Community Health Assessment
Montcalm County Profile
2011

Prepared by the Mid-Michigan District Health Department

Mid-Michigan District Health Department

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This report is also available at www.mmdhd.org

2011 Community Health Assessment Montcalm County Profile

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Table of Contents
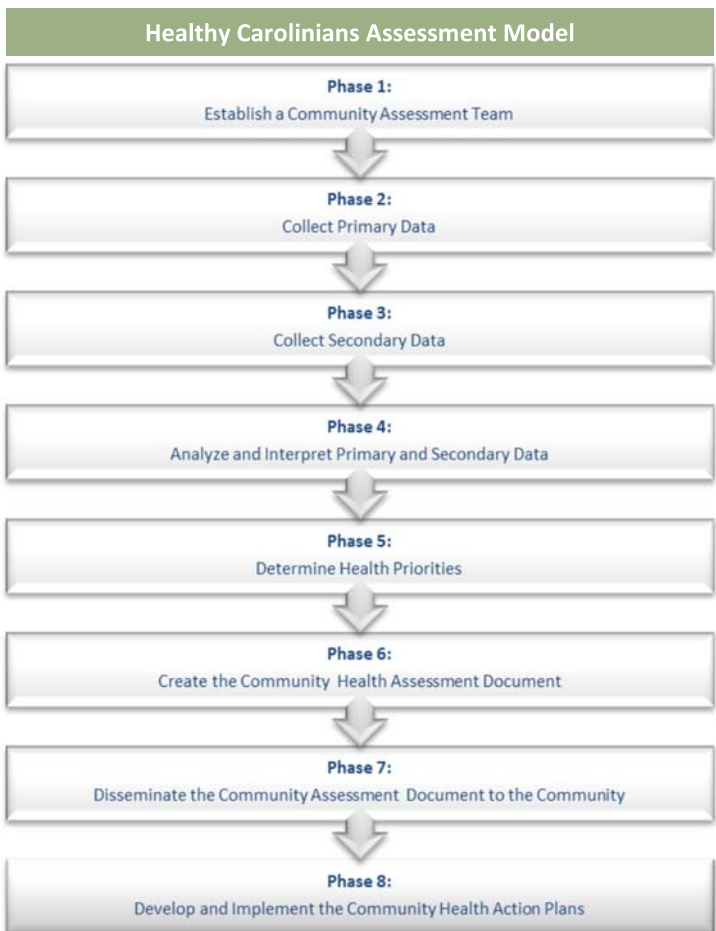
Table of Contents - Continued

Introduction:

In the fall of 2010, in response to new legislation associated with the Affordable Care Act which requires non-profit hospitals to conduct a community health needs assessment, the Mid-Michigan District Health Department (MMDHD) approached the three Montcalm County health systems (Carson City, Spectrum Health United/Kelsey, Sheridan Hospital) and the Federally Qualified Health Center (Cherry Street – Montcalm Area Health Center) to suggest the partners work collectively to conduct a comprehensive community health assessment (CHA) and improvement process. In addition, the health department offered to take the lead in applying for a U.S. Department of Health and Human Services (HRSA) Rural Health Network Development planning grant on behalf of health system partners in Montcalm County. [The purpose of the Network Planning Grant is to expand access to, coordinate and improve the quality of essential health care services and enhance the delivery of health care in rural areas. The grant allows collaborating partners to conduct planning activities (e.g., Community Health Assessment) and then develop strategies for improving health services delivery systems in the community.] The Montcalm County health system partners unanimously agreed to work collaboratively on a comprehensive CHA and support a Rural Network Development grant application. The planning grant proposal, submitted in October 2010, was awarded funding by HRSA in May 2011 to cover project activities over the period May 2011 to April 2012.

Purpose and Overview:

A steering committee comprised of staff from Carson City Hospital, MMDHD, Montcalm Area Health Center, Montcalm Community College, Montcalm Human Services Coalition, Sheridan Community Hospital, and Spectrum Health United /Kelsey Hospitals was established to provide oversight and lead the CHA process. An advisory committee consisting of over 40 community organizations was also established to assure community input and advocacy. The Healthy Carolinians (North Carolina) Community Health Assessment model was selected as the framework for the Healthy Montcalm CHA and improvement initiative. The Healthy Montcalm Initiative was officially launched in March 2011 and MMDHD was notified in May 2011 that Montcalm was one of 15 communities nationally that was awarded a Rural Health Network Development planning grant.

A detailed work plan was developed early in the process that included the initiative's Mission – to *improve health outcomes for Montcalm County residents*, and Vision – *Montcalm County is an empowered community where people are engaged in leading healthy active lives*.

Primary and secondary data were identified, collected and analyzed from April through October of 2011. Primary data included the development and distribution of a community and health care provider survey. The community survey was mailed in August 2011 to 1,500 randomly selected households within Montcalm County with 424 returned by mail for analysis. An additional 51 surveys were completed and returned from clients of local service agencies for a total of 475 surveys used for analysis. County-specific secondary data from a variety of sources was also collected and analyzed (see page 4 for details).

Healthy Carolinians Assessment Model

Phase 1:
Establish a Community Assessment Team

Phase 2:
Collect Primary Data

Phase 3:
Collect Secondary Data

Phase 4:
Analyze and Interpret Primary and Secondary Data

Phase 5:
Determine Health Priorities

Phase 6:
Create the Community Health Assessment Document

Phase 7:
Disseminate the Community Assessment Document to the Community

Phase 8:
Develop and Implement the Community Health Action Plans

A variety of indicators are addressed in the complete assessment report (available at www.mmdhd.org) and organized into the following categories: demographics, access to care, general health status, maternal and child health, health-related behaviors, mortality and morbidity, and emergent health-related issues (as perceived by community members). Several key findings and broad themes emerge from a review of the comprehensive data:

Population Distribution

The Montcalm County population grew at a slow rate from 2000-2010, increasing just 3.4% from 61,266 to 63,342 total residents. This rate of growth is down from the previous three decades where growth of 20%, 12% and 16% was seen. More specifically, during the period 2000-10, the youth segment (less than 18 yrs.) of the population fell by 6.9%, the young working adult segment (age 18-44 yrs.) fell by 9.3%, **while the older working adult segment (45-64 yrs.) grew by 27.2%, and senior population (age 65+ yrs.) grew by 19.9%.** A similar pattern of growth occurred for Michigan overall, where the youth segment fell by 9.7%, young working adult segment fell by 12.2%, older working adult segment grew by 23.8%, and the senior segment grew by 11.7%. As of 2010, both Montcalm County and Michigan had a similar proportion of seniors (age 65+ years): 14.1% vs. 13.8%, respectively. Older age adults are more intensive consumers of health care services, suggesting that an increased population of older residents within Montcalm County could imply growing health service needs. This data also suggests that young working families and their children may be choosing to leave Montcalm County (and Michigan) for better opportunities elsewhere, which could continue to heighten this shift to an older population in the future.

Access Issues

Although Montcalm County is a rural community, it is fortunate to have four hospitals located within its borders. However, the ability of many residents to access health care is trending in the wrong direction as a result of increasing poverty, unemployment, the number of uninsured and under-insured, and the challenge for many to pay for healthcare services (such as high co-payments and deductibles). **A higher proportion (21.1%) of Montcalm County adults age 18-64 yrs. are without health insurance than Michigan adults (16.2%), and a higher proportion (17.2%) of Montcalm County adults report that they have no personal doctor or health care provider than Michigan adults (13.4%).** These socio-economic factors play a substantial role in health care access and act as barriers for community members when they need medical attention, which impacts the overall health status of the county. It should also be noted that some members of the community who have been able to access care often cannot afford treatments recommended by their physicians - **17.2% of Montcalm County adults reported there was a time during the past year when they needed a prescription filled, but could not do so because of the cost. Additionally, 16.7% of Montcalm County adults reported that they delayed seeking health care and 25.2% delayed seeking dental care, primarily due to cost.** These findings highlight the importance of safety net and public services, including free or low-income clinics and other low-cost services. For children, who are more likely to have health care coverage than adults, socio-economic factors still play a role in accessing care — for families with children, the primary reason given for a child not seeing a doctor when the parent thought the child needed to, was lack of transportation.

General Health Status

The general health status of Montcalm County residents has fared slightly worse than that of Michigan residents. **A higher proportion (21.5%) of Montcalm County adults report their general health to be fair or poor than do Michigan adults (15.0%).** This information suggests that many Montcalm residents are coping with debilitating medical conditions instead of receiving the treatment necessary to address their particular health issues. **Also, a higher proportion (14.4%) of Montcalm County adults experienced mental health issues for at least 14 days during a given month than do Michigan adults (11.2%).** This included stress, depression and problems with emotions. This information suggests that there is insufficient awareness, referrals, or opportunities for mental health treatment within the community in general and this risk-group in particular.

Maternal & Child Health

Infant Mortality is considered one of the more critical indicators related to the overall well-being of society. Montcalm County has maintained a lower infant mortality rate than Michigan infants for much of the past decade, although this rate fluctuates from year to year due to the relatively low number of infant deaths annually from which to analyze. Montcalm County has experienced a downward trend in teen pregnancies the past decade, as have Michigan teens; however, **Montcalm County continues to have a higher annual teen pregnancy rate over the period than Michigan teens.** Montcalm County women giving birth generally have been found to have a greater frequency of maternal risk factors than do Michigan women, most notably smoking while pregnant and less than adequate prenatal care. These maternal risk factors highlight the need for increased efforts focusing on prenatal care, which have long term implications for the health and well-being of the child. Although no trend data is available for Montcalm adolescents, recent student survey results of self-reported substance use indicates tobacco, alcohol and marijuana use are of concern. **Another area of concern is self-reported weight status (BMI), in which survey data indicates about 18% of adolescents are obese in Montcalm County as compared to 11% of Michigan adolescents.** The indicators listed above highlight the need for support services to educate young mothers & adolescents in the areas of prevention and healthy lifestyle behaviors.

Health Related Behaviors

Health-related behaviors associated with the adult population in Montcalm County are similar in prevalence to that of Michigan adults, except for significantly higher smoking rates and inadequate consumption of the recommended daily amount of fresh fruits and vegetables. **A higher proportion (26.7%) of Montcalm County adults are current smokers than Michigan adults (19.6%).** In addition, data indicates that 29% of Montcalm County women smoked cigarettes during pregnancy. This can lead to poor health outcomes for both the mother and infant. **A higher proportion (88.6%) of Montcalm County adults did not consume the recommended servings of fruits and vegetables than Michigan adults (77.8%).** This poor aspect of the diet, as well as the finding that nearly 20% of adults do not participate in any physical activity, are likely to be contributing factors to the fact that approximately 68% of Montcalm County adults are currently considered overweight or obese. These behaviors can increase the likelihood of developing chronic conditions such as hypertension, heart disease, chronic lung disease, stroke, and diabetes. Although the prevalence of binge drinking (15.9%) and heavy drinking (4.7%) by Montcalm County adults is similar to that of Michigan adults; the impact on automobile crashes/fatalities/injuries is worth noting. Adolescent use of substances like alcohol, tobacco, marijuana and other drugs are now able to be tracked through the Michigan Profile for Healthy Youth (MiPHY) survey; some of these results are discussed in the full report concerning adolescent health behaviors.

Mortality & Morbidity

Five common health conditions account for two-thirds of all deaths statewide and for Montcalm County – heart disease, cancer, stroke, chronic lung disease, and unintentional injuries. For the period 2007-09, Montcalm County had a lower mortality rate than Michigan for only two (heart disease, diabetes) of the ten leading causes of death. Trends of significance where Montcalm differs from Michigan over the past decade include **consistently higher mortality rates for stroke, unintentional injuries, kidney disease, and suicide.** Ambulatory Care Sensitive Hospitalizations (theoretically preventable hospitalizations if timely and appropriate ambulatory care is provided) are lower within Montcalm County than for the State, which may suggest better outpatient management of chronic health conditions, although demographic characteristics also play an important role. There are no clear county-level trends in cancer incidence (new cases of cancer) for the most common types of cancer. Survey data indicates that **Montcalm County has a lower proportion of adult residents receiving screening mammography and sigmoidoscopy or colonoscopy than Michigan adults, for the recommended age groups considered to be at higher risk.** Nationally, (all-cause) cancer mortality has been on the decline since the 1990's; Montcalm County has also seen a decline in mortality, although the trend is not as clear or pronounced.

Methodology

The Healthy Montcalm Initiative utilized a data collection process that combined both primary (original) sources and a variety of secondary (existing) data sources in describing the population health status of Montcalm County. When possible, local results for Montcalm County were compared with the state of Michigan during comparable time periods. This report is often limited to describing results representative of the entire county of Montcalm, as results for smaller geographic locales within the county or certain vulnerable populations were not readily available.

The following secondary data sources were used in the compilation of demographic and health-related information presented in this report:

Data Source	Population Represented	Notes	Reference Source
U.S. Census Bureau, Population and Demographic Estimates	All residents of United States	American Community Survey 2005-09 and 2010 Decennial Census	Accessible online: www.census.gov American Fact Finder
U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)	All residents of United States, (adults, children)	Interactive website portal	Accessible online: http://www.census.gov/did/www/saipe/
U.S. Census Bureau, Small Area Health Insurance Estimates (SAHIE)	All residents of United States, (adults only, children only)	Interactive website portal	Accessible online: http://www.census.gov/did/www/sahie/
Michigan Department Community Health, Michigan Resident Death Files	All deaths among Michigan residents (adult, child, infant)	Death certificate registry processed by MDCH	Accessible online: http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4686---,00.html
Michigan Department Community Health, Michigan Resident Birth Files	All births among Michigan residents	Birth certificate registry processed by MDCH	Accessible online: http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_4681---,00.html
Michigan Department Community Health, Michigan Resident Cancer Incidence Files	All new cases of invasive cancer among Michigan residents	Data collected by Michigan Cancer Surveillance Program and processed by MDCH (for cancer mortality – refer to Michigan Resident Death File)	Accessible online: http://www.michigan.gov/mdch/0,4612,7-132-2944_5323---,00.html
Michigan Department Community Health, Michigan Inpatient Database	All residents of Michigan	Hospitalization and medical procedure data housed by MHA and processed by MDCH	Accessible online: http://www.michigan.gov/mdch/0,4612,7-132-2944_5324---,00.html

Data Source

Data Source	Population Represented	Notes	Reference Source
Michigan Behavioral Risk Factor Survey (BRFS), 2009	Michigan adults age 18+ years	Annual telephone survey, 2009: n=9,259	Accessible online: http://michigan.gov/mdch/0,1607,7-132-2945_5104_5279_39424---,00.html
Montcalm County Behavioral Risk Factor Survey (BRFS), 2008-10	Montcalm County adults 18+ years	Telephone survey implemented over 3-year period, n=397	Survey conducted by Public Sector Consultants (Lansing); Results available from Mid-Michigan District Health Department (Stanton)
Kids Count in Michigan	Michigan Children under 18 years of age	Data source varies by indicator	Accessible online: http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=MI Single year results also available via annual Data Books, accessed online: http://www.milhs.org/kids-count/mi-data-book-2010
Michigan Profile for Healthy Youth, SY2009-10, Michigan Dept. Education	Michigan 7th, 9th, 11th grade students	County-level data availability based on school district participation	Accessible online: http://www.michigan.gov/mde/0,1607,7-140-28753_38684_29233_44681---,00.html
Michigan Department of Management and Budget, Labor Market Information	Michigan labor force	Labor force size and employment statistics	Accessible online: http://milmi.org/?PAGEID=70
Michigan State Police, Criminal Justice Information Center, Drunk Driving Audit	Drivers on Michigan roadways	Traffic crash data involving alcohol or drugs	Accessible online: http://www.michigan.gov/msp/0,1607,7-123-1645_3501_4626-27728--,00.html

In addition to the analysis of quantitative historical data cited in the sources above, in the summer of 2011, two surveys were implemented by Healthy Montcalm to obtain additional information not readily accessible from previously existing sources, as well as gauge the relative importance of health-related issues in Montcalm County. The first of these surveys was a Community Health Survey distributed to community members across the county. The second parallel survey was a Provider Opinion survey distributed to health care providers in the county.

The Community Health Survey was distributed to 1,500 randomly selected households within Montcalm County, geographically representative of the population distribution within the county. A total of 475 surveys were used in the analysis. The survey data was then weighted to adjust for differences in age, sex, race, and educational attainment between the survey respondents and the overall population of Montcalm County. Results from the survey referenced in this report describe information based on the weighted sample to better represent Montcalm County.

Data Source

Summary of Health Indicators

Health Indicator Results for Montcalm County and Michigan. (Representative years vary by indicator – see notes column).

Indicator	Montcalm County	Michigan	Notes
Total population	63,342	9,883,640	U.S. Decennial Census Estimates 2010
Percent of population age 65+ years	14.1%	13.8%	U.S. Decennial Census Estimates 2010
Percentage of people in poverty	19.9%	16.1%	U.S. Census, Small Area Income & Poverty Estimates 2009
Percentage of children in poverty	29.1%	22.2%	U.S. Census Small Area Income & Poverty Estimates 2009
Percentage of adults reporting fair or poor physical health status	21.5%	15.0%	BRFS. Montcalm: 2008-10, Michigan: 2009
Total age-adjusted mortality rate	822.0 deaths per 100,000	784.6 deaths per 100,000	MDCH, Mi. Resident Death File, 2009
Percentage of adults age 18-64 without health care coverage	21.1%	16.2%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults who reported no personal health care provider	17.2%	13.4%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults who delayed health care in past 12 months	16.7%	13.9%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of ambulatory care sensitive hospitalizations	19.3%	20.5%	MDCH, Mi. Resident Inpatient File, 2009
Infant mortality rate	3.9 deaths per 1,000 births	7.6 deaths per 1,000 births	MDCH, Mi. Resident Birth File, 2007 -09 avg.
Percentage of births to teen mothers	12.7%	10.1%	MDCH, Mi. Resident Birth File, 2009
Percentage of births with 1st trimester prenatal care	70.1%	73.5%	MDCH, Mi. Resident Birth File, 2009
Percentage of births with adequate prenatal care	63.8%	68.0%	MDCH, Mi. Resident Birth File, 2009 (Kessner Index)
Percentage of births covered by Medicaid	55.8%	44.0%	MDCH, Mi. Resident Birth File, 2009
Percentage of births with maternal smoking	31.1%	20.6%	MDCH, Resident Birth File, 2009
Percentage of births with low birth weight (<2,500 grams)	7.7%	8.4%	MDCH, Mi. Resident Birth File, 2009
Percentage of births premature (<37 wks.)	11.0%	9.8%	MDCH, Mi. Resident Birth File, 2009
Percentage of infants (19-35 months) fully immunized	77%	66%	MCIR, Immunization Profile Report, 2010
Percentage of adults self-reported as obese	32.7%	30.9%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults reporting they are current smoker	26.7%	19.8%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults reporting binge drinking in the past month	15.9%	16.9%	BRFS, Montcalm: 2008-10, Michigan: 2009

Indicator	Montcalm County	Michigan	Notes
Percentage of adults reporting no leisure time physical activity	19.5%	24.1%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults consuming inadequate fruit and vegetables	88.6%	77.8%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of adults age 50+ who have ever had colonoscopy / sigmoidoscopy	67.8%	70.9%	BRFS, Montcalm: 2008-10, Michigan: 2009
Percentage of women age 40+ who have ever had a mammogram	90.6%	94.2%	BRFS, Montcalm: 2008-10, Michigan: 2009
Total cancer incidence rate, age adjusted, 2003-07 avg.	461.3 cases per 100,000	500.2 cases per 100,000	MDCH, Mi. Resident Cancer Incident File, 2003-07
Total cancer mortality rate, age adjusted 2007-09 avg.	196.8 deaths per 100,000	184.8 deaths per 100,000	MDCH, Mi. Resident Death File, 2007-09
Percentage of adults who have ever been told they have diabetes	9.7%	9.4%	BRFS, Montcalm: 2008-10, Michigan: 2009

Health Indicators

To understand the health of a community, it is important to know the traits of the people living therein. Characteristics such as age, sex, race, and ethnicity provide valuable information to guide current activities and interventions, as well as inform us about trends that should be considered in the planning of new services or programs.

● **Population**

- Montcalm County was the 31st most populous county in Michigan in 2010 with 89.8 people per square mile as compared to Michigan's state average of 174.8 per square mile

- The population of Montcalm County increased 3.4% over the 10-year period 2000-10. During this same period, Michigan experienced a 0.6% decrease in population, while the United States population grew by 9.7%.

- When looking at neighboring counties contiguous with Montcalm, it's evident that population growth was of similar scale in 5 counties (Gratiot: 0.4%, Ionia: 3.8%, Kent: 4.9%, Mecosta: 5.6%, Newaygo: 1.3%), while 2 counties experienced more rapid growth (Clinton: 16.5%, Isabella: 11.0%).

● **Age**

- The growth pattern changed during the most recent decade (2000-10), as there occurred a decrease in population of youth and young adults, and a continued increase in population of older working adults and seniors

- Montcalm County has seen the median age of the population increase 10.4%, from 35.6 years of age in 2000 to 39.3 years of age in 2010.
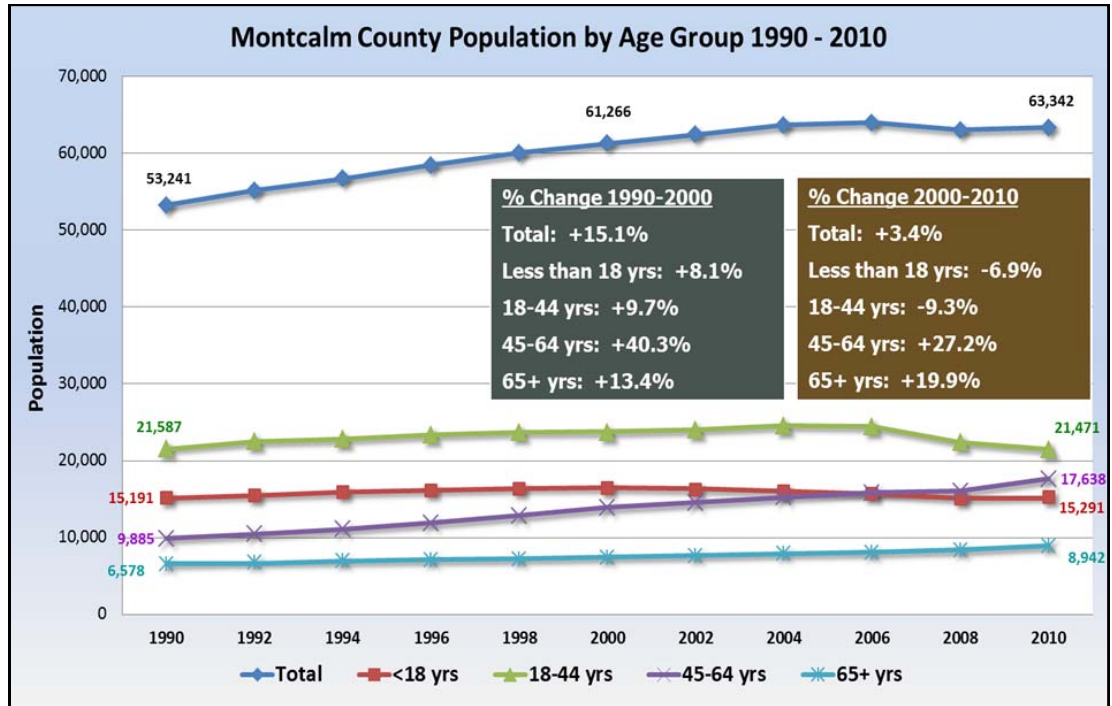
Source: *U.S. Census Bureau, Population and Demographic Estimates*

2010 Decennial Census: Montcalm County Townships (excludes Carson City, Greenville, Stanton)

Reynolds	Winfield	Cato	Belvidere	Home	Richland
Pop: 5,310	Pop: 2,235	Pop: 2,735	Pop: 2,209	Pop: 2,542	Pop: 2,778
Median Age: 34.7	Median Age: 38.4	Median Age: 41.3	Median Age: 44.0	Median Age: 41.2	Median Age: 40.7
<18 yrs: 1,529 (28.8%)	<18 yrs: 616 (27.6%)	<18 yrs: 654 (23.9%)	<18 yrs: 490 (22.2%)	<18 yrs: 588 (23.1%)	<18 yrs: 667 (24.0%)
18-64 yrs: 3,235 (60.9%)	18-64 yrs: 1,334 (59.7%)	18-64 yrs: 1,564 (57.2%)	18-64 yrs: 1,311 (59.3%)	18-64 yrs: 1,515 (59.6%)	18-64 yrs: 1,693 (60.9%)
65+ yrs: 546 (10.3%)	65+ yrs: 285 (12.8%)	65+ yrs: 517 (18.9%)	65+ yrs: 408 (18.5%)	65+ yrs: 439 (17.3%)	65+ yrs: 418 (15.1%)

Pierson	Maple Valley	Pine	Douglass	Day	Ferris
Pop: 3,216	Pop: 1,944	Pop: 1,834	Pop: 2,180	Pop: 1,172	Pop: 1,422
Median Age: 39.2	Median Age: 40.2	Median Age: 42.1	Median Age: 45.1	Median Age: 42.6	Median Age: 39.4
<18 yrs: 840 (26.1%)	<18 yrs: 479 (24.6%)	<18 yrs: 453 (24.7%)	<18 yrs: 458 (21.0%)	<18 yrs: 270 (23.0%)	<18 yrs: 365 (25.7%)
18-64 yrs: 2,033 (63.2%)	18-64 yrs: 1,164 (59.9%)	18-64 yrs: 1,103 (60.1%)	18-64 yrs: 1,335 (61.2%)	18-64 yrs: 705 (60.2%)	18-64 yrs: 864 (60.8%)
65+ yrs: 343 (10.7%)	65+ yrs: 301 (15.5%)	65+ yrs: 278 (15.2%)	65+ yrs: 387 (17.8%)	65+ yrs: 197 (16.8%)	65+ yrs: 193 (13.6%)

Carson City		Montcalm	Sidney	Evergreen	Crystal
Pop: 1,093		Pop: 3,350	Pop: 2,574	Pop: 2,858	Pop: 2,689
Median Age: 41.8		Median Age: 40.9	Median Age: 42.7	Median Age: 42.6	Median Age: 39.6
<18 yrs: 267 (24.4%)		<18 yrs: 806 (24.1%)	<18 yrs: 610 (23.7%)	<18 yrs: 653 (22.8%)	<18 yrs: 656 (24.4%)
18-64 yrs: 564 (51.6%)		18-64 yrs: 2,121 (63.3%)	18-64 yrs: 1,565 (60.8%)	18-64 yrs: 1,760 (61.6%)	18-64 yrs: 1,625 (60.4%)
65+ yrs: 262 (24.0%)		65+ yrs: 423 (12.6%)	65+ yrs: 399 (15.5%)	65+ yrs: 445 (15.6%)	65+ yrs: 408 (15.2%)

Greenville	Stanton	Eureka	Fairplain	Bushnell	Bloomer*
Pop: 8,481	Pop: 1,417	Pop: 3,959	Pop: 1,836	Pop: 1,604	Pop: 1,412
Median Age: 34.7	Median Age: 33.8	Median Age: 39.1	Median Age: 40.8	Median Age: 39.6	Median Age: xx.x
<18 yrs: 2,255 (26.6%)	<18 yrs: 338 (23.9%)	<18 yrs: 1,019 (25.7%)	<18 yrs: 454 (24.7%)	<18 yrs: 401 (25.0%)	<18 yrs: 422 (29.9%)
18-64 yrs: 4,936 (58.2%)	18-64 yrs: 884 (62.4%)	18-64 yrs: 2,434 (61.5%)	18-64 yrs: 1,152 (62.7%)	18-64 yrs: 968 (60.3%)	18-64 yrs: 808 (57.2%)
65+ yrs: 1,290 (15.2%)	65+ yrs: 195 (13.8%)	65+ yrs: 506 (12.8%)	65+ yrs: 230 (12.5%)	65+ yrs: 235 (14.7%)	65+ yrs: 182 (12.9%)

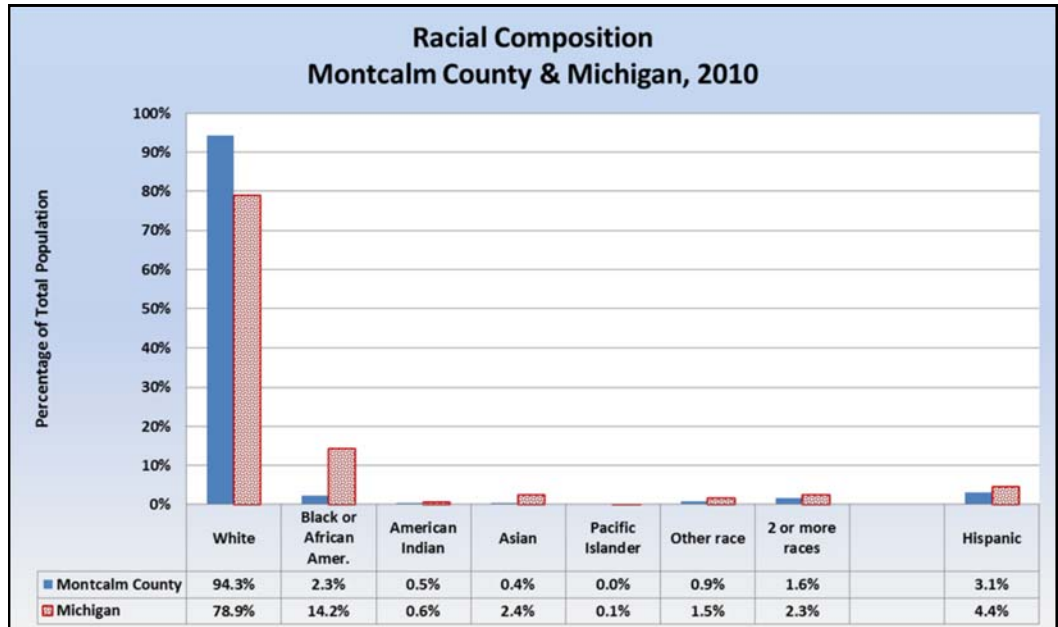Bloomer Township: 2,492 males removed representing institutionalized (prison) population

Source: *U.S. Census Bureau, Population and Demographic Estimates*

Demographics

Demographics

- **Racial Composition**

- Montcalm County continues to be less racially diverse than Michigan, but similar in composition to other rural counties of central and northern Michigan. In 2010, 94.3% of Montcalm residents were classified as White, 2.3% Black/African American, 0.5% American Indian, 0.4% Asian, 0.9% other race, and 1.6% of two or more races.

