



# LIVEWELL GRATIOT

## *Community Health Needs Assessment*



# Gratiot County Community Health Assessment



# Community Health Assessment

## Data Sources

- **Primary Data (new data collected first-hand)**
  - Community Opinion Survey
  - Provider Opinion Survey
- **Secondary Data (existing data sources)**
  - U.S. Census Bureau, Michigan Dept. Community Health, County Health Rankings, Behavioral Risk Factor Surveillance, Kids Count, Michigan Profile for Healthy Youth, etc.

# Community Profile - Gratiot County

## *Information We'll Cover Today...*

- **County Demographics**
- **Access to Care**
- **General Health Status**
- **Health-Related Behaviors**
- **Mortality and Morbidity**
- **Maternal and Child Health**
- **Community and Provider Surveys**

# Review of County Health Rankings

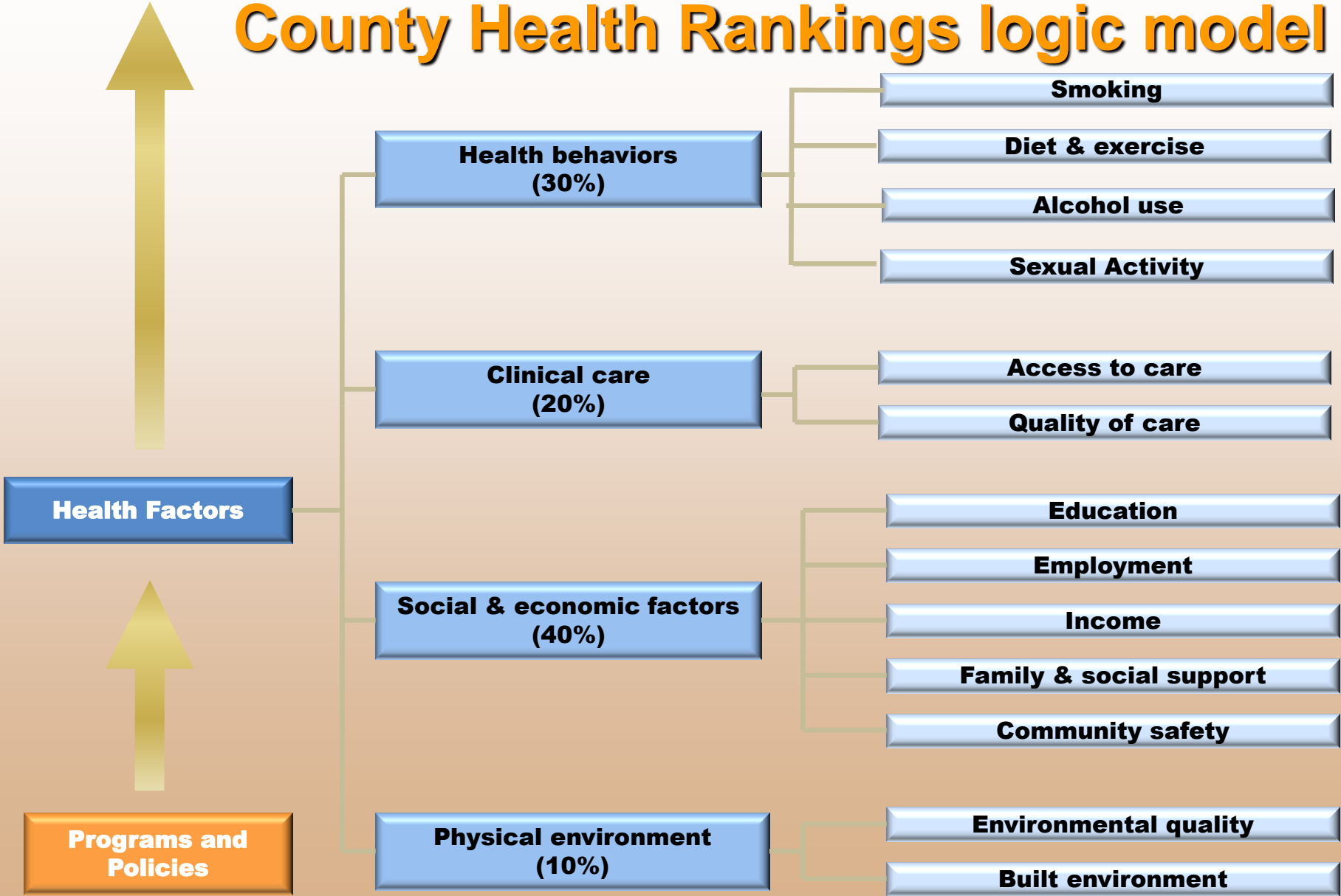


**Health Outcomes**

**Mortality (length of life): 50%**

**Morbidity (quality of life): 50%**

# County Health Rankings logic model



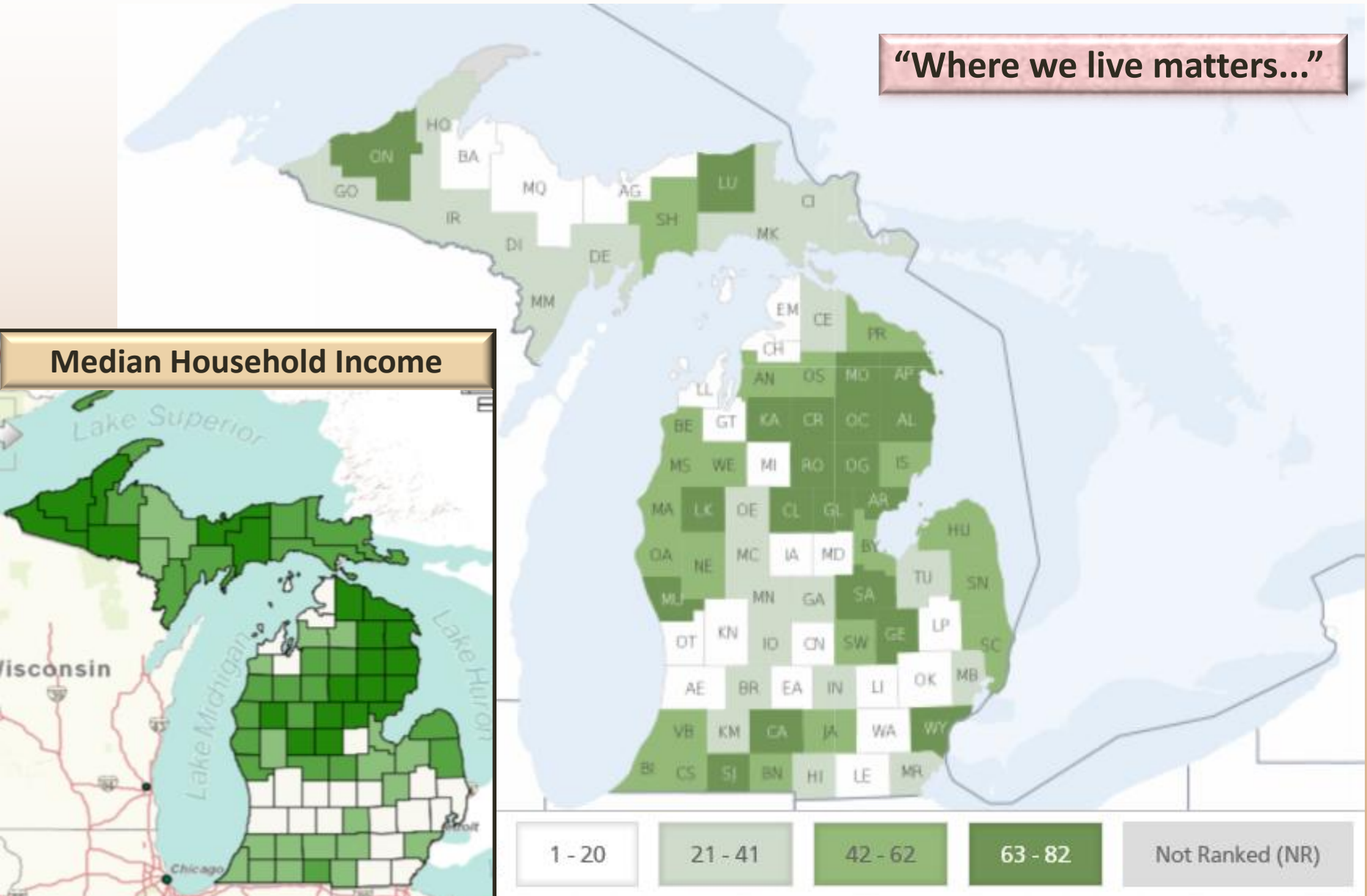
# Summary of 2012 Rankings

- **Health Outcomes** : *think of this as measuring our current health status.*
  - Gratiot County ranks #33 among 82 Michigan Counties for Health Outcomes. This is defined by two sub-categories:
    - *A) Mortality*: Gratiot County out-performed Michigan for the single mortality indicator [ had a lower premature death rate], for a ranking of #29.
    - *B) Morbidity*: Gratiot County out-performed Michigan for 2 of 4 indicators [lower # of poor physical health days, lower rate of low weight births] and underperformed relative to Michigan for 2 indicators [higher rate of adults with poor/fair health status, higher # of poor mental health days], for a ranking of #43.

# Health Outcomes Rankings

“Where we live matters...”

Median Household Income





# Summary of 2012 Rankings

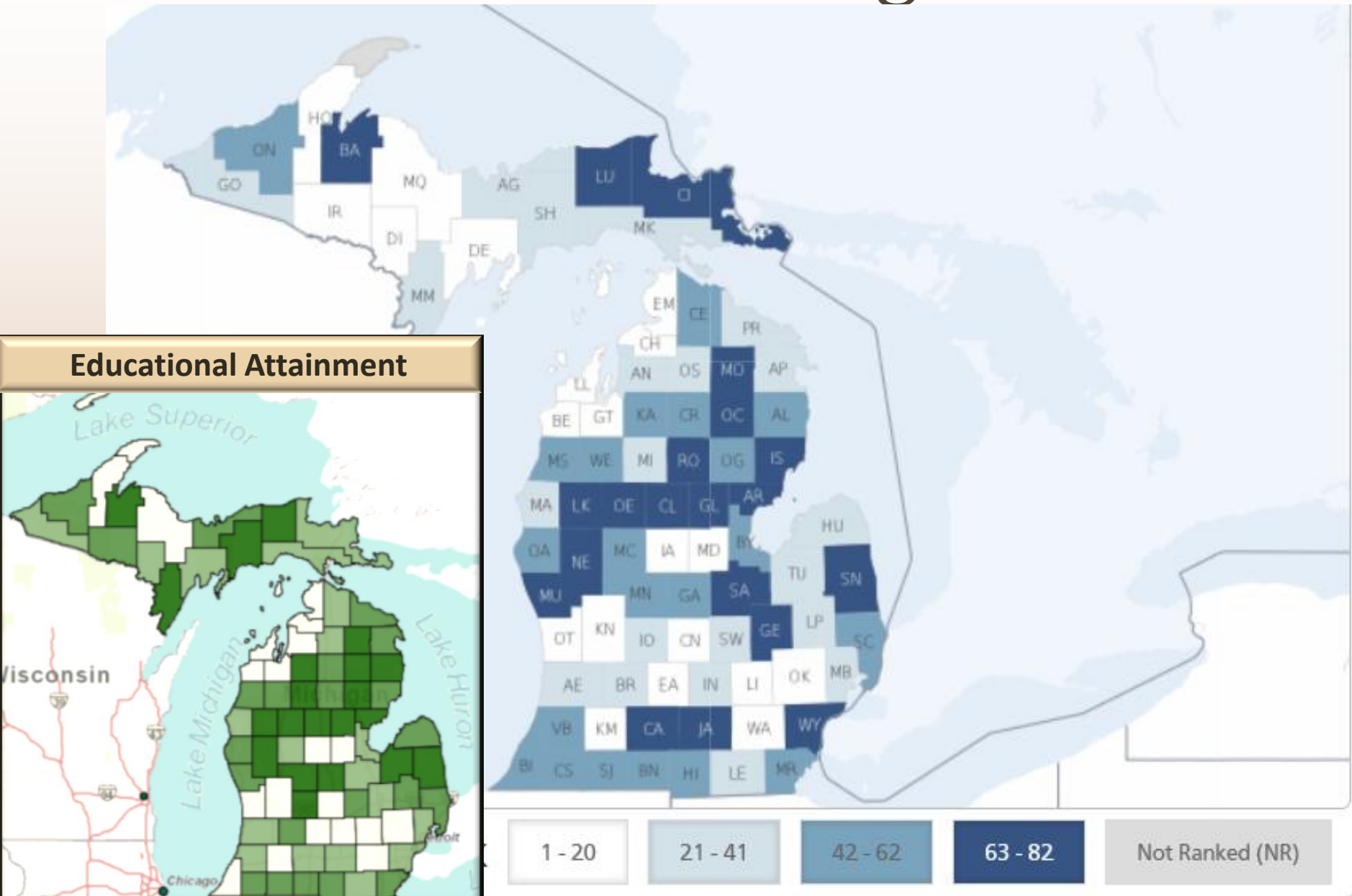
- **Health Factors:** *think of this as measuring factors that can influence our future health.*
  - Gratiot County ranks #57 among 82 Michigan Counties for Health Factors. This is defined by four sub-categories:
    - A) Health Behaviors: Gratiot County performed better than Michigan for 3 of the 7 indicators [lower rates of excessive drinking, sexually transmitted infections, teen births], and underperformed relative to Michigan for the remaining 4 indicators [higher rates of adult smoking, adult obesity, physical inactivity, motor vehicle crash deaths], for a ranking of #76.
    - B) Clinical Care: Gratiot County performed better than Michigan for 1 of the 5 indicators (higher rate of diabetic screening among Medicare patients) and underperformed for the remaining 4 indicators (higher uninsured rate, lower primary care provider rate, higher preventable hospitalization rate, similar mammography screening rate), for a ranking of #59.

