the number of low birthrate babies in Marquette County has risen since 2000.

Births with less than Adequate Prenatal Care in MQT Co. and Michigan 2008



Low Birthweight Babies in MQT Co., Michigan and United States 2000-2010

*MI, MQT 3 yr avgs



Links to Other Sources of Information:

Infant Mortality Rates in Michigan, MDCH: http://www.michigan.gov/mdch/0,1607,7-132-2944_4669_4694---,00.html

Infant Mortality Rates in US, CDC: http://www.cdc.gov/nchs/fastats/infant_health.htm

Links to Related Public Health Programs:

Infant Mental Health, MDCH: http://www.michigan.gov/mdch/0,1607,7-132-2941_4868_7145-14659--,00.html

Maternal Infant Health Program (MIHP), MDCH: http://www.michigan.gov/mdch/0,1607,7-132-2942_4911_34593-106183--,00.html

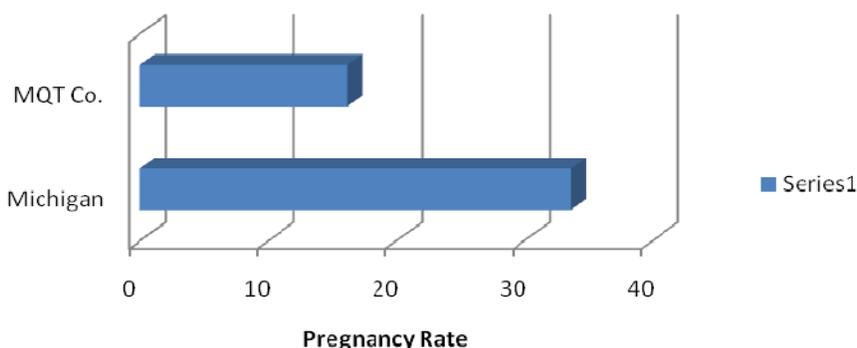
WIC, MDCH: http://mi.gov/mdch/0,1607,7-132-2942_4910---,00.html

Indicator Definition: Pregnancies reported to be either *unwanted* (i.e., they occurred when no children, or no more children, were desired) or *mistimed* (i.e., they occurred earlier than desired).

Indicator Overview:

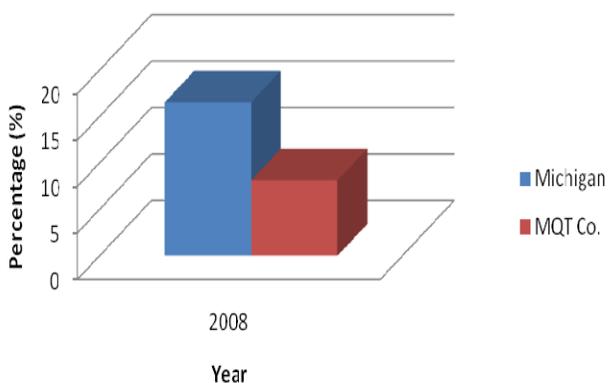
- In Michigan, 41% of women who gave birth in 2006 reported that they had an unintended pregnancy. Among Michigan's minority populations, 62% of pregnancies to black non-hispanics were unintended.
- Unintended pregnancies were most likely to occur for women under 25 years of age, in racial/ethnic minorities, with limited education, and with no health insurance. Over two-thirds of unintended pregnancies nationwide were to women in their teens and twenties.
- Increasing the number of intentional pregnancies results in healthier pregnancies, healthier babies, and enhanced child development. Children of unintended pregnancy are more likely to be low-birthweight, experience pre-term birth, and have developmental and cognitive challenges. Women who have had an unintended pregnancy are more likely to live in poverty, begin prenatal care later, and experience the dissolution of their relationship with partners.

Teen Pregnancy Rates 15-19 in MQT Co. and Michigan 2008

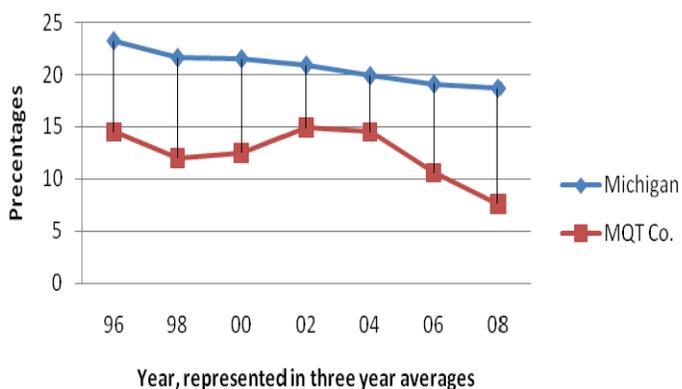


← **Trends:** According to this bar chart Marquette County teen pregnancy rate has is significantly lower than Michigan's in the year 2008. Teen pregnancy rates in Marquette County have been significantly lower than State averages yearly. Nearly half of women who had an unintended pregnancy reported not using a contraceptive method. In the lower right hand corner you can see the decrease in repeat teen births over the last six years (2002-2008). Also, MQT County percentages continue to be lower than the state average with Birth to Mothers with no Diploma or GED.

Birth to Mothers with no Diploma or GED MQT Co. and Michigan 2008



Repeat Teen Births Ages 15-19 in MQT Co. and Michigan 96-08



Links to Other Sources of Information:

Michigan Pregnancy Risk Assessment Monitoring (PRAMS): www.michigan.gov/prams
 National Campaign to Prevent Teen and Unplanned Pregnancy: www.thenationalcampaign.org

Links to Related Public Health Programs:

Michigan's Family Planning Program: www.michigan.gov/familyplanning
 Michigan Teen Pregnancy Prevention Initiative: www.michigan.gov/tppi

Health Outcomes - 4 Injury Mortality

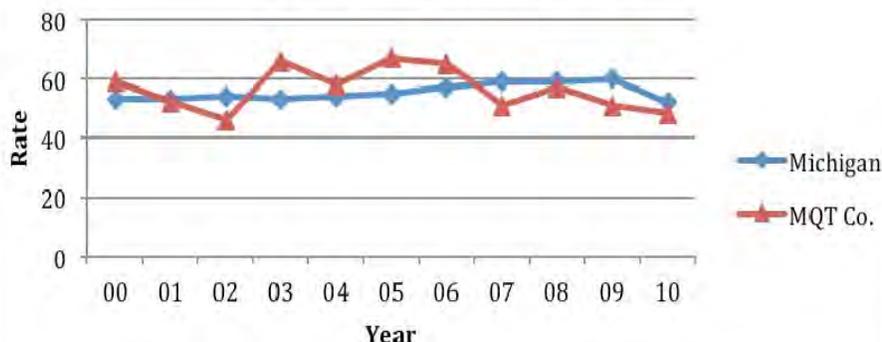
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Indicator Definition: Age-adjusted mortality rates (deaths per 100,000 population) due to injuries. (Age-adjusted to Year 2000 Standard Population.)

Indicator Overview:

- Injuries are a major cause of death and disability in the United States and worldwide.
- As of 1999, mortality data has been recorded using the *International Classification of Disease-10th Revision (ICD-10)*. Data prior to 1999 was coded using a different classification system (ICD-9) and can be difficult to compare with more recent data.
- Injury death and disability create a large economic burden. Costs for lifetime medical treatment for those injured in 2000 in the United States are estimated to total \$80 billion with an additional cost of \$346 billion in lost productivity.

All Fatal Injuries in MQT Co. and Michigan 2000-2010

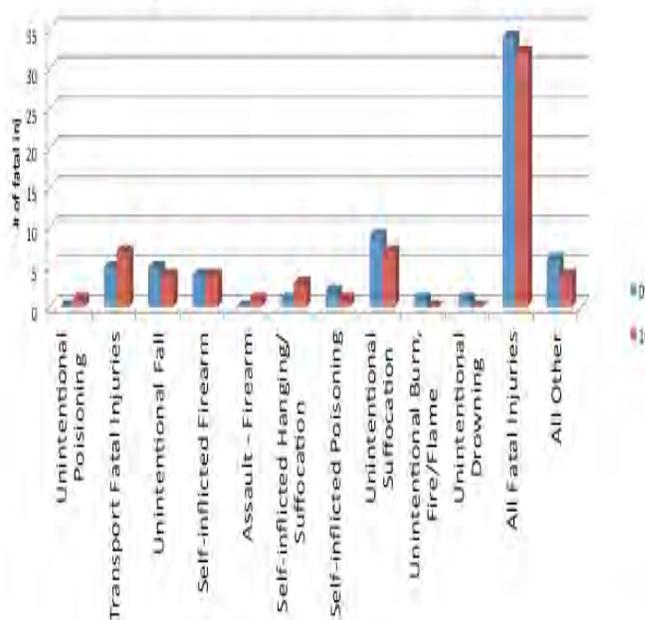


← **Trends:** Compared to Michigan, Marquette County has had a higher rate of all fatal injuries until 2007. Since then there has been a slight decrease compared to Michigan's average. The charts below identify the top ten numbers of the leading causes of fatal injuries. Marquette County causes are similar to Michigan with unintentional poisonings, transport injuries, and unintentional falls being the leading indicators. The leading causes of injury fatalities from 2004 and 2009 indicate that all forms of suicide if listed as a single cause would be the highest leading cause. Transport fatalities are the leading single cause.

Leading Causes of Fatal Injuries, 2004-2009 Marquette County Residents, Michigan Both Sexes, All Ages

CAUSES OF FATAL INJURIES	2005	2006	2007	2008	2009	2010
ALL FATAL INJURIES	44	43	34	37	34	32
Unintentional - Poisoning	5	4	7	4	9	1
Transport Fatal Injuries	12	8	7	9	5	7
Unintentional - Fall	8	7	6	6	5	4
Suicides - Firearm	6	3	4	5	4	4
Suicides - Poisoning	—	3	1	1	2	1
Unintentional - Burn, Fire/Flame	3	2	—	—	1	—
Unintentional - Drowning	—	3	1	1	1	—
Suicides - Hanging/Suffocation	2	4	1	4	1	3
Unintentional - Suffocation	1	2	1	1	—	7
Homicides - Firearm	—	—	—	—	—	1
All Other	7	7	6	6	6	4

Leading Causes of Fatal Injuries in MQT Co. 2009-2010



Links to Other Sources of Information:

Fatal Injury Data, CDC: <http://www.cdc.gov/injury/wisqars/fatal.html>
 Leading Causes of Fatal Injuries, MDCH: <http://www.mdch.state.mi.us/pha/osr/index.asp?id=29>

Links to Related Public Health Programs:

Injury and Violence Prevention, MDCH: <http://www.michigan.gov/injuryprevention>

Health Outcomes - 5

Self-reported Health Status

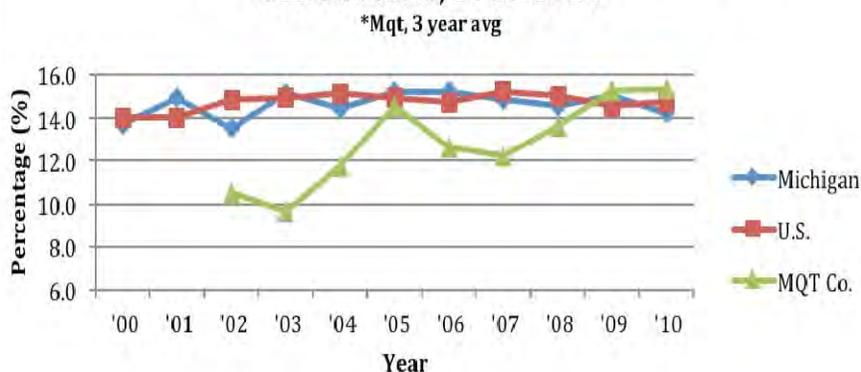
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Indicator Definition: Percentage of adults reporting fair or poor health.

Indicator Overview:

- Self-reported health status is a common measure used in public health surveys. In addition to representing physical, emotional, and social aspects of health and well-being, the self perception of health is a good indication of the burden of disease.
- The self-reported health status indicator complements the life expectancy indicator, which has sometimes been criticized as placing too much importance on **quantity** of life and not enough on **quality** of life.
- A study conducted by Miilunpalo et al. (1997) found that, for middle-aged populations, self-reported health assessments are valid health indicators.

General Health, Fair or Poor MQT Co., Michigan and United States, 2000-2010



← **Trends:** The percentage of adults who report fair to poor general health status has remained relatively stable over the past ten years for both Michigan and the United States.

Although the Michigan and United States trend has been stable since 2002 there has been an increase in the poor health status among Marquette County residents. It remained lower than State or National averages until 2009.

The below chart reviews a combined 2007-2009 risk factor survey results for the Region and Marquette County.

Table 1: Health Status Michigan BRFSS, 2007-2009 Combined

Geographic Area	General Health, Fair or Poor ^a		
	N	%	95% Confidence Interval
Michigan Total	26,134	14.8	(14.2-15.3)
Region 12	1,029	15.0	(12.7-17.8)
Luce-Mackinac-Alger-Schoolcraft	141	11.3	(6.8-18.3)
Western Upper Peninsula	221	14.6	(10.4-20.3)
Delta-Menominee	213	14.6	(10.4-20.2)
Chippewa	124	15.3	(9.0-24.9)
Dickinson-Iron	140	19.9	(13.1-29.1)
Marquette	190	15.2	(9.7-23.0)

^aThe proportion who reported that their health, in general, was either fair or poor. The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

US Department of Health & Human Services: Community Health Status Indicators: <http://communityhealth.hhs.gov/homepage.aspx?j=1>

Health Outcomes - 6

Chronic Disease Prevalence

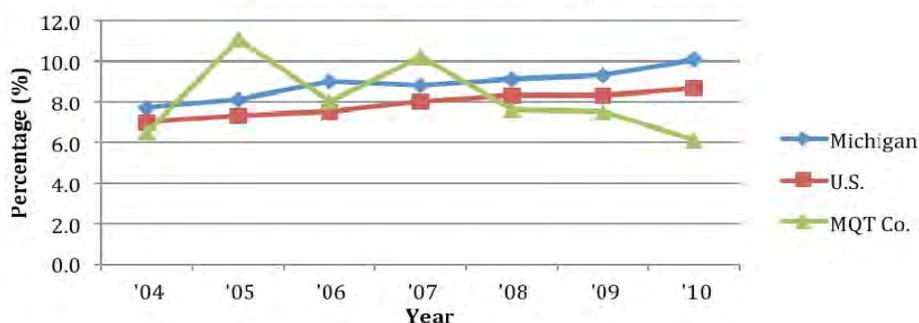
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Indicator Definition: Percentage of adults with chronic diseases (diabetes, cardiovascular disease, asthma, cancer, and arthritis).