- Little change occurred in racial composition of Montcalm County from 2000 to 2010; the most significant change being an increase in Hispanic population from 2.3% to 3.1% (from 1,394 to 1,932 residents).

- **Income**

- Despite growth in Montcalm County household income during the early part of the past decade (2000-10), much of the gain was lost by 2009, peaking at $43,025 in 2008 and falling back to $36,701 in 2010.

- Montcalm County lagged behind the Michigan median household income in absolute dollar amount for any given year during the past decade. Per capita income has followed a similar trend in which the growth and absolute dollar amount has been lower for Montcalm County than for Michigan.

Source: *U.S. Census Bureau, Population and Demographic Estimates*
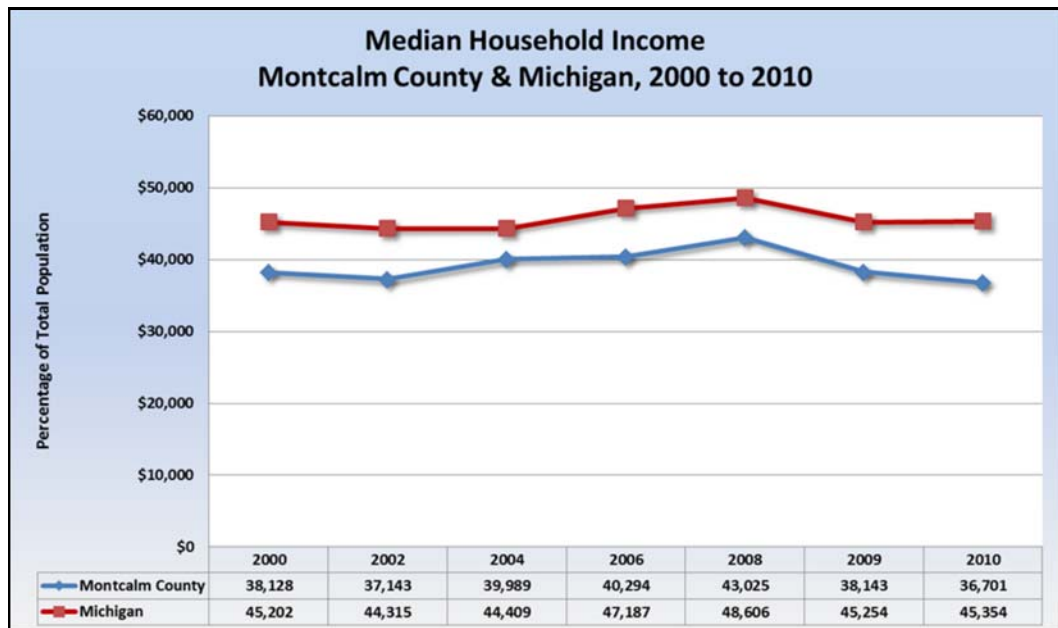
Source: *U.S. Census Bureau, Population and Demographic Estimates*

Demographics

- **Employment Status**

- Looking back over the recent decade, the Montcalm County jobless (unemployment) rate grew from a low of 4.1% in 2000 (MI at 3.7%) to peak at 16.1% in 2009 (MI at 13.3%), outpacing the job loss Michigan also experienced over this period.

- As of June 2011, the Montcalm County jobless rate registered at 12.6%, while Michigan fared slightly better at 11.0%. June 2011 labor market data indicated approximately 3,300 Montcalm County individuals in the labor market were without employment.

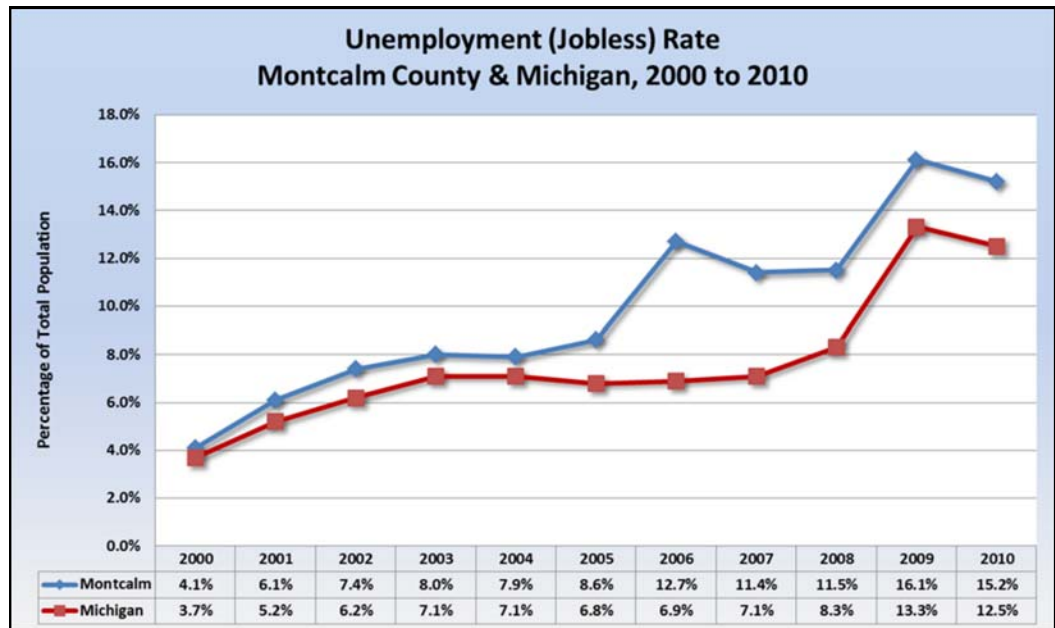**-** With a larger percentage of people out of work and/or relying on part-time employment, it's more likely that fewer families have employer-based health insurance or the income to afford access to preventive and treatment services.

- **Poverty**

- The federal poverty threshold is often considered a reliable measure as to whether individuals or families have incomes great enough to support their basic needs. Those with incomes falling below the threshold (relative to family size) are considered to represent the "poor" in terms of socioeconomic status.

- Since 2005, Montcalm County has seen a considerable increase in both adult and child poverty that coincides closely with the rise in unemployment locally. As of 2009, child poverty in the county had climbed to 29.1% (MI at 22.1%), an increase of approximately 85% from 2000 to 2009.
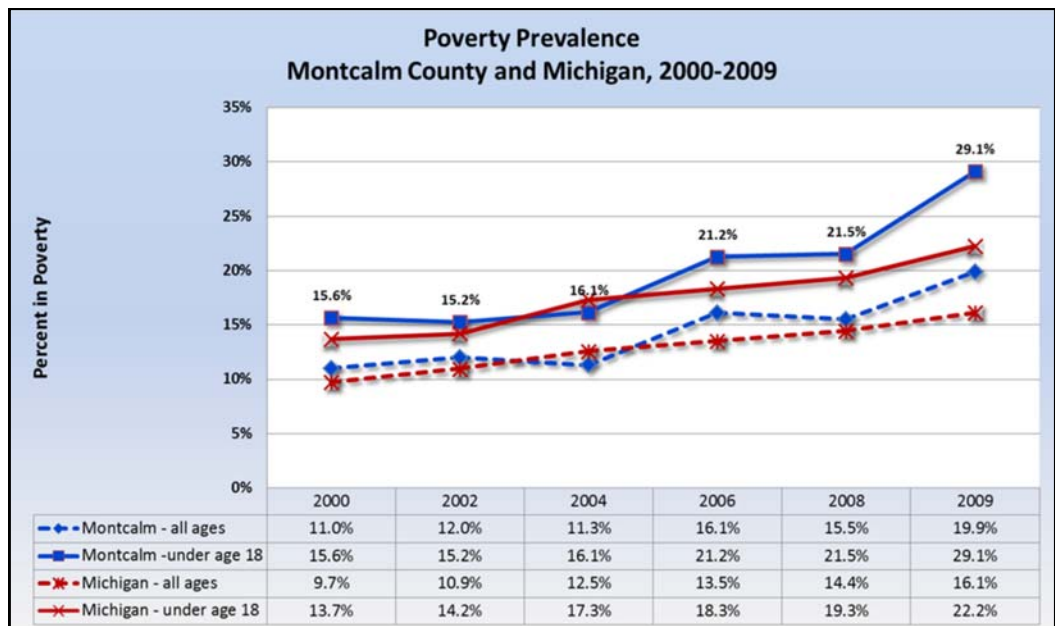
Unemployment (Jobless) Rate
Montcalm County & Michigan, 2000 to 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Montcalm	4.1%	6.1%	7.4%	8.0%	7.9%	8.6%	12.7%	11.4%	11.5%	16.1%	15.2%
Michigan	3.7%	5.2%	6.2%	7.1%	7.1%	6.8%	6.9%	7.1%	8.3%	13.3%	12.5%

Source: *U.S. Census Bureau, Population and Demographic Estimates*

Poverty Prevalence
Montcalm County and Michigan, 2000-2009

	2000	2002	2004	2006	2008	2009
Montcalm - all ages	11.0%	12.0%	11.3%	16.1%	15.5%	19.9%
Montcalm - under age 18	15.6%	15.2%	16.1%	21.2%	21.5%	29.1%
Michigan - all ages	9.7%	10.9%	12.5%	13.5%	14.4%	16.1%
Michigan - under age 18	13.7%	14.2%	17.3%	18.3%	19.3%	22.2%

Source: *U.S. Census Bureau, Population and Demographic Estimates*

- **Poverty**

- Although it is difficult to track the total homeless population that resides within Montcalm County, the youth homeless population can be identified through school district data. Students living with relatives or friends, living in a shelter, hotel/motel, or were unsheltered and living on the streets or in a car are consider to be homeless.

- In Addition, we can identify youth who are at higher risk of poor health outcomes through school free or reduced lunch eligibility information.

- **Education**

- Educational attainment is recognized as an important social determinant in both health care access and population health outcomes. The correlation between higher educational attainment and improved health outcomes is not completely understood (Cowell AJ, 2006). Contributory factors thought to play a role in this relationship include: income status, access to jobs and health insurance, sense of personal control of circumstances, health literacy, and health-related behaviors.

- Results from the 2007-09 American Community Survey indicate that Montcalm County fares worse than Michigan concerning the proportion of adults age 25 years and older with a post-secondary degree; specifically, those with a bachelors or post-graduate education (Montcalm County 12.5%, Michigan 24.6%).

- Although faring less favorably to Michigan, Montcalm County has seen, over time, a small improvement in the percentage of residents pursuing post-secondary education.

School District	Number of Homeless Students[1]	Total Students[1]	Percent Homeless[1]	Students Eligible for free or reduced lunch[2]
Carson City- Crystal	59	963	6.1%	547
Central Montcalm	60	1770	3.4%	1110
Greenville	163	3545	4.6%	1840
Lakeview	101	1386	7.3%	763
Montabella	90	821	10.9%	611
Tri County	37	2336	1.6%	1130
Vestaburg	24	673	3.6%	418

Source: [1]*Michigan Department of Education, 2010*
[2]*Center for Educational Performance Information, 2010*
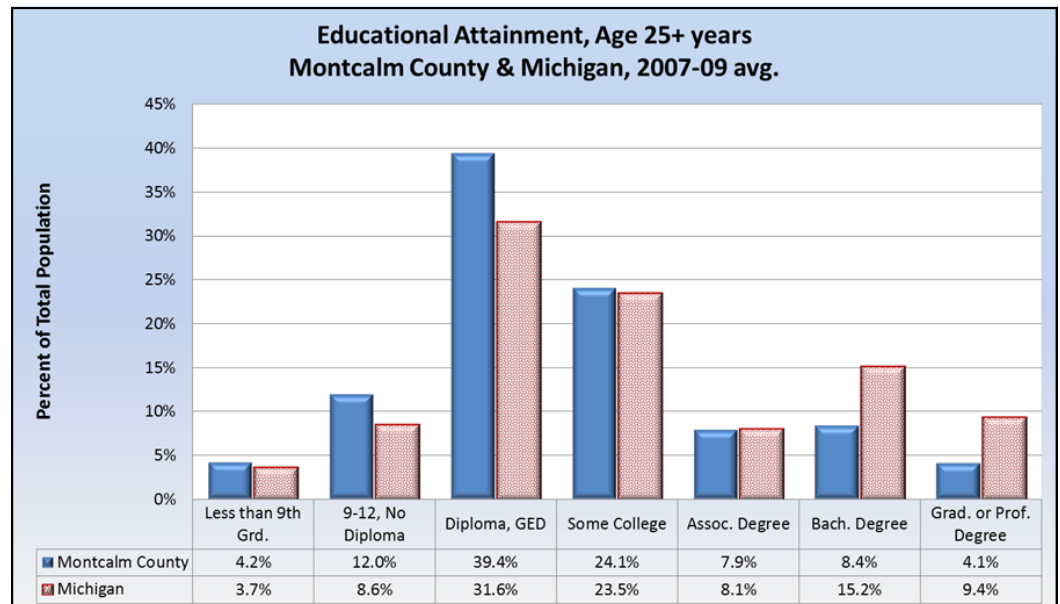
Source: *U.S. Census Bureau, Population and Demographic Estimates*

Montcalm County	Some College	Associate Degree	Bachelor's Degree	Master's Degree or Higher
1990	17.1%	6.0%	5.2%	2.9%
2000	23.6%	6.8%	7.2%	3.5%
2007-09 avg.	24.1%	7.9%	8.4%	4.1%

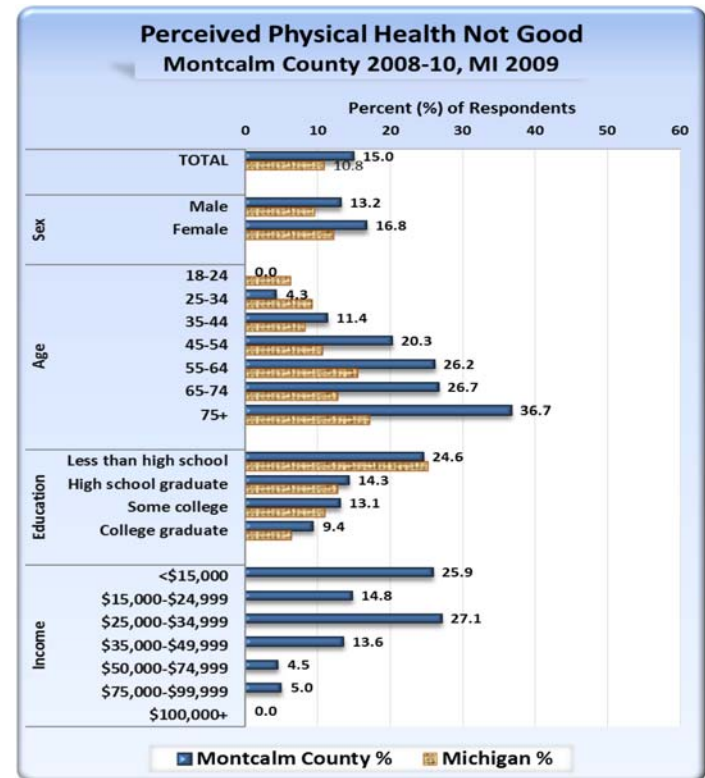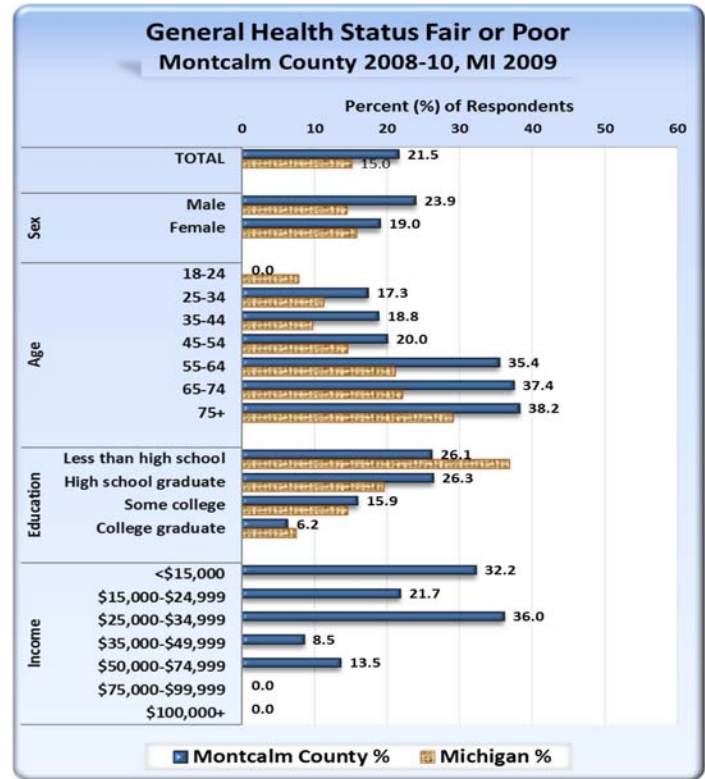Source: *U.S. Census Bureau, Population and Demographic Estimates*

Self-rated general health status is considered to be a reliable assessment of one's perceived overall health, which considers the many aspects of well-being. It can be useful in determining unmet health needs, disparities among sub-populations, and the general prevalence of chronic disease.

- **General Health Status**

- Over the past decade, the proportion of Michigan adults who reported their general health status to be 'fair' or 'poor' has been relatively constant at about 15%. Trend data for Montcalm County is not available, but local Behavioral Risk Factor Survey (BRFS) data over the period 2008-10 indicates a higher proportion (21.5%) of Montcalm County adults report their health to be fair or poor than Michigan adults (15.0%). Results from the 2011 Montcalm Community Survey indicate that 30.6% of adults considered their general health status to be fair or poor. National BRFS data indicates the prevalence of self-rated fair or poor health is higher in older adults, females, minorities, and those of lower socioeconomic status (measured by income or educational attainment). Local BRFS results suggest two of these characteristics (age group & educational attainment) hold true for Montcalm County adults, as seen in the figure to the right.

General Health Status Fair or Poor
Montcalm County 2008-10, MI 2009

	Montcalm County %
TOTAL	21.5 (MI 15.0)
Male	23.9
Female	19.0
18-24	0.0
25-34	17.3
35-44	18.8
45-54	20.0
55-64	35.4
65-74	37.4
75+	38.2
Less than high school	26.1
High school graduate	26.3
Some college	15.9
College graduate	6.2
<$15,000	32.2
$15,000-$24,999	21.7
$25,000-$34,999	36.0
$35,000-$49,999	8.5
$50,000-$74,999	13.5
$75,000-$99,999	0.0
$100,000+	0.0

- **Physical Health**

- As a means of measuring health-related quality of life, the Behavioral Risk Factor Survey (BRFS) asks adults to rate their perceived physical health over time. A higher proportion (15.0%) of Montcalm County adults reported that their physical health was not good (equivalent to physical illness or injury for at least 14 days during the month) than Michigan adults (10.8%). The figure to the right indicates that characteristics among subpopulations of Montcalm County adults correlate with those reported at the State level; that is, females, older adults, and adults with less education were more likely to report their physical health was not good.

Perceived Physical Health Not Good
Montcalm County 2008-10, MI 2009

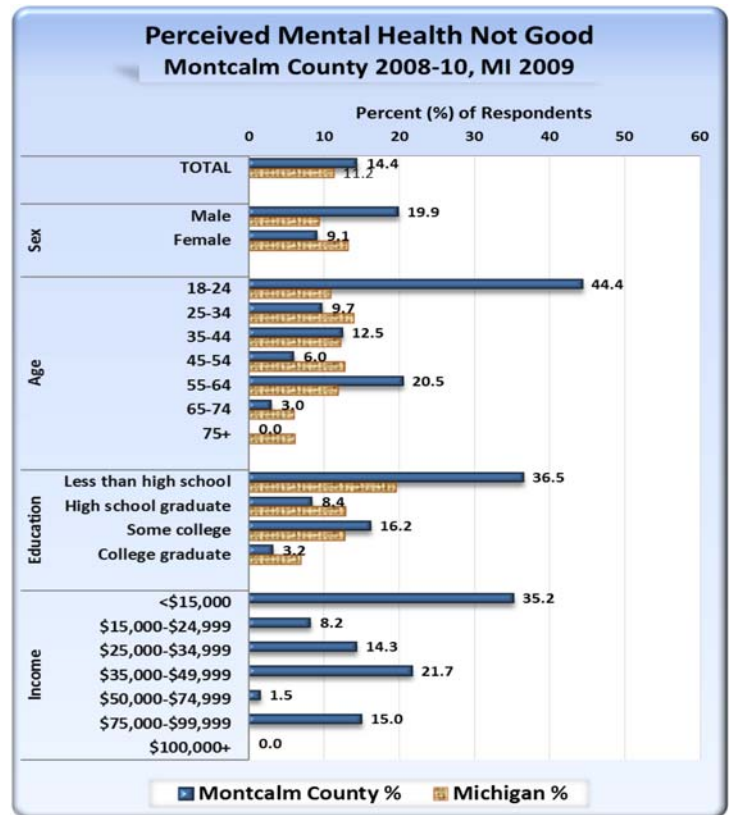|	Montcalm County %
TOTAL	15.0 (MI 10.8)
Male	13.2
Female	16.8
18-24	0.0
25-34	4.3
35-44	11.4
45-54	20.3
55-64	26.2
65-74	26.7
75+	36.7
Less than high school	24.6
High school graduate	14.3
Some college	13.1
College graduate	9.4
<$15,000	25.9
$15,000-$24,999	14.8
$25,000-$34,999	27.1
$35,000-$49,999	13.6
$50,000-$74,999	4.5
$75,000-$99,999	5.0
$100,000+	0.0

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*
Mid-Michigan District Health Department 2008-2010

- **Mental Health**

- Similar to the previous segment in which adults self-rated their physical health, the Behavioral Risk Factor Survey (BRFS) also asks adults to rate their perceived mental health over time. A higher proportion (14.4%) of Montcalm County adults reported that their mental health was not good (equivalent to mental health symptoms for at least 14 days during a given month) than Michigan adults (11.2%). This included issues with stress, depression and problems with emotions. Investigators have found that younger adults tend to experience a higher number of days of poor mental health than physical health, while the opposite is more frequently noted for older adults (CDC, Health-related Quality of Life, 2010). The figure to the right suggests this characteristic holds true for adults of both Montcalm County and Michigan. The results also indicate that self-rated poor mental health tends to decrease with increasing educational attainment for both Montcalm and Michigan adults. Uncharacteristically, Montcalm County adult males were more likely to report poor mental health than females, which does not correlate with the findings for Michigan adults. The rather large percentage of Montcalm County adults age 18-24 years that reported their mental health as not good (44%) should be interpreted with caution as this result is based on a cohort of 54 persons.

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*

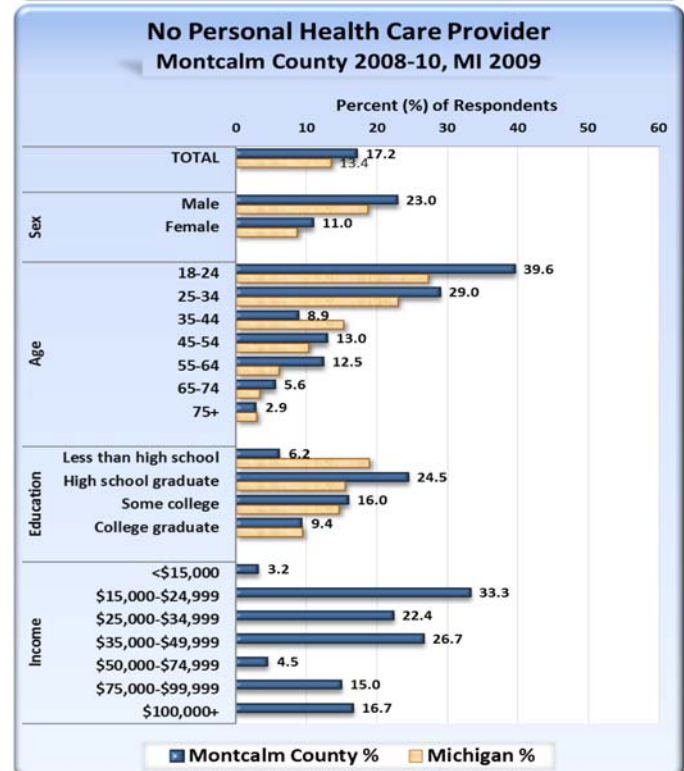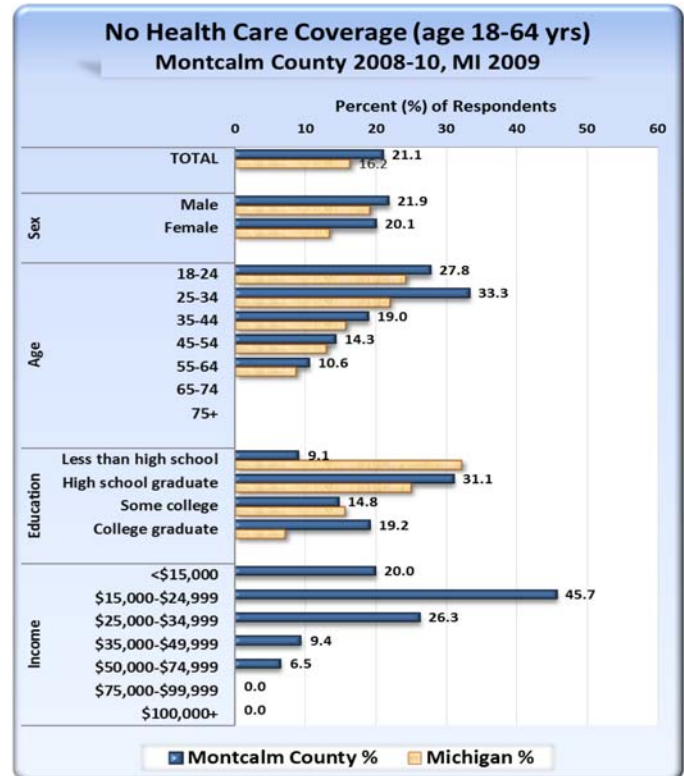*Mid-Michigan District Health Department 2008-2010*

Access to health care is a broad concept that tries to capture accessibility to needed primary care, health care specialists, and emergency treatment. While having health insurance is a crucial step toward accessing the different aspects of the health care system, health insurance by itself does not ensure access. It is also necessary to have comprehensive coverage, providers that accept the individual's health insurance, relatively close proximity of providers to patients, and primary care providers in the community.

- **Health Insurance Coverage**

- Adults who do not have health care coverage are less likely to access health care services and more likely to delay getting medical attention, whether it is the utilization of preventive or treatment services (Hoffman and Paradise, 2008). The U.S. Census Current Population Survey (CPS) tracks health care coverage – trend data indicates the number of non-elderly adults in the United States has increased over the past decade from approximately 39 million in 2000 to 49 million in 2010. The Behavioral Risk Factor Survey (BRFS) also collects self-reported health care coverage data as a part of its core questionnaire. According to BRFS data, a higher proportion (21.1%) of Montcalm County adults age 18-64 years are without health care coverage than Michigan adults (16.2%). The figure to the right also indicates that males, younger adults, and those with lower education are more likely to be without health care coverage. According to the U.S. Census (Small Area Health Insurance Estimates Program), a similar proportion of Montcalm County and Michigan youth (<18 yrs.) are without health care coverage (7.3% vs. 6.8%). The 2011 Montcalm Community Survey indicates that 18.0% of adults 18-64 years are without health insurance – the most common reasons being: could not afford (38%), part-time employee with no benefits (13%), unemployed (12%), lost Medicaid eligibility (12%), employer stopped offering health insurance (6%), and don't know how to get it (5%).

- **Personal Health Care Provider**

- Another important indicator of health care access is the establishment of a "medical home" where a person can access a health care provider on a routine basis, particularly primary care services. According to BRFS survey results, a higher proportion (17.2%) of Montcalm County adults report that they have no personal doctor or health care provider than Michigan adults (13.4%). As the figure to the right shows, males, younger adults, and those with less education are more likely to not have a personal doctor, both locally and for Michigan. Michigan 2009 BRFS results have also shown that individuals without health care coverage are over five times as likely to not have a personal doctor, and five times as likely to have needed health care in the past 12 months but unable to access it due to cost. The 2011 Montcalm Community Survey indicates that 3.3% of adults used emergency department services for most of their health care needs.