# Summary of 2012 Rankings

- **Health Factors: (continued)**

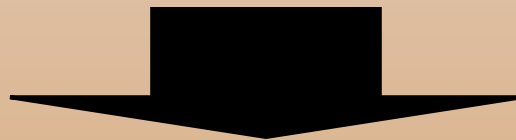
- C) Social / Economic Factors: Gratiot County performed better than Michigan for 5 of the 7 indicators [higher high-school graduation rate, lower unemployment rate, higher social support, lower single-parent household rate, lower violent crime rate], and underperformed relative to Michigan for the remaining 2 indicators [lower rate college attainment, higher rate of children in poverty] for a ranking of #35.
- D) Physical Environment: Gratiot County performed better than Michigan for 4 of the 5 indicators [lower # air pollution particulate days, lower # air pollution ozone days, less limited access to healthy foods, lower rate fast food restaurants] and underperformed relative to Michigan for the remaining 1 indicator [lower access to recreational facilities], for a ranking of #35.

# Health Factors Rankings



# Factors Contributing to Poor Health

| <u><b>Economic Risks</b></u>   | <u><b>Non Modifiable Risks</b></u>                           | <u><b>Behavioral &amp; Lifestyle Risks</b></u>  | <u><b>Health Care Access</b></u>  | <u><b>Environmental Risks</b></u>  | <u><b>Psycho-Social Cultural</b></u>  | <u><b>Biomedical Risks</b></u>  |
|--|--|---|---|--|---|---|
| Poverty<br><br>No health insurance<br><br>Poor Housing<br><br>Limited Healthy / Fresh Food Options | Older Age<br><br>Gender<br><br>Minority Race<br><br>Genetics | Physical Inactivity<br><br>Poor Diet/Nutrition<br><br>Smoking<br><br>Excessive Alcohol<br><br>Substance Abuse | Affordability<br><br>Availability<br><br>Utilization<br><br>Rural & Urban setting | Air/Water Pollution<br><br>Unsafe Environment<br><br>Physical Isolation<br><br>Unique Risks in Geographic Area | Racial Disparities<br><br>Chronic Stress<br><br>Lack of Education<br><br>Social Isolation | Obesity<br><br>High Cholesterol<br><br>High Blood Pressure<br><br>Impaired Glucose Met.<br><br>Low Birth Weight |



***Increased Risk of Chronic Disease***

# Demographics

- **Population**
- **Racial Composition**
- **Income**
- **Poverty**
- **Unemployment**
- **Educational Attainment**



# Summary - Demographics

- Population: Gratiot County population grew about 9% over the period 1990-2010, (increasing from 39,059 to 42,476 total residents). During this period, the youth segment (less than 20 yrs.) fell by 11%, the young working adult segment (age 20-44 yrs.) fell by 1%, the older working adult segment (45-64 yrs.) grew by 55%, and senior population (age 65+ yrs.) grew by 17%. These trends reflect the changes experienced by many Michigan counties.
- Race & Ethnicity: Gratiot County continues to have relatively low racial diversity, with nearly 91% of its population being White (compared to MI at 79%), about 5% Black (MI at 14%), 0.5% American Indian (MI at 0.6%), 0.3% Asian (MI at 2.4%), and 1.4% of the population identifying themselves as more than one race (MI at 2.3%). As of 2010, Hispanic persons comprised 5.4% of Gratiot County's population (MI at 4.4%). From 2000 to 2010, Gratiot did move toward higher racial/ethnic diversity.
- Median Household Income: Despite growth in Gratiot County household income during the early part of the past decade, much of the gain was lost by 2009; peaking at \$42,687 in 2008 and falling back to \$36,770 in 2009. Gratiot lagged behind Michigan median household income for any given year during the past decade.

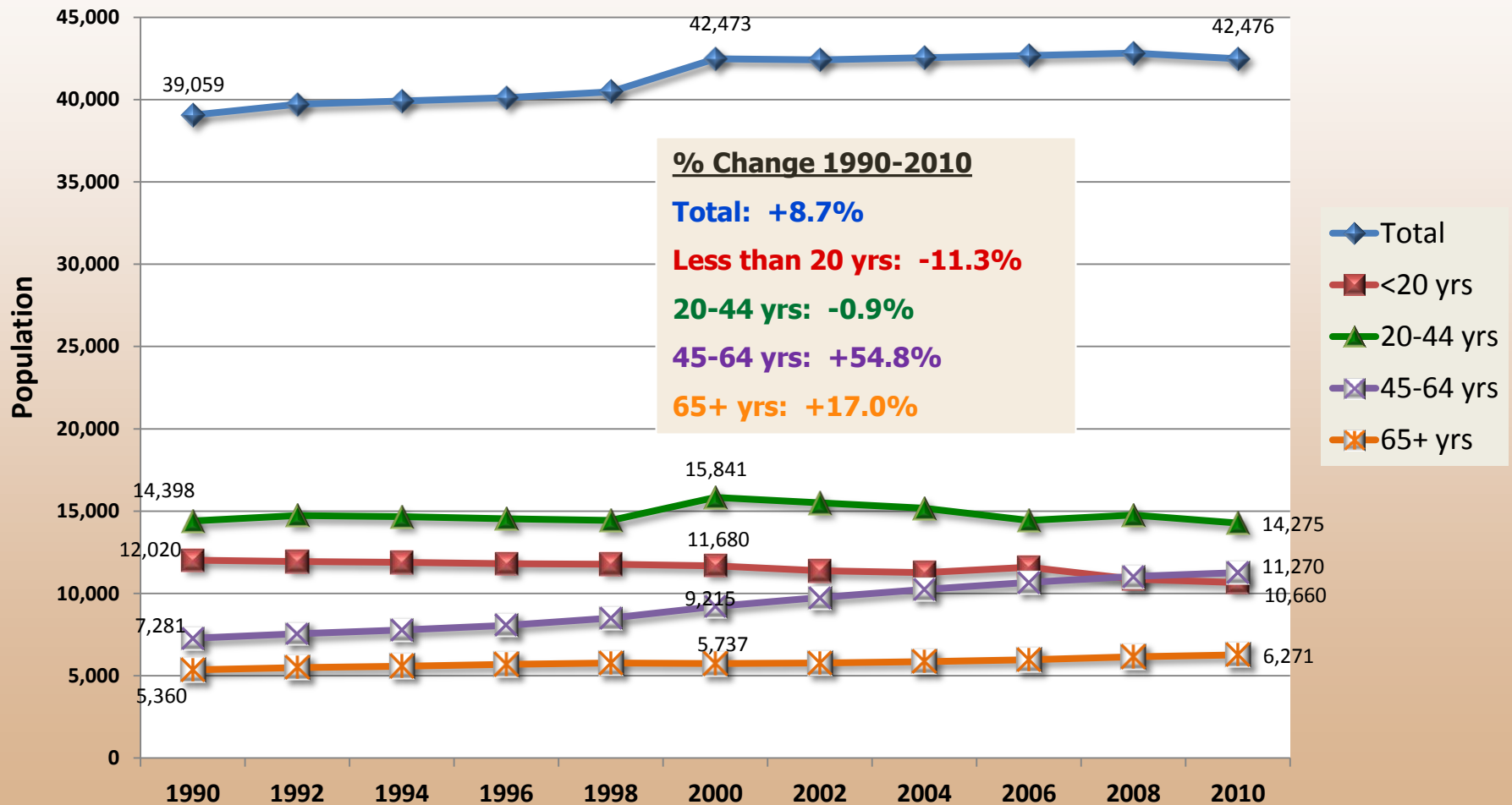
# Summary – Demographics (cont.)

- Poverty: Both Gratiot County and Michigan have seen a consistent increase in adult and child poverty over the recent decade. As of 2010, child poverty in Gratiot County had climbed to 1 of every 4 youth - 25.6% (MI at 23.4%).
- Unemployment: During the previous decade, the Gratiot County jobless rate grew from a low of 4.5% in 2000 (MI at 3.7%) to peak at 13.6% in 2009 (MI at 13.4%). Department of Labor statistics indicate employment has improved in Michigan and Gratiot County since 2010, but limited employment opportunities remain a serious issue for many families (as we will see in Live Well Gratiot survey results).
- Educational Attainment: Gratiot County fares worse than Michigan regarding the proportion of adults age 25 years and older with post-secondary education, particularly those with a Bachelor's or post-graduate/professional education. Recent census data indicates 12.6% of Gratiot residents vs. 25.6% of Michigan adults have earned at least a 4-year college degree.



# Demographics - Population

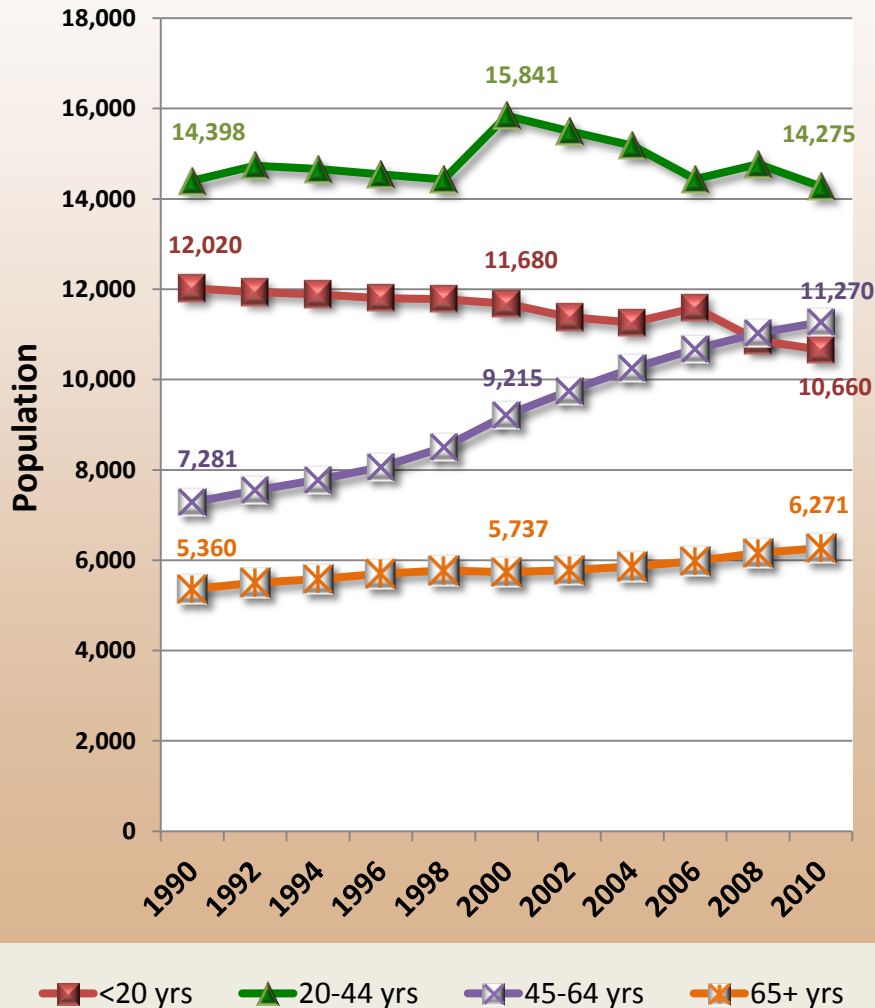
## Gratiot County Population by Age Group, 1990-2010