Indicator Overview:

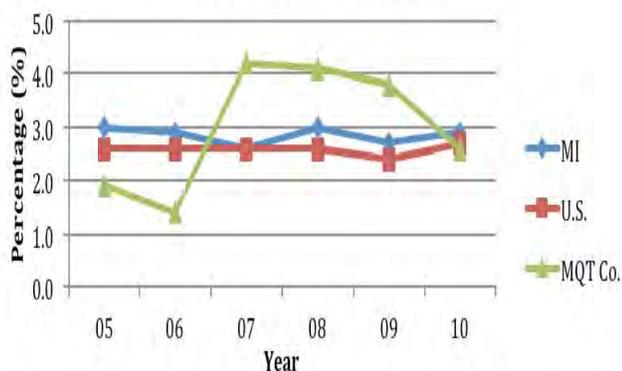
- Chronic diseases accounts for 70 percent of all deaths in the United States each year and are a leading cause of disability. About 25 million people, nearly 1 in 10 Americans, suffer major limitations in daily living due to chronic disease.

Ever Told Diabetes MQT Co., Michigan and United States 2004-2010

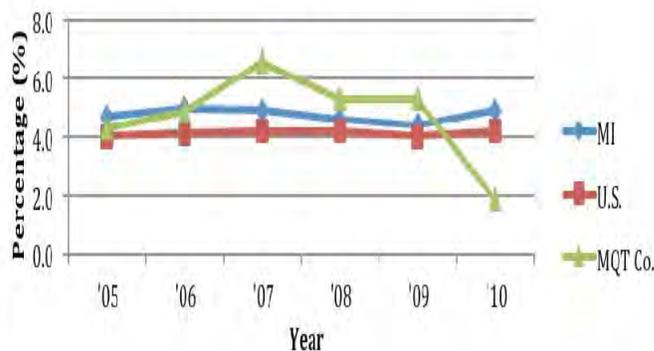


← **Trends:** The prevalence of diabetes in Marquette County, Michigan and the United States has been steadily increasing over the past 7 years. In the past, Marquette County has fluctuated but in the last three years (2008-2010) has decreased in diabetes. Marquette county has experienced a higher rate of stroke and heart attack than Michigan and United States percentages as a whole, until decreasing in 2010.

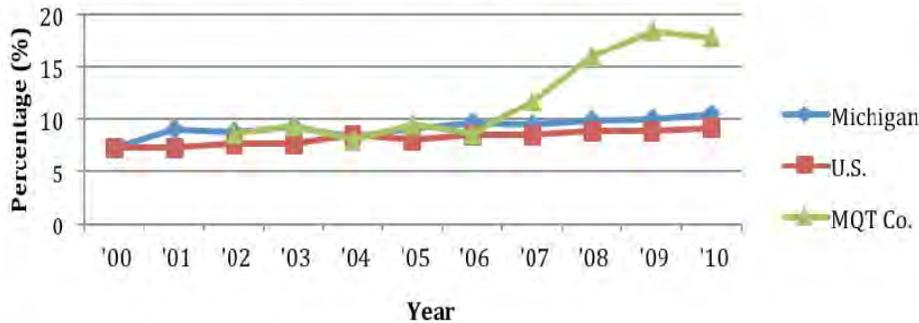
Stroke MQT Co., Michigan and U.S. 2005-2010 *Mqt, MI 3 yr avg



Heart Attack MQT co., Michigan and U.S. 2005-2010 *Mqt is combined data

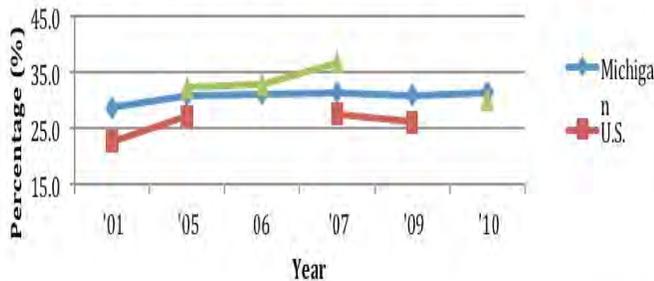


Current Asthma MQT Co., Michigan, and United States 2000-2010 *Mqt is combined data



← **Trends:** The prevalence of current asthma in Marquette County, Michigan and the United States has been steadily increasing over the past 10 years. In each year of the past 10 years, except 2004 and 2006, the prevalence of current asthma in Marquette County has been greater than that of the Michigan and United States as a whole. For Ever Told Arthritis it seems that Marquette County is also above Michigan and United States when comparing the years 2005 to 2007, but lower in 2010.

Ever Told Arthritis MQT Co., Michigan, and United States 2001-2010 *Mqt is combined data



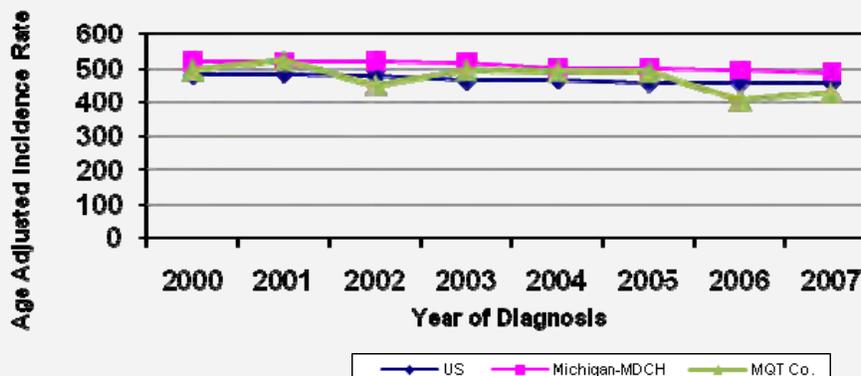
Hypertension Awareness

Michigan BRFSS, 2007 and 2009 Combined

Geographic Area	Ever Told HBP ^a		
	N	%	95% Confidence Interval
Michigan Total	16,700	29.8	(28.9-30.7)
Region 12	671	32.9	(28.6-37.5)
Luce -Mackinac -Alger -Schoolcraft	91	41.8	(29.0-55.8)
Western Upper Peninsula	147	34.1	(25.1-44.3)
Delta -Menominee	134	32.5	(23.4-43.1)
Chippewa	80	26.0	(16.8-38.0)
Dickinson -Iron	92	25.7	(16.6-37.5)
Marquette	127	34.9	(25.3-45.8)

^aProportion who reported that they were ever told by a doctor that they have high blood pressure (HBP). Women who had HBP only during pregnancy and adults who were borderline hypertensive were considered to not have been diagnosed.
The Mid -Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid but only the respective counties were included in the regional estimates. Gratiot are -Michigan estimate.

Incidence, MQT Co., Michigan, United States, All Cancer Sites, All Races, All Ages, Both Sexes: 2000-2007



← **Trends:** The incidence rate of cancer has been declining in Michigan and in the U.S. overall. Since 2000, the rate of incidence has dropped from 520 per 100,000 people down to less than 490 people. During this same time, the incidence rate for the U.S. has dropped from 482 to 458. The rate of incidence in Michigan is higher than the U.S. rate, but has remained parallel to it since 2000.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs)
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfs)
Michigan Public Health Institute and Michigan Department of Community Health. The Cancer Burden in Michigan: Selected Statistics 1992-2010. September 2010. <http://www.michigancancer.org/PDFs/MCCReports/CancerBurden-Sept2010/AllSections.pdf>
Michigan-MDCH Incidence data: <http://www.mdch.state.mi.us/pha/osr/Cancer/stateinc.asp?CDxID=IncTrendsTotal>

Links to Related Public Health Programs:

MDCH: Physical Health & Prevention Programs: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955---,00.html
CDC: Chronic Disease Prevention & Health Promotion: <http://www.cdc.gov/chronicdisease/index.htm>

Health Outcomes - 7

Serious Psychological Distress

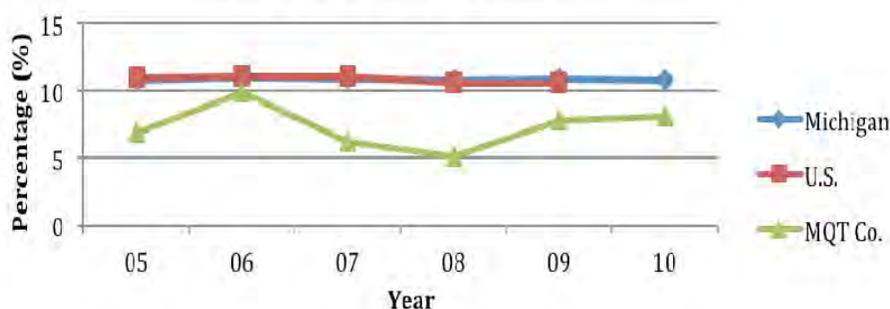
Marquette
County 2010
CRITICAL
HEALTH
INDICATORS

Indicator Definition: Percentage of adults with serious psychological distress as indicated by a score of > 13 on the K6 scale.

Indicator Overview:

- Serious Psychological distress is an important individual and population health issue.
- Depressive disorders, if untreated, become chronic and are expected, by the year 2020, to be exceeded only by heart disease in contributing to the global burden of diseases.
- The Kessler 6 (K6) Scale was developed for the National Health Interview Survey (NHIS) to distinguish cases of nonspecific psychological distress. The scale ranges from 6 to 30. For the purposes of the BRFSS any score greater than or equal to thirteen is considered serious psychological distress. The BRFSS is working out how to derive serious mental illness (smi) from the score on the questionnaire.

Poor Mental Health MQT Co., Michigan and U.S. 2005-2010 *Mqt & MI is combined data



← **Trends:** According to this line graph you can see that Marquette County is significantly lower in percentages for the years (2007-2009) than in Michigan and the United States. Marquette County has been lower in percentages since data has been recorded in 2005 and continues to be in 2010. In the lower left hand corner the Social and Emotional Support for Marquette County has also been better than that of Michigan since data was record (2005-2009).

Rarely or Never Receive Social Support in MQT Co., and Michigan 2002-2010 (moving avgs)

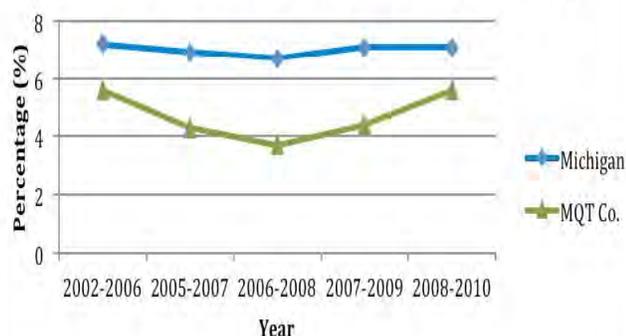


Table 3: Poor Mental Health on at Least 14 Days in the Past Month Michigan BRFSS, 2007-2009 Combined

Geographic Area	Poor Mental Health ^a		
	N	%	95% Confidence Interval
Michigan Total	25,796	10.9	(10.4-11.5)
Region 12			
Luce-Mackinac-Alger-Schoolcraft	139	10.7	(5.8-19.2)
Western Upper Peninsula	214	4.2	(2.3-7.5)
Delta-Menominee	211	11.8	(7.3-18.4)
Chippewa	122	14.0	(6.6-27.3)
Dickinson-Iron	140	8.3	(4.3-15.4)
Marquette	188	7.8	(3.7-15.9)

^aThe proportion who reported 14 or more days, out of the previous 30, on which their mental health was not good, which includes stress, depression, and problems with emotions.

^bThe Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2007 and 2009. (www.michigan.gov/brfs)

A Resource Guide for Families dealing with Mental Illness: http://www.michigan.gov/documents/MDCH-MentalIllness-10AUG04_102671_7.pdf

[10AUG04_102671_7.pdf](http://www.michigan.gov/documents/MDCH-MentalIllness-10AUG04_102671_7.pdf)

Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

MDCH Mental Health Programs & Practices for Adults: http://www.michigan.gov/mdch/0,1607,7-132-2941_4868_38495---,00.html

Health Outcomes - 8

Infectious Diseases

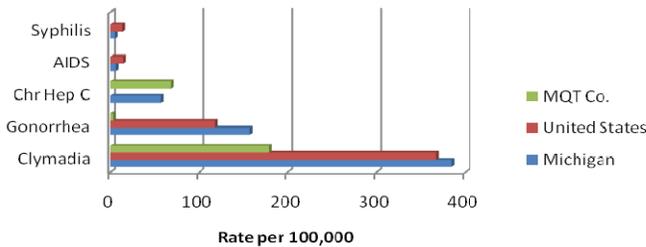
Marquette County
2010
CRITICAL
HEALTH
INDICATORS

Indicator Definition: Annual rate of new cases of chronic hepatitis C, HIV/AIDS, and other Sexually Transmitted Infections (STIs) such as Chlamydia and Gonorrhea.

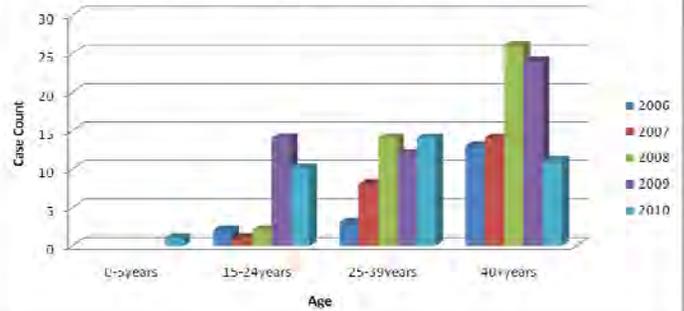
Indicator Overview:

- Infectious diseases are spread throughout populations as a result of contact with the infectious agent, for example through blood exposure or unprotected sex. A subset of these cannot be prevented by vaccination. Rates of these types of diseases reflect a population's knowledge and hygiene practices.