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*
Mid-Michigan District Health Department 2008-2010

Delayed Health Care in Past Year
Montcalm County 2008-10

Delayed Dental Care in Past Year
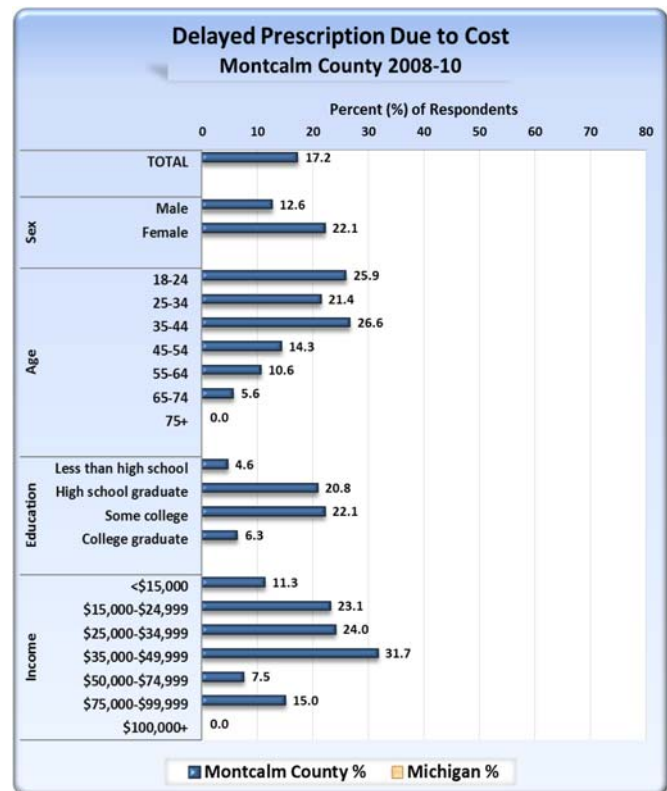Montcalm County 2008-10
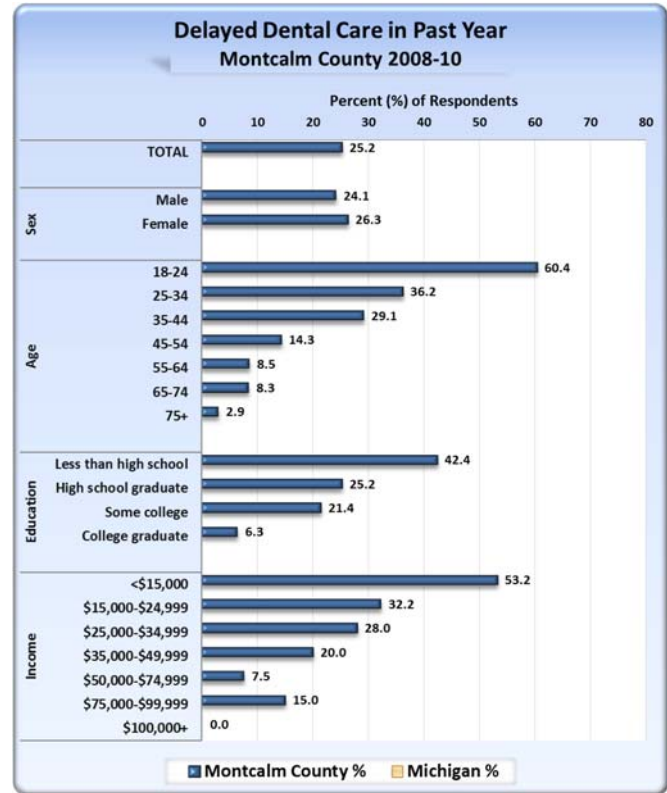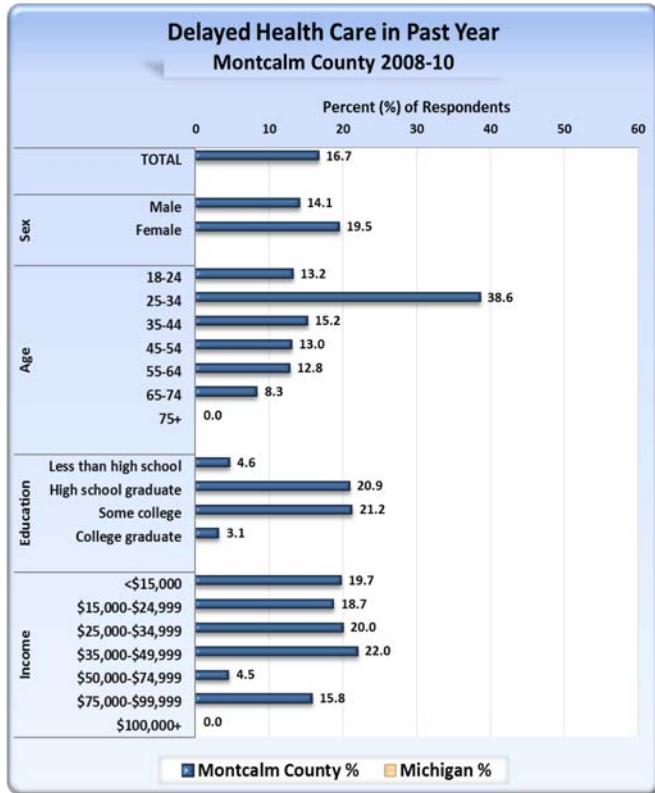
- **Delayed Access to Care**

- An additional important indicator of access to care is the timely utilization of health care services. A higher proportion (16.7%) of Montcalm County adults than Michigan adults (13.9%) reported there was a time in the past year when they needed to see a doctor but could not (BRFS). The 2011 Montcalm Community Survey indicated that 27.2% of adults had delayed seeking health care – the most frequent reasons being: could not afford (54%), no transportation (18%), could not get appointment (9%), and insurance not accepted (3%). For those survey respondents with children, a total of 8% indicated

- Good oral health is also important in maintaining good physical health; however, 25.2% of Montcalm County adults reported there was a time in the past year when they needed to see a dentist but could not (BRFS). (Results not available for Michigan BRFS 2009). The 2011 Montcalm Community Survey results indicate that only 62% of adults had received an oral exam or dental cleaning in the past two years; this fell to 41% for adults that were uninsured.

- Even for those Montcalm County adults who needed medical care and sought it out, 17.2% reported there was a time during the past year when they needed a prescription filled, but could not do so because of the cost. (results not available for Michigan 2009). As the figures to the right show, female adults were more likely to delay care than males for these three indicators.

Delayed Prescription Due to Cost
Montcalm County 2008-10

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*
Mid-Michigan District Health Department 2008-2010

Maternal and child health indicators are strong measures of the overall health and well-being of the community. The health of mothers, infants, and children is important, both as an indicator of population health and as a predictor of the next generation's health. Traditional maternal and child health indicators include those that affect pregnant and post-partum women, as well as the health and survival of their infants and children. Increasingly, there is recognition that the general health status of women even before pregnancy has an impact on birth outcomes.

- **Infant Mortality**

- Infant mortality is often used as a key index in measuring the general health of a community since many of the risk factors reflect on community issues, such as access to care, poverty, health-related behaviors, and education.

- Using three-year moving averages in the figure to the right, it's evident that the Montcalm County infant mortality rate has remained lower than that for Michigan infants for much of the past decade. It's also evident that the Michigan infant mortality rate has remained fairly stable over the period outlined. Whereas significant progress had been made in lowering the rate from the 1970s to the mid 1990s.
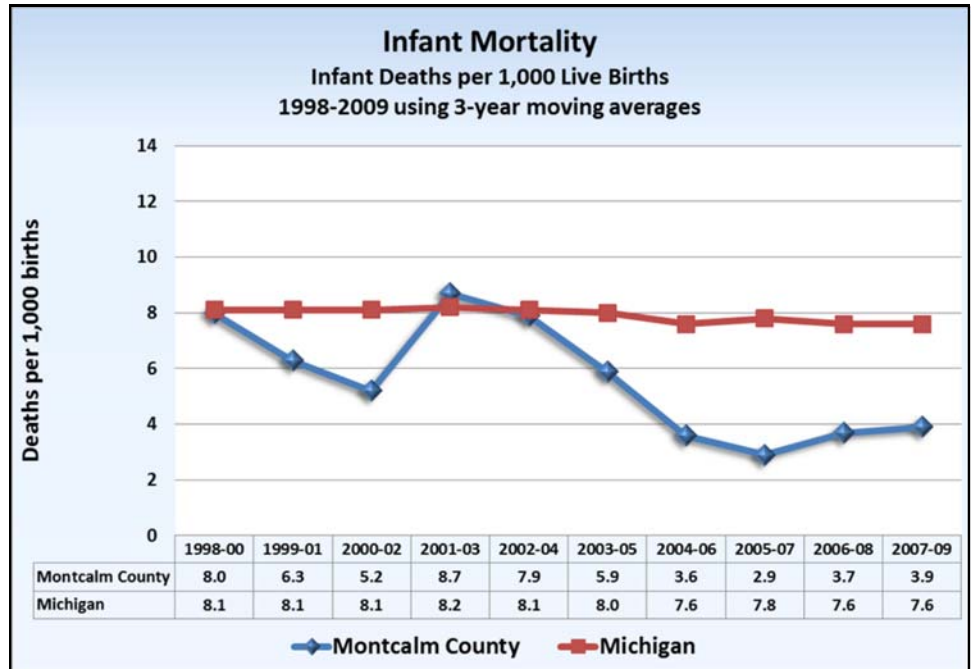
Number of Infant Deaths, Montcalm County, 2000-09

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	6	6	10	4	1	4	2	3	4

- **Birth Rate**

- The overall (all age) maternal birth rate has slowly declined over the past decade for both Montcalm County and Michigan, and rates have mirrored one another over this period, as seen in the figure to the right. An average of 820 births to Montcalm County female residents occurred over the period 2000 to 2009.

- Teen births represented 12.9% of total births over the period 2000 to 2009; an average of 105 teen births annually over this period.
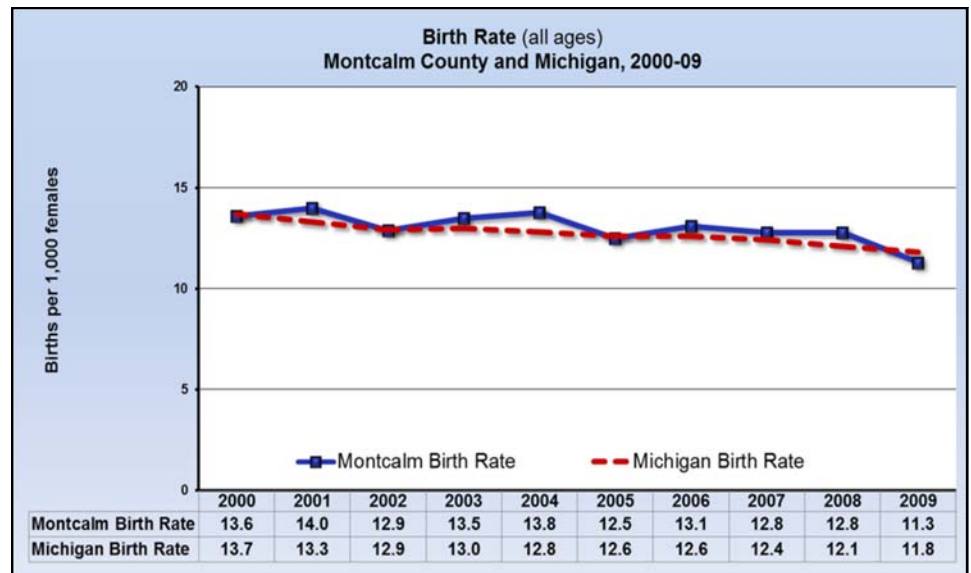
Number of Births, Montcalm County, 2000-09

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
834	869	805	850	876	801	838	808	809	710

Source: *Michigan Resident Birth File. Division for Vital Records & Health Statistics, Michigan Department of Community Health.*

Maternal & Child Health

- **Teen Pregnancy**

- Teen pregnancy is an important health indicator as it reflects health behaviors unique to teens, as well as societal norms and expectations. The impact of teen pregnancy is felt by the teen parent, the child, and the communities, as teen parents are more likely to experience long-term economic disadvantage.

- A downward trend in the teen pregnancy rate during the past decade has occurred locally and for Michigan overall, as seen in the figure to the right. Despite the decline over time, Montcalm County has experienced a higher teen pregnancy rate over the period 1998-2007 than Michigan. This is true for female teens age 15-19 years and 15-17 years. The most recent data available (2004-09) suggests that while Montcalm County's rate continues to drop, the progress in reducing teen pregnancy across the state of Michigan has stalled.

Source: *Michigan Resident Birth File. Division for Vital Records & Health Statistics, Michigan Department of Community Health.*

- **Maternal Health Characteristics**

- Communities benefit when newborns begin their lives in a safe, stable, and healthy environment that offers opportunities for optimal growth and development. Children who begin their lives in less healthy environments or in poor health may have a difficult time catching up to their peers. A healthy start in life begins prior to birth and includes appropriate prenatal care and avoiding risky behaviors by the mother-to-be. The chart to the right depicts this information for Montcalm County for the year 2009. Longer-term results are shown on the following page.
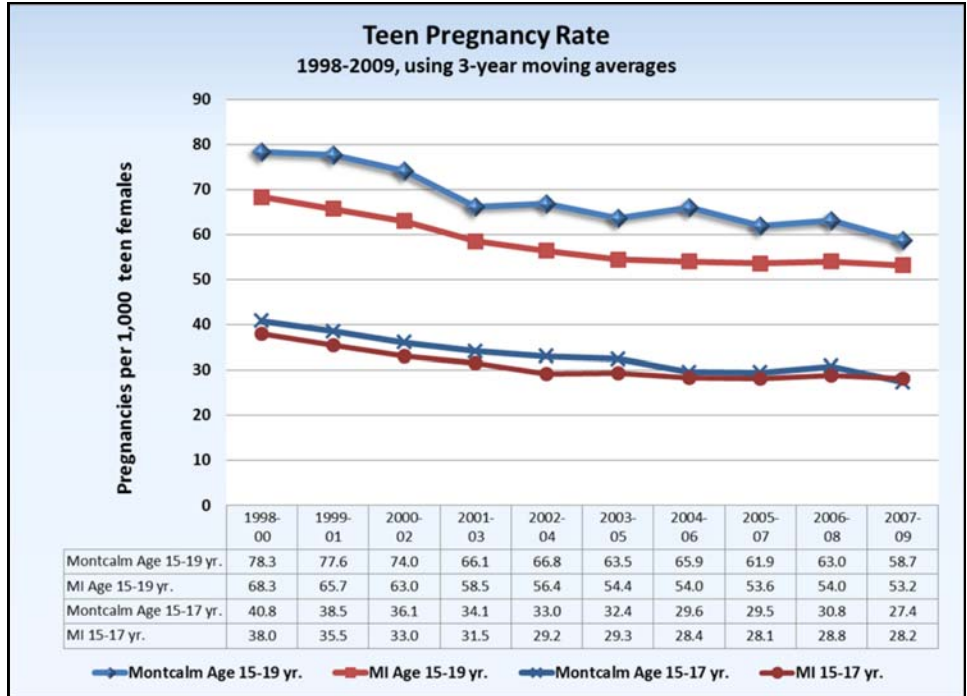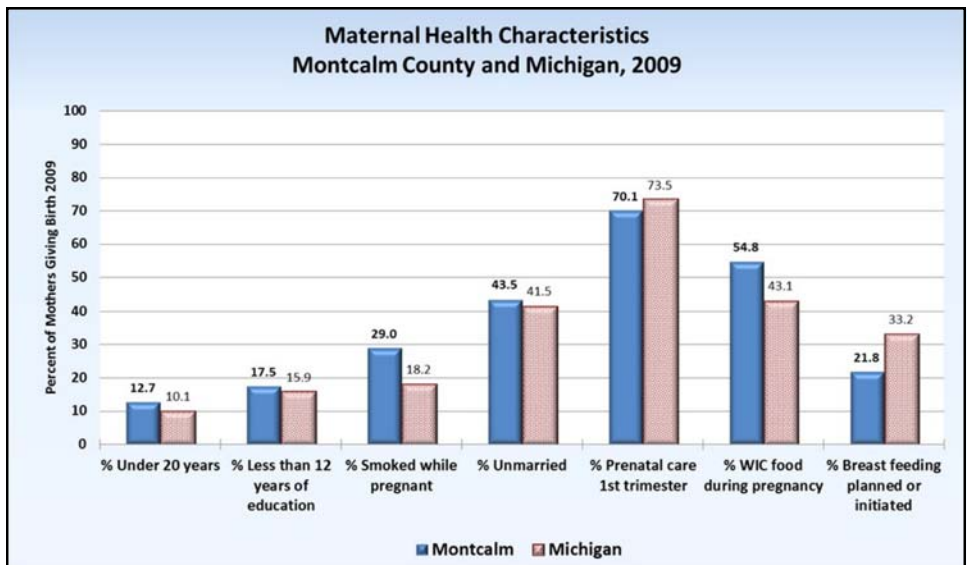

Source: *Michigan Resident Birth File. Division for Vital Records & Health Statistics, Michigan Department of Community Health.*

Maternal & Child

Maternal & Child Health

Maternal and Birth Characteristics, Montcalm County, 2000-09

| Year | % Birth Mothers... | | | | | | % Newborns... | |
	Under age 20 yrs	Less than 12 yr educ.	Unmarried	Medicaid enrolled	Smoked while Preg.	Prenatal care 1st Tri.	Low Birth Weight	Pre-term
2000	14.6	21.0	36.2	33.0	21.5	76.7	7.4	9.8
2001	12.5	20.4	33.6	35.7	21.7	84.8	6.7	11.5
2002	12.8	21.2	36.0	36.3	21.5	79.3	8.2	9.6
2003	11.2	19.1	37.1	40.1	20.9	84.6	6.2	9.5
2004	13.7	18.0	38.7	41.8	20.8	84.2	8.2	9.7
2005	10.5	17.5	37.2	43.9	19.4	84.0	6.0	7.2
2006	13.4	16.2	43.9	48.4	21.2	84.1	6.7	7.9
2007	11.8	19.3	39.9	48.1	18.6	77.8	5.9	6.7
2008	11.4	17.7	36.5	48.6	*27.6	66.9	5.4	8.4
2009	12.7	17.5	43.5	55.8	*29.0	70.1	7.7	11.0

Source: *Michigan Resident Birth File. Division for Vital Records & Health Statistics, Michigan Department of Community Health.*

* A change in the Michigan birth certificate question structure regarding smoking history likely influences the maternal smoking prevalence from the year 2008 forward; this data may not be comparable to previous years.

- **Maternal Health Characteristics**

- As the table above indicates, key maternal and birth characteristics tracked through birth certificate data include age, education, marriage status, Medicaid status, smoking status, and prenatal care of the expectant mother; as well as weight and gestational age of the newborn. One evident trend for Montcalm County over the period 2000-09 is the increasing percentage of mothers enrolled in Medicaid at the time of delivery – this could reflect either the local economic environment or an increased effort to provide health care coverage during pregnancy. Timely prenatal care was fairly consistent the first half of the decade, but the percentage of women receiving timely prenatal care during their first trimester of pregnancy has been noticeably lower during the most recent period that data is available (2007-09). The recent spike in smoking status for 2008-09 most likely represents a change in the Michigan birth certificate (the wording of smoking-related questions) for this risk behavior and therefore makes comparison to previous years challenging. However, county to state comparison for the year 2009 indicates Montcalm County smoking prevalence during pregnancy to be higher than Michigan (29.0% vs. 18.2%).

- **Adolescent Risk Behaviors**

- Although no Michigan Profile for Healthy Youth (MiPHY) trend data is available for Montcalm County adolescents, a good representation of the adolescent population (grades 7, 9, 11) is represented in the school-based surveys conducted during the 2007-08 and 2009-10 school years. The following five figures provide self-reported results for key health risk behaviors. For a general comparison, survey data representing Michigan adolescents (grades 9-12) gathered via the Youth Risk Behaviors Survey (YRBS) is provided in the figures for comparison with the Montcalm County survey results comprised of only 9th and 11th grade responses (7th grade excluded).

- A lower percentage of Montcalm County adolescents report recently consuming alcohol than Michigan adolescents. Recent use of alcohol (within past 30 days) decreased over the two measurement periods for both Montcalm (2008/10) and Michigan (2007/09). Recent use of alcohol increased with grade level for Montcalm County. Recent alcohol use decreased for all three Montcalm County grades over the two measurement periods (2008/10).

- A similar percentage of Montcalm County and Michigan adolescents report recently smoking cigarettes (approximately 18%). Recent cigarette smoking (within the past 30 days) was unchanged over the two measurement periods for both Montcalm (2008/10) and Michigan (2007/09). Recent cigarette smoking increased with each grade level for Montcalm County, with a pronounced increase from 7th to 9th grade. No clear pattern is evident for recent cigarette smoking by grade level over the two measurement periods.

- A lower percentage of Montcalm County adolescents report recently using marijuana than Michigan adolescents. Recent use of marijuana (within past 30 days) increased over the two measurement periods for both Montcalm (2008/10) and Michigan (2007/09). Recent use of marijuana increased with grade level for Montcalm County, with a pronounced increase from 7th to 9th grade. Recent marijuana use increased for 7th and 9th grade over the two measurement periods (2008/10).
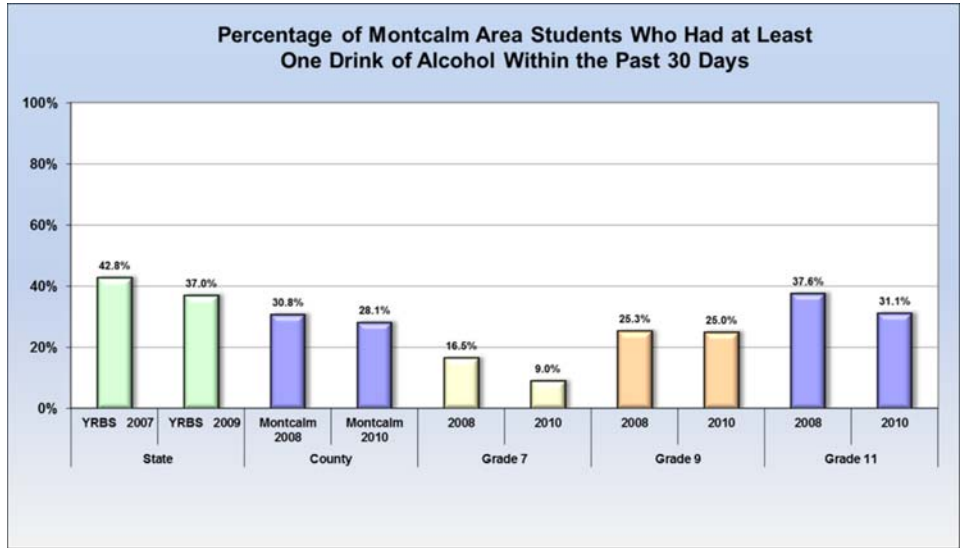
Source: *Michigan Profile for Healthy Youth. Michigan Department of Education.*
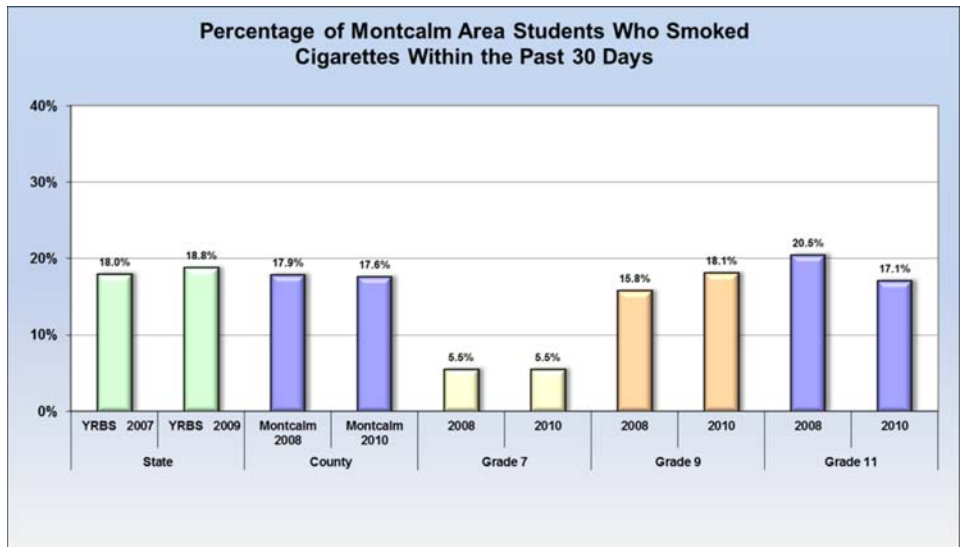
Source: *Michigan Profile for Healthy Youth. Michigan Department of Education.*
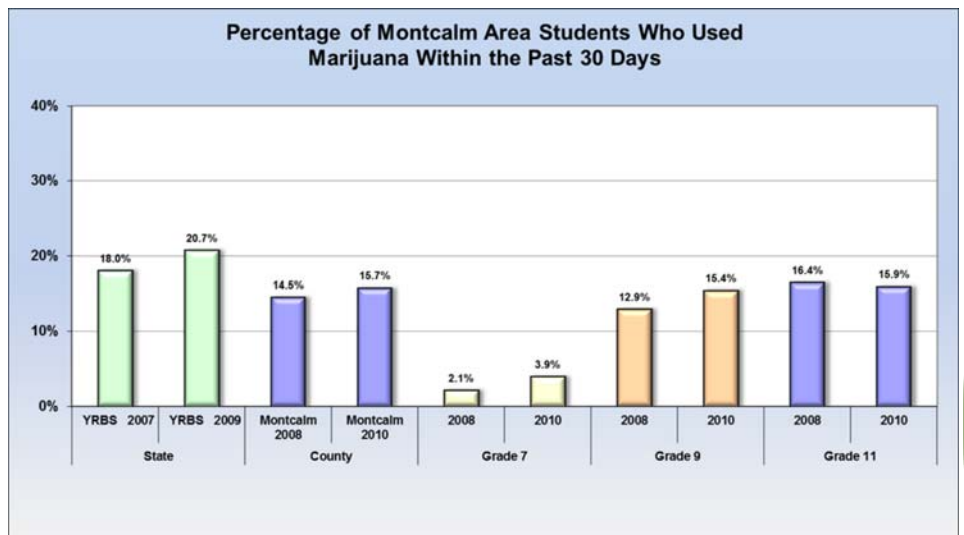
Source: *Michigan Profile for Healthy Youth. Michigan Department of Education.*

- **Adolescent Risk Behaviors**

- A higher percentage of Montcalm County adolescents are classified as obese (based on self-reported height and weight) than Michigan adolescents. Obesity prevalence slightly decreased over the two measurement periods for both Montcalm (2008/10) and Michigan (2007/09). Obesity prevalence was fairly consistent between grade levels (range 17%-20%) for Montcalm County. No clear pattern of obesity is evident between grade levels over the 2 measurement periods (2008/10).

- A higher percentage of Montcalm County adolescents reported that they regularly participate in physical activity than Michigan adolescents. Regular physical activity slightly increased over the two measurement periods for Michigan (2007/09), but was unchanged for Montcalm adolescents (2008/10). The percentage of adolescents regularly participating in physical activity increased from 7th to 9th grade, and then decreased in 11th grade. Regular physical activity increased for 7th grade students over the two measurement periods (2008/10), but decreased for 9th and 11th grade over the 2 measurement periods (2008/10).

Source: *Michigan Profile for Healthy Youth. Michigan Department of Education.*

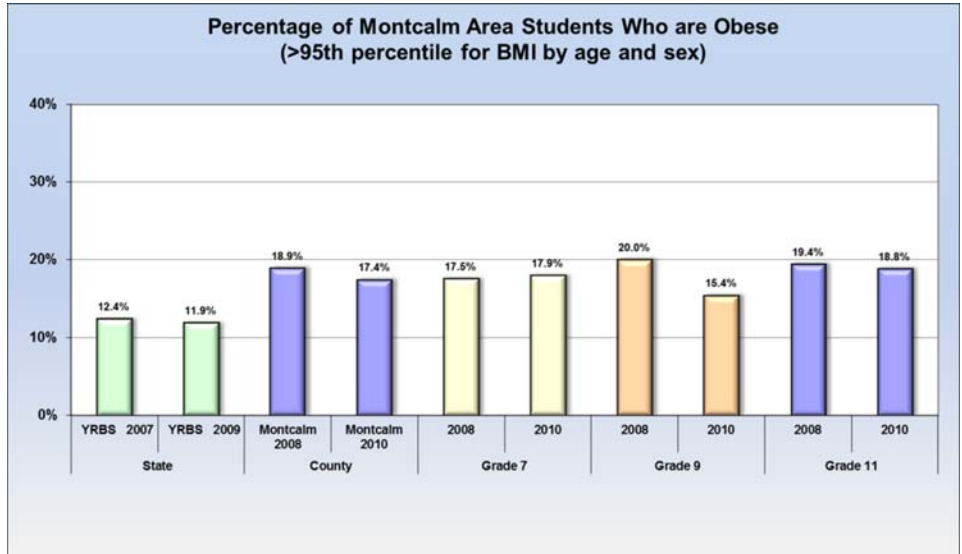Source: *Michigan Profile for Healthy Youth. Michigan Department of Education.*

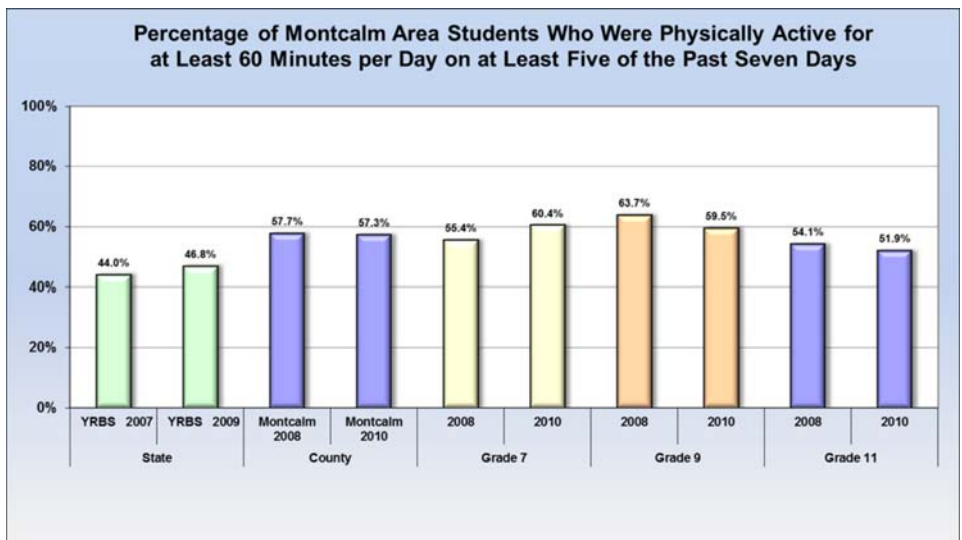The factors accessed below have the potential to positively or adversely affect the short and long-term health of Montcalm County residents. Tobacco use increases the risk of various cancers and alcohol abuse can cause chronic liver disease, while positive factors such as adequate fruit and vegetable intake and physical activity can decrease the risk of heart disease and obesity. By providing a summary report of these measures, interventions may be identified to curb negative behaviors and decrease the risk of injury, illness, and chronic disease later in life.
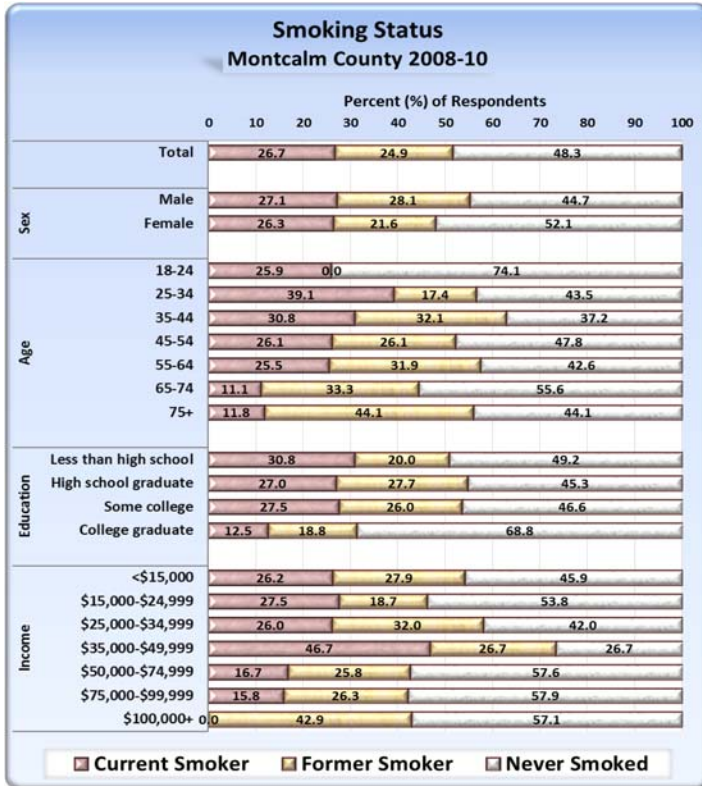
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*
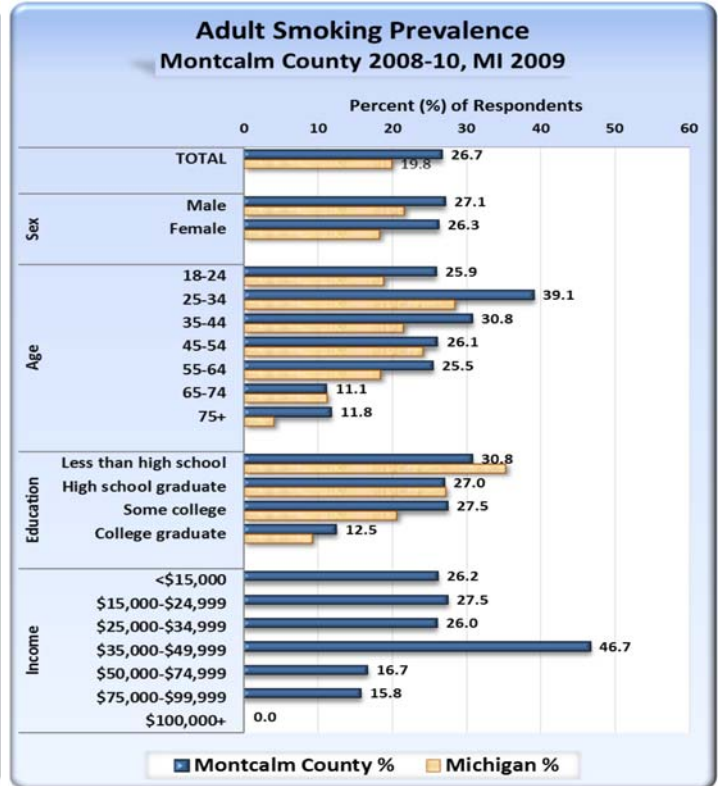
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

Adult Behavioral

- **Tobacco Consumption**

- The Michigan adult smoking prevalence has slowly declined over the past decade (2000-09) to reach its lowest rate of 19.8% in 2009. Local Behavioral Risk Factor Survey (BRFS) data over the period 2008-10 indicates a higher proportion (26.7%) of Montcalm County adults report being current smokers than Michigan adults (19.8%). The local BRFS results are supported by results from the 2011 Montcalm Community Survey in which 27.0% of adults reported smoking cigarettes. As the figures shown above on this page illustrate, smoking rates decrease with advancing age and higher education, and are lower for females than males.