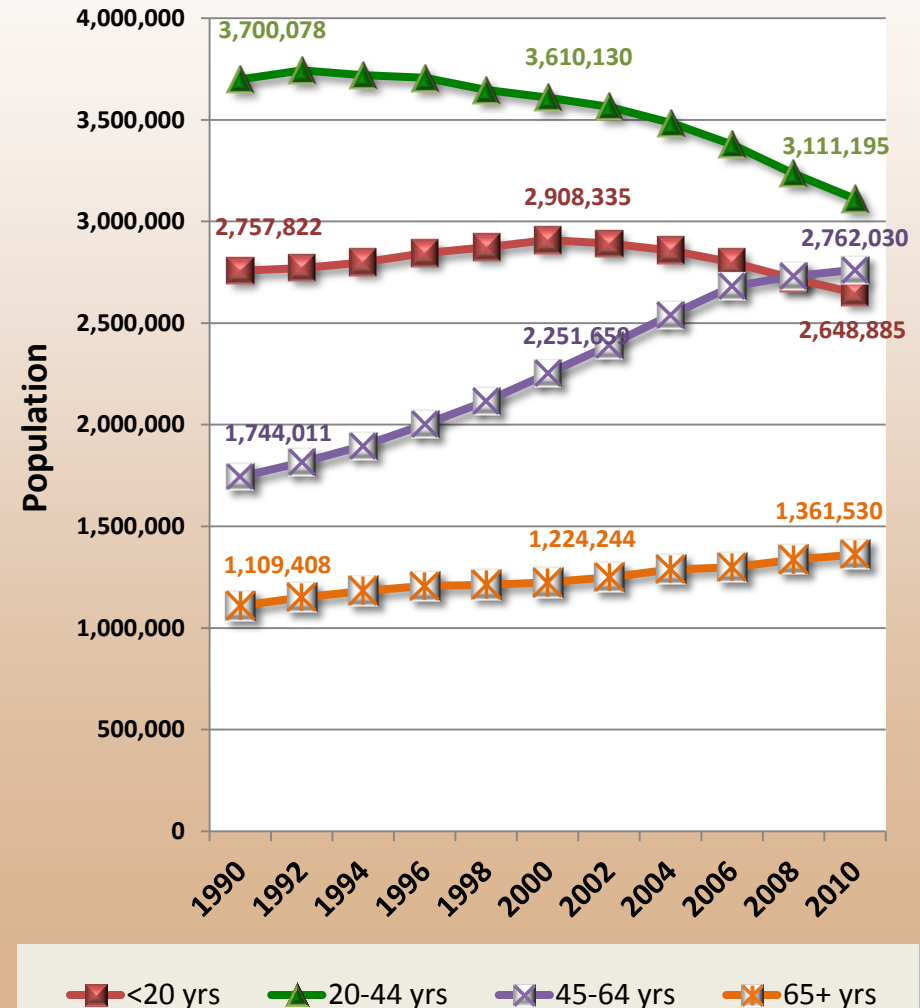


# A Closer Look...

## Pop. by Age Group - GRATIOT

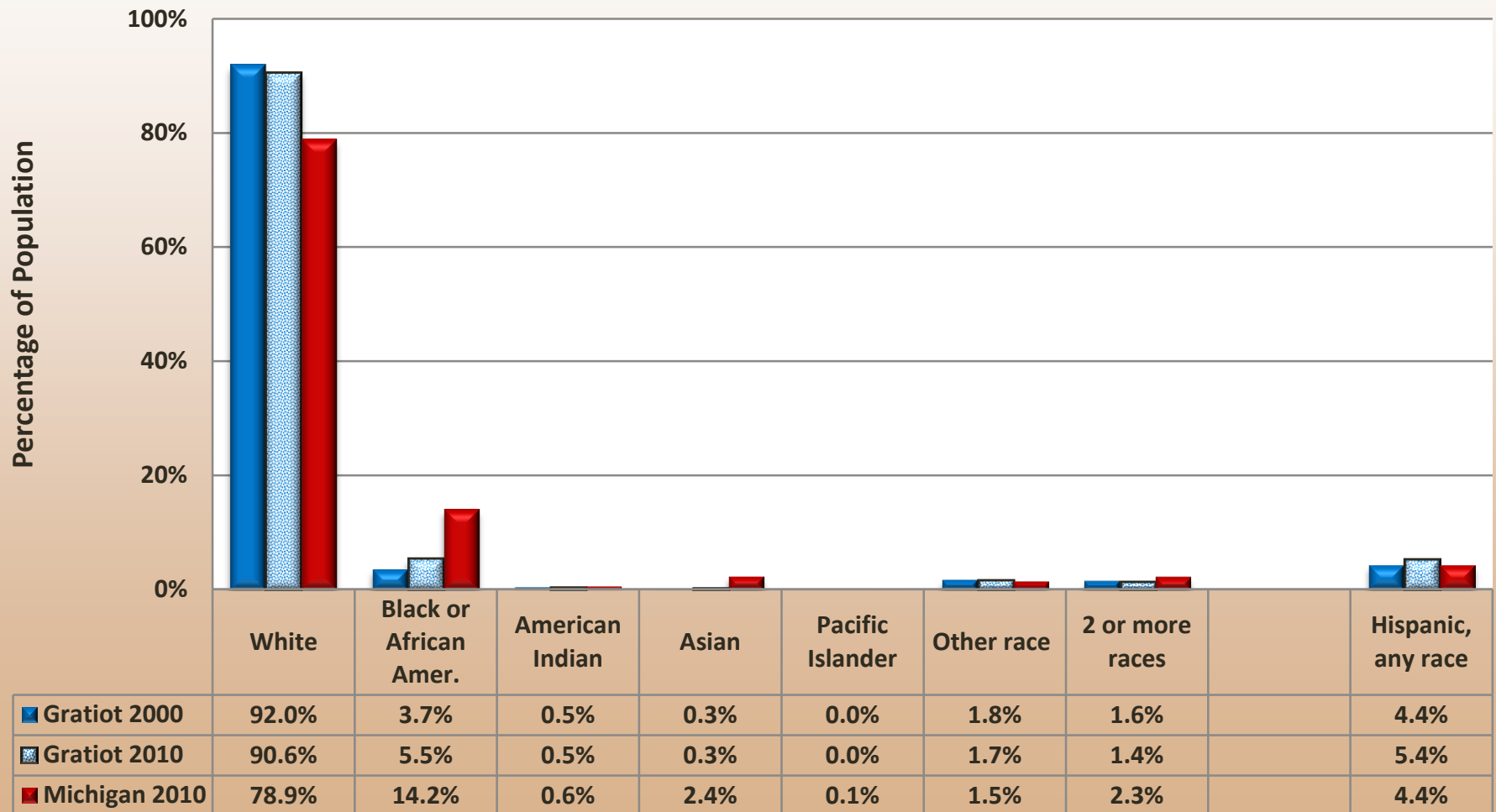


## Pop. by Age Group - MICHIGAN



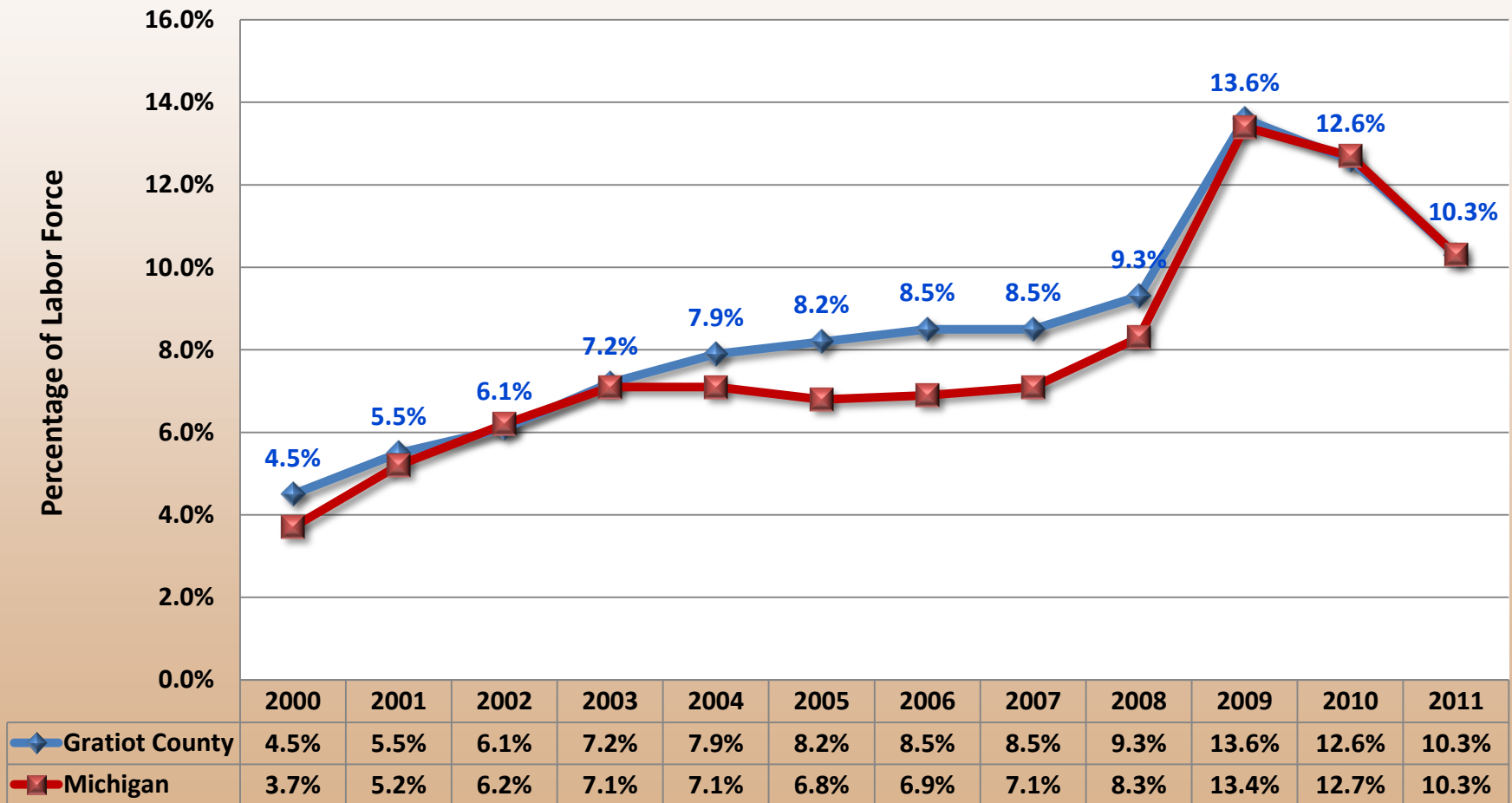
# Demographics – Race & Ethnicity

**Racial Composition & Ethnicity**  
**Gratiot County 2000 & 2010 vs. Michigan 2010**



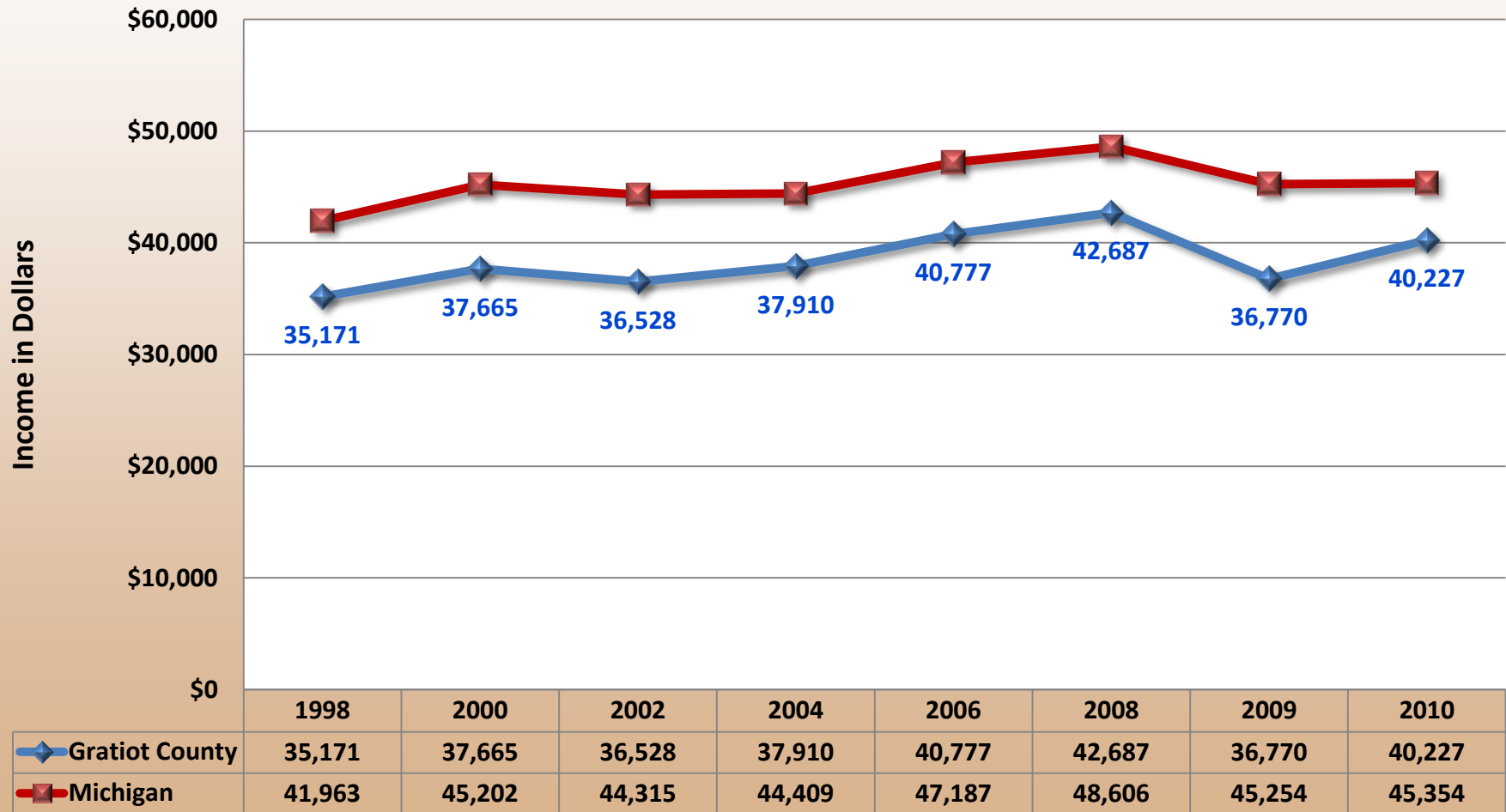
# Demographics – Unemployment

**Unemployment (Jobless) Rate  
Gratiot County & Michigan, 2000 to 2011**



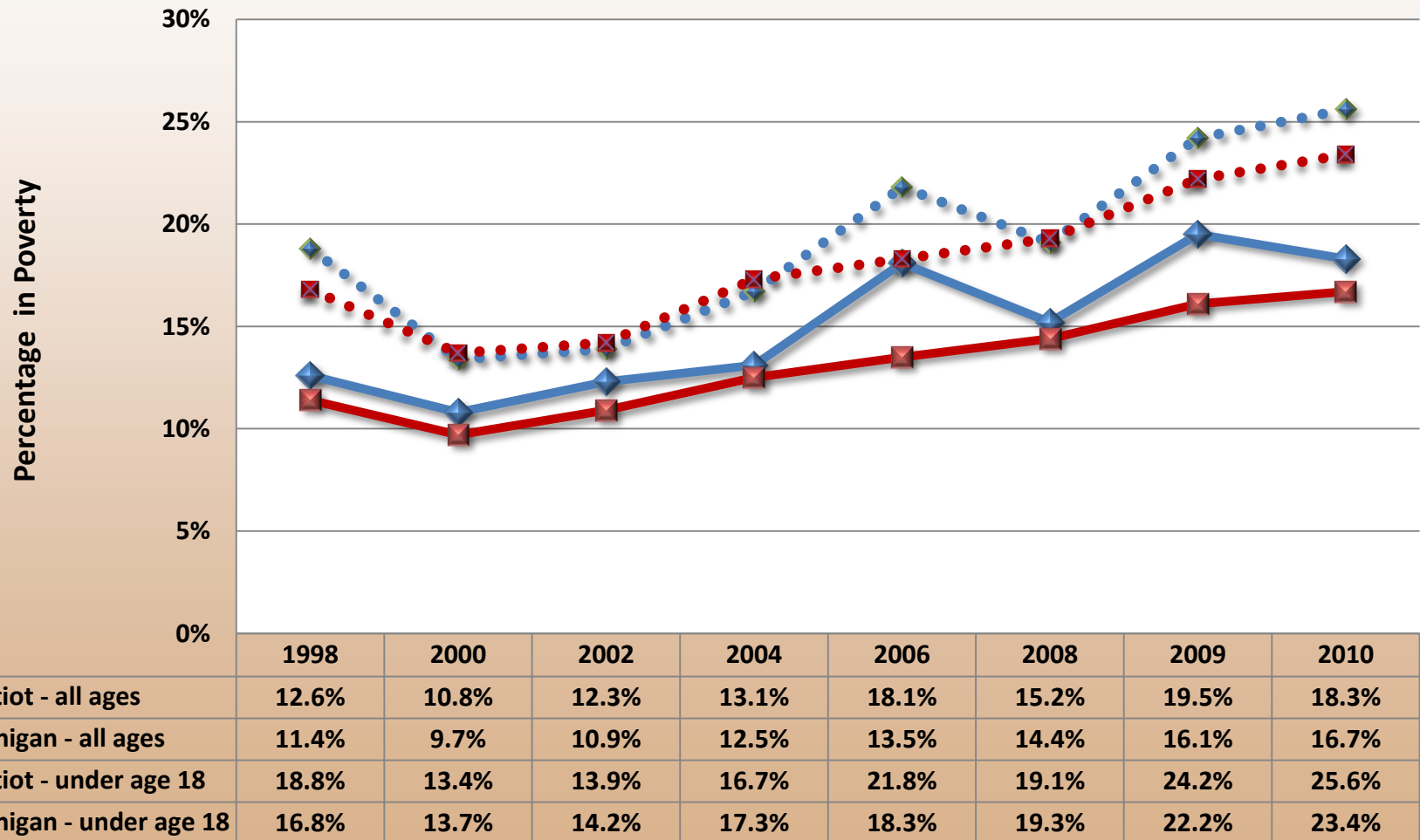
# Demographics – Household Income

**Median Household Income**  
**Gratiot County & Michigan, 1998 to 2010**



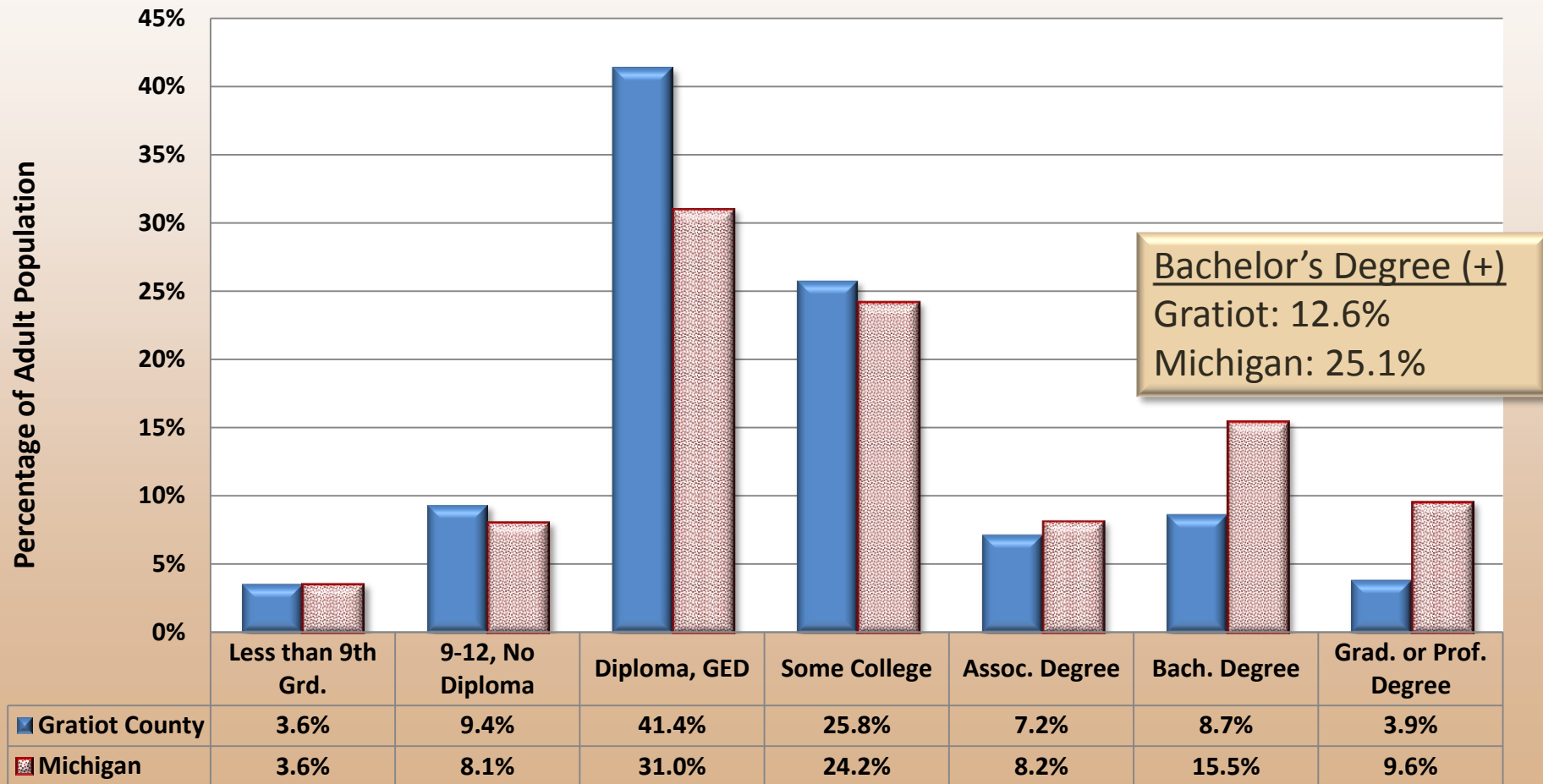
# Demographics – Poverty

**Poverty Prevalence**  
**Gratiot County & Michigan, 1998 to 2010**



# Demographics – Education

**Educational Attainment, Age 25+ yrs.  
Gratiot County & Michigan, 2008-10 Avg.**



# Access to Care

- **Health Care Coverage**
- **Personal Health Care Provider**
- **Timely Access to Medical and Dental Care**
- **Timely Access to Prescription Drugs**

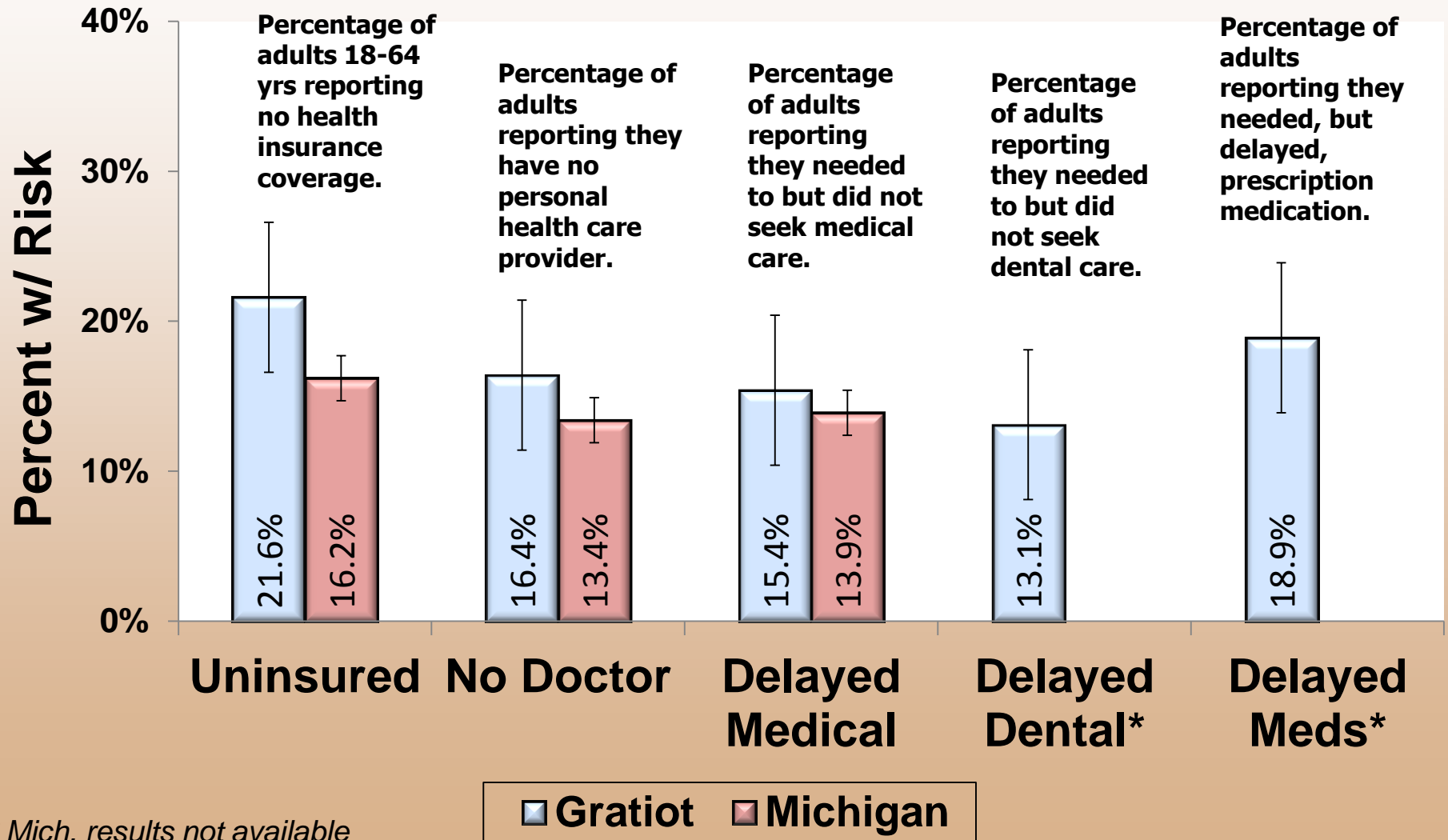


# Summary – Access to Care

- Uninsured: The proportion of Michigan adults age 18-64 yrs. without health insurance increased from 6.3% in 2000 to 16.6% in 2010 (~1.2 million adults).
  - A higher proportion of Gratiot County adults (18-64 years of age) than Michigan adults are without health insurance (21.6% vs. 16.2%). [2008-10 BRFSS] 😞
  - A similar proportion of Gratiot County and Michigan youth (<18 yrs) are without health care coverage (4.7% vs. 4.5%). [2010 SAHIE] 😊
- No Personal Health Care Provider: A higher proportion of Gratiot County adults than Michigan adults have no personal doctor (16.4% vs. 13.4%). [BRFSS] 😞
- Delayed Access to Health Care: A higher proportion of Gratiot County adults than Michigan adults reported there was a time in the past year when they needed to see a doctor but could not (15.4% vs. 13.9%). [BRFSS] 😞
- Delayed Access to Dental Care: 13.1% of Gratiot County adults reported there was a time in the past year when they needed to see a dentist but could not. (results not available for Michigan). [BRFSS]
- Delayed Prescription: 18.9% of Gratiot 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. (results not available for Michigan). [BRFSS]