Rate of Incidence/ Diagnosis of Other Infectious Diseases 2007



Hepatitis C Cases by Age Group and Year- MQT Co. 2006-2010



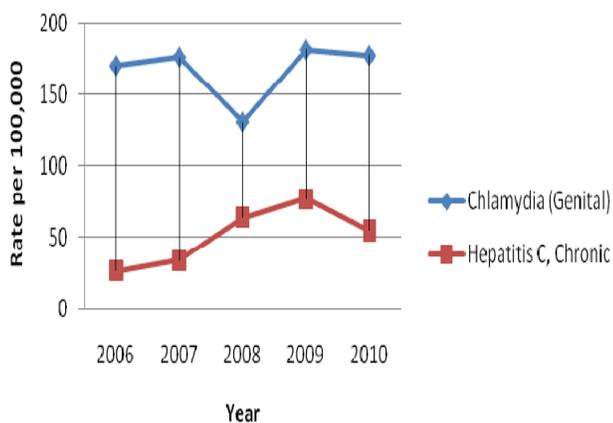
Sexually Transmitted Infections

MI and Marquette County to U.S. Comparison

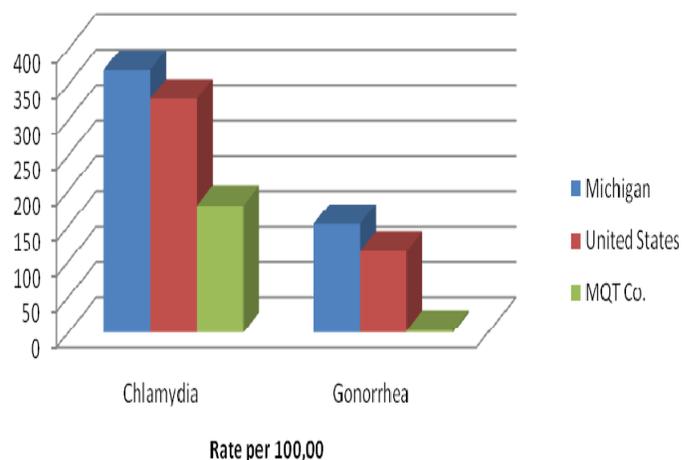
The picture of infectious diseases, other than those that are vaccine preventable, in the U.S. and Michigan are similar. Chronic hepatitis C is not a nationally reportable disease. The rate of infection of Gonorrhea and Chlamydia is higher in Michigan than the U.S.; however the rates of infection and diagnosis of Syphilis and AIDS are higher nationally. Chlamydia rates are the highest form of STI. Marquette County has a slightly higher rate than

Chlamydia and Gonorrhea are the most common reportable diseases in Michigan. In 2009, 46,338 cases of Chlamydia, and 14,600 cases of Gonorrhea were reported in the state. Both of these infections disproportionately impact young adults, females, and communities of color. In women, untreated Chlamydia infections can spread into the uterus or fallopian tubes and cause pelvic inflammatory disease (PID). PID can cause permanent damage to the fallopian tubes, uterus, and surrounding tissues. The damage can lead to chronic pelvic pain, infertility, and ectopic pregnancy. These complications are the reason screening resources are highly targeted for women, especially for Chlamydia.

Infectious Disease Rates For MQT Co. 2006-2010



Rates in 2007

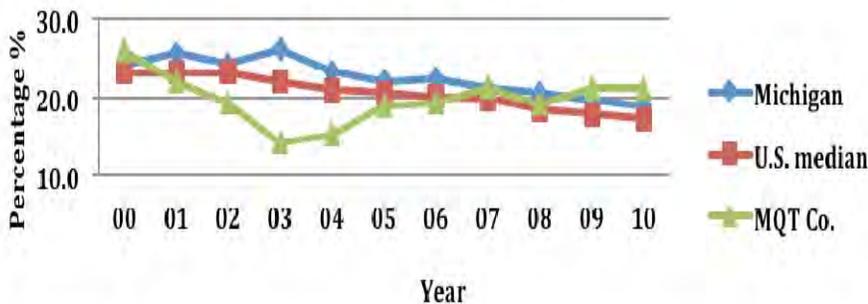


Indicator Definition: Percentage of adults who have smoked ≥ 100 cigarettes in their lifetime and who currently smoke some days or every day.

Indicator Overview:

- Smoking is a leading cause of death and disability in the United States and is an important modifiable risk factor.
- Smoking contributes to the development of many kinds of chronic conditions, including cancers, respiratory diseases, and cardiovascular diseases, and “remains the leading preventable cause of premature death in the United States.” It has been estimated that smoking costs the United States \$193 billion in annual health related economic losses and 5.1 million years of potential life lost each year.
- Smoking is also associated with cardiovascular disease. Risk of stroke doubles for those who smoke as compared to those who do not.
- Smoking is also related to an increase in chronic obstructive lung disease deaths, adverse reproductive and early childhood effects, and lower bone density in postmenopausal women.

Current Smoking MQT Co., Michigan and US 2000-2010



← **Trends:** The percentage of smokers in Marquette County has increased between 2005 and 2009 reversing a downward trend that began in 2000. As the bar chart in the lower left hand corner Birth to Mothers who Smoked during Pregnancy is higher in Marquette County than in Michigan in 2008-2010. Medicaid maternal smoking rates are 53%! This correlates to the increasing smoking rate in Marquette County then in Michigan. The bottom right chart is the most current data available for the State, UP region and Marquette County. Marquette County for the first time in a decade is now higher than the State average.

Birth to Mothers who Smoked during Pregnancy in MQT Co., and Michigan 2008-2010

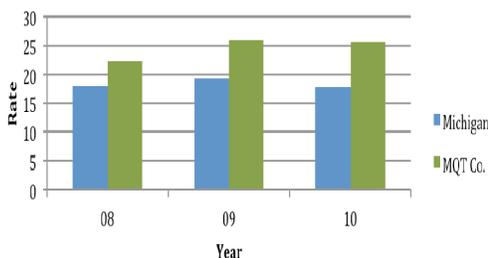


Table 14: Cigarette Smoking Michigan BRFSS, 2007-2009 Combined

Geographic Area	Sample Size	Current Smoking ^a		Former Smoking ^b		Never Smoked	Smoked
		N	% 95% Confidence Interval	% 95% Confidence Interval	% 95% Confidence Interval		
Michigan Total	26,086	20.3	(19.6-21.0)	25.4	(24.8-26.1)	54.2	(53.4-55.1)
Region 12	1,029	24.8	(21.2-28.7)	26.8	(23.8-30.2)	48.4	(44.4-52.5)
Luce-Mackinac-Alger-Schoolcraft	141	29.3	(19.3-41.9)	19.7	(13.7-27.7)	50.9	(40.0-61.7)
Western Upper Peninsula	221	16.6	(11.4-23.5)	30.6	(23.6-38.4)	52.8	(43.6-61.8)
Delta-Menominee	214	31.9	(23.9-41.3)	20.3	(15.3-26.5)	47.7	(39.3-56.3)
Chippewa	123	25.1	(16.1-36.9)	24.1	(16.1-34.4)	50.8	(39.1-62.4)
Dickinson-Iron	141	26.2	(17.6-37.3)	24.5	(17.6-32.9)	49.3	(39.4-59.3)
Marquette	189	21.2	(14.2-30.4)	38.1	(29.8-47.2)	40.7	(32.3-49.7)

^aThe proportion who reported that they had ever smoked at least 100 cigarettes (five packs) in their life and that they smoke cigarettes now, either every day or on some days.
^bThe proportion who reported that they had ever smoked at least 100 cigarettes (five packs) in their life, but they do not smoke cigarettes now.
 The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfss)
 Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

MDCH: Tobacco Control Program: <http://www.michigan.gov/tobacco>
 CDC: Smoking & Tobacco Use: <http://www.cdc.gov/tobacco/>

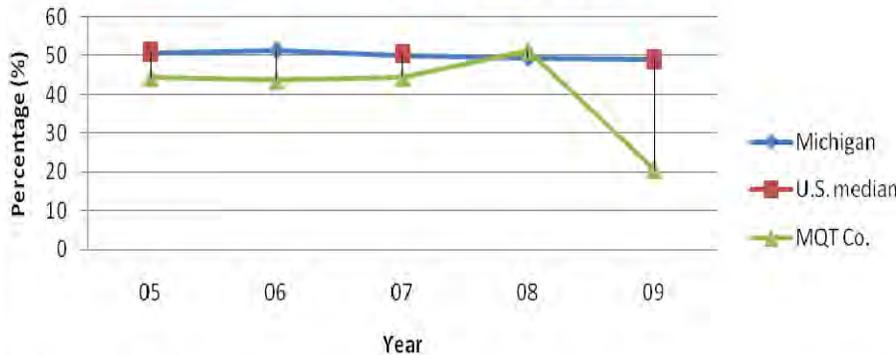
Physical Activity

Indicator Definition: Percentage of adults meeting the recommendation for moderate physical activity (at least 5 days a week for 30 minutes a day of moderate-intensity activity or at least 3 days a week for 20 minutes a day of vigorous-intensity activity).

Indicator Overview:

- Regular physical activity is an important contributor to health, yet fewer than 50 percent of people in the United States report engaging in moderate physical activity. The CDC report, *Physical Activity and Health: Report of the Surgeon General*, described numerous associations between physical activity and various health outcomes, such as:
- Moderate to higher levels of regular physical activity lowers mortality rates for both older and younger adults.
- Regular physical activity is associated with decreased risk of developing conditions such as diabetes, colon cancer, and high blood pressure.
- Regular physical activity reduces feelings of depression and anxiety; helps control weight; helps build and maintain healthy bones, muscles, and joints; helps older adults become stronger and better able to move about; and promotes psychological well-being.

Inadequate Physical Activity Michigan 2002-2009



← **Trends:** From 2005- 2008 the amount of Inadequate Physical Activity has stayed stable for Marquette County, Michigan and United States, but in 2009 there is a significant drop in percentages for Marquette County. The graph in the lower left corner dealing with No Leisure Time Activity also deals with about the same percentages comparing Marquette County, Michigan and the United States and has been decreasing over the last few years. The most recent BRFSS data shows that Marquette County has slightly better adequate physical activity compared to region and state.

No Leisure Time Activity in MQT Co., Michigan and United States 1999-2010

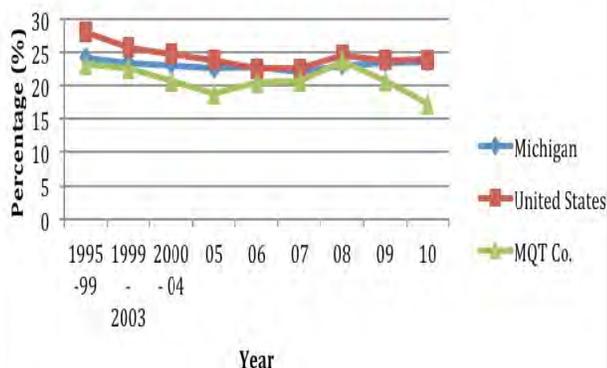


Table 12: Inadequate Physical Activity Michigan BRFSS, 2007 -2009 Combined

Geographic Area	Inadequate Physical Activity ^a		
	N	%	95% Confidence Interval
Michigan Total	20,974	49.1	(48.2 -50.1)
Region 12	816	46.0	(41.6 -50.4)
Luce -Mackinac -Alger -Schoolcraft	113	34.8	(25.1 -26.1)
Western Upper Peninsula	178	42.4	(33.5 -51.8)
Delta -Menominee	160	55.2	(45.3 -64.7)
Chippewa	101	46.8	(33.9 -60.1)
Dickinson -Iron	108	50.6	(39.2 -61.9)
Marquette	156	44.6	(34.9 -54.6)

^aThe proportion who reported that they do not usually do moderate physical activities for a total of at least 30 minutes on five or more days per week or vigorous physical activities for a total of at least 20 minutes on three or more days per week while not at work.

^bThe Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2001-2009. (www.michigan.gov/brfs)
Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2001-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

Michigan Nutrition, Physical Activity & Obesity Program:
<http://www.michigan.gov/preventobesity>

Michigan Complete Streets: <http://michigancompletestreets.com/>

Safe Routes to School: <http://www.saferoutesmichigan.org/>

Healthy Communities: www.michigan.gov/healthycommunities

Healthy Kids, Healthy Michigan:

<http://www.americanheart.org/healthykidshealthymichigan>

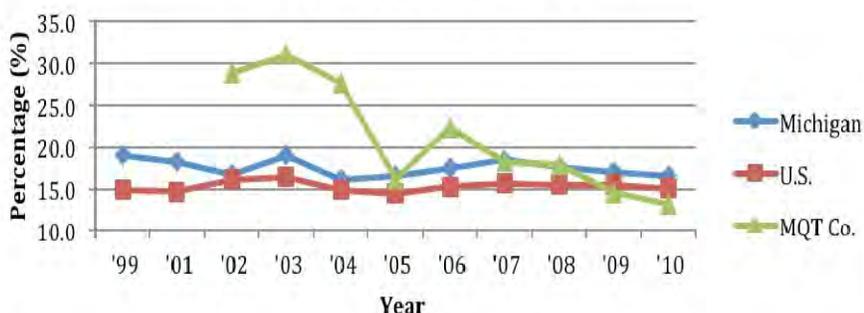
Indicator Definition: Percentage of adults consuming four (women) or five (men) or more drinks on one occasion.

Indicator Overview:

- In 2005, more than 1.6 million hospitalizations and over 4 million emergency room visits nationally were for alcohol related conditions.
- Approximately 79,000 people die each year in the United States as a result of excessive alcohol use, making its use the third leading behavior related cause of death for the nation.
- Excessive alcohol consumption has both
 - immediate consequences: miscarriage, stillbirth, birth defects, unintentional injuries, and violence;
 - and long-term consequences: neurological problems; cardiovascular problems; psychiatric problems; social problems including family problems, lost productivity, and unemployment; cirrhosis; and worsening of liver function for persons with hepatitis C virus.

Binge Drinking MQT Co., Michigan and U.S.

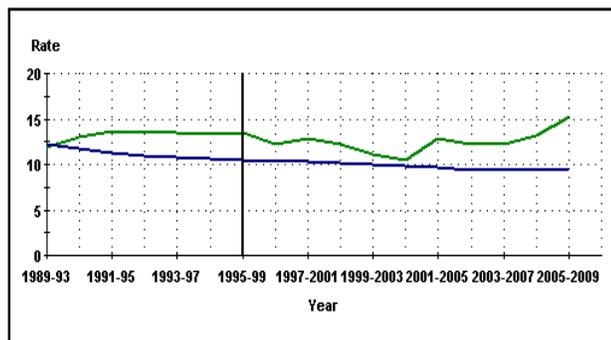
1999-2010 *Mqt, MI 3 yr avgs



← **Trends:** When compared with the national median, Marquette County consistently has a slightly higher prevalence of binge drinking in 2005-2008, but has had a substantial decrease in percentage from 2002 to 2004 and has decreased below state and national levels since 2009. A similar trend as in binge drinking is followed with heaving drinking from 2002-2010 in Marquette County, Michigan and United States.

Marquette County has a significantly higher liver death rate compared to the state.

Liver Age-adjusted Death Rates, Five-year Moving Averages Marquette County Residents, 1989-2009

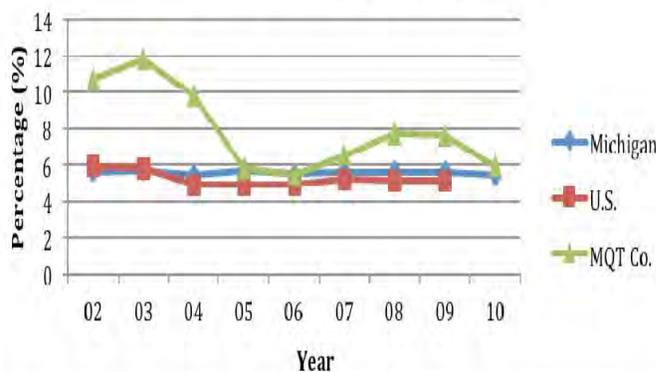


Source: 1989 - 2009 Michigan Resident Death Files, Vital Records & Health Statistics Section, Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

Heavy Drinking MQT Co., Michigan and U.S.