- The diagram to the right displays smoking rules in the home for Montcalm County residents. The establishment of household non-smoking rules can have an impact on health whether an individual currently smokes or not, due to the negative effects second-hand smoke can have on physical health. As shown in this chart, 71% of households in Montcalm County currently do not allow smoking anywhere inside the home.

Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

- **Alcohol Consumption**

- Like smoking, excessive alcohol consumption or alcohol addiction can adversely affect health and is associated with preventable health conditions, including chronic liver disease, stroke, and certain cancers. It also can increase the risk for serious injury such as falls and motor vehicle accidents, violence and suicide (CDC, 2010). Local Behavioral Risk Factor Survey (BRFS) data over the period 2008-10 indicates a similar percentage of Montcalm County and Michigan adults were heavy drinkers (4.7% vs. 5.2%), and a similar percentage reported at least one occasion of binge drinking in the past month (15.9% vs. 16.9%).

- The chart below depicts vehicle crashes in Montcalm County, and the percentage of crashes where the vehicle operator "had been drinking (HBD)", as well as the severity of those crashes (fatal/injury) from 2006-2010. Vehicles in this chart include both cars and trucks and recreational or "off-road" vehicles. Injury A means that the injury was incapacitating, and Injury B means that the injury was nonincapacitating. This chart clearly identifies the impact drinking and driving has on the safety of community members.

Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

Montcalm County Reported Vehicle Crashes 2006-2010					
	2006	2007	2008	2009	2010
All Crashes	2,851	2,794	2,831	2,726	2,425
HBD crashes	96	69	95	93	76
% HBD	3.4%	2.5%	3.4%	3.4%	3.1%
All Fatal Crashes	8	15	6	3	9
HBD Fatal Crashes	1	3	3	1	1
% HBD	12.5%	20.0%	50.0%	33.3%	11.1%
Total A Injury	54	58	71	46	62
HBD A Injury	11	10	14	14	12
% HBD	20.4%	17.2%	19.7%	30.4%	19.4%
Total B Injury	128	135	118	112	94
HBD B Injury	17	17	14	16	9
%HBD	13.3%	12.6%	11.9%	14.3%	9.6%

Source: *Michigan Office of Highway Safety Planning. 2010 Michigan Traffic Crash Facts, County Profiles.*

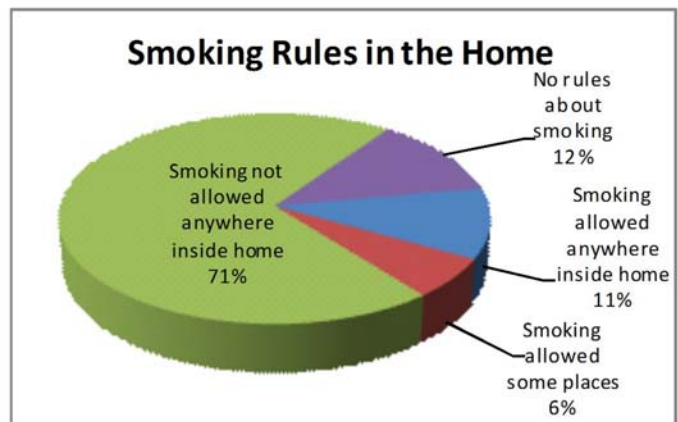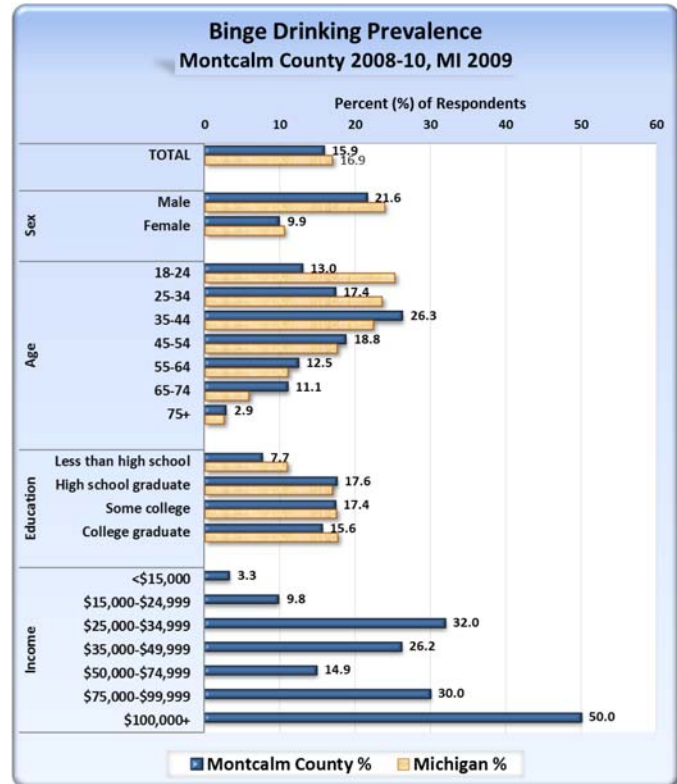
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

- **Weight**

- Michigan's obesity rate has climbed from 22.5% in 2000 to its highest rate of 30.9% in 2009 (BRFS). A higher proportion (32.7%) of Montcalm County adults are classified as being obese than Michigan adults (30.9%), while a similar proportion of Montcalm and Michigan adults are classified as being overweight (35.1% vs. 35.7%). When combining these 2 weight classifications, a total of 67.8% of Montcalm County adults are either overweight or obese, compared with 66.6% of Michigan adults. Unlike some of the other health indicators reviewed here, there are fewer clear patterns among subpopulations of adults – for instance, Michigan BRFS data suggests males and females are equally likely to be obese (30.8% vs. 31.0%), and education does not strongly influence the likelihood of being obese. Two patterns that are evident is that adult obesity tends to increase sharply during the third decade of life, remain stable until about age 75 years; and that obesity is more prevalent for minority races and the Hispanic population.

- As for the use of the terms obese and overweight, they are both labels to define ranges of weight that are considered unhealthy for a particular height. These terms apply to both children and adults, and are commonly determined by calculating one's body mass index (BMI). Body mass index is a measure of a person's weight in relation to his or her height; specifically an individual's weight in kilograms divided by the square of his or her height in meters, kg/m2 (CDC). These BMI results are presented differently between children and adults, with children using growth charts and percentiles to represent their BMI information. The tables below show this relationship and classification ranges more clearly.

Adult BMI Classification (kg/m²)	
Underweight	< 18.5
Healthy Weight	18.5 - 24.9
Overweight	25.0 - 29.9
Obese	≥ 30

Child/Adolescent BMI Classification	
Underweight	< 5th percentile
Healthy Weight	5th to 85th percentile
Overweight	85th to 94th percentile
Obese	≥95th percentile
[Age 2-19 years]	
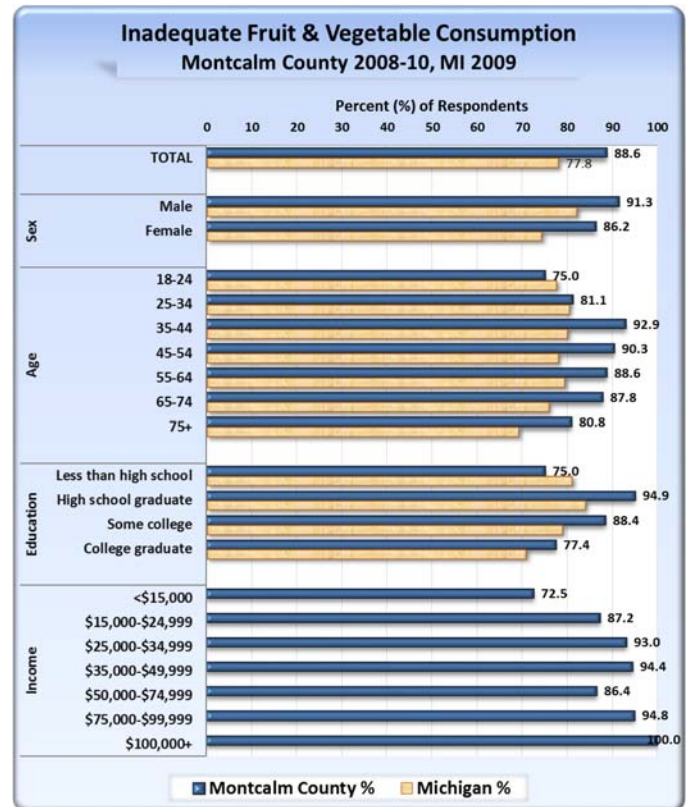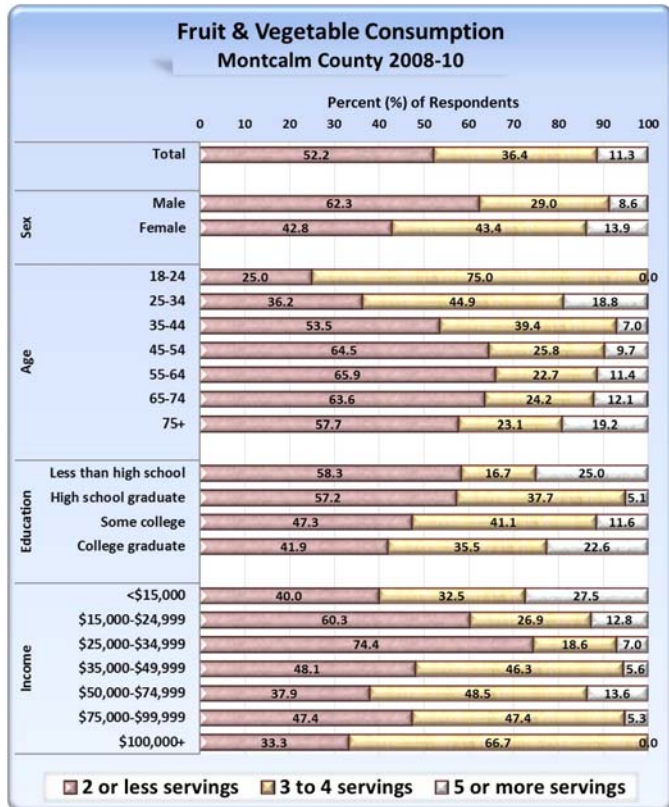
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*
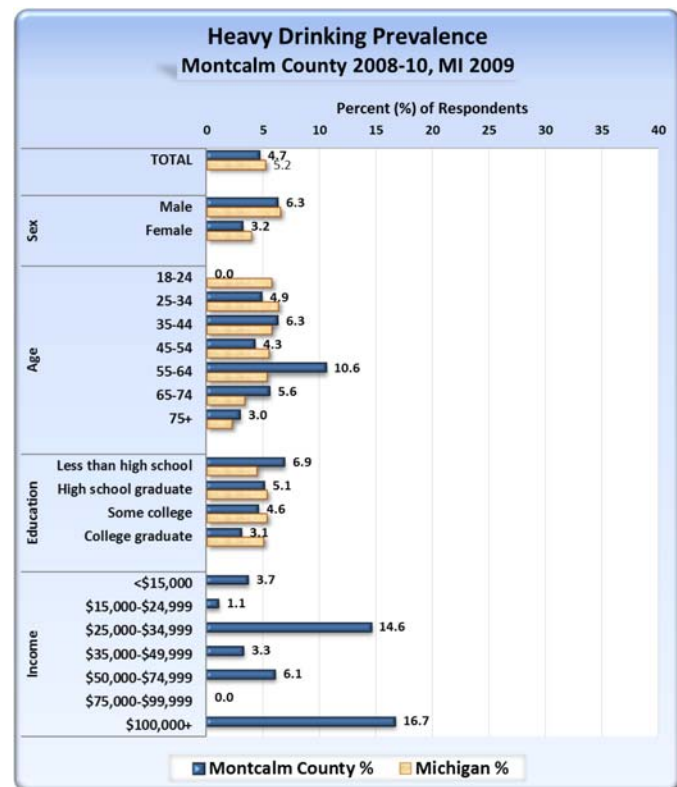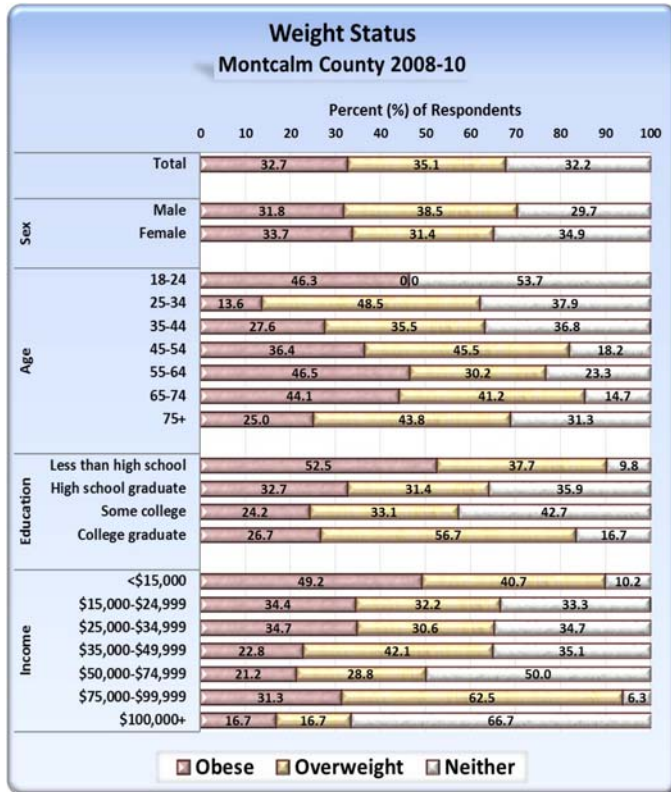

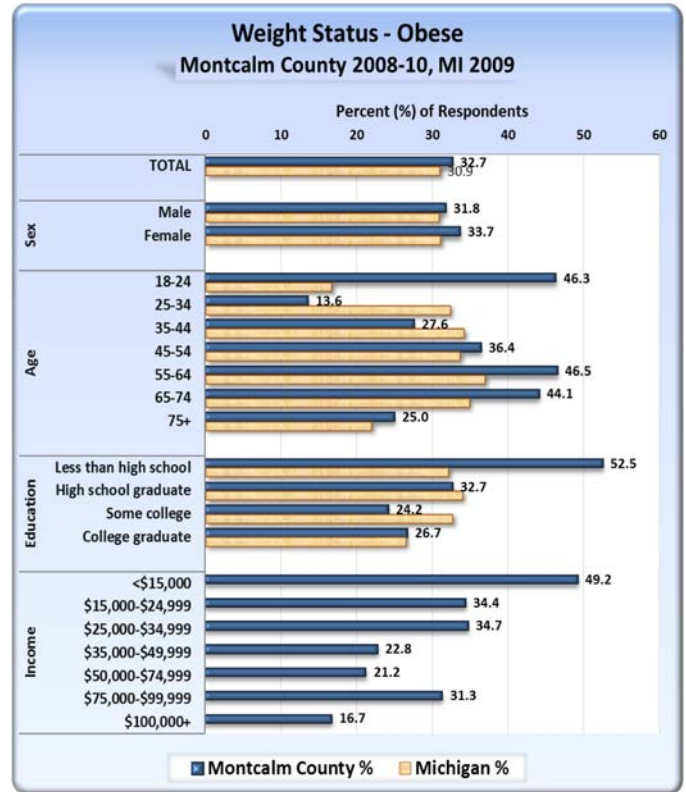Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

- **Diet**

- Research demonstrates that a diet rich in fruits and vegetables promotes good health such that those who frequently consume greater amounts of these substances are at reduced risk for certain chronic disease (CDC, Fruit & Vegetable Benefits, 2009). Local Behavioral Risk Factor Survey (BRFS) data for the period 2008-10 indicates that a higher proportion (88.6%) of Montcalm County adults consumed less than the recommended servings of fruits and vegetables than Michigan adults (77.8%). National and Michigan BRFS data indicates the prevalence of inadequate fruit and vegetable consumption has remained relatively unchanged over the past decade; no trend data is available for Montcalm County. Results from the 2011 Montcalm Community Survey indicate that only 10% of adults 'always' eat five or more servings of fruits/vegetables daily, and 37% 'often' do so. These results are not directly comparable to the BRFS data as the question structure is different.

- The 2011 Montcalm Community Survey indicates that 3.5% of adults 'always' eat fast food more than once a week, 15.3% 'often' do so, 60.5% 'rarely' do so, and 20.0% "never" eat fast food more than once a week. As the availability of "fast food" outlets grow in our community, it increases the likelihood that more processed foods with potentially lower nutritional content will be consumed. Greater access to healthier food options (like fresh fruits and vegetables) at an affordable cost, such as products sold at local farmer's markets or at grocery stores, provide a means for residents to make healthier eating decisions.

- Nutritional related data gathered from the 2010 Michigan Profile for Healthy Youth (MiPHY) indicates that 30.9% of Montcalm County high school students (9th & 11th grade) consumed five or more servings of fruits and vegetables daily, compared with 19.6% of Michigan high school students. The United States Department of Health and Human Services recommends youth age 9-18 years of age consume 3 cups of low-fat or fat-free milk daily. MiPHY survey results indicate that 21.6% of Montcalm County high school students met this recommendation, compared with 13.3% of Michigan high school students. On the other hand, 40.1% of Montcalm County high school students indicated they consumed one or more glasses/cans/bottles of soda (pop) daily, compared with 27.6% of Michigan high school students.

Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*
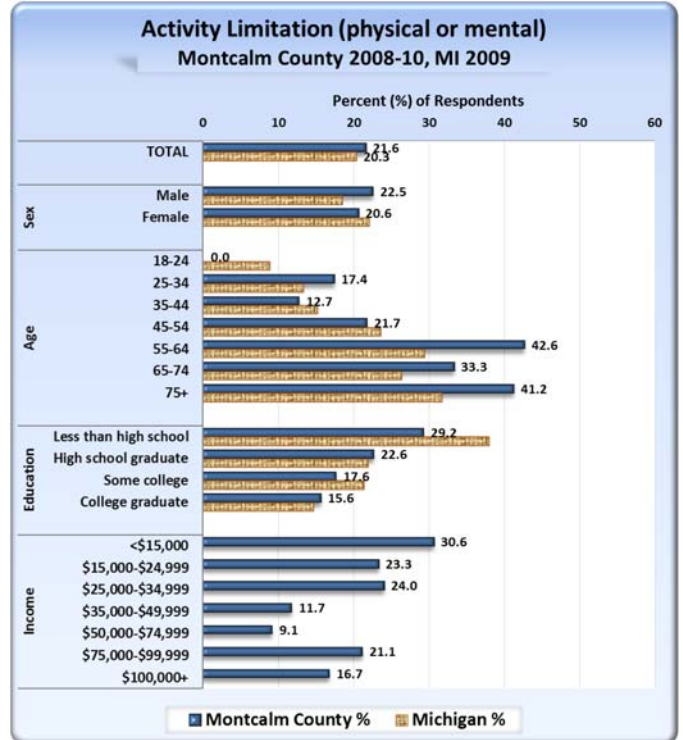
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*
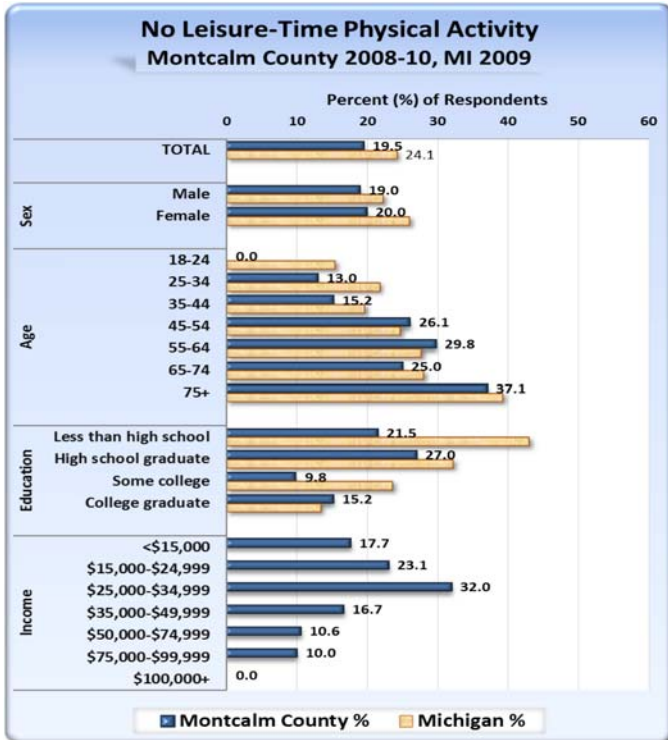
- **Physical Activity**

- Regular physical activity helps to control weight and maintain healthy bone and muscle strength, as well as reduce the risk of certain preventable health conditions like cardiovascular disease, diabetes, osteoporosis, and certain cancers. Local BRFS results indicate that a lower proportion (19.5%) of Montcalm County adults are sedentary than Michigan adults (24.1%). Sedentary in this case represents adults who do not participate in any leisure-time physical activity, which includes walking, jogging, calisthenics, golf, and gardening. Michigan BRFS data indicates that sedentary status increases with increasing age, decreases with higher education and income, and is more likely for females than males.

- **Healthy Environment for Physical Activity**

- Communities can increase opportunities for physical activity by offering environments where all residents can safely participate. Montcalm County adults were asked about access to safe places for physical activity – approximately 32% indicated there were adequate safe walkways, paths or trails in their community, while approximately 57% of adults indicated they felt 'very safe' walking alone in their neighborhood (2008-10 BRFS). When asked if there was any particular reason for not being more physically active, approximately 55% indicated they could not identify a reason. These results are depicted in the chart to the right, in which Montcalm County is compared with the public health (MMDHD) district that includes Clinton, Gratiot, and Montcalm Counties.
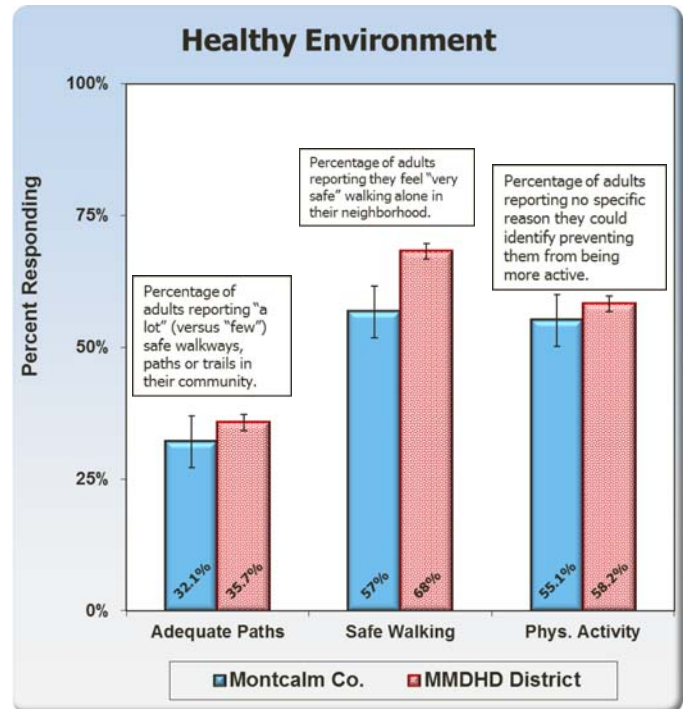
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

Chronic Disease, Morbidity, and Mortality

Chronic diseases – such as heart disease, stroke, cancer, diabetes, and arthritis – are among the most common, costly, and preventable of all health problems in the United States. A consistent component in determining the health status for a particular locale is the report of mortality rates and the leading causes of death in the community. Mortality rates offer a way to compare causes of death and the influence of race and geography (county, state). These indicators represent the impact various diseases have on the community by assessing their prevalence and the health outcomes that can be directly attributed to them.

- **Leading Causes of Death**

- Mortality rates fluctuate over time, especially for less populated counties where the number of deaths for a particular condition can be under 20 cases annually. To reduce this variation and make it easier to spot trends, multiple years of data are averaged, as is done here, where data for the period 2007-09 has been combined to create an average annual mortality rate.

- For the period 2007-09, Montcalm County had a lower mortality rate than Michigan for two (heart disease, diabetes) of the ten leading causes of death.

- It's quite evident that heart disease and cancer are the two most frequent causes of death, each accounting for nearly 200 deaths per 100,000 persons annually.

- The pie chart to the right shows the respective contribution of each of the leading causes of death for Montcalm County in 2009. One can see that heart disease and cancer account for nearly 50% of deaths, and that the ten leading causes of death listed account for nearly 88% of all deaths during the year 2009.