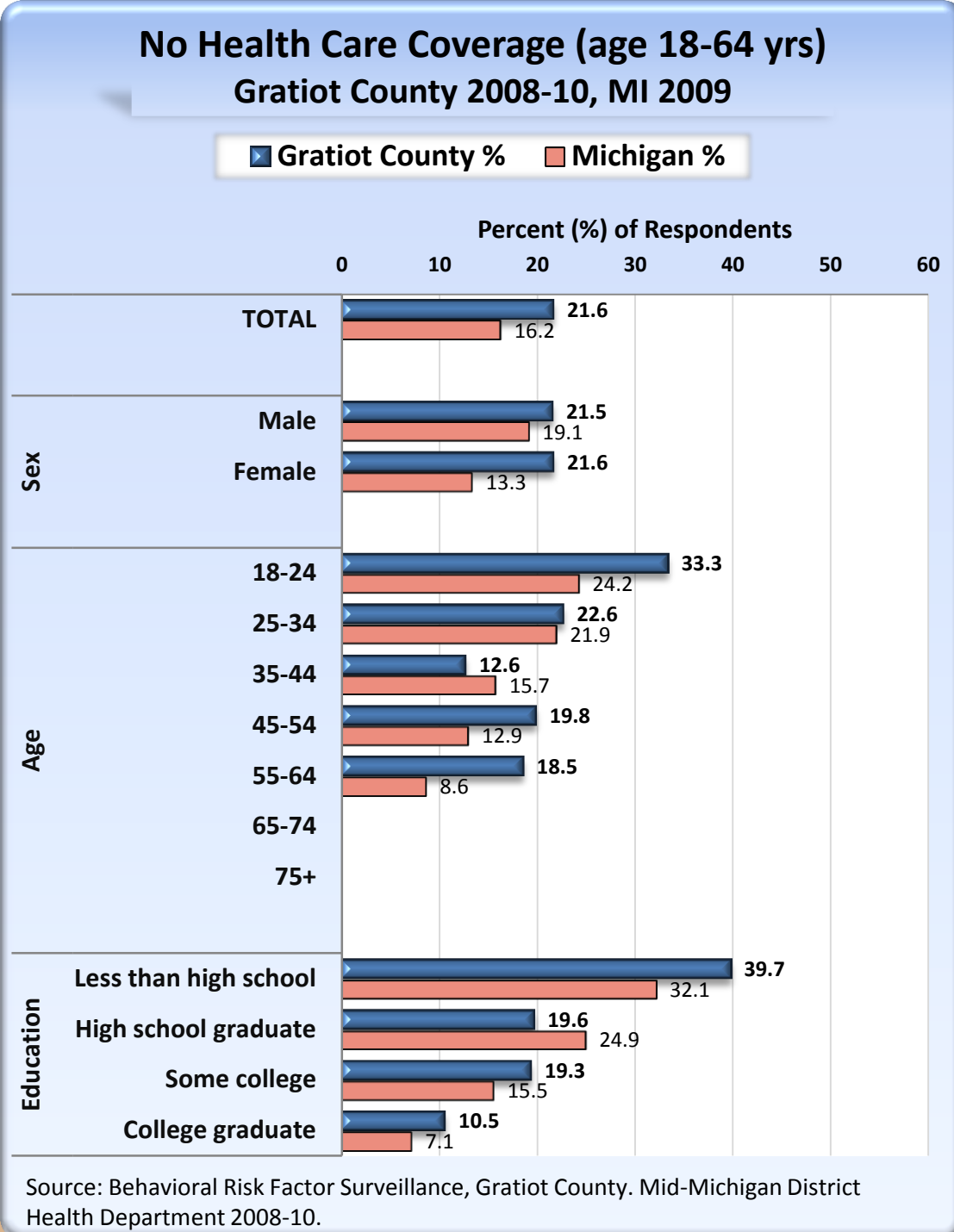


# Access to Health Care



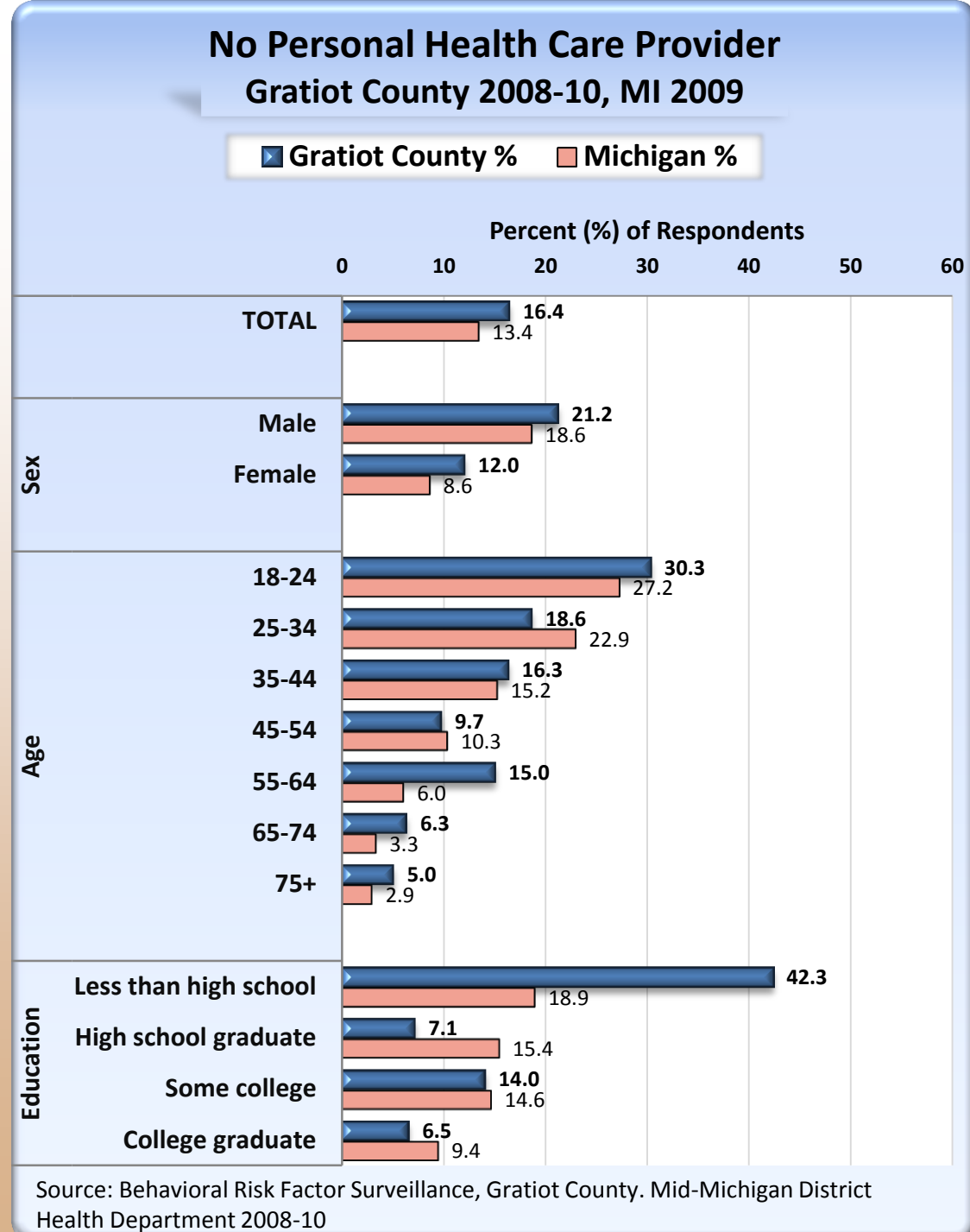
# Uninsured

- Availability of health insurance/coverage is a primary determinant in accessing care.
- Michigan: nearly 1.2 million uninsured adults age 18-64 yrs [2010 Census Bureau estimate]
- Michigan Uninsured characteristics (see chart):
  - Men more likely than women to be uninsured
  - Younger age groups more likely than older age groups to be uninsured
  - Adults with lower educational attainment more likely to be uninsured
  - Gratiot County results generally follow this same pattern.



# Access to Personal Health Care Provider

- Adults without a regular source of care are:
  - More likely to delay care, and
  - Less likely to utilize preventive services
- Increases in primary care access have been shown to improve health-related outcomes.
- Michigan Uninsured characteristics (see chart):
  - Men more likely than women to not have a health care provider
  - Younger age groups more likely than older age groups to not have a health care provider
  - Adults with lower educational attainment more likely to not have a health care provider
  - Gratiot County results generally follow this same pattern.



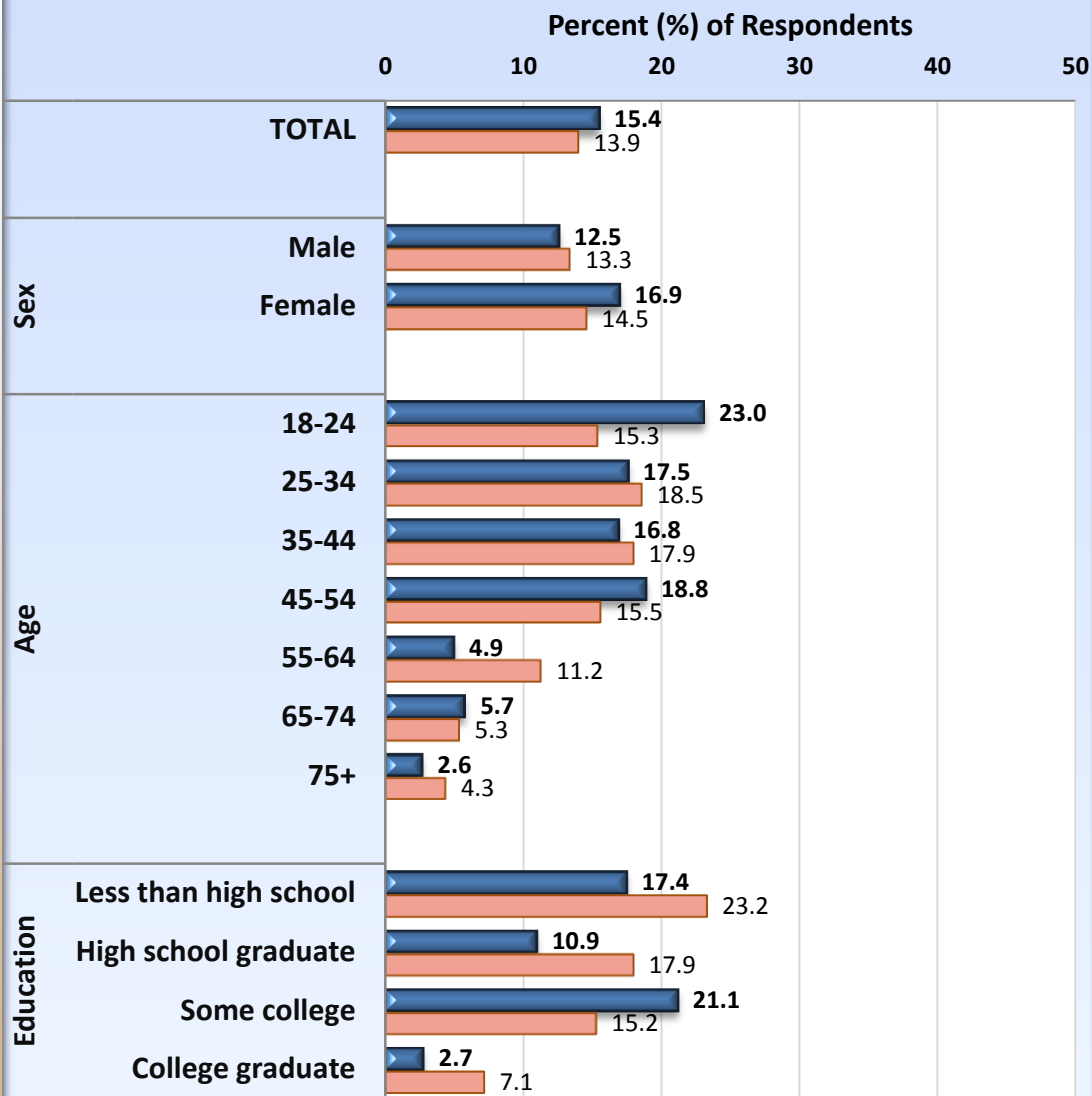
# Access to Health Care

- Delaying health care can increase the likelihood of poor health outcomes.
- Accessibility to timely health care largely driven by insurance status and costs.
- *Live Well Gratiot 2012 survey indicates nearly 25% of respondents delayed medical care.*

| Reason (Gratiot County Respondents)         | Male | Female |
|---|------|--------|
| Could not afford it / cost                  | 74%  | 51%    |
| Didn't want to go (afraid, lack confidence) | 0%   | 0%     |
| Could not get time off from work            | 0%   | 0%     |
| Could not get an appointment                | 5%   | 14%    |
| Didn't have transportation                  | 0%   | 19%    |
| Insurance did not cover                     | 0%   | 6%     |
| Didn't have time                            | 3%   | 3%     |
| No child or respite care                    | 0%   | 0%     |
| Other reason                                | 16%  | 7%     |
| Did not recall why                          | 2%   | 0%     |
| total                                       | 100% | 100%   |

## Delayed Health Care in Past Year Gratiot County 2008-10, MI 2009

■ Gratiot County %   ■ Michigan %



Source: Behavioral Risk Factor Surveillance, Gratiot County. Mid-Michigan District Health Department 2008-10

# General Health Status

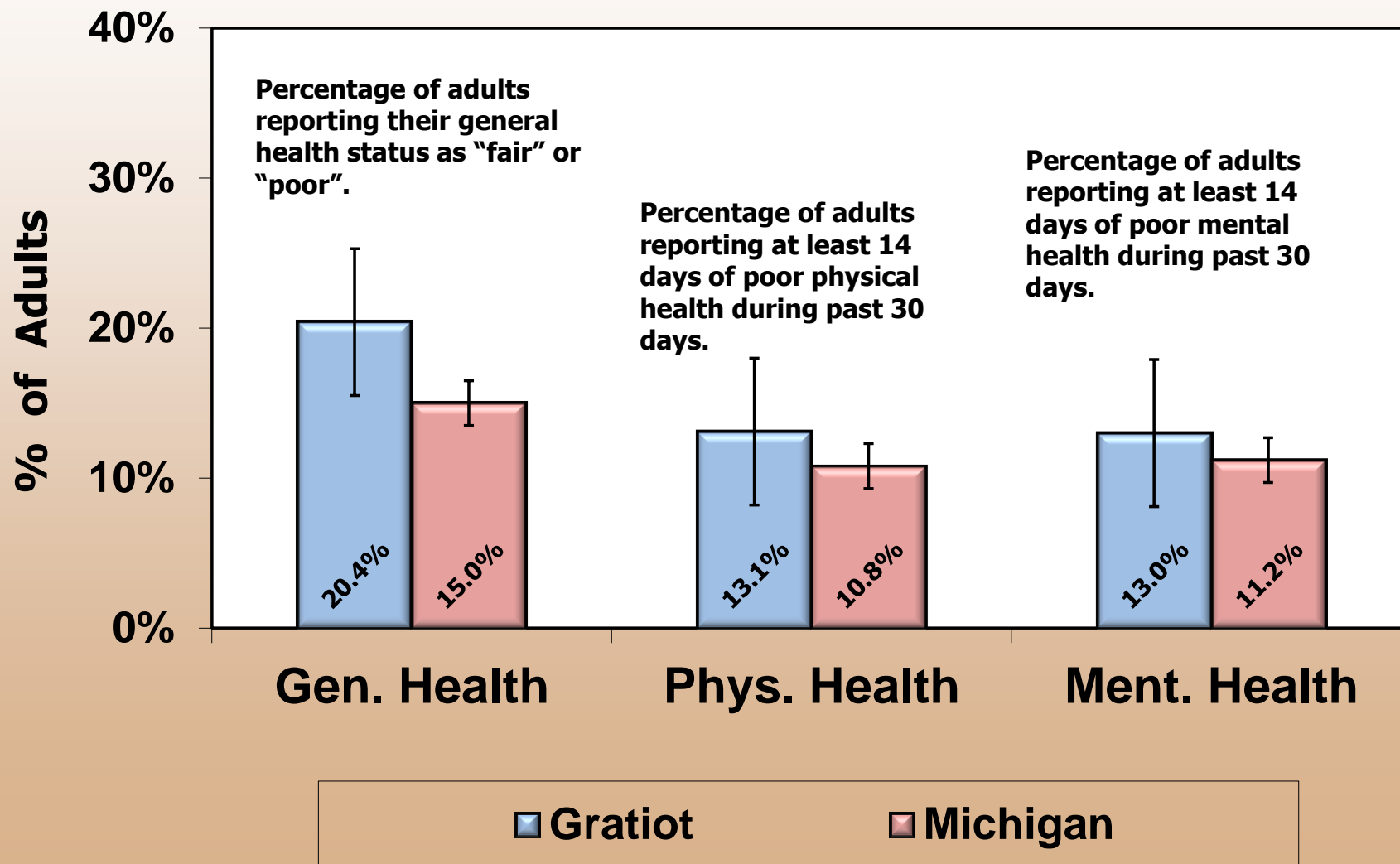
- **Self-Reported Health Status**
- **Physical Health**
- **Mental Health**