2002-2010 *Mqt, MI 3 yr avgs



Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 1999-2009. (www.michigan.gov/brfs) Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1999-2009. (www.cdc.gov/brfs)

Links to Related Public Health Programs:

MDCH: Substance Abuse Prevention: http://www.michigan.gov/mdch/0,1607,7-132-2941_4871_29888---,00.html

Indicator Definition: Percentage of Inadequate Fruit and Vegetable Consumption Among Adults.

Indicator Overview:

- 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 and lost productivity. Good nutrition is especially important in early childhood development. 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 in the Behavioral Health Risk Factor Survey (BRFS) for fruit and vegetable consumption.

**Table 13: Inadequate Fruit and Vegetable Consumption
Michigan BRFSS, 2007 -2009 Combined**

Geographic Area	Inadequate Fruit and Vegetable Consumption ^a		
	N	%	95% Confidence Interval
Michigan Total	22,360	78.2	(77.5 -78.9)
Region 12	891	79.0	(75.5 -82.1)
Luce-Mackinac -Alger -Schoolcraft	121	69.0	(56.5 -79.3)
Western Upper Peninsula	196	75.9	(68.2 -82.2)
Delta -Menominee	175	83.8	(76.5 -89.2)
Chippewa	112	83.2	(72.7 -90.2)
Dickinson -Iron	123	79.7	(71.1 -86.2)
Marquette	164	80.8	(72.4 -87.1)

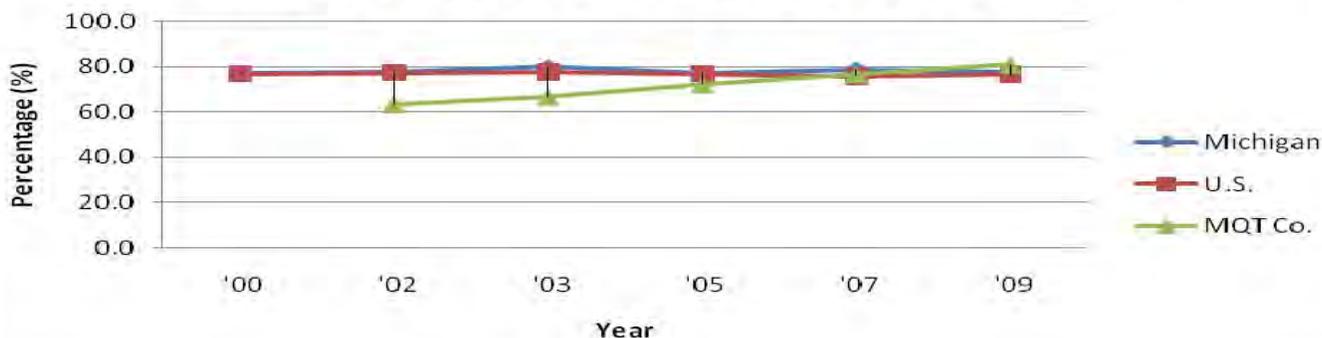
^aThe proportion whose total reported consumption of fruits (including juice) and vegetables was less than five times per day.
The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate but only the respective counties were included in the regional estimates.

← Trends:

The percentage of adults who report inadequate fruit and vegetable consumption has remained relatively stable over the past ten years for both Michigan and the United States, but in Marquette County it has increased in the years 2002-2009.

Marquette County in 2009 has now surpassed Michigan and United States, but by a small margin.

**Inadequate Fruit and Vegetable Consumption
MQT Co., Michigan and U.S. 2000-2009**



Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs)
Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)

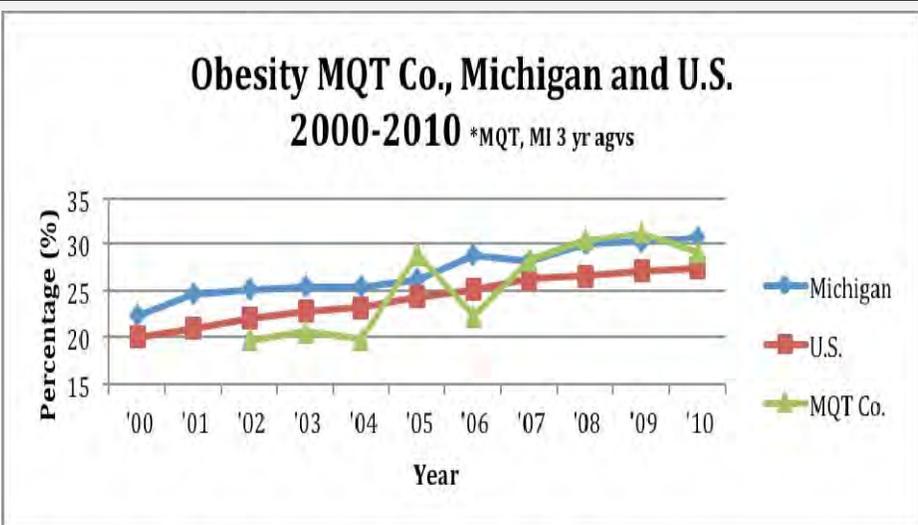
Links to Related Public Health Programs:

Building Healthy Communities: www.michigan.gov/healthycommunities
Obesity Prevention: www.michigan.gov/preventobesity
Michigan Food Policy Council: www.michigan.gov/mfpc
Center for Disease Control: www.cdc.gov/nutrition
Healthy Kids, Healthy Michigan: www.americanheart.org/healthykidshealthymichigan

Indicator Definition: Percentage of adults reporting a body mass index of ≥ 30 .

Indicator Overview:

- Obesity is one of today's most pressing public health issues. The rates of obesity (defined as having a body mass index equal to or greater than 30) have risen dramatically over the past 30 years. Nationwide, obesity prevalence doubled among adults between 1980 and 2004, from 15 percent to 32.2 percent.
- Obesity has been shown to be associated with several poor health outcomes, including: hypertension, osteoarthritis, dyslipidemia, Type 2 Diabetes, coronary heart disease, stroke, gallbladder disease, sleep apnea and respiratory problems, and some cancers (i.e., endometrial, breast, and colon).



← Trends:

The prevalence of obesity has been increasing in Marquette County, Michigan and the U.S. over the past decade. Marquette County and Michigan has consistently reported higher obesity prevalence rates than the U.S. median. In 2009, Marquette County is slightly higher than Michigan in Obesity.

Below left chart in % of 8,10, and 12th grade students who are overweight or obese in Marquette County - 2010

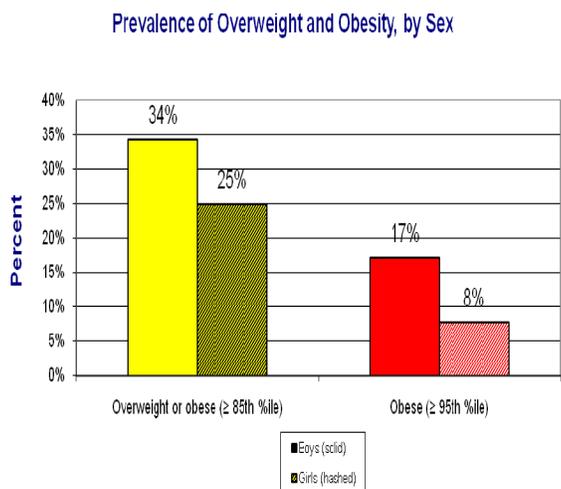


Table 8: Weight Status Michigan BRFSS, 2007 -2009 Combined

Geographic Area	Sample Size N	Obese ^a		Overweight ^b		Not Overweight or Obese ^c	
		%	95% Confidence Interval	%	95% Confidence Interval	%	95% Confidence Interval
Michigan Total	24,863	29.9	(29.2 -30.7)	35.6	(34.8 -36.5)	34.4	(33.6 -35.3)
Region 12							
Luce -Mackinac -	986	30.1	(26.5 -33.9)	37.9	(34.2 -41.8)	32.0	(28.2 -36.0)
Alger -Schoolcraft	134	25.6	(17.8 -35.3)	36.8	(27.1 -47.7)	37.6	(26.6 -50.1)
Western Upper Peninsula	213	25.6	(19.4 -33.0)	38.4	(30.9 -46.6)	36.0	(28.0 -44.7)
Delta -Menominee	204	30.1	(22.8 -38.7)	40.0	(31.6 -49.0)	29.9	(22.7 -38.3)
Chippewa	120	37.1	(26.1 -49.6)	25.8	(17.8 -35.7)	37.1	(26.0 -49.8)
Dickinson -Iron	135	32.3	(22.9 -43.5)	36.3	(27.1 -46.7)	31.3	(23.1 -40.9)
Marquette	180	31.3	(23.3 -40.6)	45.4	(36.4 -54.8)	23.2	(16.3 -32.0)

Note: BMI, body mass index, is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/height in meters)²]. Weight and height were self-reported. Pregnant women were excluded.
^aThe proportion of respondents whose BMI was greater than or equal to 30.0.
^bThe proportion of respondents whose BMI was greater than or equal to 25.0, but less than 30.0.
^cThe proportion of respondents whose BMI was less than 25.0.
 The Mid-Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid-Michigan estimate, but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs)
 Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

MDCH: Nutrition, Physical Activity and Obesity Prevention: <http://www.michigan.gov/preventobesity>
 CDC: Overweight & Obesity: <http://www.cdc.gov/obesity/index.html>

Health Systems – 14

Health Care Expenditures

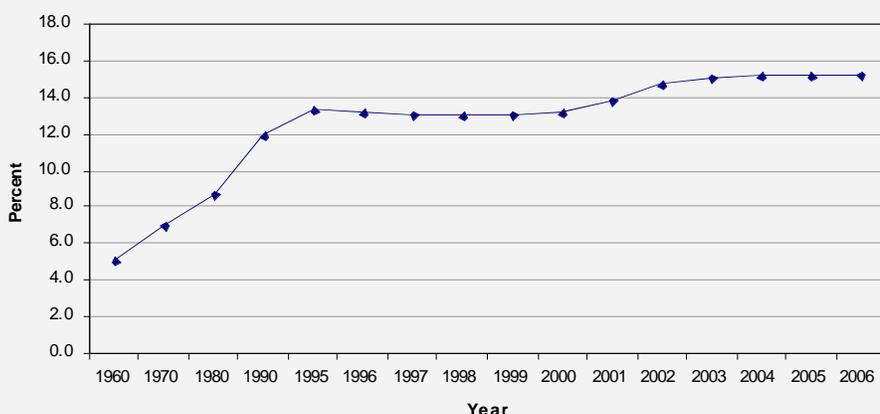
Marquette
County 2010
CRITICAL
HEALTH
INDICATORS

Indicator Definition: Per capita health care expenditures.

Indicator Overview:

- Per capita health spending is used to track expenditures over time within the United States and is one of the most widely used comparative indicators with other countries.
- According to the Kaiser Family Foundation State Health Facts profiles, Michigan’s per capita health expenditures in 2004 were \$5,058 per person, which is \$180 (or 3%) per person less than the U.S. expenditures.
- The breakout of expenditures by service for 2004 shows that Michigan and the U.S. tend to be within 1-2% of each other when comparing each service as a percent of the whole.

Health Care in the United States as a Percent of GDP



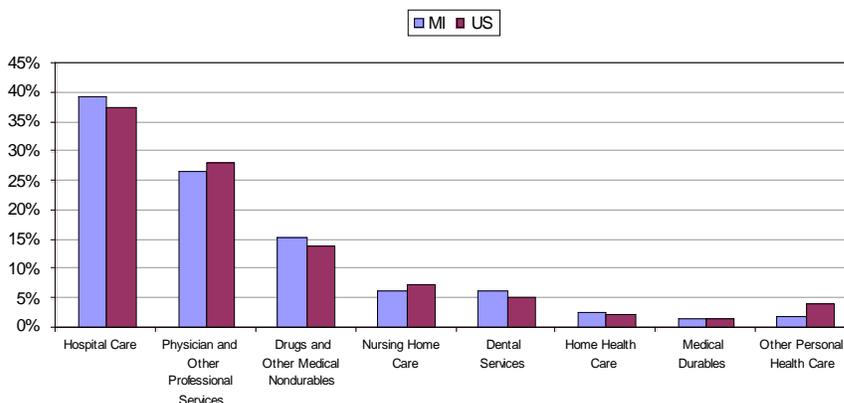
← Trends:

Health care expenditures have been increasing over time. In the 1960s, the total expenditure only amounted to about 5% of the U.S. Gross Domestic Product (GDP). Since 2003, the annual health care expenditures have grown to about 15% of the GDP.

→ Expenditures by Service:

Expenditures by Service in Michigan and the United States as a percent of the whole are similar. In 2004, the total expenditures for the US were \$1,551,255,000 and for Michigan was \$51,048,000. Thirty-five to forty percent of the expenditures are on hospital care, 25 percent goes to physicians and other health professionals, and another fifteen percent is spent on medications.

Percent of Health Care Expenditures by Service, 2004



Links to Other Sources of Information:

Kaiser Foundation Profiles: Michigan – Health Costs & Budgets: <http://www.statehealthfacts.org/profileind.jsp?cat=5&rgn=24&cmprgn=1>
 CMS: National Health Expenditures Data: http://www.cms.gov/NationalHealthExpendData/05_NationalHealthAccountsStateHealthAccountsResidence.asp#TopOfPage

Links to Related Public Health Programs:

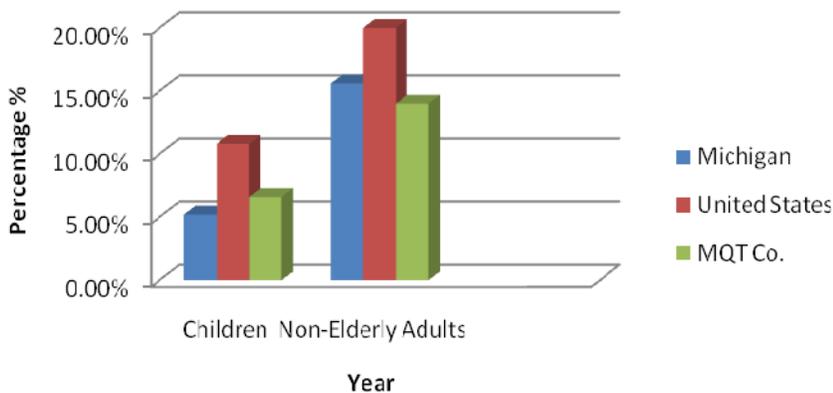
MDCH: Health Care Coverage: <http://www.michigan.gov/mdch/0,1607,7-132-2943---,00.html>
 MDCH: Help finding Health Care: http://www.michigan.gov/mdch/0,1607,7-132-2943_52115---,00.html

Indicator Definition: Percentage of adults without health coverage via insurance or entitlement.