- Many of the leading causes of death are recognized as chronic health conditions that are influenced by health behaviors, preventive practices, and timely medical care.
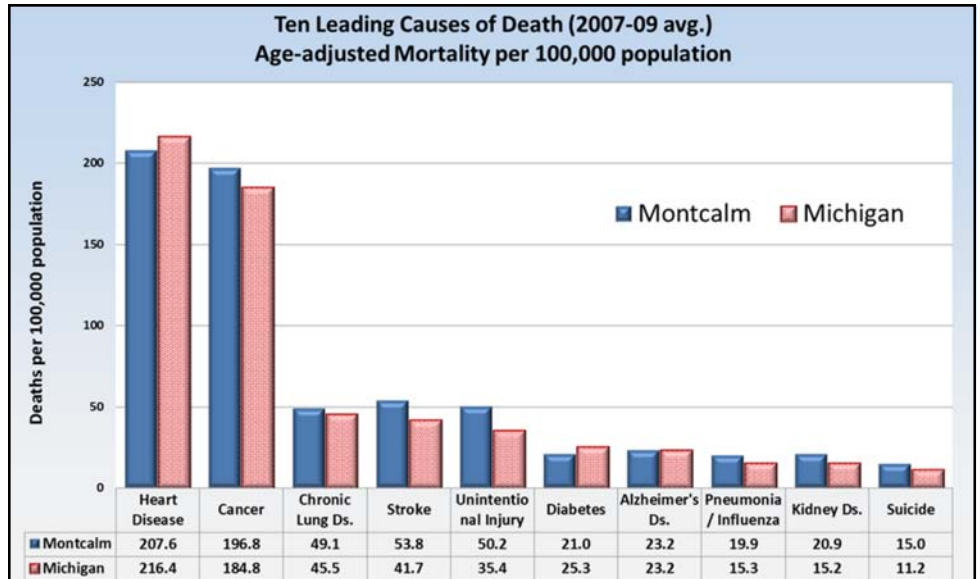
Ten Leading Causes of Death (2007-09 avg.)
Age-adjusted Mortality per 100,000 population

	Heart Disease	Cancer	Chronic Lung Ds.	Stroke	Unintentional Injury	Diabetes	Alzheimer's Ds.	Pneumonia / Influenza	Kidney Ds.	Suicide
Montcalm	207.6	196.8	49.1	53.8	50.2	21.0	23.2	19.9	20.9	15.0
Michigan	216.4	184.8	45.5	41.7	35.4	25.3	23.2	15.3	15.2	11.2

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

Leading Causes of Death, Montcalm County 2009

- Suicide, 1.7%
- Alzheimer's Ds., 2.4%
- Pneumonia/Influenza, 2.6%
- Kidney Ds., 2.6%
- Diabetes, 2.8%
- Unintentional Injury, 4.3%
- Chronic Lung Ds., 5.8%
- Stroke, 6.9%
- Cancer, 24.2%
- Heart Ds., 24.3%
- All Other, 22.3%
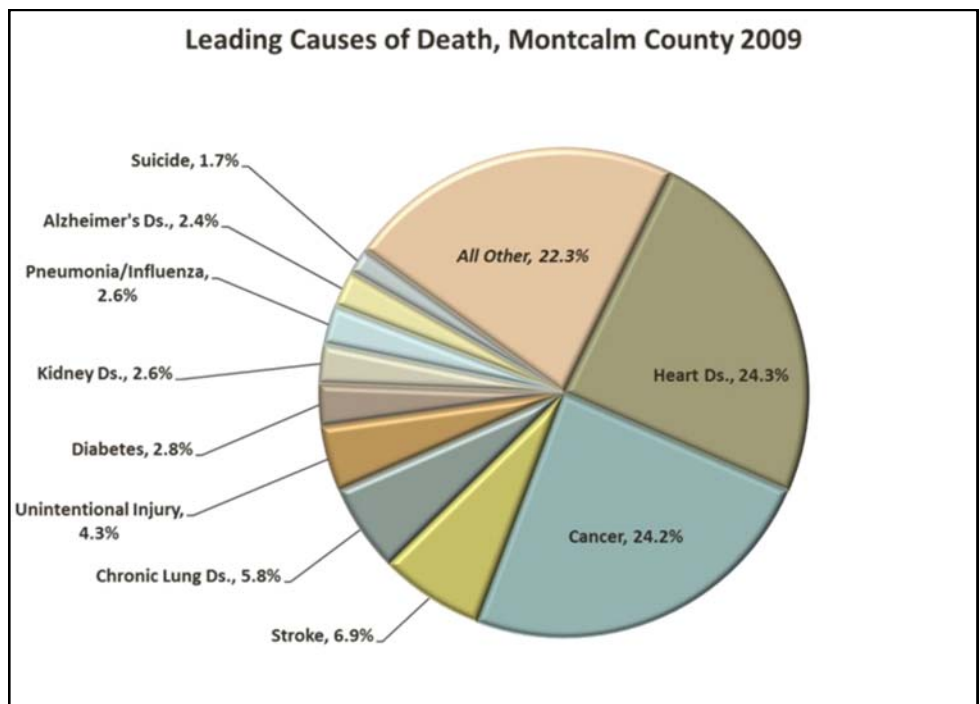
Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

• Mortality

- The age-adjusted mortality rate over the period 2000-09 indicates that Montcalm County all-cause mortality is greater than the Michigan and U.S. rate, although all have trended downward during this period. Analysis of the 95% confidence intervals for each geographic region over this period indicates that Montcalm County all-cause mortality is not significantly higher than Michigan or the United States for most years.

- In 2009, Montcalm County recorded an all-cause mortality rate of 822 deaths per 100,000 persons – down from 918 per 100,000 in the year 2000. Although this is an improvement, the data suggests Montcalm tends to have a higher mortality rate than Michigan and the U.S. for any given year.

All Cause Mortality
Age-adjusted Rates, per 100,000 persons
2000-2009 using single-year rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Montcalm County	918.0	897.8	898.6	914.8	828.2	884.9	821.2	842.4	862.2	822.0
Michigan	898.6	875.8	873.7	846.4	812.2	811.6	812.8	805.3	810.3	784.6
U.S.	869.0	854.5	845.3	832.7	800.8	798.8	776.5	760.2	758.7	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

• Heart Disease

- Heart disease is the leading cause of death in Montcalm County, as is the case for both Michigan and the United States. Currently, no local BRFS survey questions address the prevalence of heart disease amongst residents of Montcalm County; however, Michigan 2009 BRFS results indicate that approximately 4.5% of adults in the state have ever been told by a doctor that they had a heart attack, while 4.4% have ever been told they have angina or coronary heart disease.

- The figure to the right indicates that heart disease mortality has declined over the period 1998-2009 for Montcalm County, Michigan, and U.S. residents. Analysis of 95% confidence intervals indicates that heart disease mortality does not differ significant for the three geographic regions over this period.

Heart Disease Mortality
Age-adjusted Rates, per 100,000 persons
1998-2009 using 3-year moving averages

	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	264.3	264.1	269.0	259.0	245.4	240.6	224.8	216.6	206.4	207.6
Michigan	289.9	281.9	273.8	262.8	249.9	239.0	230.6	226.7	223.2	216.4
U.S.	266.0	257.8	248.8	240.3	230.0	220.1	209.4	200.7	192.6	
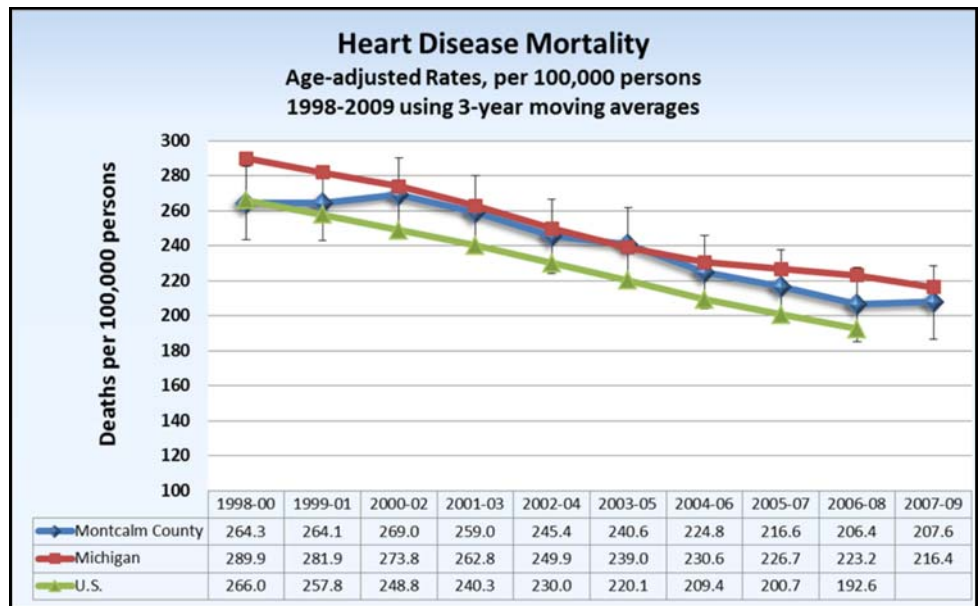
Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Cholesterol**

- High blood cholesterol is a major risk factor for coronary heart disease in the United States. One of the ways of monitoring the risk of developing coronary heart disease is to measure blood cholesterol levels in adults. Local BRFS (survey) results indicate that a lower proportion (28.4%) of Montcalm County adults have ever been told by a health care provider that they have high cholesterol than Michigan adults (39.9%). T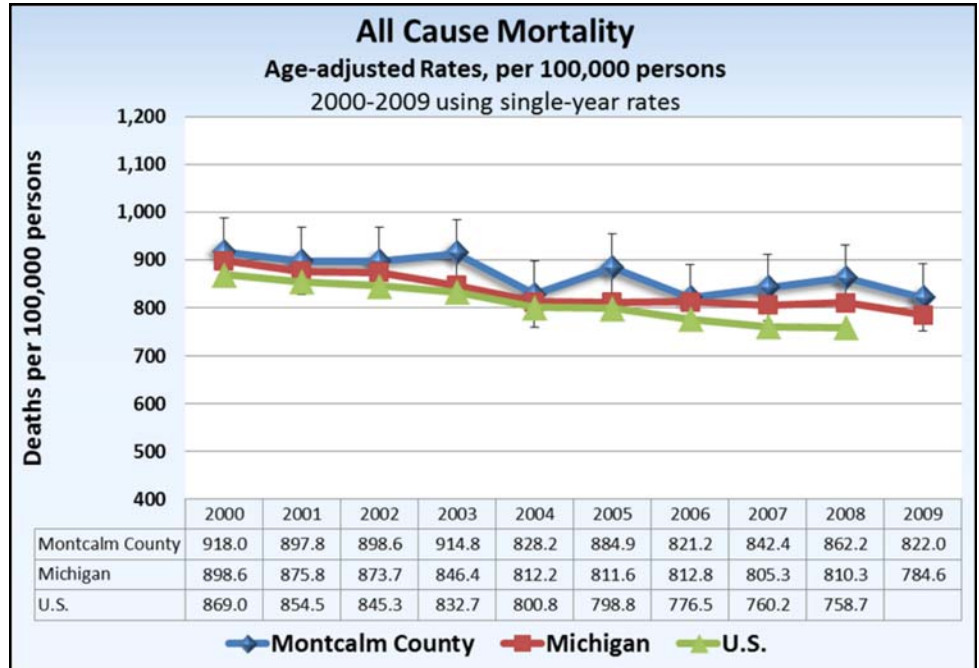he figure to the right shows that men are more likely than women to have high cholesterol, and the likelihood of having high cholesterol increases with age. Results from the 2011 Montcalm Community Survey indicates that 75.8% of adults had their blood cholesterol measured within the past five years, compared with 79.8% of Michigan adults (MI BRFS 2009).

Lifetime History of High cholesterol
Montcalm County 2008-10, MI 2009
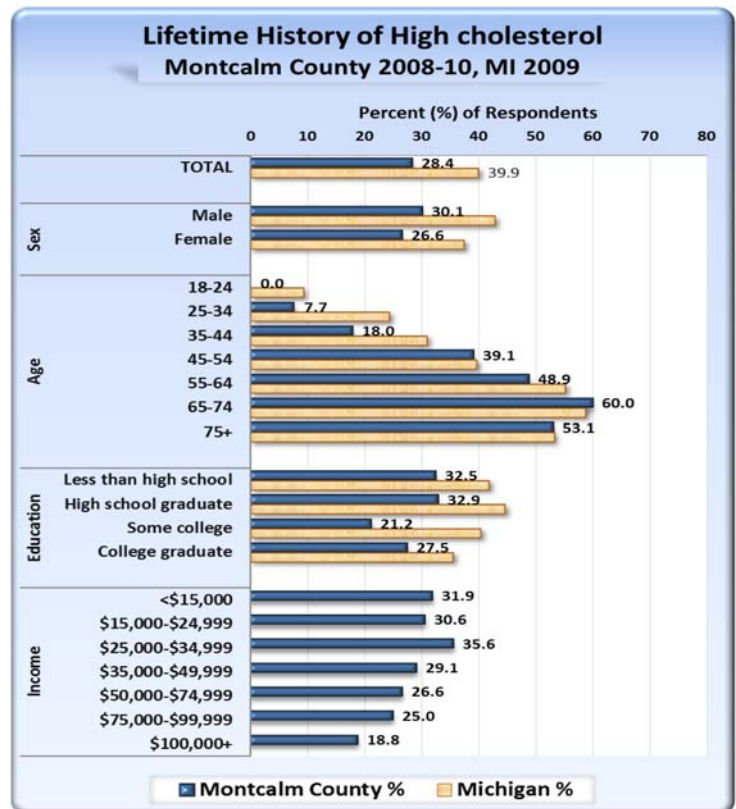
- **Hypertension**

- High blood pressure is a risk factor for cardiovascular disease, stroke, and kidney disease in the United States. Local BRFS (survey) results indicate that a higher proportion (36.0%) of Montcalm County adults have ever been told by a health care provider that they have high blood pressure than Michigan adults (30.4%). The figure to the right shows that men are more likely than women to have high blood pressure, and the likelihood of having high blood pressure increases with age and decreases for those with greater educational attainment. Results from the 2011 Montcalm Community Survey indicate that 83.9% of adults had their blood pressure measured within the past year.
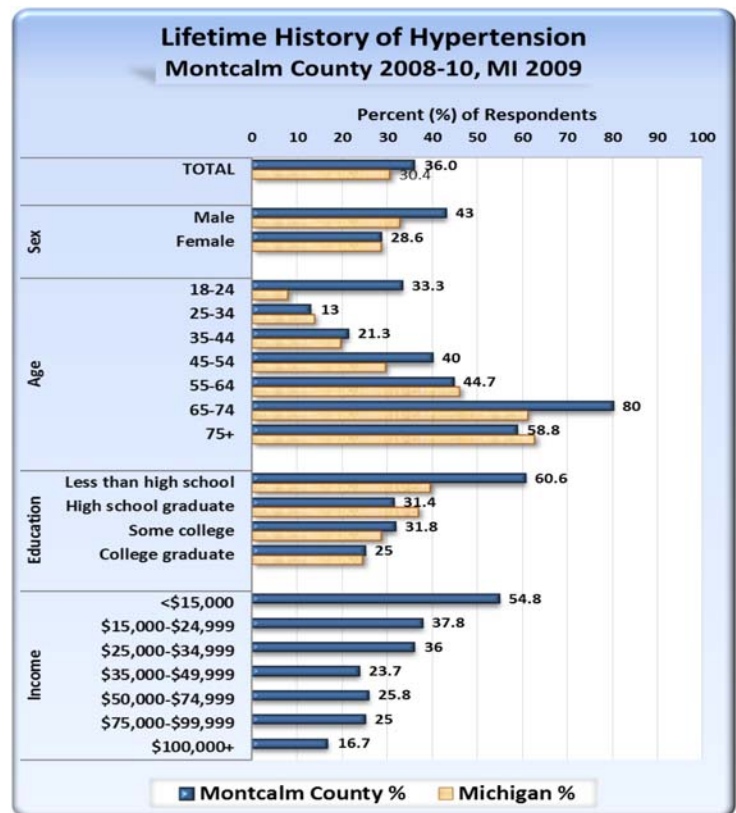
Lifetime History of Hypertension
Montcalm County 2008-10, MI 2009

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*
Mid-Michigan District Health Department 2008-2010

CD, Morbidity, Mortality

- **Cancer (all forms)**

Incidence

- Cancer as a general term encompasses many different types of neoplastic disease and is used here to represent all types of invasive cancer, unless otherwise noted. As noted in an earlier segment, cancer is the second leading cause of death in Montcalm County, Michigan, and the United States.

- Data from the Michigan Resident Cancer Incident Files provides information about the incidence (new cases) of invasive cancer. The figure to the right represents the age-adjusted total cancer incidence for the U.S., Michigan, and Montcalm County. Using 5-year average rates over the period 1993-2007, it's evident that the Michigan cancer incidence has remained higher than the U.S. rate and that the Montcalm County rate has fluctuated relative to both Michigan and the U.S., with no clear trend observed. Montcalm County males have a higher cancer incidence than females over this period, which is consistent with national findings.

- Montcalm County averaged 301 new cases of cancer annually over the period 2003-07, but no clear trend in the number of new cases is evident over the longer period of 1993-2007.

Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health*

Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health*

- **Cancer (all forms)**

Prevalence

- As shown earlier in this segment of the report, cancer is the second leading cause of death in Montcalm County, Michigan, and the United States. Currently, no local BRFS survey questions address the prevalence (existing cases) of cancer; however, Michigan 2009 BRFS results indicate that approximately 9.9% of adults in the state have ever been told by a doctor that they had cancer.

Mortality

- The figure to the right indicates that cancer mortality has declined over the period 2000-2009 for Montcalm County, Michigan, and the United States. Analysis of 95% confidence intervals indicates that overall cancer mortality does not differ significantly for the three geographic regions over this period.

- Nationally, overall (all-cause) cancer mortality has been declining since 1992. These declines in mortality include sites such as the breast, lung, prostate, and colon. However, cancer mortality is on the rise nationally for certain sites, such as the liver, pancreas, and uterus.

- The National Cancer Institute reports that as of 2007, cancers of the breast, prostate, lung, and colon accounted for more than half of all cancer deaths in the United States.
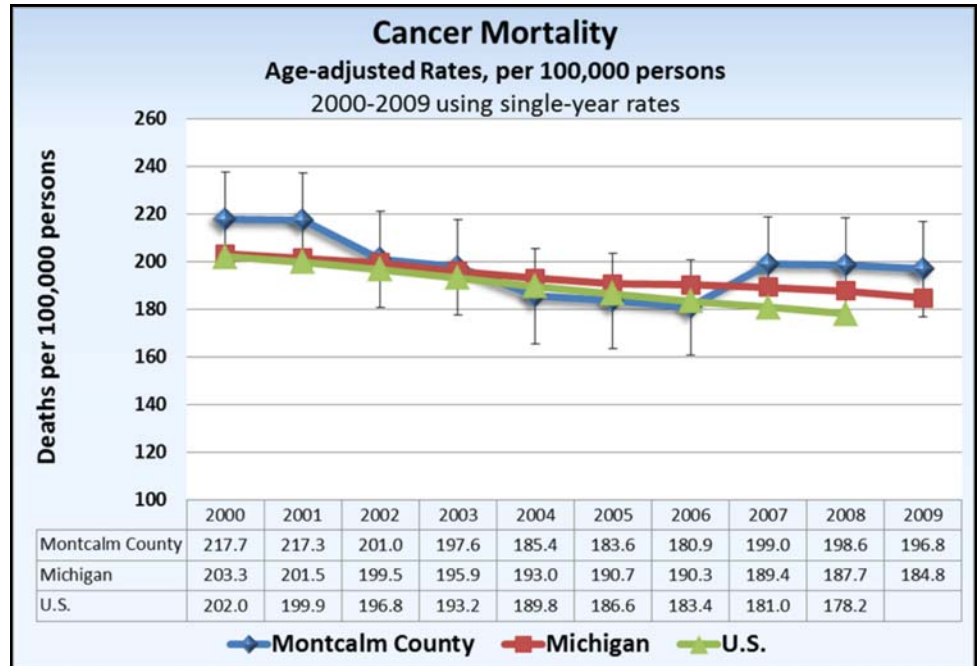
Cancer Mortality
Age-adjusted Rates, per 100,000 persons
2000-2009 using single-year rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Montcalm County	217.7	217.3	201.0	197.6	185.4	183.6	180.9	199.0	198.6	196.8
Michigan	203.3	201.5	199.5	195.9	193.0	190.7	190.3	189.4	187.7	184.8
U.S.	202.0	199.9	196.8	193.2	189.8	186.6	183.4	181.0	178.2	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Lung & Bronchus Cancer**

- Lung and bronchus cancer incidence is shown in the figure to the right for the period 1993-2007. No significant decline in incidence is evident for either Montcalm County or Michigan over this period. Analysis of 95% confidence intervals indicates the rates were not significantly different between Montcalm and Michigan over this period. Males had a higher incidence of lung cancer incidence than females over the period.

- Over the period 2003-07, lung cancer mortality nationally has fallen approximately 1.6% per year, and has been stable for Montcalm County (0.2% annual decrease, although not statistically significant). Over this period, approximately 42 lung cancer deaths occurred annually in Montcalm County.
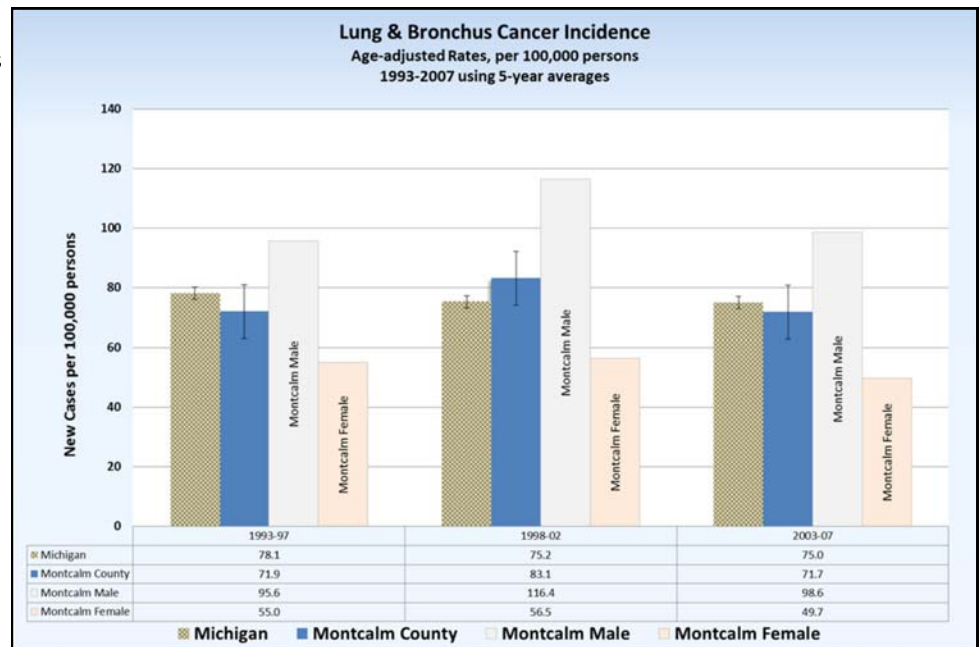
Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health*

- **Prostate Gland Cancer**

- Prostate gland cancer incidence is shown in the figure to the right for the period 1993-2007. No significant decline in incidence is evident for either Montcalm County or Michigan over this period.

- There are several major factors that increase risk, some of them unfortunately cannot be changed. These risk factors include age, race, family history, and geographic region. Age is the number one factor leading to prostate cancer. The older a man is, the more likely he is to be diagnosed with prostate cancer. (*Prostate Cancer Foundation*).

- Over the period 2003-07, prostate cancer mortality nationally has decreased approximately 3.3% per year, and has been stable for Montcalm County (0.2% annual decrease, although not statistically significant).
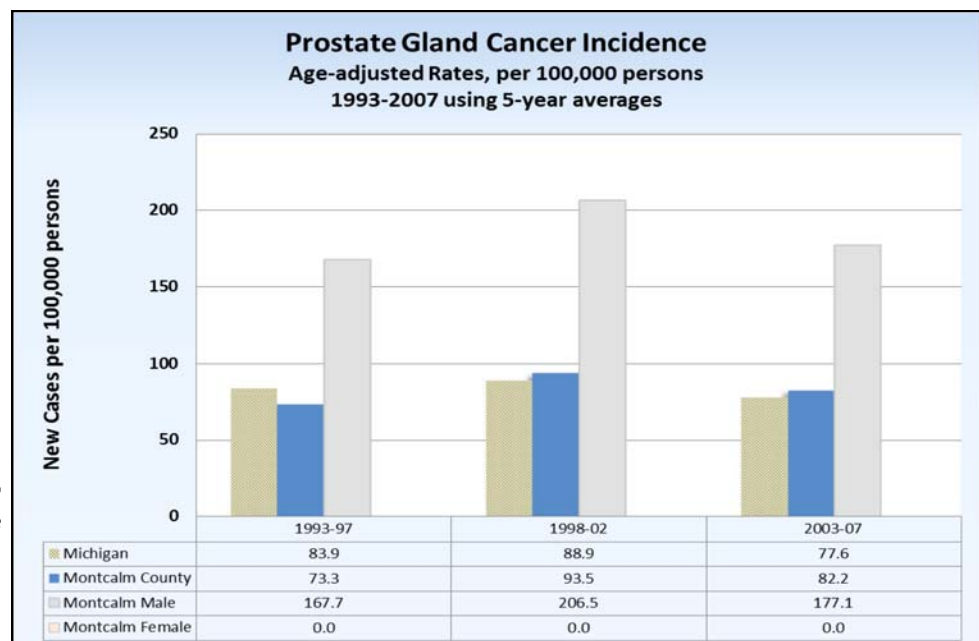
Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health*

CD, Morbidity, Mortality

- **Breast Cancer**

- Overall breast cancer incidence, including cases for both men and women, is shown in the figure to the right for both Michigan and Montcalm County. Over the period 1993-2007, Montcalm County breast cancer incidence has remained stable while Michigan experienced a small decline in the most recent five year period (2003-07). Breast cancer mortality has declined nationally 2.2% per year over this most recent 5-year period, while remaining stable for Montcalm County. Over this period, approximately 10 breast cancer deaths occurred annually in Montcalm County.

- Early detection of breast cancer is possible through the use of screening tools such as clinical breast exams and mammography. Local Behavioral Risk Factor Survey (BRFS) results indicate a lower proportion (90.6%) of Montcalm County females age 40+ years have ever had a mammogram than Michigan females (94.2%). The figure to the right also indicates that women with higher educational attainment are more likely to have ever had a mammogram.

- Recommendations for early detection include: (*National Breast Cancer Foundation, Inc.*)

- Beginning at age 20: Performing breast self-exams

- Age 20 to 39: Scheduling clinical breast exams every three years.

- By the age of 40: Baseline mammogram and annual clinical breast exams.

- Ages 40 to 49: Mammogram every one to two years depending on previous findings, consult with doctor.

- Ages 50 and older: Having a mammogram every year.
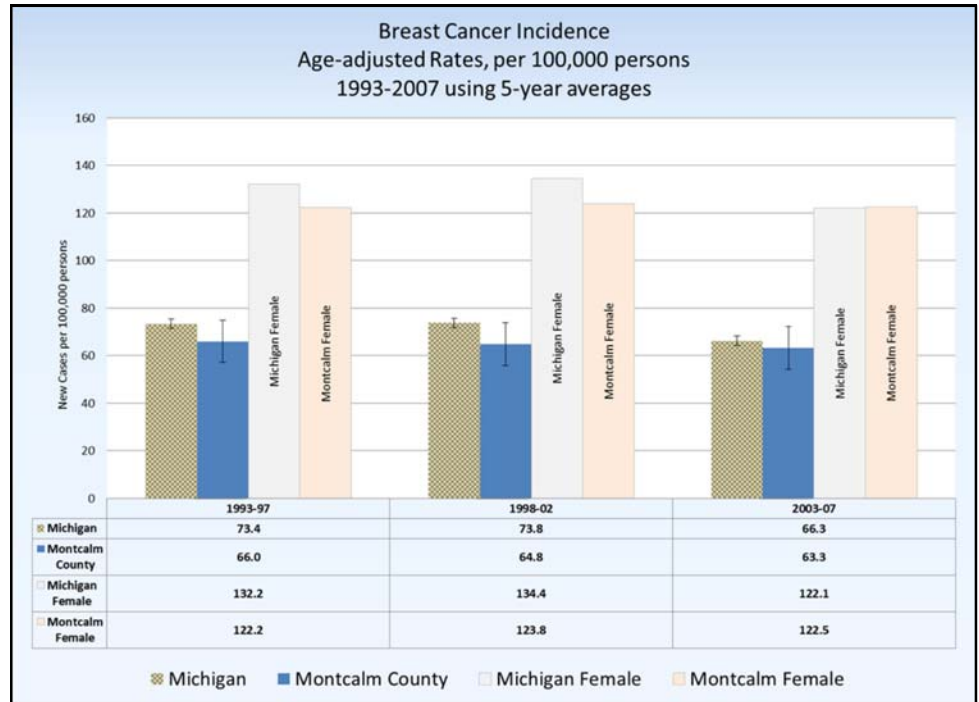
Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health. Note:* population at risk includes all residents (both men and women)
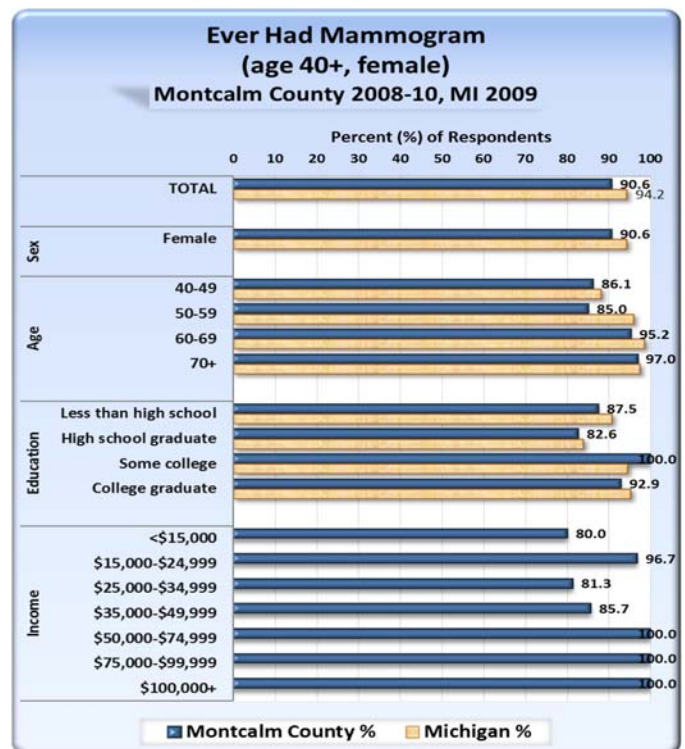
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

- **Colorectal Cancer**

- Colorectal cancer incidence is shown in the figure to the right for the period 1993-2007. For both Montcalm County and Michigan, there was a decline in incidence for the most recent period for which data is available (2003-07). Analysis of 95% confidence intervals indicates the rates were not significantly different between Montcalm and Michigan over this period. Males had a higher incidence of colorectal cancer than females over the period, but saw a greater decline over time.

- Colorectal cancer mortality in the U.S. declined 3.2% per year over the period 2003-07, while declining 1.4% per year in Montcalm County over this same period. Over this period, approximately 6 colorectal cancer deaths occurred annually in Montcalm County.

- Early detection of colorectal cancer is possible through the use of screening tools such as fecal occult blood tests, sigmoidoscopy, and colonoscopy. Local Behavioral Risk Factor Survey (BRFS) results indicate a lower proportion (67.8%) of Montcalm County adults age 50+ years have ever had a sigmoidoscopy or colonoscopy than Michigan adults (70.9%). The figure to the right also indicates that sex differences in screening are minimal, and that adults with higher educational attainment are more likely to have ever had a sigmoidoscopy or colonoscopy.