# Summary – General Health Status

- Self –Reported Fair or Poor Health: Over the past decade, the proportion of Michigan adults who reported their health to be ‘fair’ or ‘poor’ (vs. good or excellent) has been relatively constant at about 15%.
  - A higher proportion (20.4%) of Gratiot County adults report their health status to be fair or poor than Michigan adults (15.0%). [BRFSS 2008-10] 😞
- Physical Health Not Good: A higher proportion (13.1%) of Gratiot County adults experienced poor physical health for at least 14 days during the previous month than Michigan adults (10.8%). [BRFSS] 😞
- Mental Health Not Good: A higher proportion (13.0%) of Gratiot County adults experienced poor mental health for at least 14 days during the previous month than Michigan adults (11.2%). This included stress, depression and problems with emotions. [BRFSS] 😞

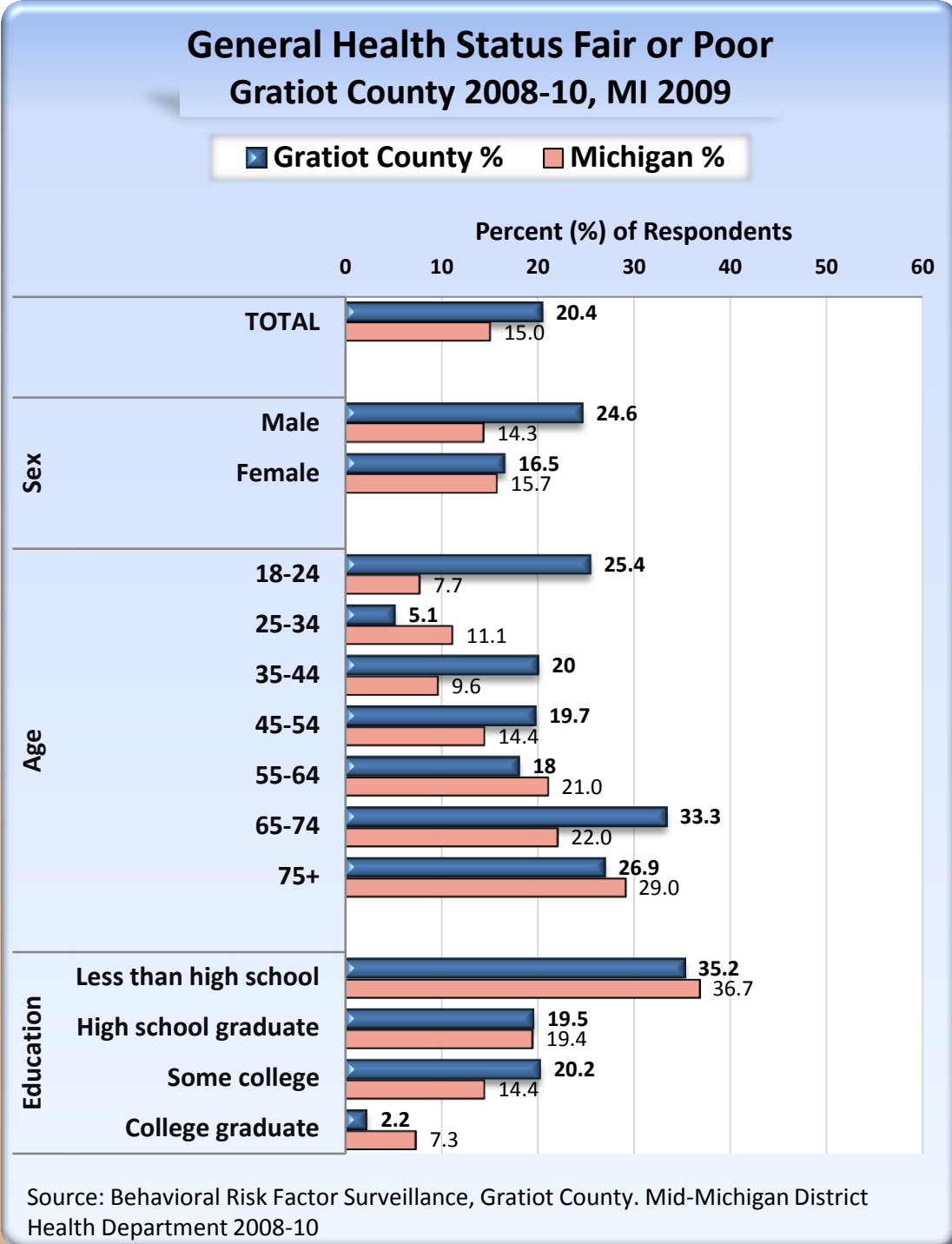
## *Behavioral Risk Factor Survey 2008-10*

# General Health Status



# General Health Status

- Michigan General Health Status characteristics (see chart):
  - Men and women equally likely to report their general health status as fair/poor.
  - Younger age groups less likely than older age groups to report fair/poor health
  - Adults with lower educational attainment more likely to report fair/poor health
  - Gratiot County results generally follow this same pattern for age groups and educational attainment. *(Keep in mind the Gratiot County survey sample size (~400) is much smaller than the Michigan sample size (~9,000), so margins of error are larger for Gratiot County).*





# Adult Health-Related Behaviors

- **Smoking**
- **Alcohol Consumption**
- **Weight Status**
- **Physical Activity**
- **Diet**

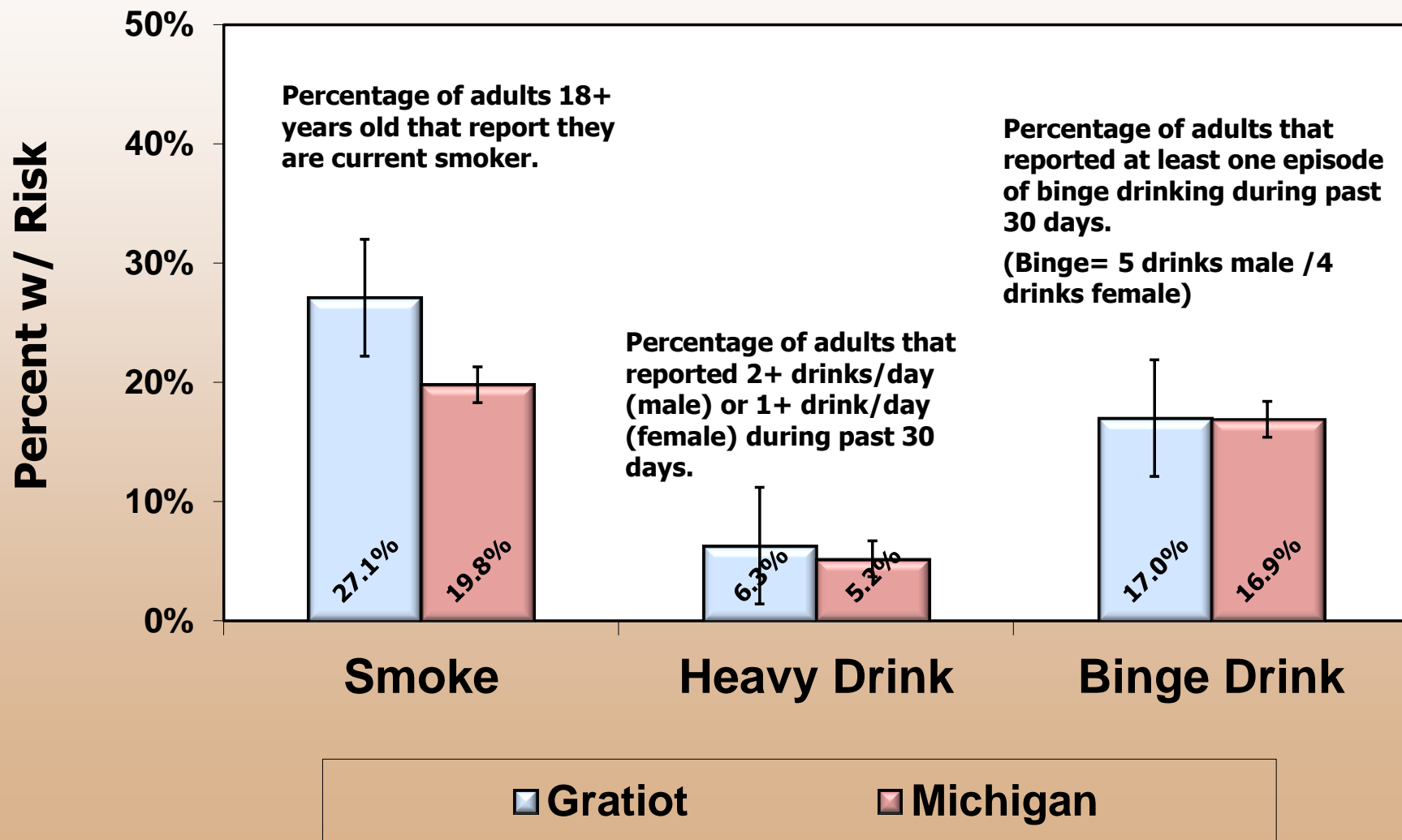


# Summary – Adult Health Behaviors

- Cigarette Smoking: Michigan's smoking rate declined over the past decade from 24% in 2000 to reach its lowest rate of 19.8% in 2009.
  - **A higher proportion of Gratiot County adults than Michigan adults are current smokers (27.1% vs. 19.8%). [BRFSS 2008-10] ☹️**
- Alcohol consumption: A higher proportion of Gratiot County than Michigan adults are heavy drinkers (6.3% vs. 5.2%). ☹️ A similar proportion of Gratiot and Michigan adults have reported binge drinking (17.0% vs. 16.9%). [BRFSS]
- Obesity: Michigan's obesity rate has steadily climbed from 22.5% in 2000 to 30.9% in 2009, following a national trend of increasing obesity prevalence. [BRFSS]
  - **A higher proportion of Gratiot County adults than Michigan adults are obese (32.7% vs. 30.9%). [BRFSS] ☹️**
- Physical Activity: A slightly lower proportion of Gratiot County adults than Michigan adults are sedentary (23.8% vs. 24.1%); (*Sedentary: do not engage in any type of leisure-time physical activity, to include walking, biking, gardening, etc.*) [BRFSS] 😊
- Diet: A higher proportion of Gratiot County adults than Michigan adults did not consume the recommended servings of fruits and vegetables (91.1% vs. 77.8%). ☹️