Indicator Overview:

- Health insurance coverage is an important determinant of access to care. A 2009 Institute of Medicine (IOM) literature review found that access to healthcare services improved for children, and that children were less likely to experience unmet healthcare needs when they acquired health insurance.ⁱ The same IOM literature review found that adults without health insurance are less likely to receive effective clinical preventive services, and that among chronically ill adults, those without health insurance were more likely to delay or forgo needed health care and medications. In Michigan, efforts to expand health care coverage primarily focus on persons aged 64 and younger; those aged 65 and older are typically insured by Medicare.
- Adults ages 18-34 years are almost twice as likely to be uninsured (22.9%) as those ages 35-64 years (11.8%).ⁱⁱ Among the non-elderly, Hispanics are most likely to be uninsured at 22.1%, followed closely by Blacks at 19.4%; Whites have an uninsured rate of 10.9%.ⁱⁱ Individuals in families headed by someone with no more education than a high school diploma make up 39.4% of Michigan’s population, but they make up 56.7% of the uninsured.ⁱⁱ Single residents without kids are most likely to be uninsured at 25.5% while individuals from families that include married residents with kids are least likely to be uninsured at 6.7%.ⁱⁱ

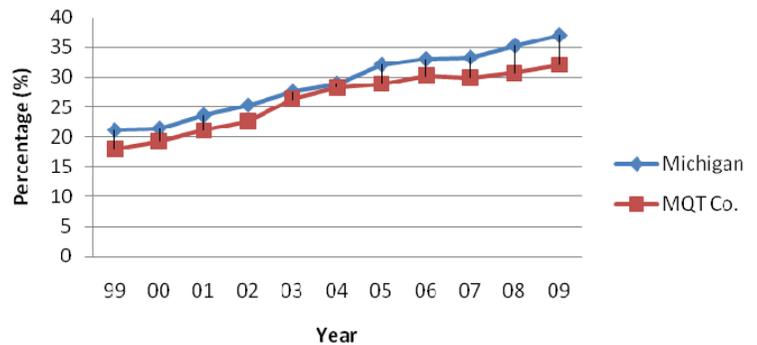
Uninsured Children and Non-Elderly Adults in MQT Co., Michigan and United States 2007



← **Trend:** As shown to the left, Marquette County is higher than the state average in uninsured children, but Marquette County uninsured non-elderly adults is slightly lower in Michigan and significantly lower than the United States.

→ **Trend:** As with the chart the Children Ages 0-18 Insured by Medicaid has been increasingly steadily over the past ten years. Although both Marquette County and Michigan has been increasing, Marquette County is slightly lower with children on Medicaid compared to Michigan.

Children Ages 0-18 Insured by Medicaid in MQT Co. and Michigan 1999-2009



Links to Other Sources of Information:

MDCH, Uninsured Reports and Briefs: http://www.michigan.gov/mdch/0,1607,7-132-2944_5327-17224--,00.html

MDCH, Other Links of Interest on Health Insurance Statistics: http://www.michigan.gov/mdch/0,1607,7-132-2943_37434-128490--,00.html

Links to Related Public Health Programs:

MDCH, Medicaid Program: http://www.michigan.gov/mdch/0,1607,7-132-2943_4860---,00.html

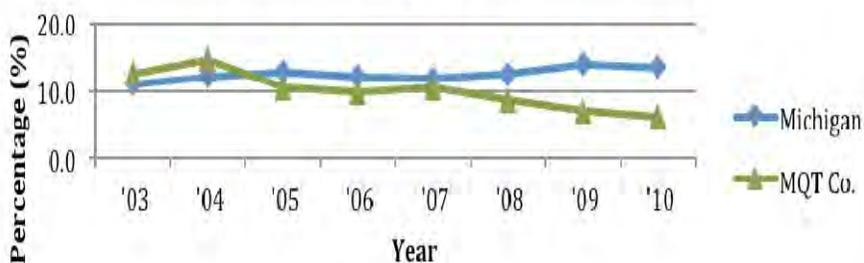
Indicator Definition: Percentage of (non-institutionalized) people who did not receive or delayed receiving needed medical services.

Indicator Overview:

- Unmet needs is an indicator commonly used to portray problems in access to health care services including lack of health insurance and limited availability of providers.
- Unmet needs is also associated with greater emergency room use and disadvantaged individuals delay care for conditions that are associated with longer hospital stays and poorer health outcomes.

No Health Care Coverage Among Those Aged 18-64 MQT Co., and Michigan 2003-2010 *Mqt, MI

3 yr avgs



← **Trends:** The percentage of Marquette County adults who reported not going to a doctor when they needed to in the past 12 months due to cost has been decreasing between 2007-2010, and has been lower than the overall Michigan percentage since 2005. In Michigan, the percentage has increased between 2007-2010.

The chart below illustrates that while Marquette County may be doing comparatively well, the Upper Peninsula as a whole has a high percentage of adults reporting no coverage due to cost.

Table 9: No Health Care Coverage Among Those Aged 18 -64 Years Michigan BRFSS, 2007 -2009 Combined

Geographic Area	No Health Care Coverage ^a		
	N	%	95% Confidence Interval
Michigan Total	17,187	14.8	(14.0 -15.6)
Region 12	664	19.1	(15.4 -23.5)
Luce -Mackinac -Alger -Schoolcraft	94	29.1	(18.3 -42.9)
Western Upper Peninsula	137	15.8	(9.6 -25.0)
Delta -Menominee	131	25.9	(16.9 -37.6)
Chippewa	81	21.0	(10.7 -37.2)
Dickinson -Iron	89	11.2	(5.1 -22.8)
Marquette	132	12.1	(7.4 -19.0)

^a Among those aged 18 -64 years, the proportion who reported having no health care coverage, including health insurance, prepaid plans such as HMOs, or government plans, such as Medicare. The Mid -Michigan District Health Department consists of Clinton, Gratiot, and Montcalm. Clinton and Gratiot are Region 4 counties, while Montcalm is a Region 7 county. All three counties were included in the Mid -Michigan estimate, but only the respective counties were included in the regional estimates.

Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2003-2009. (www.michigan.gov/brfs) Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2003-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

MDCH: Help finding Health Care: http://www.michigan.gov/mdch/0,1607,7-132-2943_52115---,00.html

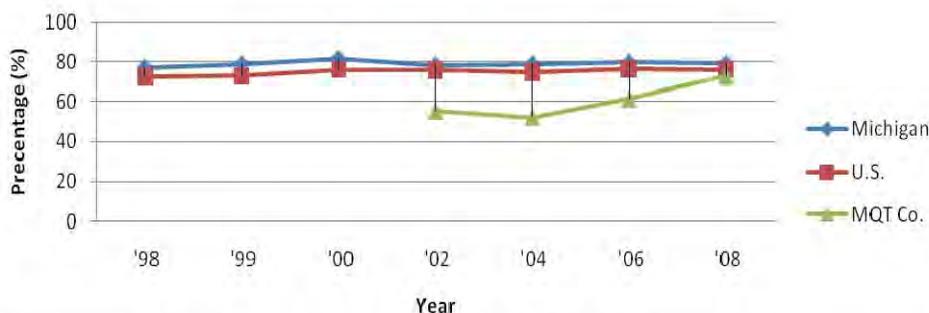
Indicator Definition: Percentage of adults who are up-to-date with age-appropriate screening services.

Indicator Overview:

- Among the many clinical preventive services, the following services are included for this report: Mammograms, Pap Tests, Colorectal Cancer Screenings, and Cholesterol Checks.
- According to the Centers for Disease Control and Prevention (CDC), 7 out of 10 deaths are due to chronic disease; heart disease, cancer, and stroke account for more than 50% of all deaths each year. Preventative screenings can help catch chronic diseases at an earlier stage, which increases longevity with the disease and allows the patient to set up a plan with the provider to manage the disease on a long-term basis.

Mammograms

Had a Mammogram in the Past Two Years Among Women Aged 40 years and older
MQT Co., Michigan and U.S. 1998-2008

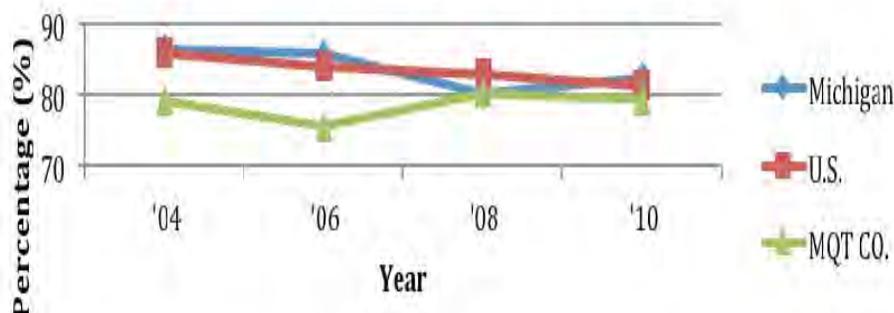


← **Trends:** The percentage of women aged 40 years and older who have had a mammogram in the past two years has remained relatively stable over the past decade for both Michigan and the United States. For Marquette County the percentage of women having a mammogram has increased coming close to the state and national percent.

Pap Tests

→ **Trends:** The prevalence of pap testing among women aged 18 years and older has increased between 2006 and 2008, when the percent comes close to the Michigan and United States level. Still higher than between 2004 and 2006, the trend between 2008 and 2010 suggests a decline in Marquette County and mirrors U.S. percentages.

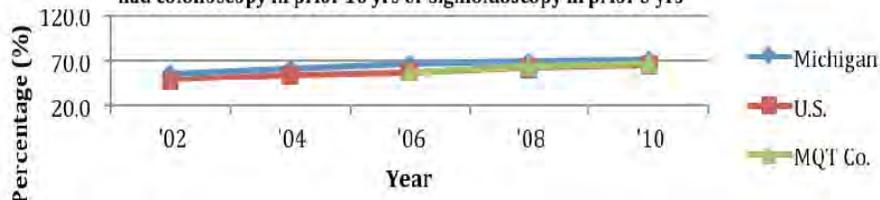
Had a Pap Test in the Past 3 Years
Among Women Aged 18 Years and Older
MQT Co., Michigan, U.S. 2004-2010



Colorectal Cancer Screening

Colorectal Cancer Screening* Among Adults 50 Years of Age and Older MQT Co., Michigan, and U.S. 2002-2010

*had colonoscopy in prior 10 yrs or sigmoidoscopy in prior 5 yrs



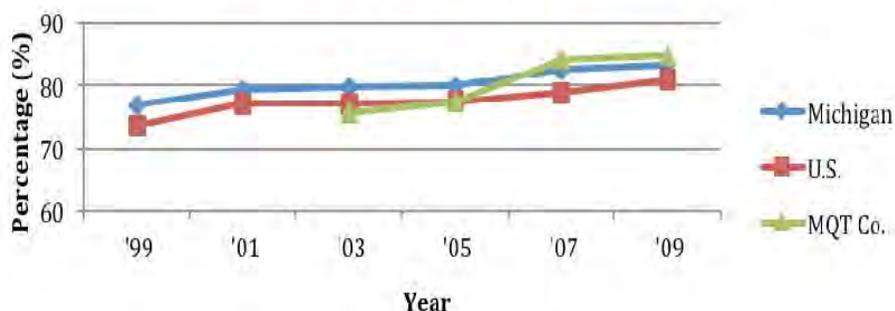
← **Trends:** The utilization of colorectal cancer screening among Michigan adults aged 50 years and older increased over the past decade. The prevalence of those having a blood stool test in the past two years has decreased slightly, while the prevalence of those having a sigmoidoscopy or colonoscopy in the past five years has dramatically increased.

Cholesterol Check

→ **Trends:** The prevalence of having had cholesterol screening within the past five years in Marquette County, Michigan and the United States has steadily increased over the past decade. In 2009, 84.8% of Marquette County adults reported having had their cholesterol checked within the past five years, compared to 83.1% of Michigan adults.

Had Cholesterol Checked in Past 5 Years MQT Co., Michigan, and U.S. 1999-2009

*Mqt is combined data



Links to Other Sources of Information:

Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 1998-2009. (www.michigan.gov/brfs)
Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1998-2009. (www.cdc.gov/brfss)

Links to Related Public Health Programs:

MDCH: Physical Health & Prevention Programs: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955---,00.html

CDC: Chronic Disease Prevention & Health Promotion: <http://www.cdc.gov/chronicdisease/index.htm>

Pediatric & Adult Immunizations

Indicator Definition: Percentage of children aged 19–35 months who are up to date with recommended immunizations. Percentage of adults who are up-to-date with influenza and pneumococcal vaccinations.

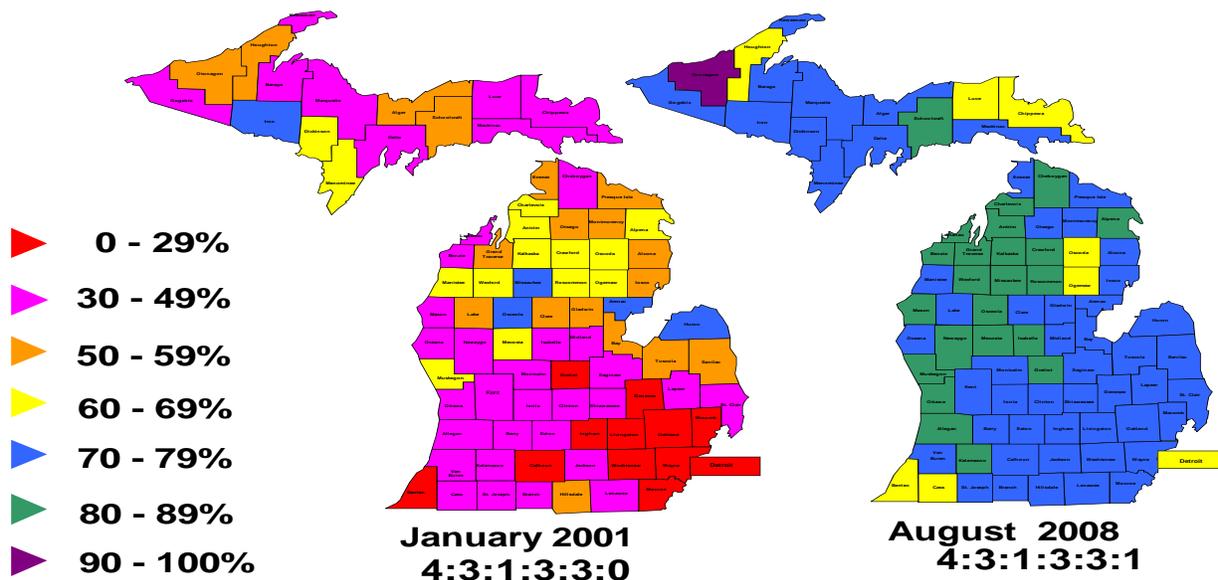
Indicator Overview:

- At the beginning of the 20th century, outbreaks of infectious diseases were frequent in the United States. The development of vaccines has resulted in a significant drop in incidence for many of these diseases. Because many vaccine-preventable diseases primarily affect young children and infants, immunizations are given early in life. Seventy-seven percent of U.S. children 19 to 35 months of age have received the Advisory Committee on Immunization Practices (ACIP) recommended series of childhood vaccines (CDC, 2009c). High rates of childhood immunization are important to protect not only individual children, but also outbreaks of disease among communities.
- Vaccination against influenza is another cost- and health-enhancing measure. The CDC notes, “Influenza vaccination is the most effective method for preventing influenza virus infection and its potentially severe complications” (CDC, 2009h). Rates of serious illness and death from the influenza virus infection are highest among children less than 2 years old, people 65 and older and those with serious medical conditions.