- Recommendations for early detection include: (*Centers for Disease Control and Prevention*)

  - For men and women age 50-75 years, the following tests are recommended (after age 75 please consult with doctor):

  - High-Sensitivity FOBT (stool test) once a year.

  - Sigmoidoscopy every 5 years.

  - Colonoscopy every 10 years.
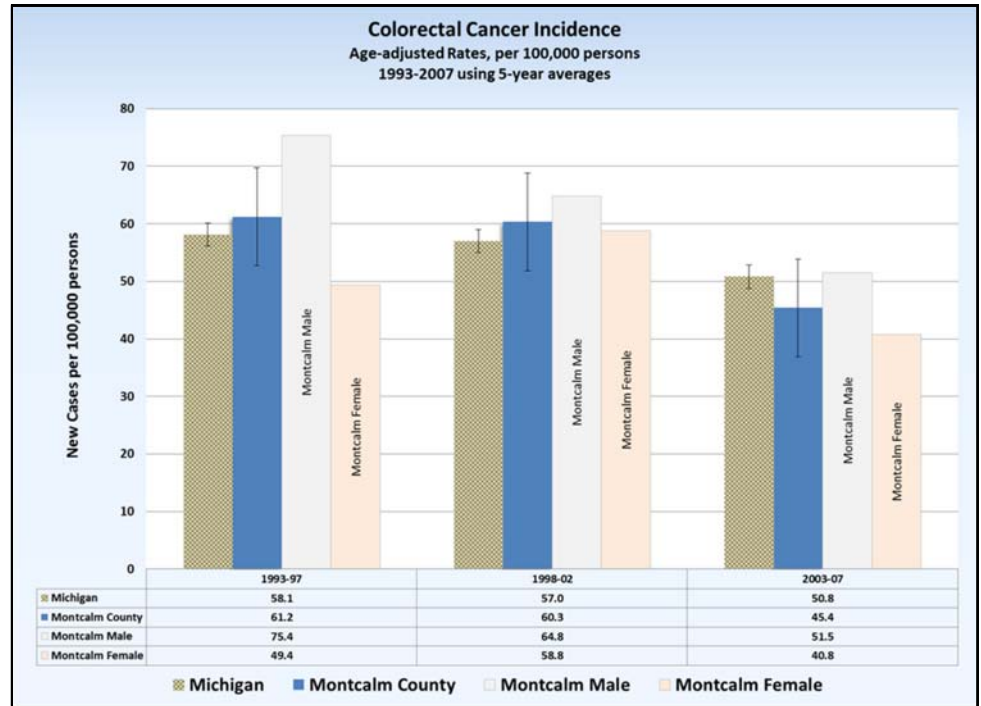
Source: *Michigan Resident Cancer Incident File, Michigan Department of Community Health*
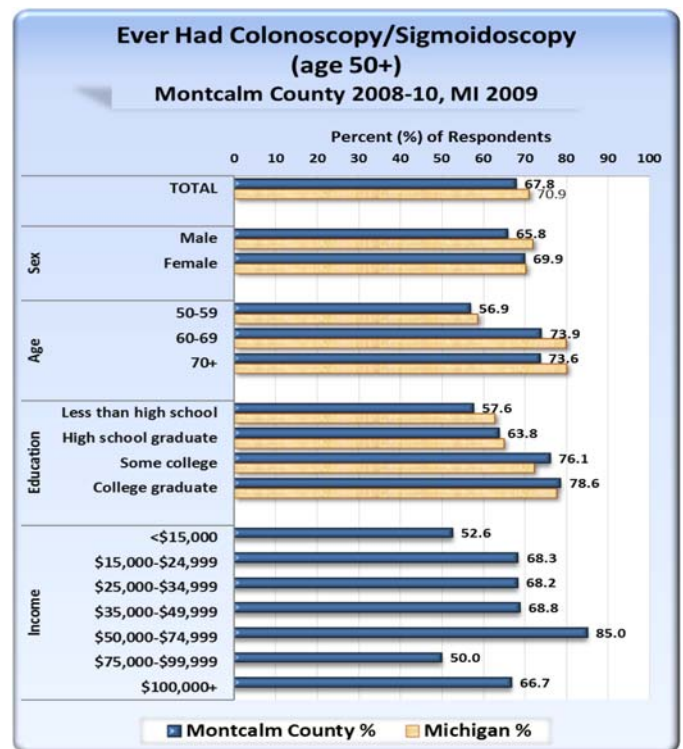
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

CD, Morbidity, Mortality

- **Stroke**

- A stroke occurs when a blood clot blocks an artery or a blood vessel breaks, interrupting blood flow to the brain. The severity of a stroke can range from minor problems such as weakness in an arm or leg or can be more severe and cause paralysis on one side of the body or loss of one's ability to speak.

- Stroke mortality in Montcalm County, although relatively stable during the period of 1998-2009, has had a higher rate since 2003 than that of both Michigan and the U.S.

- Montcalm County currently has a mortality rate 22% higher than that of Michigan.
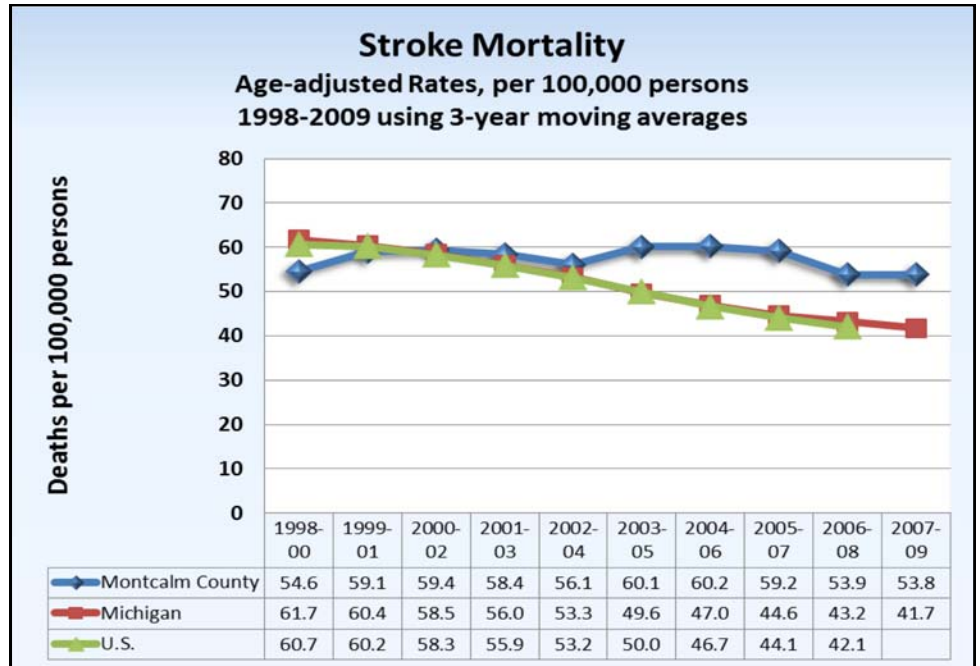
Stroke Mortality
Age-adjusted Rates, per 100,000 persons
1998-2009 using 3-year moving averages

	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	54.6	59.1	59.4	58.4	56.1	60.1	60.2	59.2	53.9	53.8
Michigan	61.7	60.4	58.5	56.0	53.3	49.6	47.0	44.6	43.2	41.7
U.S.	60.7	60.2	58.3	55.9	53.2	50.0	46.7	44.1	42.1	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Chronic Lower Respiratory Disease**

- Chronic obstructive pulmonary diseases of the lower respiratory tract (primarily emphysema and chronic bronchitis) and chronic inflammatory disease (asthma) are grouped together here under the term chronic lower respiratory disease. Cigarette smoking is a major contributor to the development or progression of these chronic respiratory illnesses.

- Chronic lower respiratory disease mortality in Montcalm County over the period 1998-2009 has consistently been higher than that of both Michigan and the U.S., although the rate for Montcalm County has been trending downward since 2001-2003.

Chronic Lower Resp. Disease Mortality
Age-adjusted Rates, per 100,000 persons
1998-2009 using 3-year moving averages

	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	54.3	59.1	60.5	64.7	59.6	59.1	54.9	52.9	53.6	49.1
Michigan	43.2	43.9	43.8	43.4	42.9	42.4	42.0	42.9	44.8	45.5
U.S.	44.0	44.6	43.8	43.5	42.6	42.5	41.6	41.5	40.6	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

CD, Morbidity, Mortality

- **Unintentional Injury**

- Unintentional injuries are those that occur by accident. This includes falls, poisoning, motor vehicle accidents, fire/burns, drowning, and suffocation.

- Unintentional injury mortality in Montcalm County, although relatively stable during the period of 1998-2009, has had a higher rate than that of both Michigan and the U.S

- Montcalm County currently has an unintentional injury mortality rate 29% higher than that of Michigan.

- Of the 164 Montcalm County deaths related to unintentional injury during 2004-2009:

    - falls accounted for 35 deaths or 21%

    - poisoning accounted for 34 deaths or 20%

    - transport-related injuries accounted for 76 deaths or 46%

    - fire accounted for 5 deaths or 3%

    - suffocation accounted for 12 deaths or 7%

    - drowning accounted for 2 deaths or 1%

- Although not included in the category of unintentional injury, deaths due to suicide and homicide are included in the table to the right to account for all types of fatal injuries.

Unintentional Injury Mortality
Age-adjusted Rates, per 100,000 persons
1998-2009 using 3-year moving averages

	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	54.7	60.2	54.4	53.4	46.6	49.5	45.4	50.7	52.5	50.2
Michigan	32.4	32.6	32.6	32.4	32.2	32.4	33.2	34.4	35.1	35.4
U.S.	35.9	35.7	36.0	36.6	37.3	38.0	38.9	39.6	39.5	
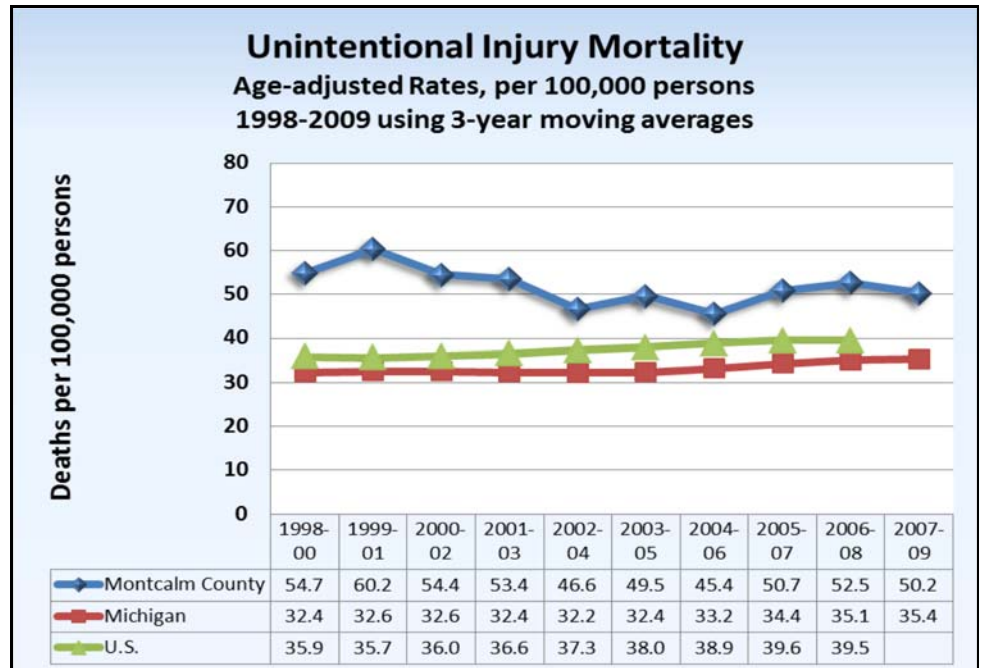
All Fatal Injuries (including unintentional, suicide, homicide)
Montcalm County, Number of Injury-related deaths
2004 to 2009

Cause	2004	2005	2006	2007	2008	2009
ALL CAUSES	42	44	38	53	55	34
Unintentional - fall	2	5	5	7	8	8
Unintentional - poisoning	4	6	6	5	6	7
Unintentional - transport	16	13	8	19	15	5
Unintentional - Fire	0	4	1	0	0	0
Unintentional - suffocation	1	3	1	2	4	1
Unintentional - drowning	0	0	0	2	0	0
Suicide - firearm	7	8	7	3	5	4
Suicide - poisoning	0	0	1	4	3	2
Suicide - hanging/suff.	3	0	0	2	4	3
Homicide - firearm	0	0	1	2	2	0
all other	9	5	8	7	8	4

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Suicide**

- Suicide was the tenth leading cause of death in Michigan and Montcalm County in 2009. However, its influence on overall mortality varies greatly by age group—for instance among adolescents and young adults age 15-24 years, suicide is the third leading cause of death.

- The Montcalm County suicide mortality rate has consistently been higher than the that of Michigan or the U.S. during the period 1996-2009.

- The Montcalm County suicide mortality rate has increased 29% over the period 1996-2009, and was 36% higher than that of Michigan during the most recent 5-year period (2005-09) in which data is available.

Suicide Mortality
Age-adjusted Rates, per 100,000 persons
1996-2009 using 5-year moving averages

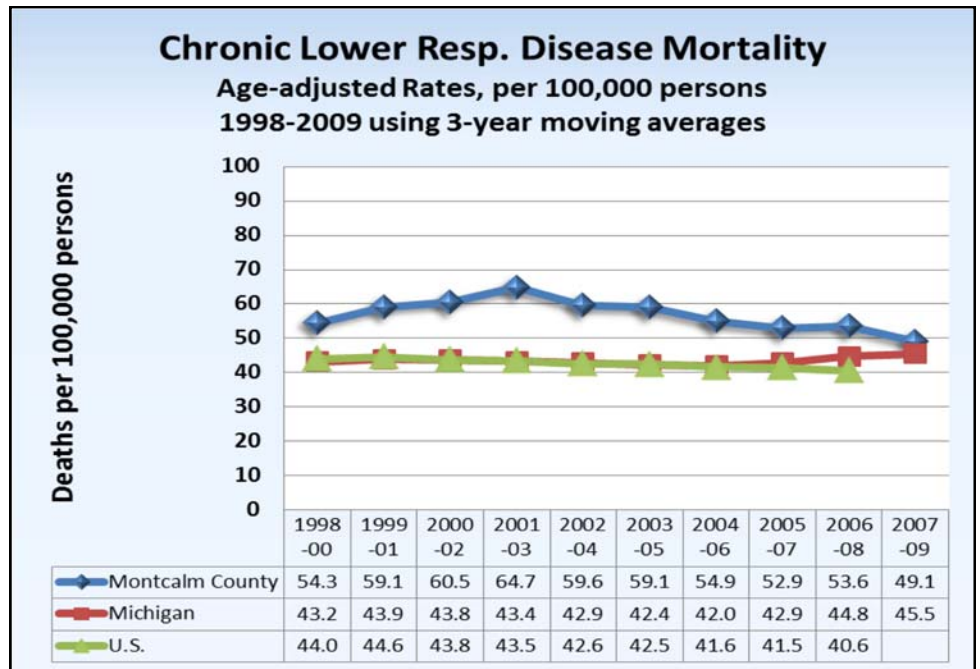|	1996-00	1997-01	1998-02	1999-03	2000-04	2001-05	2002-06	2003-07	2004-08	2005-09
Montcalm County	11.6	12.5	12.6	12.7	13.8	13.9	13.1	14.7	15.8	15.0
Michigan	10.2	10.0	10.2	10.2	10.4	10.6	10.7	10.7	11.0	11.1
U.S.	11.1	10.9	10.8	10.7	10.8	10.8	10.9	11.0	11.1	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Alzheimer's Disease**

- Alzheimer's disease is a type of dementia that causes problems with memory, thinking, and behavior. Symptoms usually develop slowly and get worse over time, becoming severe enough to interfere with daily tasks.

- Montcalm County Alzheimer's disease mortality rates have increased approximately 39% over the past decade. This trend is also evident in Michigan and the U.S., although the reasons for this increase are not entirely clear (it could be, in part, due to the increased recognition, screening, and diagnosis of the disease within the population).

- As this chronic disease primarily affects older adults, it's anticipated that this trend will continue as the "baby boomer" generation ages.

Alzheimer's Disease Mortality
Age-adjusted Rates, per 100,000 persons
1996-2009 using 5-year moving averages

	1996-00	1997-01	1998-02	1999-03	2000-04	2001-05	2002-06	2003-07	2004-08	2005-09
Montcalm County	16.7	16.9	19.5	25.0	23.1	22.7	23.0	23.0	21.8	23.2
Michigan	10.9	13.2	15.6	18.3	19.4	20.1	20.8	21.3	22.1	22.5
U.S.				19.0	20.1	21.1	21.8	22.3	22.9	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

CD, Morbidity, Mortality

- **Kidney Disease**

- A primary function of the kidneys is to filter waste products from the blood and maintain electrolyte balance. Kidney disease frequently occurs when one suffers from gradual and usually permanent loss of kidney function over time.

- Montcalm County has had a consistently higher kidney disease mortality rate over the period 1996-2009 than that of Michigan and the U.S. During this time period, the mortality rate for Montcalm County has increased 26% and, as of 2005-09, the rate was 37% higher than that of Michigan.

Kidney Disease Mortality
Age-adjusted Rates, per 100,000 persons
1996-2009 using 5-year moving averages

	1996-00	1997-01	1998-02	1999-03	2000-04	2001-05	2002-06	2003-07	2004-08	2005-09
Montcalm County	16.6	18.8	19.0	17.5	20.3	22.7	21.8	20.7	20.9	20.9
Michigan	13.0	13.9	14.7	15.6	15.5	15.5	15.4	15.2	15.0	15.2
U.S.	11.2	12.0	12.9	13.8	14.1	14.2	14.3	14.4	14.5	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

- **Pneumonia & Influenza**
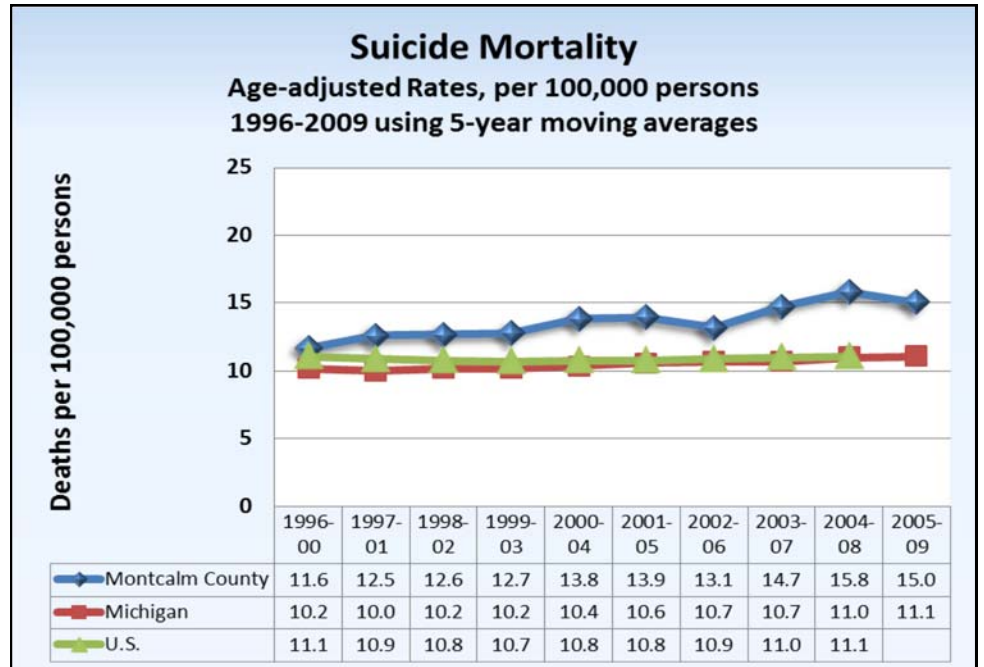
- Pneumonia is an inflammation of the lung tissue caused by infection with bacteria, viruses, or other organisms. It is often a complication of a pre-existing condition or infection, and triggered when a patient's defense system is weakened, often by a viral upper respiratory tract infection. Influenza is a potentially severe form of seasonal viral respiratory infection. The elderly and the very young are most at risk for infection. (*American Lung Association*)

- Although the mortality rate for pneumonia and influenza for Montcalm County has decreased over the past decade, the rates fluctuate regularly leaving no clear trend evident over the period 1998-2009. A more consistent trend of decreasing mortality is seen for Michigan and the United States.

- Those primarily affected adversely by pneumonia and influenza, causing death in Montcalm County are generally 75 years of age or older.

- Influenza is largely preventable through vaccination. Pneumonia vaccine is also recommended for young children, seniors citizens and those with underlying health problems.

Pneumonia and Influenza Mortality
Age-adjusted Rates, per 100,000 persons
1998-2009 using 3-year moving averages

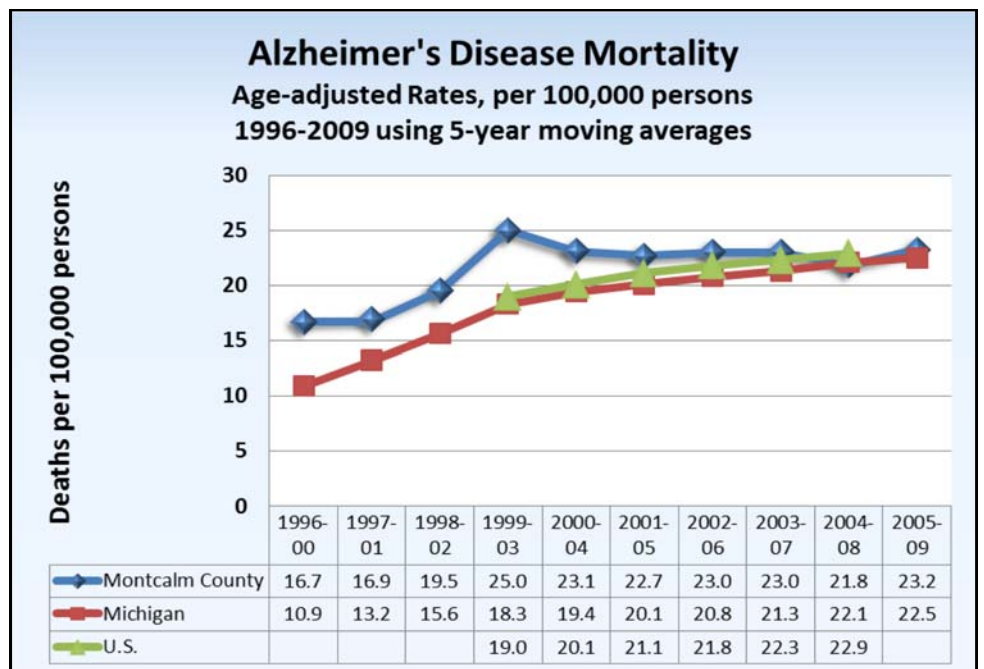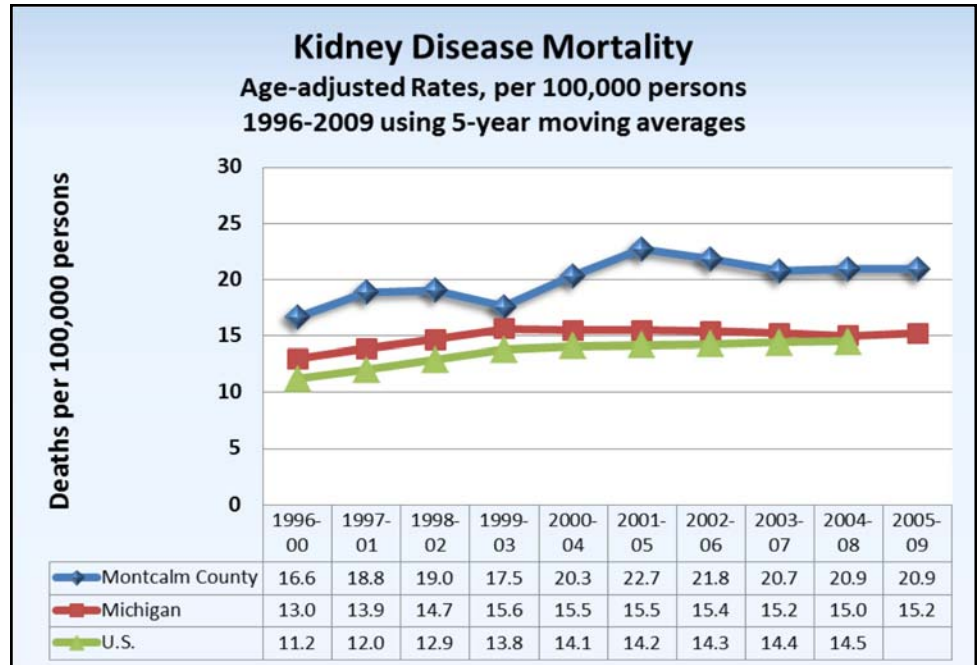|	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	32.0	20.2	24.0	25.4	34.6	29.5	24.8	15.6	17.5	19.9
Michigan	25.5	21.5	20.1	20.0	19.1	18.3	17.3	16.2	15.9	15.3
U.S.	27.3	23.1	22.8	22.2	21.5	20.7	19.3	18.1	17.0	

Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*

CD, Morbidity, Mortality

- **Diabetes**

- Diabetes is a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin. Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for everyday life. (*American Diabetes Association*)

- The forms of diabetes related to the charts to the right are Type I and Type II diabetes (gestational diabetes excluded).

  - Type I diabetes is usually diagnosed in children and young adults, and was previously known as juvenile diabetes. In Type I diabetes the body does not produce insulin.

  - Type II diabetes is the most common type of diabetes. In Type II diabetes either the body does not produce enough insulin or the cells ignore the insulin.

- Diabetes was the sixth leading cause of death in Montcalm County during the year 2009. Montcalm County has seen a 28% decrease in diabetes mortality during the period 1998-2009, although the rate has fluctuated. For the most recent period for which data is available (2007-09), the Montcalm County mortality was 17% lower than that of Michigan.

- Local BRFS (survey) results indicate that a similar proportion (9.7%) of Montcalm County adults have ever been told by a health care provider they have diabetes as Michigan (9.4%). BRFS results in the figure to the right also indicates males are more likely to have ever been told they have diabetes, the likelihood of ever having diabetes increases with age, and decreases with higher educational attainment.
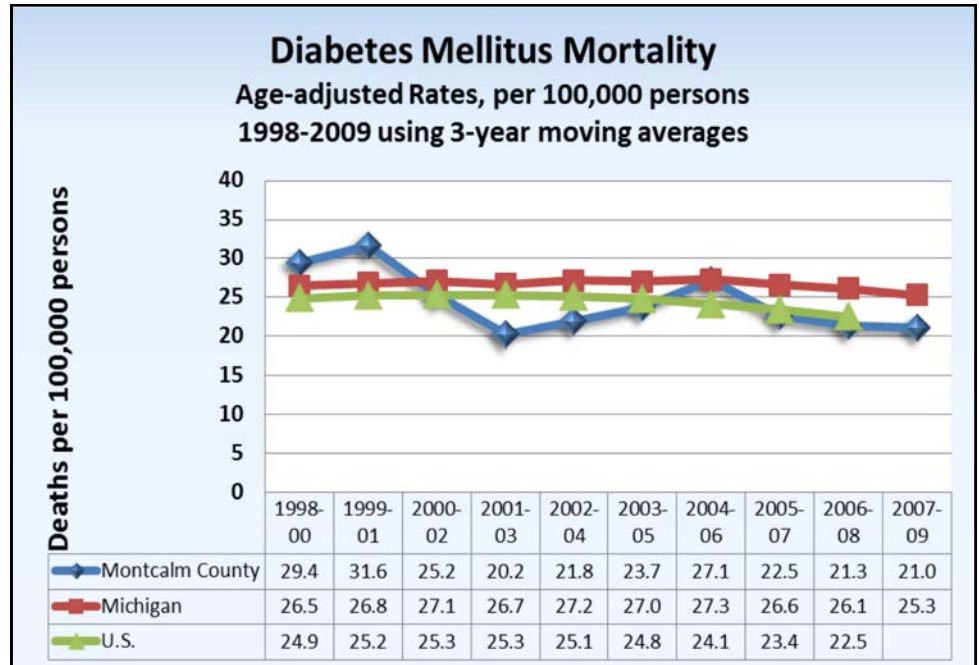
Source: *Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health*
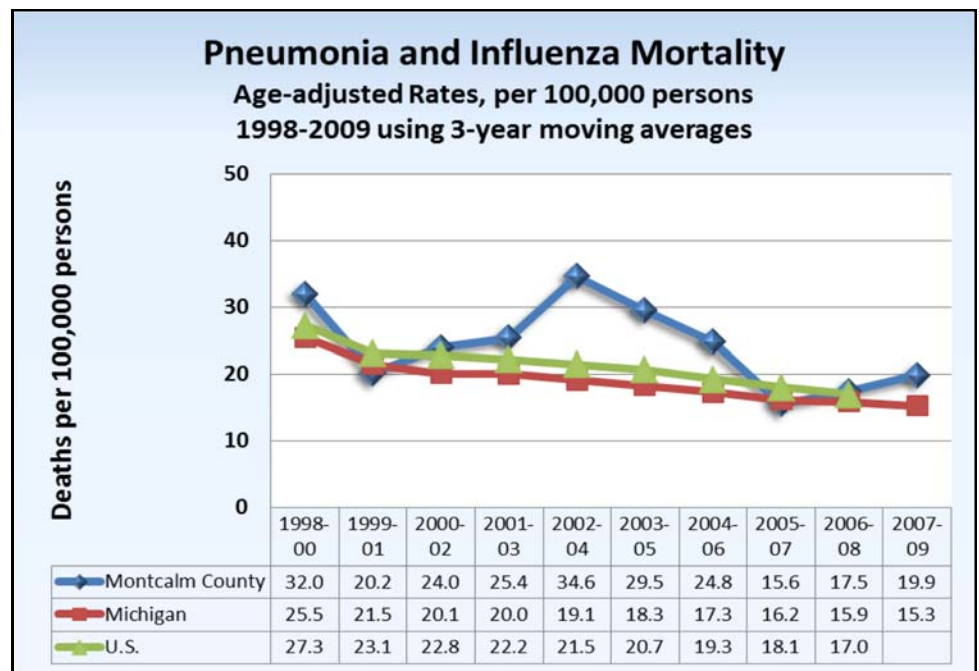
	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09
Montcalm County	29.4	31.6	25.2	20.2	21.8	23.7	27.1	22.5	21.3	21.0
Michigan	26.5	26.8	27.1	26.7	27.2	27.0	27.3	26.6	26.1	25.3
U.S.	24.9	25.2	25.3	25.3	25.1	24.8	24.1	23.4	22.5	
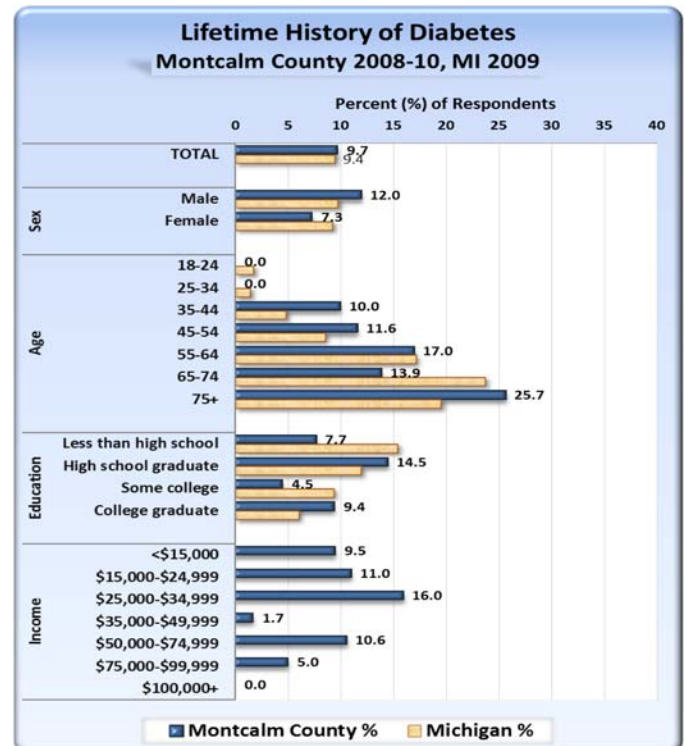
Source: *Behavioral Risk Factor Surveillance, Montcalm County. Mid-Michigan District Health Department 2008-2010*

- **Asthma**

- Asthma is a chronic disease of the respiratory system that causes the airways of the lungs to swell and narrow, leading to wheezing, shortness of breath, chest tightness, and coughing.