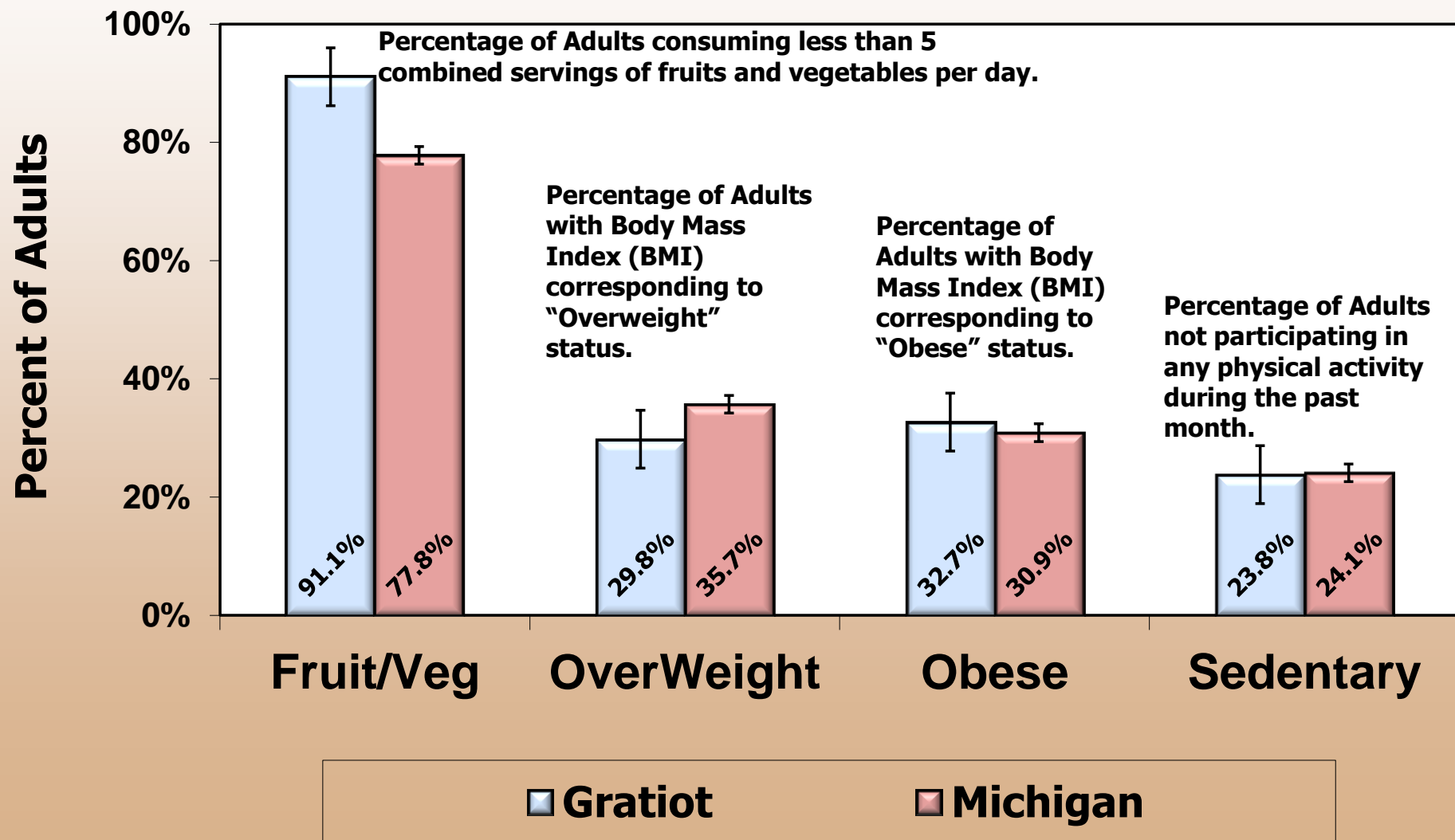
## Behavioral Risk Factor Survey 2008-10

# Tobacco and Alcohol



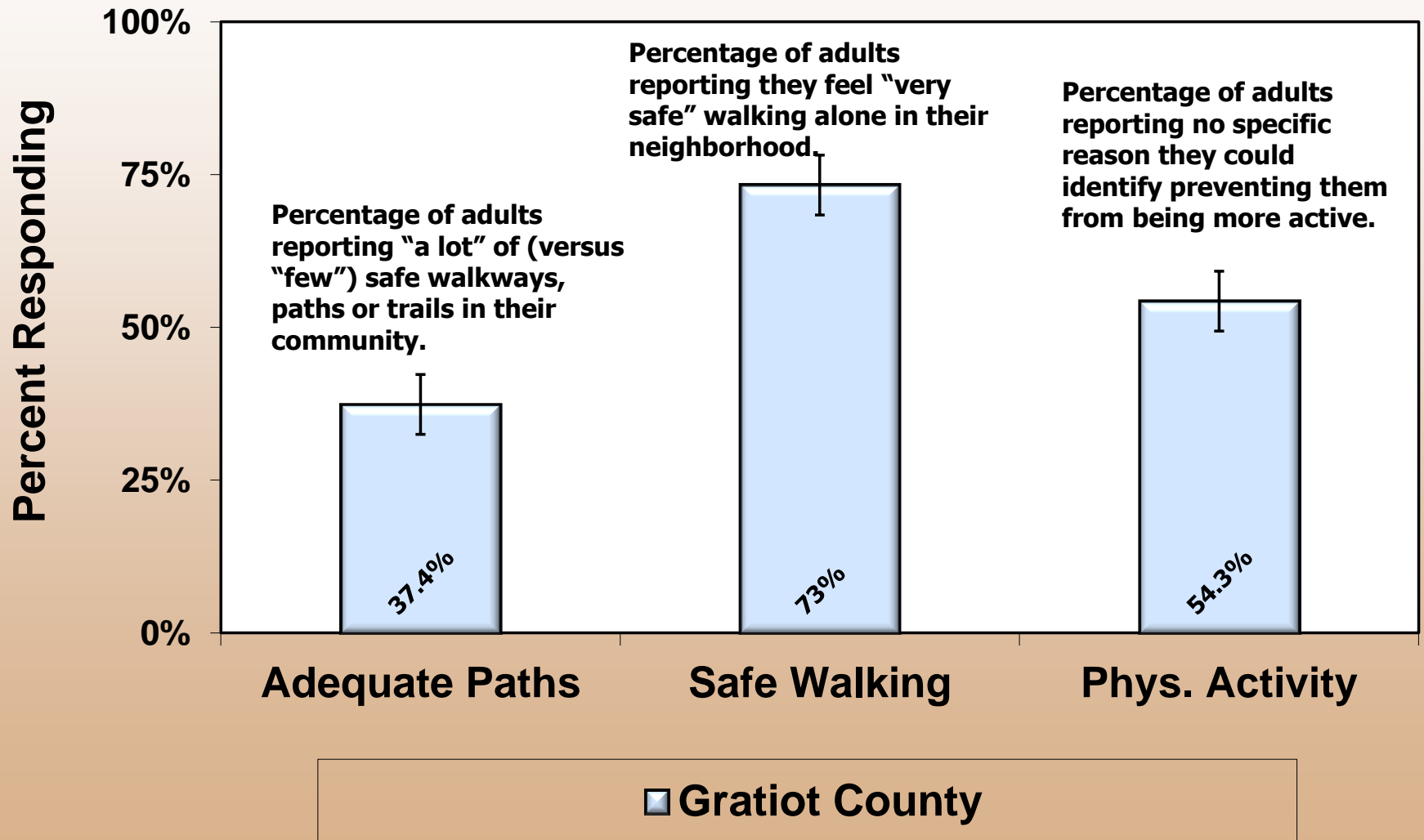
## *Behavioral Risk Factor Survey 2008-10*

# Diet, Weight and Activity



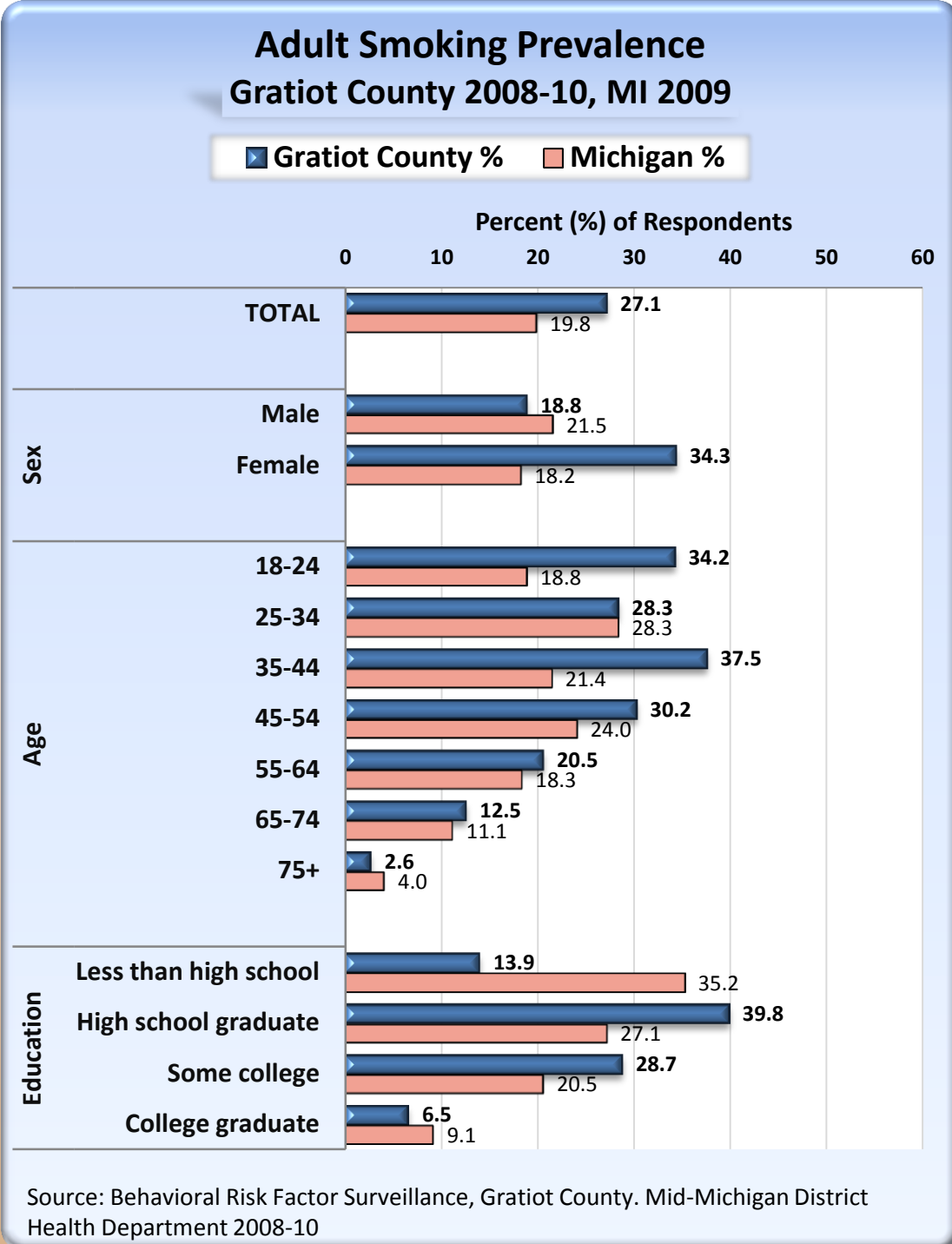
## Behavioral Risk Factor Survey 2008-10

# Healthy Environment



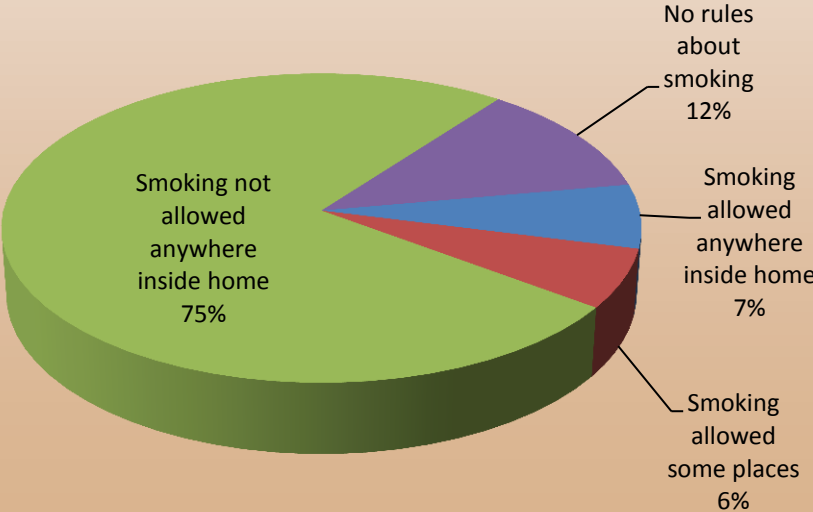
# Smoking

- Michigan smoking characteristics (see chart):
  - Men more likely than women to smoke
  - Younger age groups generally more likely than older age groups to smoke
  - Adults with lower educational attainment more likely to smoke than those with higher educational attainment
  - Gratiot County results generally follow this same pattern for age groups and educational attainment.