Pediatric Immunizations

- The below chart demonstrates a significant improvement during the year 2001 and then again in 2008.

Current Immunization Profile for 19 - 35 Month Old Children Based on MCIR Data

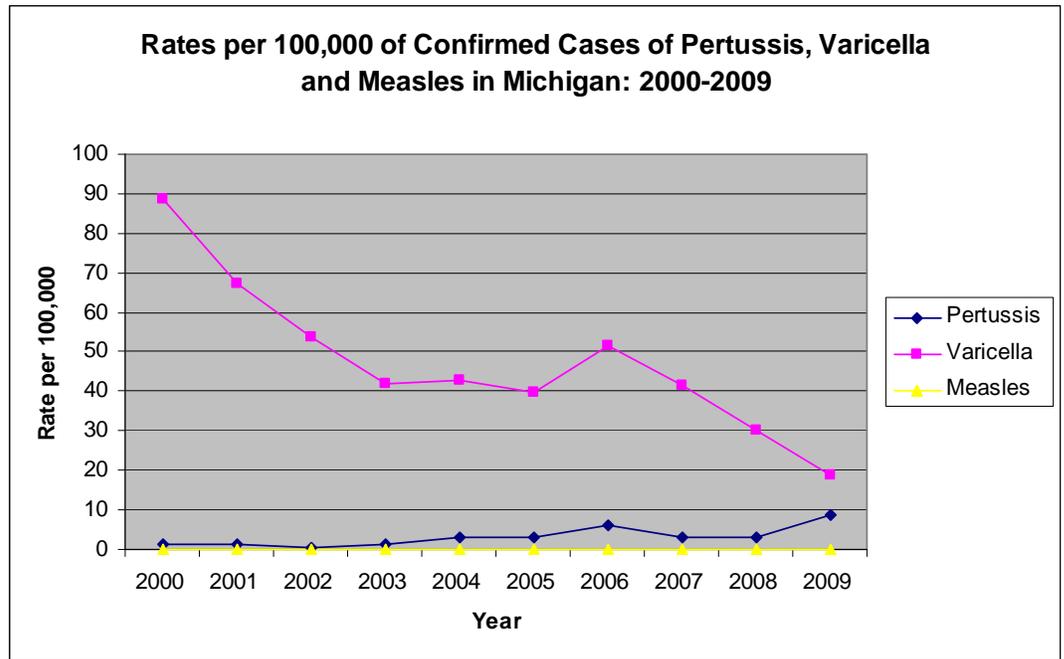


Trends: In 1994 when the first National Immunization Survey was completed by the CDC, Michigan had the lowest immunization rates in the country at 61% for 4:3:1 coverage. Michigan has now improved its immunization rates to 76.5% ±6.4 for the 4:3:1:0:3:1:4 series – the national rate is 70.5% ±1.2. This series measures 4:3:1 plus 3 or more doses of HepB, 1 or more doses of Varicella vaccine, and 4 or more doses of PCV. Hib vaccine is excluded due to the national Hib vaccine shortage. This ranks Michigan at 5th in the country. The Michigan Care Improvement Registry (MCIR) is a critical tool used by all clinics who administer vaccines to track immunizations.

→ Vaccine-Preventable Diseases:

From 2000 to 2009, the rate of pertussis disease in Michigan increased from 1.28 per 100,000 people (127 cases) to 8.91 per 100,000 people (902 cases) and continues to increase into 2010.

Varicella disease incidence in Michigan dropped from a rate of 88.64 per 100,000 people (8,809 cases) in 2000 to a rate of 18.66 per 100,000 people (1,889 cases) in 2009. In 2009, there were 0 cases of measles in Michigan; however, there were 3 cases in 2007 and 4 cases in 2008. Nationally, there were 71 cases of measles in 2009.

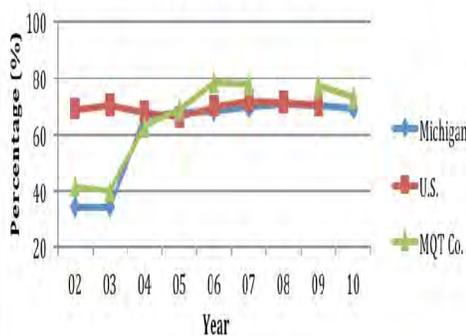


Adult Immunizations

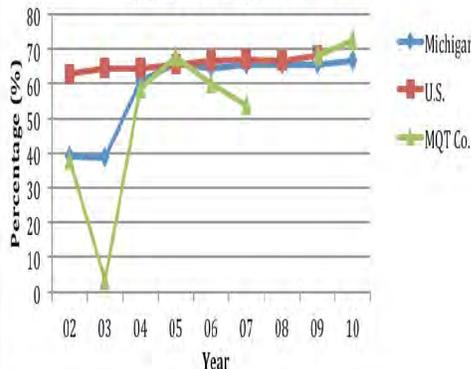
- Vaccination against influenza and pneumonia is a cost- and health-enhancing measure. Influenza vaccine is the single best way to prevent the flu. Rates of serious illness and death from the influenza virus are highest among children less than 2 years old, people 65 years and older, and those with serious medical conditions. Flu seasons are unpredictable and can be severe. Over a period of 30 years, between 1976 and 2006, national estimates of annual flu-associated deaths range from a low of about 3,000 to a high of 49,000 people. Similarly, pneumococcal disease can be fatal. In some cases, it can result in long-term problems, such as brain damage, hearing loss, and limb loss.

Flu Shot Among Adults Ages 65 and Older
MQT Co., Michigan and U.S. 2002-2010 *Mqt

MI 3 yr avgs Mqt data too small '08



Pneumonia Shot Among Ages 65 and Older
MQT Co., Michigan and U.S. 2002-2010 *Mqt data too small in '08

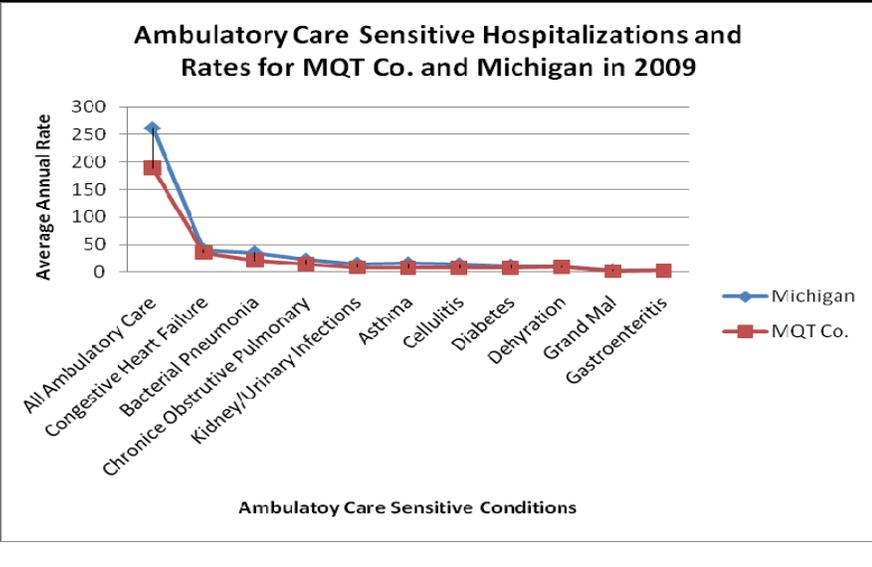


←Trends: Among adults aged 65 years and older, the percentage receiving a flu vaccination has varied over the past nine years for both Marquette County, Michigan and the nation. In 2009, Michigan adults aged 65 years and older reported a slightly lower flu vaccination rate (67.7%) than Michigan (68.9%). Similarly, in 2007, Marquette County adults aged 65 years and older reported a slightly lower pneumococcal vaccination rate (54.2%) than the Michigan (65.7%). It is imperative that adults are made aware of the vaccines available.

Indicator Definition: Hospitalization rate for ambulatory-care-sensitive conditions (ACSC).

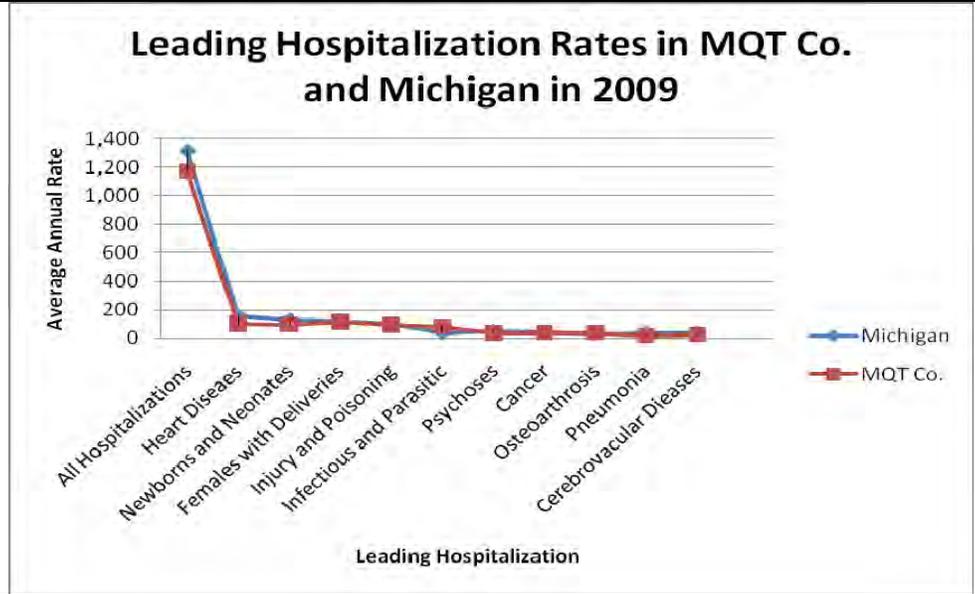
Indicator Overview:

- Ambulatory Care Sensitive (ACS) hospitalizations such as asthma, diabetes or dehydration are hospitalizations for conditions where timely and effective ambulatory care can decrease hospitalizations by preventing the onset of an illness or condition, controlling an acute episode of an illness or managing a chronic disease or condition.
- Hospitalization for ACS conditions may indicate problems in: access to ambulatory care, primary care resource shortage, poor-quality outpatient management or monitoring, lack of the patient education needed for appropriate self-management, patient preference not to follow treatment recommendations, and/or other factors that create barriers to obtaining timely and effective care.
- According to the CDC, preventable hospitalization from ACSC increased from 5.9 percent of all hospitalization in 1980 to 11.5 percent in 1998. Since 1998, the national annual average for ACS hospitalizations remains around twelve percent of all hospitalizations (3.1 million hospitalizations).



← Trends:
The rate of Ambulatory Care Sensitive hospitalizations in Marquette County is lower than in Michigan in All Ambulatory Care in 2009. All other hospitalizations shown on this chart are similar in Marquette County as to Michigan.

→ **Trend:** According to this line graph the leading hospitalization rates in Marquette County is slightly lower than in Michigan. All other leading hospitalizations are comparably at the same average annual rate for both Marquette County and Michigan.



Links to Other Sources of Information:

MDCH Ambulatory Care Sensitive Hospitalizations Index: <http://www.mdch.state.mi.us/pha/osr/index.asp?id=15>
National Hospital Discharge Survey: <http://www.cdc.gov/nchs/nhds.htm>

Links to Related Public Health Programs:

MDCH: Physical Health & Prevention Programs: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955---,00.html
CDC: Chronic Disease Prevention & Health Promotion: <http://www.cdc.gov/chronicdisease/index.htm>

Health Outcomes - 20

Mortality Trends

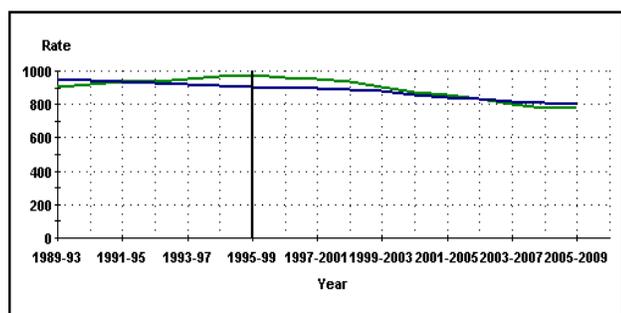
Marquette
County 2010
CRITICAL
HEALTH
INDICATORS

Indicator Definition: Mortality trends are all five year, age adjusted rates comparing Marquette County data to Michigan. These rates are on the major mortality causes. The underlying cause of death is the condition giving rise to the chain of events leading to death.

Indicator Overview:

- The below charts list the over all age adjusted death rate and nine leading causes of death over a five year moving average. Marquette County has higher death rates in: COPD, Influenza, Suicides, Alzheimer, and Accidents. The County has lower rates for: All Causes, Cancer, and Heart disease. Stroke and Diabetes are similar. Significant improvements have been made in Strokes and Suicide rates since the 1990's.