- Local BRFS (survey) results indicate that a lower proportion (13.2%) of Montcalm County adults have ever been told by a health care provider they have asthma than Michigan adults (14.7%). The figure to the right also indicates males are less likely to have ever been told they have asthma, the likelihood of ever having asthma decreases with age for Michigan adults but the correlation is weaker for Montcalm, and asthma prevalence tends to decrease with higher educational attainment, although the correlation is weaker for Montcalm County than Michigan.

Source: *Behavioral Risk Factor Surveillance, Montcalm County.*
Mid-Michigan District Health Department 2008-2010

Chronic Disease, Morbidity, and Mortality

Twenty Statewide Leading Hospitalizations
Average annual number of hospitalizations per 10,000
resident population, 2004-08

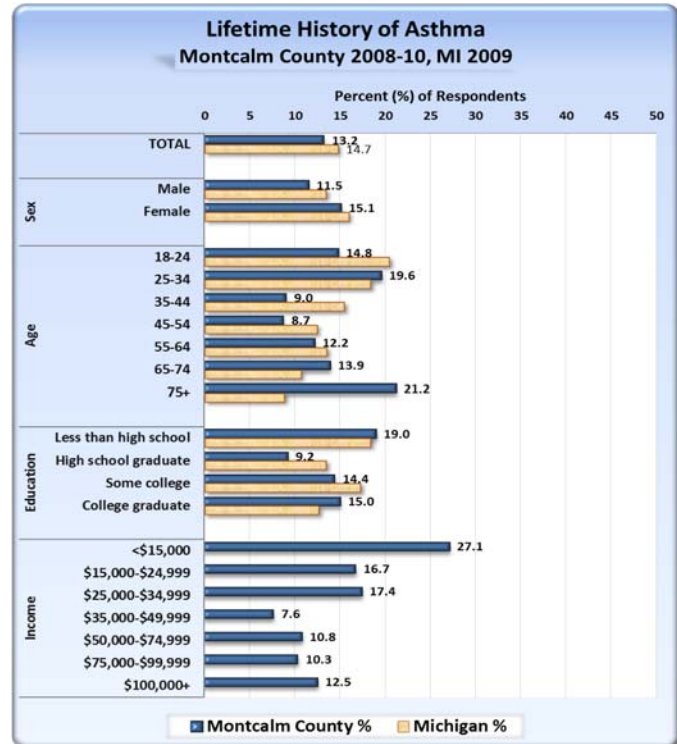|	Michigan	Montcalm	Montcalm Males	Montcalm Females	Montcalm Under Age 18 yrs	Montcalm Age 65+ yrs
ALL HOSPITALIZATIONS	1,315.6	1,266.1	1,053.9	1,488.1	824.2	3,516.3
Heart Ds.	156.2	141.6	158.9	123.3	*	693.9
Newborns (<7 days)	126.6	131.2	132.1	130.2	533.4	n/a
Females with Delivery	122.3	123.7	n/a	253.2	20.4	
Injury & Poisoning	99.0	94.3	93.2	95.3	36.8	272.7
Psychoses	48.9	34.7	30.4	39.2	*	33.7
Cancer (Malignant)	42.3	40.0	41.8	38.1	*	165.3
Pneumonia	39.4	53.2	52.5	54.0	27.9	241.9
Infectious Ds.	38.4	34.2	29.9	38.7	14.0	132.8
Stroke	34.6	33.8	31.7	36.1		183.5
Osteoarthrosis	32.8	35.0	27.7	42.7		162.8
Rehab Procedures	24.6	18.7	17.1	20.4		99.8
Skin Diseases	23.7	18.8	18.6	19.0	6.3	46.8
Chest Pain	22.5	18.6	17.7	19.5		63.6
Chronic Bronchitis	21.2	25.7	23.8	27.7		122.4
Diabetes Mellitus	16.7	8.8	9.2	8.5	*	19.0
Asthma	16.2	9.2	7.8	10.6	14.3	10.8
Kidney/Urinary Infection	15.5	13.4	6.5	20.7	5.6	62.3
Intervertebral Disc Disorders	15.5	26.5	27.1	25.8		
Benign Neoplasms	14.8	11.9		20.5		
Diseases of Blood	14.0	12.3	11.5	13.3	6.0	47.8
All other conditions	390.2	380.6	289.8	451.3		

*less than six cases identified - no rate provided.

Blank cell represents condition not in the top 20 hospitalizations for that specific demographic.

Source: *Michigan Resident Inpatient File. Division for Vital Records and Health Statistics, Michigan Department of Community Health*

• **Leading Hospitalizations**

- Hospitalizations are inpatient hospital stays as measured by stays that were completed during the specified year. The number of hospitalizations is often greater than the number of persons hospitalized since some persons are hospitalized more than once during the year.

- For the five-year period 2004-08, Montcalm County had a slightly lower hospitalization rate (1,266 hospitalizations per 10,000 residents annually) than Michigan residents overall (1,315 hospitalizations per 10,000). Montcalm County had higher rates of hospitalizations in six of the twenty leading categories, which included newborn births, females hospitalized for delivery, pneumonia, osteoarthrosis, chronic bronchitis, and intervertebral disc disorders. This indicates that Montcalm County residents fared better than the state of Michigan for 70% of the twenty statewide leading hospitalizations.

- Among Montcalm County residents, females are more likely to be hospitalized than males, which is partly accounted for by routine hospitalizations of women for delivery. Adults age 65 years and older are more likely than younger age groups to be hospitalized—most common among this age group are hospitalizations for heart disease, injury and poisoning, pneumonia, stroke, cancer, osteoarthrosis, infectious disease, and chronic bronchitis.

Chronic Disease, Morbidity, and Mortality

Ambulatory Care Sensitive ("Preventable") Hospitalizations
Number of ACS Hospitalizations by age group, Montcalm County
2009

	ACS Hospitalizations by Age Group, Montcalm County				
	All Ages	0-17 Years	18-44 Years	45-64 Years	65+ Years
ALL ACS HOSP.	1495	186	150	353	806
All Avoidable Hosp.	37	4	3	12	18
Congenital Syphilis	0	0	0	0	0
Failure to Thrive, <1 yr.	2	2	n/a	n/a	n/a
Dental Problems	1	0	0	1	0
Vaccine-Prev. Ds.	1	1	0	0	0
Iron Def. Anemia, 0-5 yrs.	0	0	n/a	n/a	n/a
Nutritional Def.	33	1	3	11	18
All Acute Hosp.	833	128	89	190	426
Bacterial Pneu.	265	48	24	59	134
Cellulitis	97	4	18	41	34
Convulsions	24	6	8	1	9
Dehydration (Prim. Dx)	41	18	3	3	17
Dehydration (Sec. Dx)	276	31	17	68	160
Gastroenteritis	14	1	3	1	9
Hypoglycemia	0	0	0	0	0
Kidney/Urinary Infec.	90	8	10	12	60
Pelvic Inflam. Ds.	3	0	3	0	0
Ear/Nose/Throat Infec.	12	12	0	0	0
Skin Grafts w/ Cellulitis	11	0	3	5	3
All Chronic Hosp.	625	54	58	151	362
Angina	16	0	1	5	10
Asthma	64	30	13	11	10
Chronic Lung Ds.	226	2	7	70	147
Congestive Heart Failure	220	0	5	37	178
Diabetes	46	8	16	13	9
Seizures / Epilepsy	34	12	14	6	2
Hypertension	19	2	2	9	6
Tuberculosis (non-pulm.)	0	0	0	0	0
Pulmonary Tuberculosis	0	0	0	0	0

Source: *Michigan Resident Inpatient File. Division for Vital Records and Health Statistics,*

- **Ambulatory Care Sensitive Hospitalizations**

- Ambulatory Care Sensitive (ACS) hospitalizations such as asthma, diabetes or dehydration are hospitalizations for conditions where timely and effective ambulatory/outpatient care can decrease hospitalizations by preventing the onset of an illness or condition, controlling an acute episode of an illness, or properly managing a chronic disease or condition.

- The table above breaks down ACS hospitalizations into three groups: those conditions that are avoidable, those conditions that arise acutely, and those conditions of long-standing duration (chronic).

- High rates of Ambulatory Care Sensitive hospitalizations in a community may suggest that primary prevention efforts are lacking, primary care resource are difficult to access, poor performance of primary health care delivery systems, or other factors that create barriers to obtaining timely and effective care.

- It should be noted that the ICD-9-CM diagnosis coding for a given Ambulatory Care Sensitive condition may not be the same as the coding for this disease in general. For example, Ambulatory Care Sensitive hospitalizations for diabetes excludes diabetes with renal, ophthalmic and neurological manifestations. Please consult the ICD-9-CM codes for details.

- **Ambulatory Care Sensitive Hospitalizations**

- The chart to the right displays Montcalm County's "preventable" hospitalizations from 2004-08. During this timeframe bacterial pneumonia was the number one leading preventable hospitalization in the county.

- Montcalm County fares worse on three of ten leading hospitalizations depicted in the chart. These include bacterial pneumonia, chronic lung disease, and gastroenteritis.

- As the lower chart indicates both Montcalm County and Michigan have had very consistent ambulatory care sensitive hospitalization rates over the 1999-2009 time period.
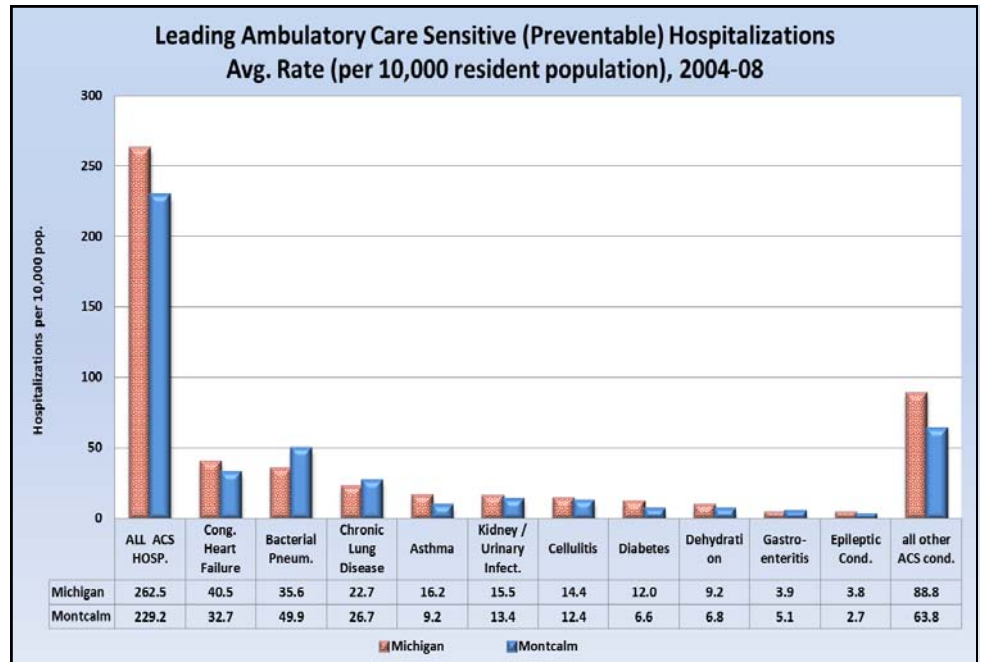
Source: *Michigan Resident Inpatient File. Division for Vital Records and Health Statistics, Michigan Department of Community Health*
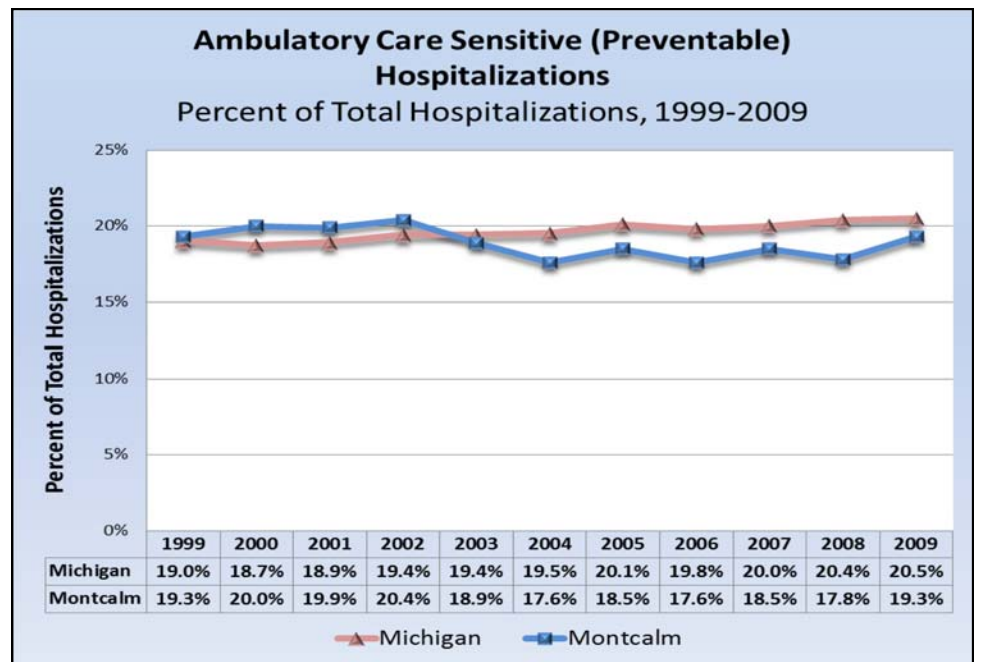
Source: *Michigan Resident Inpatient File. Division for Vital Records and Health Statistics, Michigan Department of Community Health*

CD, Morbidity, Mortality

Emerging Community Health Trends and Issues

In addition to the analysis of quantitative historical data, in the summer of 2011 two surveys were conducted to identify and gauge the relative importance of surfacing health issues in Montcalm County. The first of these surveys was a Community Health Survey distributed to community members across the county. The second parallel survey was a Provider Opinion survey distributed to health care providers in the county.

In August of 2011, the community survey was mailed to a randomly chosen but geographically balanced list of 1,500 community members. An additional 51 surveys were collected from clients of local service agencies. In all, a total of 475 surveys were captured and used for analysis, providing statistical relevance. The comprehensive survey consisted of seven sections: demographics, general health, access to health care, personal lifestyle behaviors, family characteristics, family lifestyle behaviors, and community issues and concerns. An open-ended improvements section was also afforded.

In August of 2011, the Provider Opinion Survey was distributed to health care providers in Montcalm County; 64 surveys were returned. This parallel but shorter three-section survey covered: professional demographics, community issues and concerns, and health care assets and needs. The last section was open ended.

In the fall of 2011, data from each survey was compiled and analyzed, primarily to identify patterns and frequencies in response themes. Comparisons between data sets were also made to identify any discrepancies between attitudes of community members and those of providers. Survey summaries and data comparisons were then further discussed in work sessions of the Healthy Montcalm Advisory Committee.   The purpose of the discussions was to identify and prioritize the leading county health concerns for further action.

Leading Community Issues

The Community Health survey asked respondents to indicate whether given health care issues were a serious problem, moderate problem, not a problem or whether the respondent was not sure. The following list shows the ranking of community responses in terms of percentage of respondents who indicated that the issue was either serious or moderate; effectively a ranking of the perceived seriousness of the issue.

Community Perceived "Serious or Moderate" Issue			
Issue	Percentage	Issue	Percentage
Jobs (availability)	80.8%	Dental Care (access)	32.4%
Overweight Adults	75.8%	Secondhand Smoke	32.0%
Alcohol/Drug Use	74.5%	Mental Illness	31.6%
Overweight Children	72.6%	Suicide	29.5%
Crime	70.1%	Sexually Transmitted Disease	29.5%
Traffic Crashes (alcohol/drug related)	56.4%	Stroke	28.2%
Smoking	56.2%	Recreational Opportunities (access)	27.6%
Teen Pregnancy	55.6%	Services for the Disabled (access)	27.2%
Child Abuse	48.0%	Substance Abuse Treatment (access)	26.7%
Domestic Violence	47.8%	Health Care (access)	26.1%
Cancer	46.9%	Gambling	25.3%
Transportation (public & personal access)	46.9%	Contaminated Sites (landfills, structures)	25.1%
Housing (affordability & availability)	45.1%	Nursing Home Care (access)	24.2%
Prescription Drug Abuse	41.7%	Drinking Water (quality)	23.2%
Alzheimer's Disease or Dementia	38.1%	Prenatal Care (access , awareness)	22.9%
Diabetes	36.6%	Watershed Quality (streams, rivers, lakes)	21.9%
Heart Disease	34.9%	Healthy Foods (availability)	20.8%
Law Enforcement (responsiveness)	33.7%	Ambulance Services (availability, response)	17.9%
School Violence	33.5%	Elder Abuse	15.2%

Leading Provider Issues

Similarly, the Provider Opinion Survey asked respondents to indicate whether given parallel health care issues were a serious problem, moderate problem, not a problem or whether the respondent was not sure. The following list shows the ranking of provider responses in terms of percentage of respondents who indicated that the issue was either serious or moderate, effectively a ranking of the perceived seriousness of the issue as seen by providers.

Provider Perceived "Serious or Moderate" Issue			
Issue	Percentage	Issue	Percentage
Jobs (availability)	98.2%	Housing (affordability & availability)	57.1%
Alcohol/ Drug Use	94.7%	Traffic Crashes (alcohol & drug related)	57.1%
Overweight Children	87.5%	Alzheimer's Disease or Dementia	50.0%
Overweight Adults	85.7%	Healthy Foods (availability)	49.1%
Mental Illness	80.4%	Stroke	48.1%
Smoking	78.9%	Suicide	47.3%
Dental Care (access)	73.2%	Recreational Opportunities (access)	42.9%
Prescription Drug Abuse	71.4%	Prenatal Care (access , awareness)	38.2%
Substance Abuse Treatment (access)	71.4%	Sexually Transmitted Disease	38.2%
Transportation (public & personal access)	71.4%	Services for the Disabled (access)	37.5%
Domestic Violence	69.6%	Law Enforcement (responsiveness)	28.6%
Diabetes	67.9%	School Violence	28.6%
Cancer	66.1%	Gambling	26.8%
Health Care (access)	66.1%	Ambulance Service (availability, response)	23.6%
Heart Disease	66.1%	Nursing Home Care (access)	23.2%
Child Abuse	65.5%	Contaminated Sites (landfills, structures)	21.4%
Crime	64.3%	Elder Abuse	16.1%
Teen Pregnancy	64.3%	Drinking Water (quality)	14.3%
Secondhand Smoke	58.9%	Watershed Quality (streams, rivers, lakes)	13.5%

Similarities between Community Perception and Provider Perception

While providers tended to rank all health issues as a problem to a greater degree than did the community respondents, to a large degree top health issues tended to parallel one another on both the community and the provider surveys.

Community Perceived 'Serious or Moderate' Issue		Provider Perceived 'Serious or Moderate' Issue	
Issue	Percentage	Issue	Percentage
Jobs (availability)	80.8%	Jobs (availability)	98.2%
Overweight adults	75.8%	Alcohol/drug use	94.7%
Alcohol/drug use	74.5%	Overweight children	87.5%
Overweight children	72.6%	Overweight adults	85.7%
Crime	70.1%	Mental illness	80.4%
Traffic crashes (alcohol & drug related)	56.4%	Smoking	78.9%
Smoking	56.2%	Dental care (access)	73.2%
Teen pregnancy	55.6%	Prescription drug abuse	71.4%
Child abuse	48.0%	Substance abuse treatment (access)	71.4%
Domestic violence	47.8%	Domestic violence	69.6%
Cancer	46.9%	Diabetes	67.9%
Transportation (public & personal access)	46.9%	Cancer	66.1%
Housing (affordability, availability)	45.1%	Health care (access)	66.1%

Divergence of Perceptions

While commonalities were apparent in many of the issues perceived to be most serious by both community and providers, there was substantial divergence in the intensity to which issues were perceived to be a problem. Notably, access to dental care was perceived to be a health problem in more cases than was health care access by both providers and community respondents. While providers perceived both to be a serious issue, community responses tended to parallel the degree to which the respondent had insurance. Health insurance was available to twice as many community respondents as was dental insurance, so access to dental care was perceived to be more of an issue than was access to health care. As can be seen in the chart below, provider perception of access as an issue was much stronger than was community perception.

Community Perceived 'Serious or Moderate' Issue		Provider Perceived 'Serious or Moderate' Issue	
Issue	**Percentage**	**Issue**	**Percentage**
Health Care (access)	26.1%	Health Care (access)	66.1%
Dental Care (access)	32.4%	Dental Care (access)	73.2%

Issues about which there is least certainty in community

In addition, many issues which providers ranked as problem areas were issues which the community at large was not sure. Substance abuse which was ranked as a serious or moderate issue by 71.4% of providers was ranked as 'not sure' by 53.1% of the community respondents. Mental Illness which was ranked as a serious or moderate issue by 80.4% of providers was ranked 'not sure' by 49.1% of community respondents.

Community Perceived "Not Sure" of Issue			
Issue	**Percentage**	**Issue**	**Percentage**
Elder Abuse	58.1%	Domestic Violence	38.3%
Sexually Transmitted Disease	56.4%	Teen Pregnancy	33.7%
Stroke	55.8%	Traffic Crashes (alcohol & drug related)	30.7%
Suicide	54.3%	Drinking Water (quality)	26.7%
Substance Abuse Treatment (access)	53.1%	Transportation (public & personal access)	25.9%
Mental Illness	49.1%	Ambulance Service (availability, response)	25.5%
Prenatal Care (access , awareness)	47.6%	Housing (affordability & availability)	25.1%
Heart Disease	47.4%	Secondhand Smoke	24.0%
Gambling	46.3%	Smoking	23.6%
Alzheimer's Disease or Dementia	46.1%	Law Enforcement (responsiveness)	22.7%
Prescription Drug Abuse	44.8%	Recreational Opportunities (access)	21.9%
Contaminated Sites (landfills, structures)	44.6%	Dental Care (access)	19.6%
Diabetes	44.4%	Overweight Children	18.5%
Nursing Home Care (access)	43.2%	Health Care (access)	17.3%
Services for the Disabled (access)	42.3%	Overweight Adults	16.0%
Child Abuse	40.6%	Crime	15.2%
Cancer	40.0%	Alcohol/Drug Use	14.5%
School Violence	40.0%	Healthy Foods (availability)	12.4%
Watershed Quality (streams, rivers, lakes)	38.7%	Jobs (availability)	11.4%

Contributory Factors Perceived by Providers

When asked what they considered to be the primary health care asset in the county, most providers cited the number of area hospitals and providers. Also noted were: Montcalm Area Dental Clinic in Sidney for dental care, Montcalm Center for Behavioral Health which (does a good job of screening, treating, and/or referring), Cherry Street Clinic-Montcalm Area Health Center (a great addition to the county), and availability of counseling services for students with severe behavior issues.

When asked what they considered to be the primary obstacles to improving health outcomes or health care service in Montcalm County, providers cited:

- Financial Obstacles including lack of insurance, lack of transportation

- Lack of preventative health care, particularly lack of preventative dental care for kids, basic healthcare for kids

- Competition between hospitals - unwillingness to share resources and information

- Patient responsibility for their health including apathy, ignorance, entitlement, smoking, lack of exercise

- Knowledge of people or programs that are available in the county

- Community culture: Health education, recreational activities, healthy foods

Provider suggested issues included:

-Lack of insurance for the underinsured adult population

-Lack of preventive medical coverage

-Need for adult protective services in the county

-Lack of effective pain management services and substance abuse treatment

-Poverty causing difficulty paying for medication and office visits due to worry about co-payments

- Increasing mental health issues and drug abuse

-Abuse of the safety net system… consider random drug screening for people receiving any kind of state assistance

- Non-compliance with treatment and sense of entitlement which could be due to multiple reasons

- Underutilized services, e.g., counseling has several programs to help low-income people get services which are being underutilized.

- Prevention and education on how healthy lifestyles can prevent adult chronic illness; encourage exercise...community races/walks, the biggest loser at the Club, etc. Would like to see more options offered and recommended

Contributory Factors Perceived by Community

Although community responses were somewhat less institution-specific than those suggested by providers, many of the same themes were echoed in the community survey. Community respondent comments clustered around several themes:

Schools, education and communication:

Abstinence education; mandatory classes for all first time parents; soda and sweet products removed from school vending machines; more health information; implement programs to change traditional culture

Financial and Insurance related:

Access to basic health care for people who have no insurance, affordable insurance, assistance with copays; better Medicaid coverage for elderly population, finding providers (medical and dental) that take Medicaid or Medicare, Medicare quotas; free clinics for those in need of care; more health opportunities for uninsured; optical and dental health for young and old

Increased Personal Responsibility:

Adults and children to be more compliant with health care recommendations by providers and attending scheduled appointments; not using the hospital emergency department as source of primary care; people should take personal initiative to improve their health; differing political views about the government's role (and taxpayer funds) in health care

Access and Care Related:

Better care; more outpatient service availability; more understanding doctors; health care for kids under 18; better programs for some seniors; more dental service; more primary care physicians; improvement to access; increase ability to keep good quality doctors in our communities; provide quicker access (not ER) for when doctor appointments unavailable, urgent care centers; more clinics for walk-in illnesses

Specialty Services or Expanded Medical Services:

Availability of endoscopic exams in evening; better ambulance service both timeliness and service related; better transportation and health care centers; dialysis, cancer treatment, heart treatment; mental health; autism; dermatology; more natural health related programs

Dental Service Related:

Reasonable dental care; dental for uninsured adults; education about Mountain Dew and tooth decay; education regarding smoking and teeth; dental for children; dental for seniors; dental with Medicaid

Transportation Related:

Re-establish ambulance bases; Reorganize Montcalm County EMS; transportation to health care that seniors can afford

Recommendations & Next Steps

Next Steps

Following a comprehensive data review in September of 2011, the Healthy Montcalm Advisory Committee prioritized the following major issues in October and November to be addressed as a result of this needs assessment:

- Reduce the Prevalence of Obesity

- Increase Awareness of Existing Community Resources

- Improve Access to Care

- Reduce Substance Abuse

- Address Mental Health

Members of the Advisory Committee acknowledged that economic issues (particularly jobs) were also identified by the community as an issue of great concern as it relates to health access and affordability and would be taken into account when addressing the other five priority issues identified above.

The Advisory Committee is now in the process of identifying and prioritizing potential solutions or ways to best address these major issues. Presentations are being made to existing community organizations, coalitions and service clubs to increase awareness of identified issues and gather input on potential solutions. Identified solutions for each issue will be evaluated using a decision tree analysis that will consider cost of implementation, likelihood of success, and percent of the population that would be affected.

The Rural Health Improvement Network Board will be formalized in February of 2012. The board will establish a health improvement committee that will be responsible for developing a Healthy Montcalm Improvement Plan.

The Healthy Montcalm community health needs assessment and improvement process will be continuous and ongoing. A new assessment and improvement cycle will be initiated every three years. During each three-year cycle, the Healthy Montcalm initiative will develop a community-wide implementation plan that includes measurable evidence-based strategies to improve health outcomes in the identified target areas. This improvement plan will be monitored during the three-year cycle and the results will be evaluated before beginning the next assessment process in order to build upon the initial assessment process. Annual community updates will also be provided.

2011 Montcalm County Health Needs Assessment Survey

Please take a few minutes to complete this survey. Your opinions will contribute to a better understanding of the health assets and unmet health needs in our community. If you have questions about the survey or would like to know more about the Healthy Montcalm Initiative, please contact the person(s) identified in the cover letter.

Demographic Information

This first set of questions is for statistical purposes to ensure our survey sample accurately reflects our community population as a whole. The information you provide will remain confidential.

1. Please select the County in which you live.
- 98.1% (96.8%) Montcalm County
- 1.9% (3.2%) Other County

2. How long have you lived in your current county of residence?
- 2.3% (5.8%) Less than a year
- 15.6% (21.5%) 1 to 5 years
- 14.3% (17.5%) 6 to 10 years
- 67.8% (55.3%) More than 10 years

3. In which county do you work?
- 29.6% (34.3%) Montcalm County
- 9.9% (12.6%) Kent County
- 1.7% (1.2%) Ionia County
- 1.1% (1.1%) Isabella County
- 0.4% (0.6%) Mecosta County
- 6.3% (6.5%) Other
- 51.0% (43.8%) Does not Apply

4. Select the option that includes your age.
- 0.2% (0.4%) Less than 18 years
- 4.4% (13.3%) 18-25 years
- 9.5% (16.7%) 26-35 years
- 11.8% (21.2%) 36-45 years
- 17.9% (16.7%) 46-55 years
- 18.3% (11.7%) 56-64 years
- 37.7% (19.8%) 65 years or older

5. What is your gender?
- 45.7% (44.5%) Male
- 53.9% (55.2%) Female

6. What is your Marital Status?
- 59.7% (53.9%) Married
- 17.3% (16.8%) Separated / Divorced
- 13.1% (7.5%) Widowed
- 9.9% (21.9%) Single / Never married

7. Race or ethnic group you most closely identify with.
- 0.8% (3.8%) African American / Black
- 0.0% (0.0%) Asian / Pacific Islander
- 96.0% (93.9%) Caucasian / White
- 0.4% (1.5%) Hispanic / Latino
- 2.1% (0.3%) Native American
- 0.4% (0.4%) Other

8. What is your estimated family income?
- 29.6% (33.8%) Less than $20,000
- 24.9% (23.1%) $20,000 to $35,000
- 17.2% (14.7%) $36,000 to $50,000
- 8.2% (9.6%) $51,000 to $65,000
- 14.2% (11.0%) over $65,000
- 6.0% (7.9%) don't know

Crude Results= 1st %; raw data from survey

Weighted Data= % in ( ); adjusted to represent county demographics

Loc: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24

9. What is the highest level of education you have completed?

- ○ **9.9%** (18.8%) Less than 12th grade
- ○ **34.9%** (36.4%) High School Graduate (or GED)
- ○ **27.2%** (31.5%) Some College, no degree
- ○ **10.5%** (5.0%) 2 Year College Graduate
- ○ **9.9%** (4.1%) 4 Year College Graduate
- ○ **6.5%** (2.8%) Post Graduate Degree

10. What is your employment status?

- ○ **28.6%** (33.8%) Employed full time
- ○ **12.4%** (13.3%) Employed part time
- ○ **39.2%** (21.6%) Retired
- ○ **2.9%** (5.4%) Unemployed less than 1 year
- ○ **2.7%** (3.2%) Unemployed for 1 year or more
- ○ **9.3%** (12.2%) Unemployed due to disability or illness
- ○ **0.6%** (0.6%) Full-Time student, not employed
- ○ **5.1%** (9.6%) Homemaker or choose not to work

11. Have you or your spouse served in the military? (includes: Air Force, Army, Marines, Navy, National Guard, and Coast Guard) *(Please select all that apply)*

- ☐ **28.4%** (20.9%) Yes, military veteran
- ☐ **2.7%** (2.1%) Yes, active military service
- ☐ **68.8%** (77.6%) No military service

12. Please select the kinds of insurance you currently have. *(Please select all that apply)*

- ☐ **84.6%** (77.8%) Medical / Health
- ☐ **41.1%** (40.8%) Dental
- ☐ **34.7%** (34.9%) Vision / Optical
- ☐ **12.6%** (19.4%) Do not have insurance
- ☐ **1.5%** (1.0%) Do not know

13. Please select the type of health insurance carrier you have.

- ○ **45.7%** (40.7%) Employer-sponsored plan *(example: Blue Cross Blue Shield)*
- ○ **11.4%** (7.5%) A plan purchased on your own
- ○ **38.9%** (25.0%) Medicare
- ○ **13.1%** (20.9%) Medicaid
- ○ **2.3%** (1.8%) Military *(example: Veteran's / CHAMPUS / TRICARE)*
- ○ **1.7%** (1.8%) County Health Plan *(Mid-Michigan Health Plan)*
- ○ **5.9%** (4.2%) Other insurance
- ○ **11.2%** (18.0%) Do not have health insurance
- ○ **0.6%** (0.3%) Do not know

14. If you do not have health insurance, what is the primary reason? *Please select the one best answer.*

- ○ **14.7%** (12.0%) Lost job or unemployed
- ○ **13.3%** (12.9%) Part-time or temporary employee, and have no benefits
- ○ **4.0%** (6.2%) My employer stopped offering health insurance
- ○ **2.7%** (2.6%) Divorced and can't afford it
- ○ **1.3%** (0.3%) Spouse recently died
- ○ **1.3%** (0.3%) Insurance company refused coverage
- ○ **8.0%** (11.9%) Lost Medicaid eligibility
- ○ **44.0%** (37.6%) Can't afford it
- ○ **4.0%** (5.6%) Do not know how to get it
- ○ **1.3%** (1.9%) Choose not to have insurance
- ○ **5.3%** (8.6%) Other

Community Survey

Your General Health

We would now like to ask you a few questions about your general health status.

15. How would you rate your current health status?

- ○ **7.5%** (8.0%) Poor
- ○ **24.3%** (22.6%) Fair
- ○ **34.8%** (38.8%) Good
- ○ **24.5%** (20.3%) Very Good
- ○ **9.0%** (10.3%) Excellent

16. During the past 30 days, how many days were you too sick (physically or mentally) to work or do your normal activities?

- ○ **68.5%** (64.8%) None
- ○ **12.7%** (14.8%) 1-2 days
- ○ **6.0%** (7.2%) 3-5 days
- ○ **2.4%** (3.2%) 6-10 days
- ○ **10.5%** (10.1%) More than 10 days

17. When did you have your last routine doctor's visit?

- ○ **80.8%** (73.8%) Within the last year
- ○ **8.3%** (10.6%) Within the last two years
- ○ **5.3%** (8.7%) Between two and five years ago
- ○ **3.4%** (4.2%) More than five years ago
- ○ **2.1%** (2.8%) Have never had a routine doctor's visit

18. When was the last time you had the following (place a check in appropriate box)

	Within past year	1 to 2 years ago	3 to 5 years ago	More than 5 years	Never	Don't Recall
Blood Pressure checked	89.7% (83.9%)	5.1% (7.3%)	2.1% (3.9%)	1.7% (2.2%)	0.4% (1.3%)	0.9% (1.4%)
Cholesterol checked	69.4% (58.5%)	10.5% (13.8%)	3.7% (3.5%)	2.6% (2.2%)	8.5% (14.0%)	5.2% (7.9%)
Blood Sugar checked	67.0% (58.4%)	10.9% (13.3%)	5.1% (6.3%)	3.8% (3.6%)	7.3% (11.3%)	5.8% (7.1%)
Flu Shot	53.7% (43.7%)	9.3% (10.0%)	3.7% (6.8%)	5.1% (4.6%)	24.8% (29.2%)	3.5% (5.7%)
Vision tested / Eye exam	55.0% (51.3%)	20.5% (21.0%)	10.9% (10.3%)	8.0% (9.0%)	2.0% (1.9%)	3.6% (6.4%)
Dental cleaning / exam	61.5% (51.6%)	9.6% (10.0%)	9.1% (14.2%)	12.4% (15.5%)	2.6% (3.1%)	4.8% (5.5%)
Mammogram (women only)	45.4% (31.2%)	13.1% (7.9%)	10.8% (9.2%)	5.6% (4.6%)	21.9% (37.7%)	3.2% (9.5%)
Pap Test (women only)	45.3% (47.2%)	21.4% (22.3%)	12.0% (10.7%)	15.0% (13.8%)	2.6% (4.0%)	3.8% (2.0%)
Prostate Exam or PSA (men only)	45.5% (32.1%)	14.6% (12.7%)	8.0% (7.3%)	8.5% (6.9%)	18.8% (34.2%)	4.7% (6.8%)
Colon / rectal exam	20.7% (16.6%)	12.5% (9.5%)	15.3% (9.7%0	10.1% (7.2%)	36.0% (50.8%)	5.4% (6.2%)
Skin Cancer screening	17.4% (11.6%)	4.8% (3.2%)	3.9% (2.2%)	2.9% (2.4%)	60.4% (70.6%)	10.6% (10.0%)

Community Survey

19. For what reason(s) do you use Emergency Department Services? *(Please select all that apply)*

☐ **2.3%** (3.3%) For most of my health care needs (have no family doctor or no health insurance)

☐ **13.9%** (16.4%) When I need non-emergency care on the weekends or after doctor's office has closed

☐ **62.5%** (64.1%) For emergency illness or accident

☐ **1.3%** (1.0%) Other

☐ **28.4%** (26.1%) Have not used the Emergency Department

Access to Health Care

We would now like to ask you a few questions about your ability and opportunity to access health care.

20. Was there a time in the past year when you needed to see a doctor, but could not?

○ **20.4%** (27.2%) Yes

○ **79.6%** (71.9%) No

21. If you answered "yes" to the question above, select the primary reason you could not visit the doctor. *(Please select the single most important answer)*

○ **3.1%** (3.2%) Didn't want to go (afraid, too anxious)

○ **1.0%** (1.4%) Didn't have time / too busy

○ **2.1%** (2.4%) Could not get time off from work

○ **14.6%** (8.6%) Could not get an appointment

○ **10.4%** (17.8%) No transportation to get to doctor

○ **0.0%** (0.0%) No childcare or care for other family member

○ **51.0%** (54.3%) Could not afford it / uninsured

○ **4.2%** (3.3%) Doctor did not accept my insurance

○ **13.5%** (8.9%) Other

22. Do you travel outside of Montcalm County for health care? (Montcalm County includes the towns of Carson City, Coral, Crystal, Edmore, Gowen, Greenville, Howard City, Lakeview, McBride, Pierson, Sheridan, Sidney, Six Lakes, Stanton, Trufant, Turk Lake, and Vestaburg.)

○ **19.2%** (19.5%) Always

○ **19.4%** (16.2%) Frequently

○ **39.4%** (34.2%) Seldom

○ **22.0%** (30.1%) Never

23. If you travel outside Montcalm County for health care, select the services you use there *(Please select all that apply)*

- ☐ **31.8%** (31.2%) Primary care (family doctor, pediatrician, gynecologist)
- ☐ **45.9%** (36.6%) Medical specialists (heart doctor, lung doctor, kidney doctor, surgeon, etc.)
- ☐ **14.9%** (10.8%) Inpatient hospital care
- ☐ **16.4%** (16.1%) Dental care
- ☐ **25.5%** (21.2%) Vision care / ophthalmologist / optometrist
- ☐ **0.2%** (0.2%) Substance abuse counseling / rehabilitation / treatment
- ☐ **3.2%** (2.9%) Mental health services
- ☐ **7.6%** (7.0%) Other
- ☐ **22.1%** (30.2%) Do not travel outside Montcalm County for health care

24. If you travel outside of Montcalm County for health care, for what reason(s) do you do so? *(Please select all that apply)*

- ☐ **28.6%** (23.0%) Service not available in Montcalm County
- ☐ **20.8%** (20.9%) Better quality of care elsewhere
- ☐ **2.7%** (4.3%) Local doctor does not accept my insurance
- ☐ **5.3%** (6.1%) Closer to work
- ☐ **4.8%** (4.6%) Privacy or confidentiality reasons
- ☐ **23.2%** (20.1%) Other
- ☐ **21.3%** (28.9%) Do not travel outside Montcalm County for health care

25. Where do you get most of your health information? *(Please select up to three sources)*

- ☐ **87.8%** (85.3%) Doctor / nurse / pharmacist
- ☐ **26.5%** (31.2%) Friend / family
- ☐ **5.5%** (10.3%) Health Department
- ☐ **2.3%** (3.1%) Library
- ☐ **2.3%** (2.0%) Church
- ☐ **17.5%** (13.5%) Newspaper / magazine / journal
- ☐ **30.3%** (30.7%) Internet
- ☐ **9.5%** (8.3%) TV
- ☐ **3.4%** (2.9%) Other

26. Do you have trouble finding health information you can trust?

- ○ **14.8%** (19.4%) Yes
- ○ **85.2%** (80.6%) No

Community Survey

27. Do you have trouble accessing the health services you or your family needs?

- ○ **11.3%** (13.5%) Yes
- ○ **88.7%** (86.5%) No

Your Lifestyle and Behaviors

We would now like to ask you a few questions about behaviors or lifestyle choices that could influence a person's health.

28. In the past month, how many times did you ride with a driver who had more than one serving of alcohol?

- ○ **93.8%** (91.3%) 0 times
- ○ **4.7%** (6.4%) 1-2 times
- ○ **0.2%** (0.5%) 3-4 times
- ○ **1.3%** (1.8%) 5 or more times

29. In the past month, how many times did you drive after you had more than one serving of alcohol?

- ○ **92.9%** (91.6%) 0 times
- ○ **5.6%** (6.6%) 1-2 times
- ○ **0.9%** (1.1%) 3-4 times
- ○ **0.6%** (0.8%) 5 or more times

30. Which answer best describes you? *(Place a check in appropriate box)*

	Always	Often	Rarely	Never	Does not Apply
You wear a seatbelt	**88.7%** (85.0%)	8.5% (12.0%)	1.5% (1.6%)	0.9% (1.1%)	0.4% (0.3%)
You drive the speed limit	**51.5%** (48.5%)	41.0% (39.6%)	3.9% (5.8%)	0.2% (0.1%)	3.4% (6.0%)
You eat at least 5 servings of fruits and vegetables daily	11.2% (10.1%)	**42.9%** (37.3%)	38.0% (43.9%)	7.3% (8.2%)	0.6% (0.4%)
You eat fast food more than once a week	3.0% (3.5%)	15.3% (15.3%)	**60.4%** (60.5%)	20.2% (20.0%)	1.1% (0.6%)
You exercise or are physically active at least 30 minutes a day	27.7% (25.8%)	**41.2%** (42.0%)	24.0% (26.7%)	6.0% (4.9%)	1.1% (0.5%)
You smoke cigarettes	13.3% (19.1%)	7.3% (7.9%)	3.4% (3.3%)	**71.5%** (63.8%)	4.5% (5.9%)
You use chewing tobacco or snuff	1.3% (2.2%)	1.3% (2.2%)	1.1% (1.1%)	**89.1%** (86.0%)	7.3% (8.5%)
You use illegal drugs	0.2% (0.2%)	0.4% (0.5%)	2.1% (2.4%)	**91.2%** (89.6%)	6.0% (7.3%)
You get a flu shot each year	**45.4%** (35.4%)	10.1% (11.2%)	7.5% (9.5%)	36.2% (43.5%)	0.9% (0.4%)
You practice safe sex to prevent unwanted pregnancy or sexually transmitted infection	**32.9%** (38.4%)	2.4% (6.3%)	2.4% (2.4%)	7.2% (8.6%)	55.0% (44.3%)

Community Survey

	Always	Often	Rarely	Never	Does not Apply
You perform self-exams for cancer (examples: breast, testicular, skin exams)	16.3% (13.0%)	29.5% (25.2%)	30.2% (34.9%)	18.4% (23.4%)	5.6% (3.5%)
You get enough sleep to feel rested	18.3% (14.7%)	52.9% (47.6%)	23.5% (30.6%)	5.1% (6.9%)	0.2% (0.1%)
You feel satisfied with your life	35.2% (32.2%)	48.1% (48.0%)	11.8% (12.6%)	3.0% (4.7%)	1.9% (2.5%)
You feel socially isolated	3.9% (4.5%)	16.2% (18.8%)	33.4% (34.1%)	41.4% (37.7%)	5.2% (5.0%)
You worry about losing your job	3.9% (5.2%)	8.3% (9.9%)	18.0% (21.3%)	28.0% (30.6%)	41.7% (33.0%)
You worry about losing your home or being homeless	6.6% (8.8%)	9.6% (12.6%)	22.2% (24.5%)	47.4% (43.2%)	14.1% (10.9%)
You feel safe in your community	46.9% (45.4%)	45.2% (45.4%)	5.1% (5.5%)	1.5% (3.1%)	1.3% (0.7%)
You worry about your level of skills or knowledge for today's workforce	6.0% (10.5%)	13.0% (16.4%)	20.7% (23.7%)	26.3% (28.9%)	34.0% (20.5%)

Your Family Characteristics
We would now like to ask you a few questions about your household or family.

31. How many people (including yourself) live in your household?
- 22.7% (19.7%) 1 person
- 45.1% (32.6%) 2 persons
- 10.4% (12.6%) 3 persons
- 11.9% (19.1%) 4 persons
- 6.1% (8.8%) 5 persons
- 2.8% (5.0%) 6 persons
- 0.4% (0.4%) 7 persons
- 0.6% (1.8%) 8 or more persons

32. How many children under age 18 years live in your household?
- 72.5% (55.6%) 0 children
- 10.2% (16.0%) 1 children
- 8.9% (15.2%) 2 children
- 6.6% (9.7%) 3 children
- 1.5% (1.9%) 4 children
- 0.0% (0.0%) 5 children
- 0.2% (1.2%) 6 children
- 0.2% (0.4%) 7 or more children

33. How many adults *(including yourself)* **age 65 or older live in your household?**

- ○ **54.9%** (65.9%) 0
- ○ **43.6%** (29.3%) 1-2
- ○ **1.3%** (3.6%) 3-4
- ○ **0.2%** (1.2%) 5 or more

34. If some members of your household do not have health insurance, select who is NOT currently covered. *(Select all that apply)*

- ☐ **4.8%** (6.7%) Entire family not covered
- ☐ **15.0%** (19.3%) 1 or more adults not covered, children are covered
- ☐ **0.2%** (0.5%) Children age 6 years or older not covered
- ☐ **0.5%** (0.7%) Children less than age 6 years not covered
- ☐ **3.1%** (4.1%) Other
- ☐ **75.3%** (66.4%) Does not apply - all members of household have insurance
- ☐ **1.2%** (2.4%) Don't know

35. During the past year, have you taken your child to the emergency department for a non-emergency illness/injury because you could not afford to go to a doctor's office or had no insurance for the child?

- ○ **0.6%** (0.9%) Yes
- ○ **31.0%** (46.8) No
- ○ **68.4%** (52.3%) Does not apply – no children in household

36. If you have children under age 18 years in your household, do they have a health care provider that you consider to be their personal "doctor"? (This could also be a nurse practitioner, physician assistant, or other type of provider)

- ○ **26.9%** (43.2%) Yes
- ○ **2.6%** (3.3%) No
- ○ **70.5%** (53.5%) Does not apply – no children under age 18 years in household

37. Was there a time in the past year when your child needed to see a doctor, but could not?

- ○ **4.1%** (7.6%) Yes
- ○ **26.2%** (39.5%) No
- ○ **69.7%** (52.9%) Does not apply – no children under age 18 years in household

38. If you answered "yes" to the question above, select the primary reason your child could not visit the doctor. *(Please select the <u>single most important</u> answer)*

- ○ **0.0%** (0.0%) Child didn't want to go (afraid, too anxious)
- ○ **0.0%** (0.0%) Didn't have time / too busy
- ○ **0.9%** (1.6%) Could not get time off from work
- ○ **0.6%** (1.2%) Could not get an appointment
- ○ **2.7%** (8.2%) No transportation to get to doctor
- ○ **0.0%** (0.0%) No childcare or care for other family members
- ○ **1.5%** (1.6%) Could not afford it / uninsured
- ○ **0.6%** (0.5%) Doctor did not accept my insurance
- ○ **0.3%** (0.7%) Other
- ○ **93.4%** (86.1%) Does not apply – no children under age 18 years in household

39. Which answer best describes your family? *(Place a check in appropriate box)*

	Always	Often	Rarely	Never	Does not Apply
Family members wear a seatbelt	**81.8%** (83.0%)	**5.6%** (5.5%)	**0.0%** (0.0%)	**0.2%** (0.4%)	**12.3%** (11.1%)
Family members each eat at least 5 servings of fruits and vegetables daily	**7.6%** (8.1%)	**43.0%** (41.6%)	**31.7%** (32.8%)	**4.1%** (5.1%)	**13.5%** (12.5%)
Family members sit down to a meal together	**32.5%** (31.8%)	**37.8%** (38.7%)	**12.0%** (13.1%)	**2.0%** (3.1%)	**15.7%** (13.2%)
Family members eat fast food more than once a week	**2.2%** (2.5%)	**16.5%** (15.6%)	**50.4%** (52.7%)	**15.2%** (15.3%)	**15.7%** (13.9%)
Family members exercise or are physically active at least 30 minutes a day	**18.2%** (17.9%)	**42.2%** (44.7%)	**19.9%** (18.5%)	**4.3%** (4.8%)	**15.4%** (14.2%)
Family members become angry resulting in fights or excessive yelling	**1.1%** (2.3%)	**5.7%** (6.1%)	**36.3%** (40.0%)	**38.5%** (34.7%)	**18.5%** (16.9%)
Family members see a doctor at least once a year	**54.9%** (52.0%)	**23.2%** (26.9%)	**4.4%** (5.2%)	**2.4%** (2.2%)	**15.1%** (13.6%)
Family members see a dentist at least once a year	**47.8%** (44.0%)	**15.0%** (17.3%)	**12.8%** (15.2%)	**7.2%** (8.6%)	**17.2%** (15.0%)

Community Issues and Concerns

We would now like to ask you a few questions about issues that affect many communities.

40. Are you satisfied with the quality of life in Montcalm County? (consider things like safety, services, civic engagement, leisure, sense of community, opportunity)

- ○ **11.7%** (12.3%) Greatly satisfied
- ○ **51.1%** (46.8%) Satisfied
- ○ **27.9%** (30.9%) Neutral
- ○ **7.7%** (7.5%) Dissatisfied
- ○ **1.7%** (2.6%) Greatly dissatisfied

41. Are you satisfied with the health care system in Montcalm County? (consider things like access, cost, availability, quality, options)

- ○ **7.3%** (6.6%) Greatly satisfied
- ○ **41.7%** (40.8%) Satisfied
- ○ **35.3%** (33.2%) Neutral
- ○ **12.4%** (15.2%) Dissatisfied
- ○ **3.4%** (4.2%) Greatly dissatisfied

42. Are you satisfied with Montcalm County as a good place to raise children? (consider things like school quality, day care, after-school programs, services, recreation, community support)

- ○ **10.0%** (11.2%) Greatly satisfied
- ○ **48.9%** (48.4%) Satisfied
- ○ **33.4%** (29.2%) Neutral
- ○ **6.6%** (9.7%) Dissatisfied
- ○ **1.1%** (1.5%) Greatly dissatisfied

43. Are you satisfied with Montcalm County as a good place to grow old? (consider things like housing, transportation, churches, social support, services, recreation, community support)

- ○ **10.9%** (12.0%) Greatly satisfied
- ○ **54.8%** (48.3%) Satisfied
- ○ **26.0%** (31.0%) Neutral
- ○ **7.0%** (7.7%) Dissatisfied
- ○ **1.3%** (0.9%) Greatly dissatisfied

44. Please rate the following issues and concerns as to whether you consider there to be a problem in Montcalm County *(Place a check in appropriate box)*

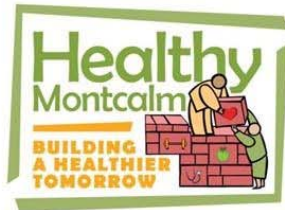|	Serious Problem	Moderate Problem	Not a Problem	Not Sure
Alcohol / drug use	35.1% (31.9%)	41.6% (41.2%)	8.2% (12.1%)	15.0% (14.8%)
Alzheimer's Disease or dementia	7.9% (6.5%)	31.9% (23.7%)	11.9% (17.1%)	48.2% (52.7%)
Ambulance service (availability, response)	4.9% (3.2%)	14.0% (15.5%)	54.2% (55.5%)	26.9% (25.8%)
Cancer	22.0% (17.3%)	27.0% (23.6%)	9.2% (14.3%)	41.8% (44.8%)
Child abuse	14.3% (13.1%)	35.7 (34.5%)	7.7% (12.1%)	42.3% (40.3%)
Contaminated Sites (landfills, structures, etc.)	6.6% (4.9%)	19.6% (17.2%)	27.3% (31.2%)	46.6% (46.7%)
Crime	18.9% (16.9%)	53.5% (53.3%)	12.0% (15.6%)	15.7% (14.2%)
Dental care (access)	12.1% (12.5%)	21.7% (24.1%)	45.8% (45.2%)	20.4% (18.1%)
Diabetes	10.8% (9.6%)	27.5% (24.1%)	15.2% (16.1%)	46.5% (50.1%)
Domestic violence	14.2% (12.6%)	36.1% (33.2%)	9.3% (12.9%)	40.4% (41.3%)
Drinking water (quality)	6.8% (7.7%)	17.3% (15.7%)	48.1% (48.5%)	27.8% (28.1%)
Elder abuse	2.9% (3.2%)	13.0% (10.1%)	23.5% (25.8%)	60.7% (61.0%)
Gambling	8.8% (9.0%)	17.7% (12.8%)	24.8% (29.9%)	48.7% (48.3%)
Healthy foods (availability)	4.0% (4.5%)	18.0% (20.9%)	65.0% (60.6%)	13.1% (14.1%)
Health care (access)	6.8% (6.9%)	20.5% (18.9%)	54.6% (56.8%)	18.1% (17.3%)
Heart disease	7.8% (7.0%)	29.2% (21.9%)	12.9% (16.2%)	50.1% (54.8%)
Housing (affordability, availability)	18.0% (19.8%)	29.6% (32.2%)	26.0% (25.0%)	26.4% (23.1%)
Jobs (availability)	71.1% (69.2%)	12.4% (13.5%)	4.8% (7.1%)	11.7% (10.3%)
Law enforcement (responsiveness)	5.5% (6.9%)	29.5% (24.2%)	41.5% (44.5%)	23.6% (24.4%)
Mental Illness	5.8% (6.1%)	27.6% (25.0%)	14.9% (18.9%)	51.8% (50.0%)
Nursing home care (access)	6.4% (5.9%)	19.1% (14.8%)	29.0% (32.3%)	45.5% (47.1%)
Overweight adults	45.5% (40.2%)	33.3% (32.0%)	4.6% (8.1%)	16.6% (19.6%)
Overweight children	42.1% (36.3%)	33.6% (33.4%)	5.0% (8.8%)	19.3% (21.5%)
Prenatal care (access, awareness)	4.4% (6.5%)	19.7% (18.7%)	25.7% (32.5%)	50.1% (42.3%)
Prescription drug abuse	16.1% (18.2%)	27.6% (27.6%)	9.3% (12.6%)	47.0% (41.6%)
Recreational opportunities (access)	7.8% (9.3%)	21.4% (20.9%)	47.7% (45.4%)	23.2% (24.4%)
Secondhand smoke	10.2% (10.6%)	23.5% (24.0%)	41.2% (40.4%)	25.2% (25.0%)
School violence	7.9% (10.9%)	27.2% (26.0%)	23.0% (25.6%)	41.9% (37.5%)
Services for disabled (access)	7.5% (8.1%)	20.8% (18.6%)	27.6% (33.0%)	44.1% (40.3%)
Sexually transmitted disease	7.4% (8.8%)	23.0% (20.8%)	11.3% (15.5%)	58.3% (54.9%)

Community Survey

	Serious Problem	Moderate Problem	Not a Problem	Not Sure
Smoking	23.1% (20.8%)	35.1% (33.0%)	17.4% (21.1%)	24.4% (25.2%)
Stroke	6.6% (6.6%)	22.8% (18.0%)	12.5% (17.0%)	58.1% (58.4%)
Substance abuse treatment (access)	10.1% (9.1%)	17.7% (14.6%)	17.1% (22.9%)	55.1% (53.4%)
Suicide	8.1% (7.7%)	22.5% (19.7%)	12.9% (18.3%)	56.5% (54.2%)
Teen pregnancy	19.5% (20.2%)	38.4% (38.7%)	7.0% (9.5%)	35.1% (31.6%)
Traffic crashes (alcohol & drug related)	21.7% (20.8%)	37.0% (31.7%)	9.4% (14.5%)	31.9% (33.0%)
Transportation (public & personal access)	18.0% (18.2%)	31.0% (27.9%)	24.0% (29.6%)	27.0% (24.3%)
Watershed quality (streams, rivers, lakes)	5.9% (6.6%)	16.9% (12.4%)	36.7% (40.2%)	40.4% (40.7%)
Other issue you consider to be a serious problem (specify:_____)				

45. What services would you like to see improved in Montcalm County? *(Please comment on any of the following)*

➢ Health related:
  Insurance/Payment affordability & acceptance – **33.3%**
  Increased access to care from physicians - **25.4%**
  Dental services – **12.3%**
➢ Nutrition / Fitness / Recreation related:
  More access to cheaper fitness centers – **21.3%**
  Cheaper access to healthy food – **19.1%**
  Increased education/awareness – **12.4%**
➢ Education related:
  Increased programs/activities – **23.5%**
  Increased early & higher educational opportunities – **14.1%**
  Prepare Students on Fundamentals (poor levels of reading, math, language, etc.) – **11.7%**
  Teaching Standards/Evaluation – **10.6%**
➢ Transportation related:
  Need County-Wide/Public Transportation - **41.7%**
  Transportation to Medical Appointments - **10.7%**
  Elderly/Handicapped Transportation Services – **8.7%**
➢ Other: _____

Thank you! *Please enclose your completed survey in the self-addressed, postage paid envelope we have provided and place it in the mail.*

FY 2011/12 Committee Members

Steering Committee Members

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United Lifestyles

Rex Hoyt
Mid-Michigan District
Health Department

Lisa Lund
Montcalm Community
College

Amy McMillan
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Commission On Aging

Kim Croy
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Pete Haines
Greenville Public
Schools

Kyle Hamlin
Lakeview Community
Schools

Patsy Harkness
Farm Bureau

Jacob Helms
Central Montcalm Public
Schools

Abby Hodges
Carson City-Crystal Area
Schools

Beverly Holland
Carson City Hospital

Linda Huyck
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John Kroneck
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