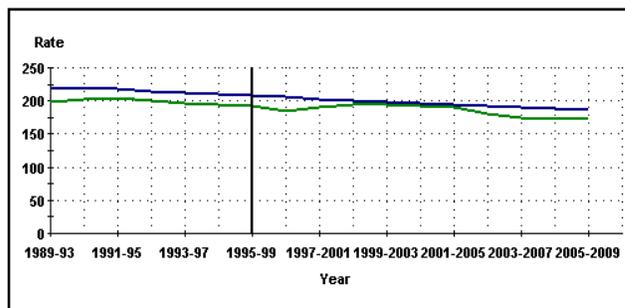
All Causes Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

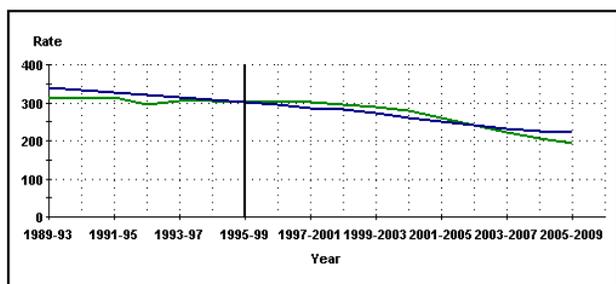
Cancer Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

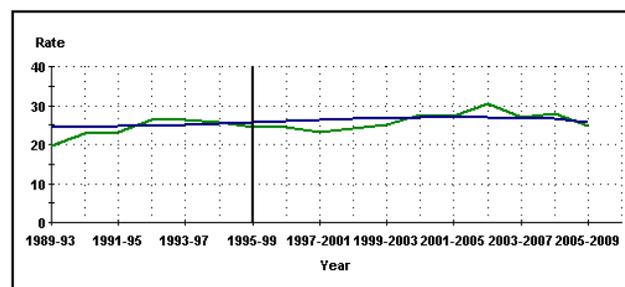
Heart Disease Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

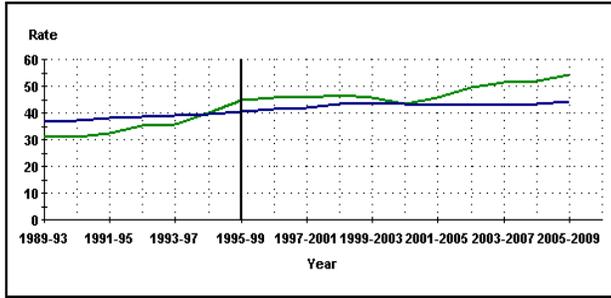
Diabetes Mellitus Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

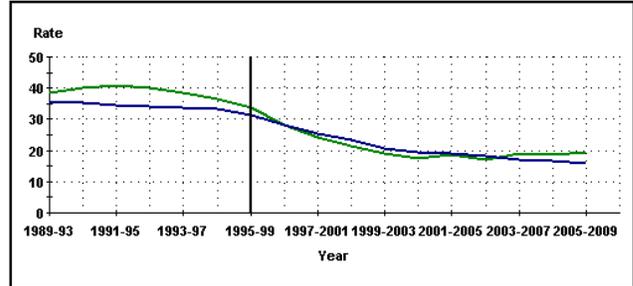
**COPD Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009**



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

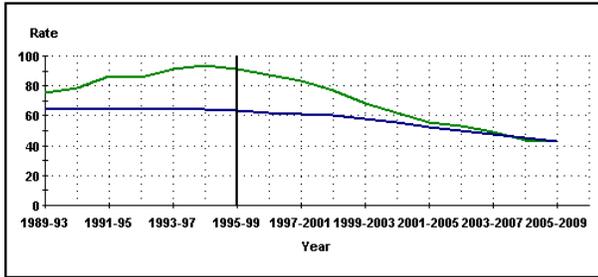
**Flu Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009**



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

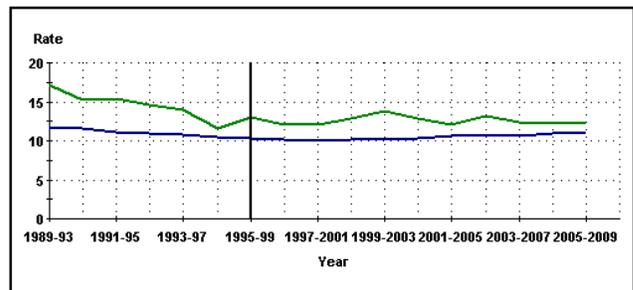
**Stroke Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009**



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

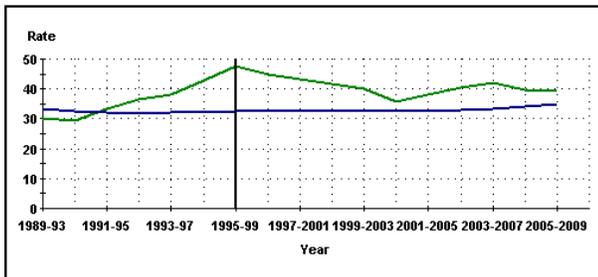
**Suicide Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009**



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

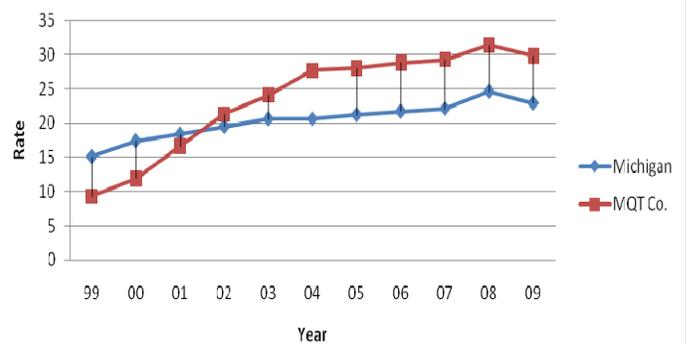
**Accident Age-adjusted Death Rates,
Five-year Moving Averages
Marquette County Residents, 1989-2009**



Source: 1989 - 2009 Michigan Resident Death Files,
Vital Records & Health Statistics Section,
Michigan Department of Community Health

— Marquette
— Michigan
— ICD-9/10 Rev Change

**Alzheimer's Age-adjusted Death Rates, Five-year Moving
Averages MQT Co. and Michigan 1999-2009**



Links to Other Sources of Information:

U.S. Environmental Protection Agency Air Emissions Sources: <http://www.epa.gov/air/emissions/where.htm>

Michigan Department of Natural Resources & Environment – Air Monitoring: http://www.michigan.gov/deq/0,1607,7-135-3310_4195-79055--00.html

CDC – National Environmental Public Health Tracking Network: <http://ephtracking.cdc.gov/showHome.action>

Links to Related Public Health Programs:

MDCH Asthma Prevention: http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_48758---00.html

CDC – Air Pollution & Respiratory Health: <http://www.cdc.gov/nceh/airpollution/default.htm>

EPA – Patient Exposure & Air Quality Index: <http://www.epa.gov/air/oaqps/eog/ozonehealth/aqi.html>

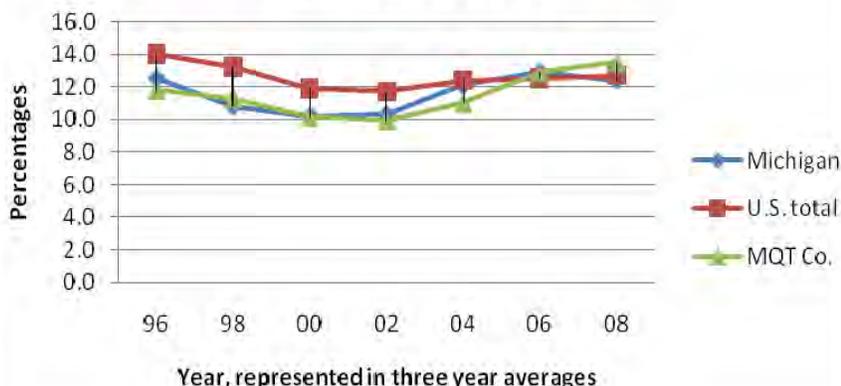
Adults & Children in Poverty

Indicator Definition: The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's income is less than the family's threshold, then that family is considered in poverty. The thresholds are updated annually for inflation with the Consumer Price Index (CPI-U). For 2009, the poverty threshold for a single individual is an income of \$10,956, and for a family of four, the threshold is \$21,954.

Indicator Overview:

- The poverty rates are established with the ten-year census, and percentages are then estimated annually based on the American Community Survey and/or the Annual Social and Economic Supplement to the Current Population Survey.
- Beginning with the late 1950s, the poverty rate for all Americans fell from 22.4 percent. These numbers declined steadily, dropping as low as 11.1% in 1973. Then the poverty rate began to cycle up to as high as 15.2% in 1983. The national poverty rate has remained between 11% and 15% since 1973ⁱⁱ.
- Poverty rates can vary greatly across subpopulations.
- Poverty rates for those who are aged 65 or older have decreased dramatically since the 1960s while the poverty rate for children remains higher than the total population rateⁱⁱ.

Poverty in MQT Co., Michigan and U.S. 1996-2008

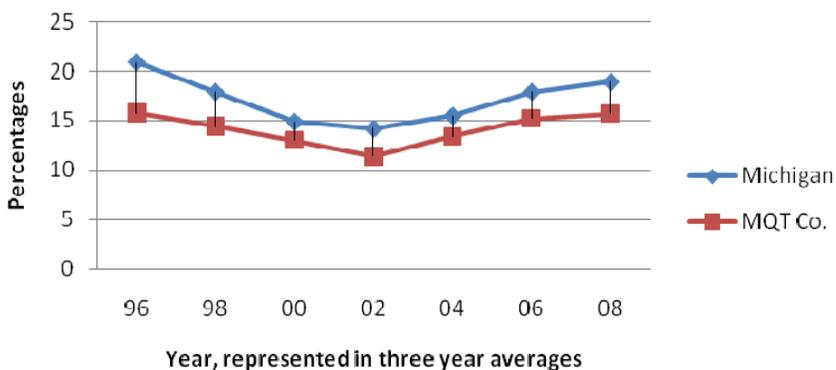


← Trends:

Prior to 2000, the poverty level in Marquette County was consistently lower than the Michigan and national average, reaching a low for the past decade of 9.9% compared to the Michigan rate of 10.2% (1998-2000). Since 2000, the poverty level in Marquette County has remained more consistent with the national percentage.

→ **Trend:** Poverty Children Ages 0-17 in Marquette County and Michigan, Marquette County is consistently lower than Michigan 1996-2008 dealing with poverty children ages 0-17 representing three year averages.

Poverty Children Ages 0-17 in MQT Co. and Michigan 1996-2008



Links to Other Sources of Information:

- U.S. DHHS Poverty Guidelines, Research, & Measurement: <http://aspe.hhs.gov/poverty/index.shtml#latest>
- Michigan Poverty Awareness: <http://www.michigan.gov/poverty/0,1607,7-253-49518---,00.html>
- University of Michigan National Poverty Center: <http://www.npc.umich.edu/poverty/>
- Spotlight on Poverty: <http://spotlightonpoverty.org/>

Links to Related Public Health Programs:

- Michigan Medicaid Program: http://www.michigan.gov/mdch/0,1607,7-132-2943_4860---,00.html
- MDCH: Help finding Health Care: http://www.michigan.gov/mdch/0,1607,7-132-2943_52115---,00.html

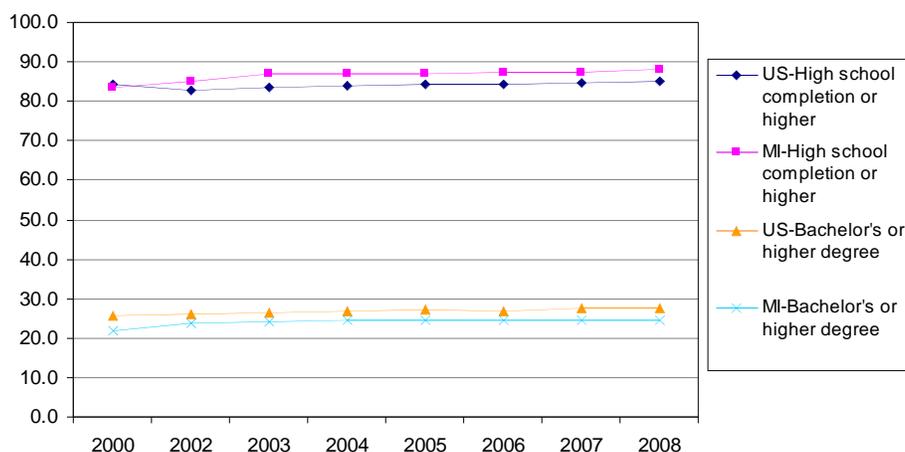
High School & College Graduation Rates

Indicator Definition: The educational attainment level for the population aged 25 and older.

Indicator Overview:

- The U.S. Census Bureau collects educational attainment information annually through the American Community Survey (ACS) and Current Population Survey (CPS).
- Education level is commonly associated with access to health care. Individuals with higher education levels are more likely to have high income jobs and/or employer-based health insurance coverage, and therefore the cost of health care is less likely to be a barrier to access.
- Education at a level less than high school completion is commonly associated with individuals in poverty.

Educational Attainment, US vs. Michigan, 2000-2008



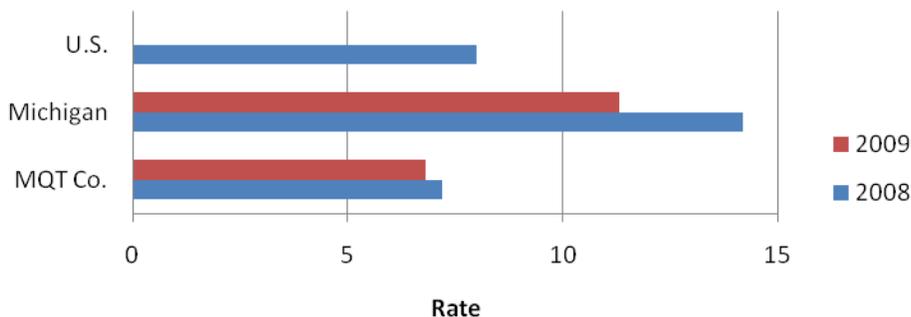
← Trends:

Since 2000, the ACS estimates for the percentage of Michigan’s population with education level of completion of high school or higher remain above U.S. estimates. Both the Michigan and U.S. percentages are over 80% and approach 90%.

While Michigan tends to have a higher percentage of high school graduates than the U.S., the state trends for attainment of a Bachelor’s degree remain lower than the national average.

→ **Trends:** The High School Dropout Rate in Marquette County is considerably lower than in the State of Michigan in both 2008 and 2009. Also compared to the United States it is somewhat lower in the rate in 2008.

High School Dropout Rate in MQT Co., Michigan and United States 2008-09



Links to Other Sources of Information:

- U.S. Census Bureau – Educational Attainment: <http://www.census.gov/hhes/socdemo/education/>
- Michigan Center for Educational Performance & Information: <http://www.michigan.gov/cepi>
- National Center for Education Statistics: <http://www.nces.ed.gov/>

Links to Related Public Health or Similar Programs:

- MDELEG – Adult Education Program: http://www.michigan.gov/mdcd/0,1607,7-122-1680_2798---,00.html
- MDE – Educational Programs: <http://www.michigan.gov/mde/0,1607,7-140-43092---,00.html>

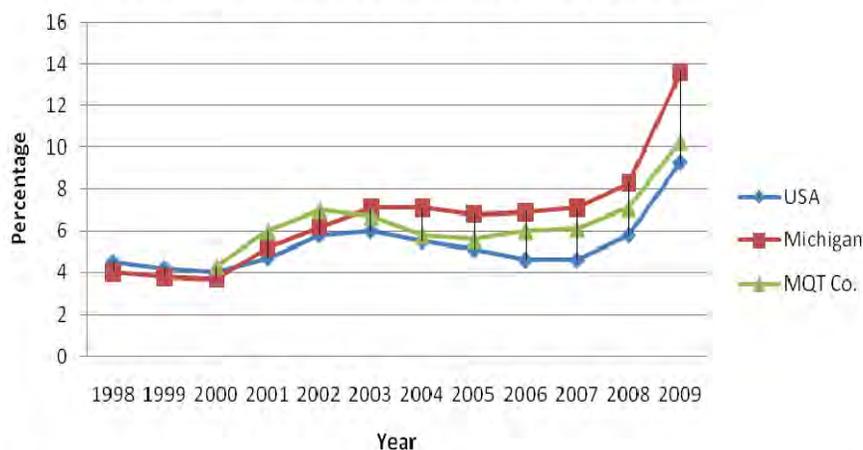
Unemployment Rate

Indicator Definition: The Unemployment (or Jobless) Rate is the percent of people in the Labor Force who are unemployed (= unemployed/labor force * 100).

Indicator Overview:

- Unemployment Rate, or Jobless Rate, is an indicator of the health of the economy, and can be used as a proxy in health status. With a larger percentage of the people out of work, fewer may be able to afford access to preventative and maintenance health services and/or prescriptions.
- Higher unemployment rates also mean a larger portion of the labor force may be seeking assistance through Medicaid.
- Unemployment data is collected through Michigan’s Department of Energy, Labor, and Economic Growth, and housed at the Labor Market Information (LMI) site. Nationally, the US Department of Labor oversees the data.

**Unemployment Rate
MQT Co., Michigan and U.S. 1998-2009**



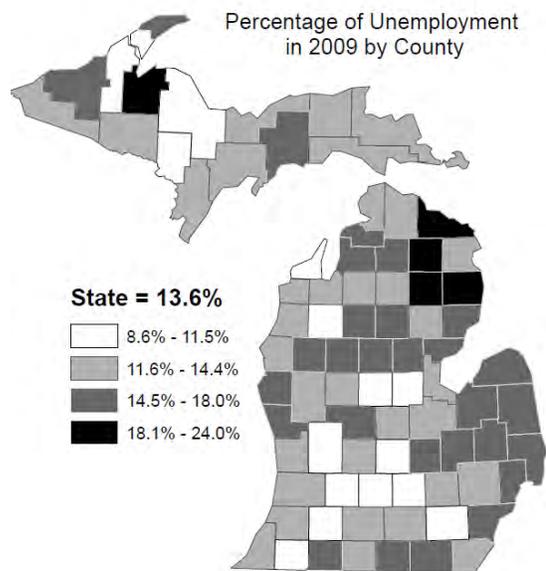
← Trends:

Beginning in the early 2000s, Marquette County Jobless Rate was at or the national Jobless rate and it was down to 4 percent. Beginning in 2001, the Jobless rate in Marquette County, Michigan and national levels began to increase. With emerging economic issues, Marquette County and Michigan’s Jobless Rate increased more quickly than the national rate. Although the increase Marquette County has been able to stay below the Michigan unemployment rate.

→ County Average:

Between 2007 and 2009, the state-wide unemployment rate almost doubled from 7.1 to 13.6. In 2009, the county rates rose to a range of 8.6% to 24.0%. In other words, in some counties as few as 1 in 12 people were unemployed and in other counties as many as 1 in 4 were unemployed. The counties that were the hardest hit included Baraga, Presque Isle, Montmorency, Oscoda, and Alcona. These counties are all rural areas of northern Michigan.

The counties with the lower unemployment rates still had as few as 1 in 10 people unemployed, or more. Many of these counties had larger urban areas in combination with one of the state universities.



Links to Other Sources of Information:

U.S. Bureau of Labor Statistics: <http://www.bls.gov/bls/unemployment.htm>
 DELEG: Labor Market Information: <http://www.milmi.org/>

Links to Related Programs:

Michigan Department of Energy, Labor, and Economic Grow (DELEG) – Labor Market Information site: <http://www.milmi.org/>
 Michigan’s Jobs, Education, and Training (JET) program: <http://www.michigan.gov/dleg/0,1607,7-154-41500---,00.html>

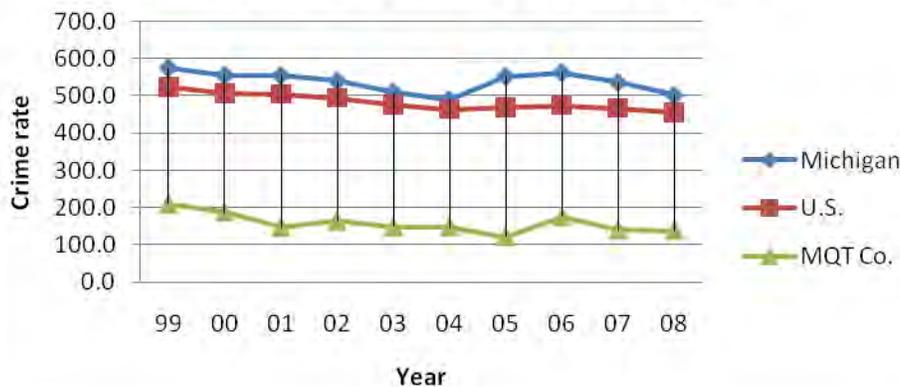
Violent Crime Rate

Indicator Definition: The number of Violent Crimes per 100,000 population.

Indicator Overview:

- According to the FBI Uniform Crime Reports, violent crime includes: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. These are all offenses that include force or threat of force.
- The data for the national set is collected from law enforcement agencies from around the U.S. who submit their data voluntarily to be included in the report.
- Over the last 10 years, nationally, about 60-64 percent of violent crimes were aggravated assaults, 28-32 percent were robberies, 6-7 percent were forcible rape, and just over 1 percent were murders.

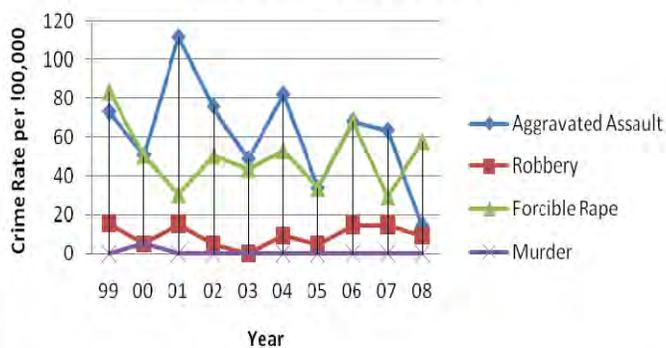
Violent Crime in MQT Co., Michigan and United States 1999-2008



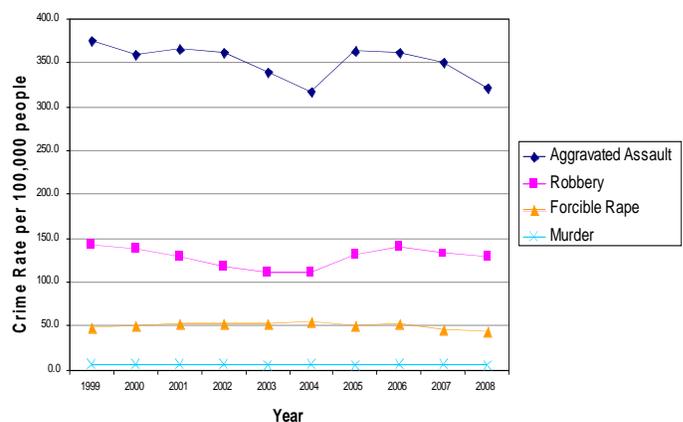
← Trends:

Overall, the Marquette County violent crime rate is considerably lower than Michigan and the United States level. The crime rate in Marquette County has been consistent in the years 1999-2008. In the lower left hand corner shows the violent crime rate by category in Marquette County and in the right hand corner shows Michigan. In the four categories it shows that Marquette County rate is considerably lower than that of Michigan's.

Violent Crime Rate by Category in MQT Co. 1999-2008



Violent Crime by Category



Links to Other Sources of Information:

The FBI's Uniform Crime Reports can be found at: <http://www.fbi.gov/ucr/ucr.htm#cius>

The FBI's Children's Information page is: <http://www.fbi.gov/fbikids.htm>

Links to Related Public Health Programs:

Michigan's Victim Crime Services page is located at: http://www.michigan.gov/mdch/0,1607,7-132-54783_54853---,00.html

Michigan's Injury and Violence Prevention program is: http://www.michigan.gov/mdch/0,1607,7-132-54783_54879---,00.html

Sources by Indicator

1	Life Expectancy at Birth and at Age 65
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Life Expectancy at birth by sex and race in Michigan, MDCH: http://www.mdch.state.mi.us/pha/osr/deaths/lifexrctrend.asp iii. FastStats Life Expectancy in U.S., CDC: http://www.cdc.gov/nchs/fastats/lifexpec.htm iv. National Center for Health Statistics (NCHS) Vital Statistics reports http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf
2	Infant Mortality Rate
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Infant Mortality Rates in Michigan, MDCH: http://www.michigan.gov/mdch/0,1607,7-132-2944_4669_4694---,00.html iii. FastStats Life Expectancy in U.S., CDC: http://www.cdc.gov/nchs/fastats/lifexpec.htm iv. National Center for Health Statistics (NCHS) Vital Statistics reports http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf
3	Unintended Pregnancy
	<ul style="list-style-type: none"> i. Michigan Pregnancy Risk Assessment Monitoring (PRAMS): www.michigan.gov/prams ii. Michigan Department of Community Health. Michigan Teen Pregnancy Prevention Initiative. www.michigan.gov/tppi
4	Injury Mortality
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Leading Causes of Fatal Injuries, MDCH: http://www.mdch.state.mi.us/pha/osr/index.asp?Id=29 iii. Fatal Injury Data, CDC: http://www.cdc.gov/injury/wisgars/fatal.html iv. National Center for Health Statistics (NCHS) Vital Statistics reports http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf
5	Self-reported Health Status
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Life Expectancy Indicator. http://www.conferenceboard.ca/HCP/Details/health/life-expectancy.aspx iii. Miilunpalo et al. (1997). Self-rated health status as a health measure: The predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. <i>Journal of Clinical Epidemiology</i>. Volume 50, Issue 5, May 1997, Pages 517-528. iv. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) v. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
6	Chronic Disease Prevalence
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
7	Serious Psychological Distress
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss) iv. Text and description of Kessler 6 scoring. http://www.hcp.med.harvard.edu/ncs/k6_scales.php v. Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., Howes, M.J., Normand, S-L.T., Manderscheid, R.W., Walters, E.E., Zaslavsky, A.M. (2003). Screening for serious mental illness in the general population <i>Archives of General Psychiatry</i>. 60(2), 184-189.

Sources by Indicator

8	Infectious Diseases
	<ul style="list-style-type: none"> i. Centers for Disease Control & Prevention. Annual Report on STDs. www.cdc.gov/std/stats/-CDC ii. Centers for Disease Control & Prevention. Fact Sheets on Disease. www.cdc.gov/std/stats/-CDC iii. Michigan Department of Community Health. Annual Michigan Sexually Transmitted Diseases Statistics. http://www.mdch.state.mi.us/pha/osr/Index.asp?Id=12 iv. Michigan Department of Community Health. Sexually Transmitted Diseases Prevention Program. www.michigan.gov/hivstd
9	Smoking
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
10	Physical Activity
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
11	Binge Drinking
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
12	Nutrition
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
13	Obesity
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
14	Health Care Expenditures
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Centers for Medicare & Medicaid Services. National Health Expenditures Data. http://www.cms.gov/NationalHealthExpendData/05_NationalHealthAccountsStateHealthAccountsResidence.asp#TopOfPage iii. Kaiser Foundation. State Profiles – Michigan – Health Costs & Budgets. http://www.statehealthfacts.org/profileind.jsp?cat=5&rgn=24&cmprgn=1

Sources by Indicator

15	Insurance Coverage
	<ul style="list-style-type: none"> i. IOM (Institute of Medicine). 2009. <i>America's Uninsured Crisis: Consequences for Health and Health Care</i>. Washington, DC: The National Academies Press. ii. Health Policy and Regulation Administration, Michigan Department of Community Health, <i>The Uninsured in Michigan: A Profile</i>. August 2010. iii. Michigan Department of Human Services. <i>Annual Report of Key Statistics</i>. "Key Statistics Tables for FY 2000" and "Table 1 – Total Eligible Recipients by Program." http://www.michigan.gov/dhs/0,1607,7-124-5458_7696_56550---,00.html (accessed 8/25/2010). iv. Michigan Department of Human Services. <i>Monthly Trend of Key Statistics</i>. "Table 1 – Total Eligible Recipients by Program." http://www.michigan.gov/dhs/0,1607,7-124-5458_7696_10831---,00.html (accessed 8/25/2010). v. U.S. Census Bureau, Population Estimates, Michigan 2009. vi. MDHS. Medicaid program statistics. Retrieved February 2010.
16	Unmet Medical, Dental, & Prescription Drug Needs
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
17	Preventive Services
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss)
18	Immunizations
	<ul style="list-style-type: none"> i. Institute of Medicine, <i>State of the USA Report</i>, 2009. ii. Michigan Department of Community Health. Michigan Behavioral Risk Factor Surveillance System, 2000-2009. (www.michigan.gov/brfs) iii. Centers for Disease Control and Prevention (CDC). <i>Behavioral Risk Factor Surveillance System Survey Data</i>. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2000-2009. (www.cdc.gov/brfss) iv. Michigan Care Improvement Registry (MCIR). www.mcir.org v. Michigan Department of Community Health. Adolescent Immunization Website: www.michigan.gov/teenvaccines
19	Preventable Hospitalizations
	<ul style="list-style-type: none"> i. Michigan Department of Community Health. Ambulatory Care Sensitive Hospitalizations Index. http://www.mdch.state.mi.us/pha/osr/index.asp?Id=15
20	Mortality Trends
	<ul style="list-style-type: none"> i. Michigan Department of Community Health. Mortality Trends http://www.mdch.state.mi.us/pha/osr/chi/cr/frame.html
21	Adults & Children in Poverty
	<ul style="list-style-type: none"> i. U.S. DHHS Poverty Guidelines, Research, & Measurement: http://aspe.hhs.gov/poverty/index.shtml#latest ii. University of Michigan National Poverty Center. http://www.npc.umich.edu/
22	High School & College Graduation Rates
	<ul style="list-style-type: none"> i. U.S. Census Bureau – Educational Attainment: http://www.census.gov/hhes/socdemo/education/
23	Unemployment Rate
	<ul style="list-style-type: none"> i. U.S. Bureau of Labor Statistics: http://www.bls.gov/bls/unemployment.htm ii. DELEG: Labor Market Information: http://www.milmi.org/
24	Violent Crime Rate
	<ul style="list-style-type: none"> i. FBI's Uniform Crime Reports. http://www.fbi.gov/ucr/ucr.htm#cius ii. Michigan's Victim Crime Services. http://www.michigan.gov/mdch/0,1607,7-132-54783_54853---,00.html