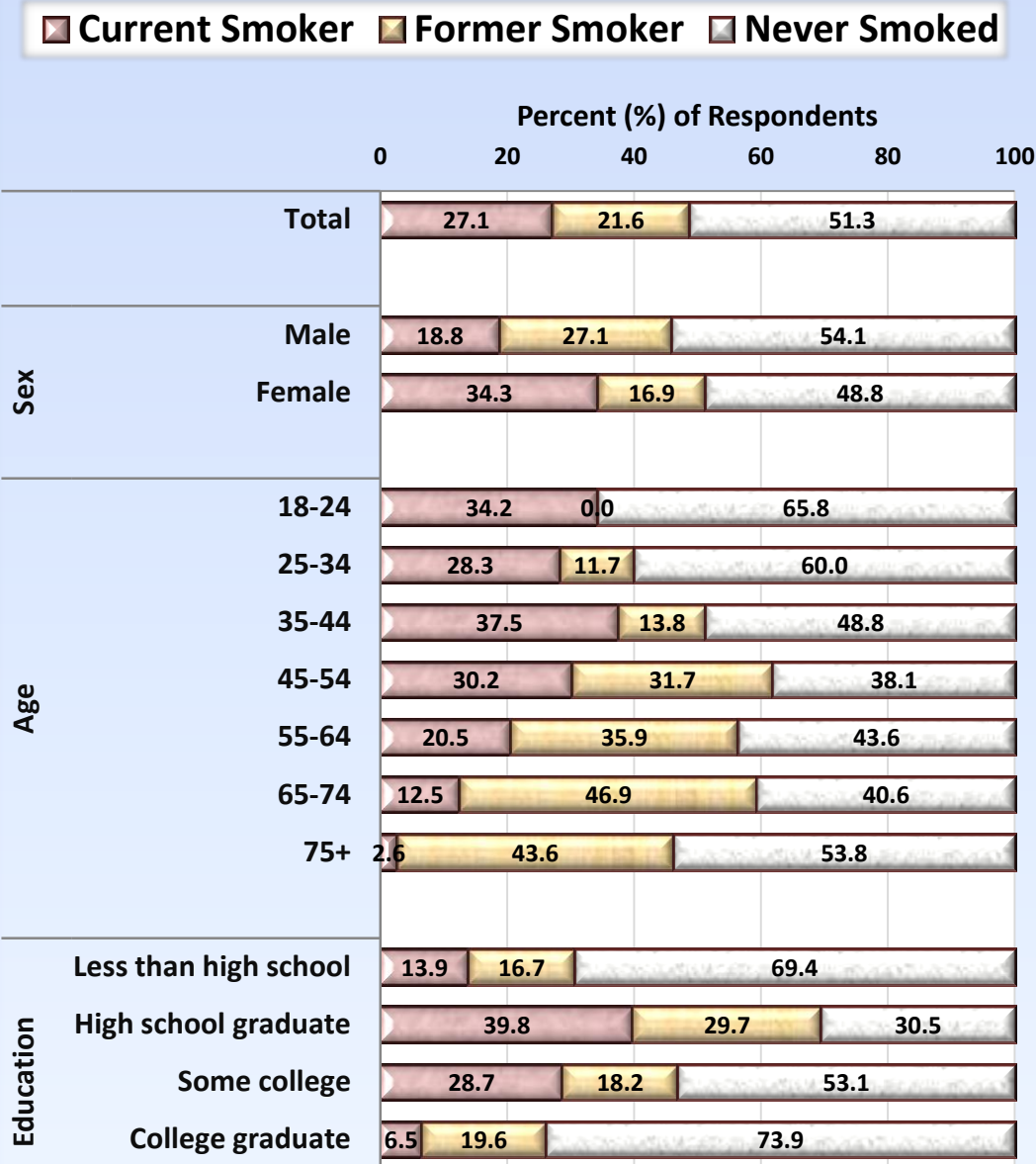


# Smoking

Smoking Rules in the Home



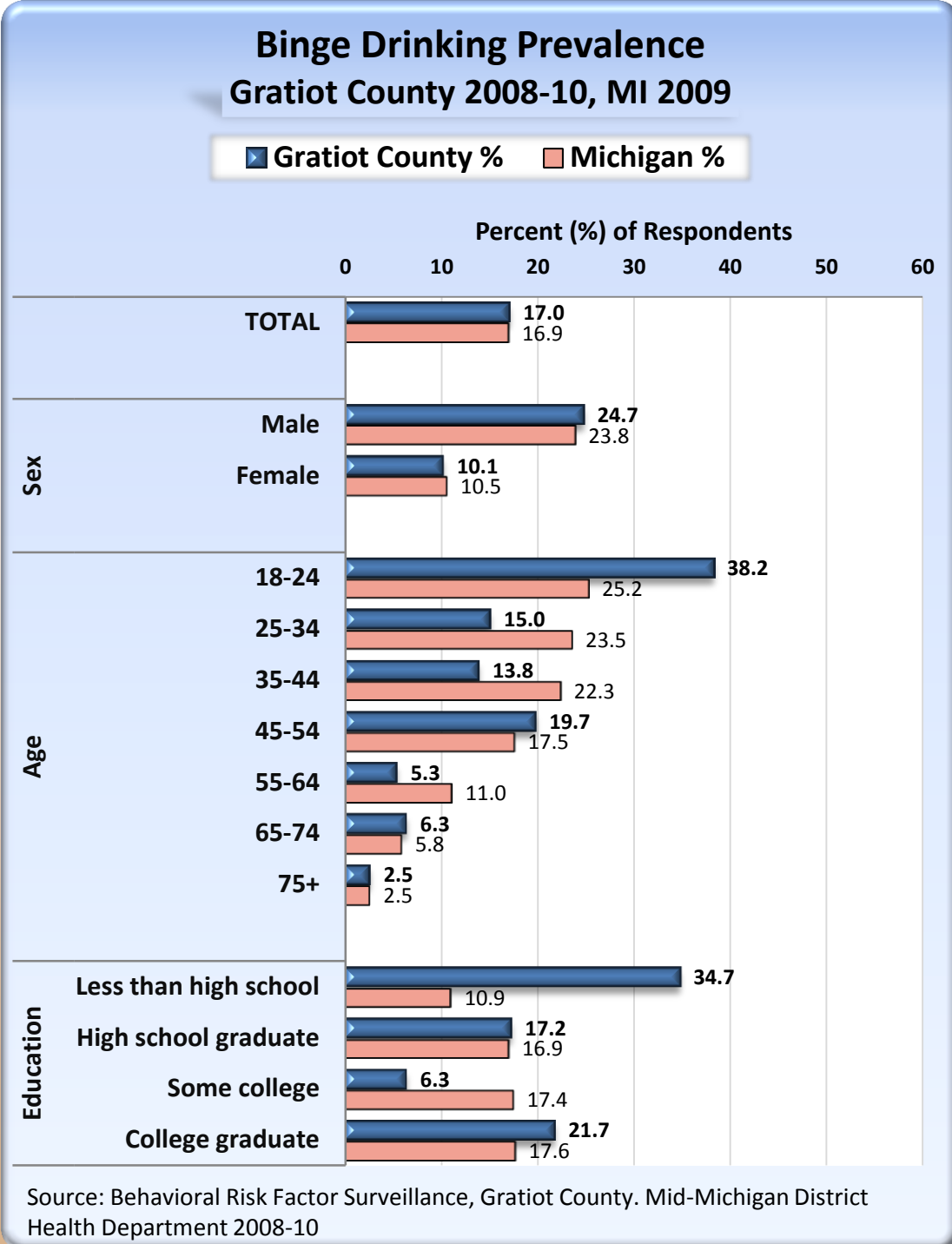
Smoking Status  
Gratiot County 2008-10



Source: Behavioral Risk Factor Surveillance, Gratiot County. Mid-Michigan District Health Department 2008-10

# Alcohol Consumption

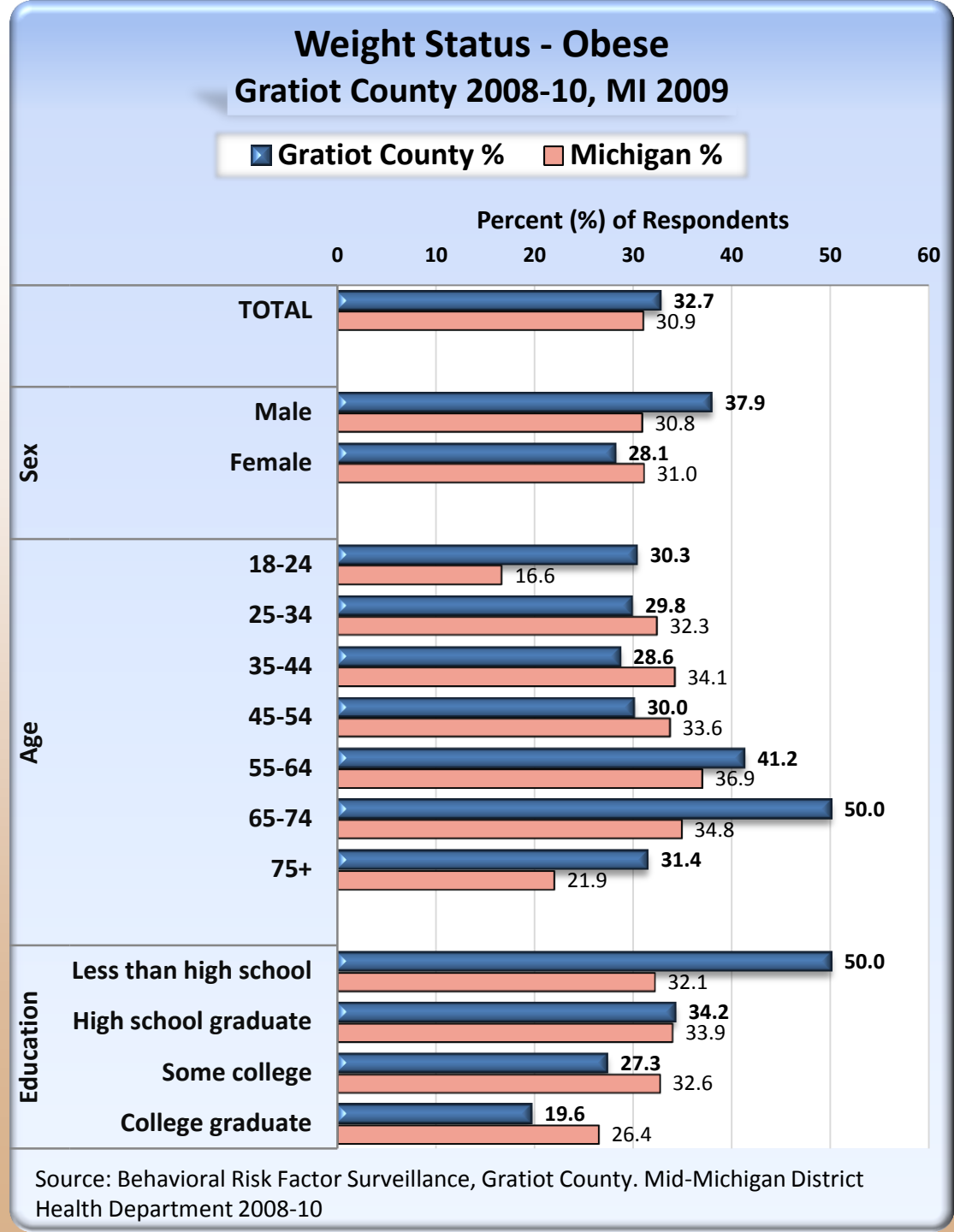
- Michigan binge drinking characteristics (see chart):
  - Men more likely than women to binge drink
  - Younger age groups generally more likely than older age groups to binge drink
  - Pattern less clear when looking at educational attainment for both Michigan and Gratiot County.
  - Gratiot County results generally follow Michigan pattern for gender and age groups





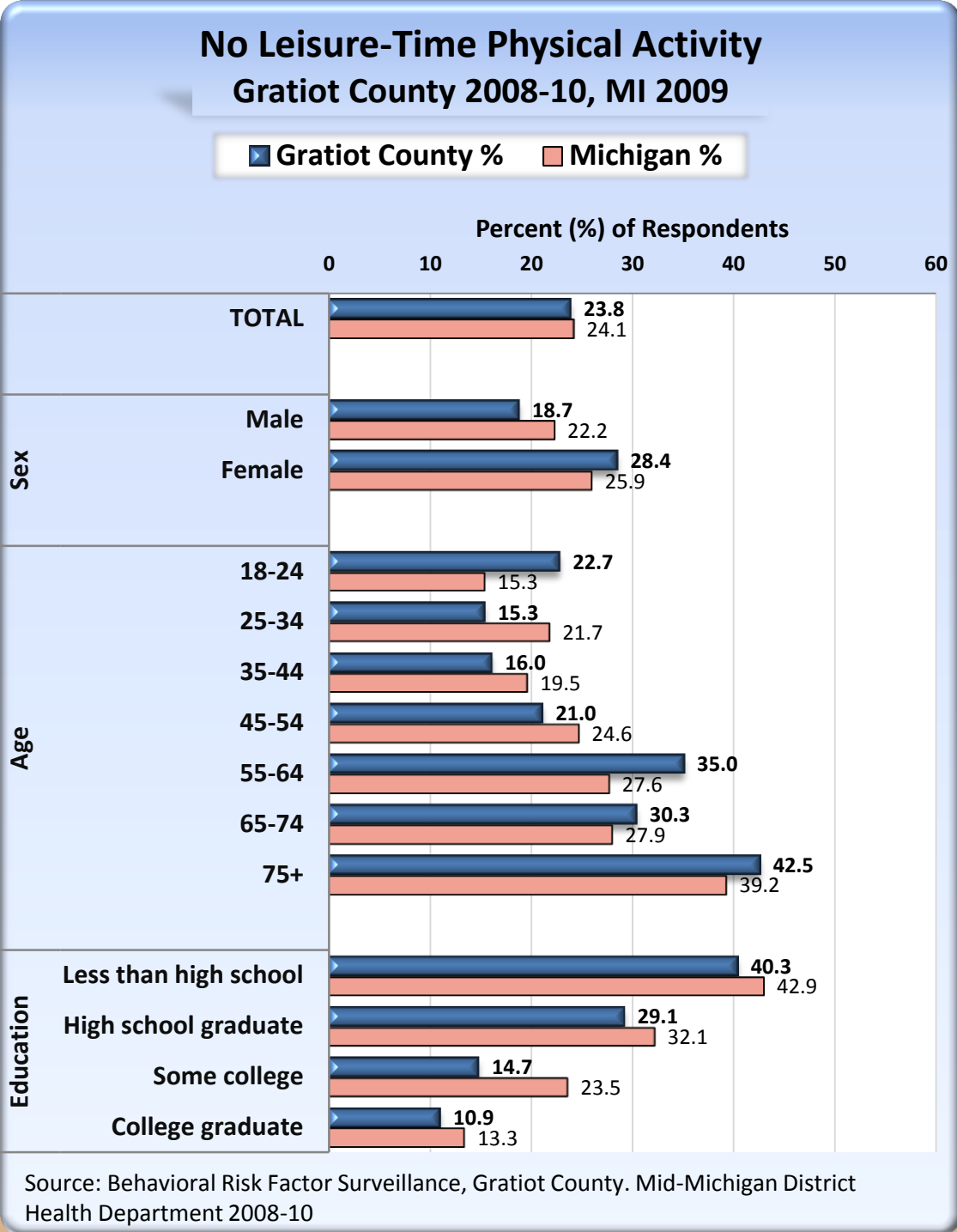
# Weight Status

- Body Mass Index (BMI) and weight status
- BMI can be calculated from a person's height and weight
- For adults, there are four general categories assigned:
  - Underweight (BMI below 18.5)
  - Recommended weight (18.5-24.9)
  - Overweight (25.0 – 29.9)
  - Obese (BMI 30.0 and above)
- The chart to the right represents the proportion of adults classified as obese.



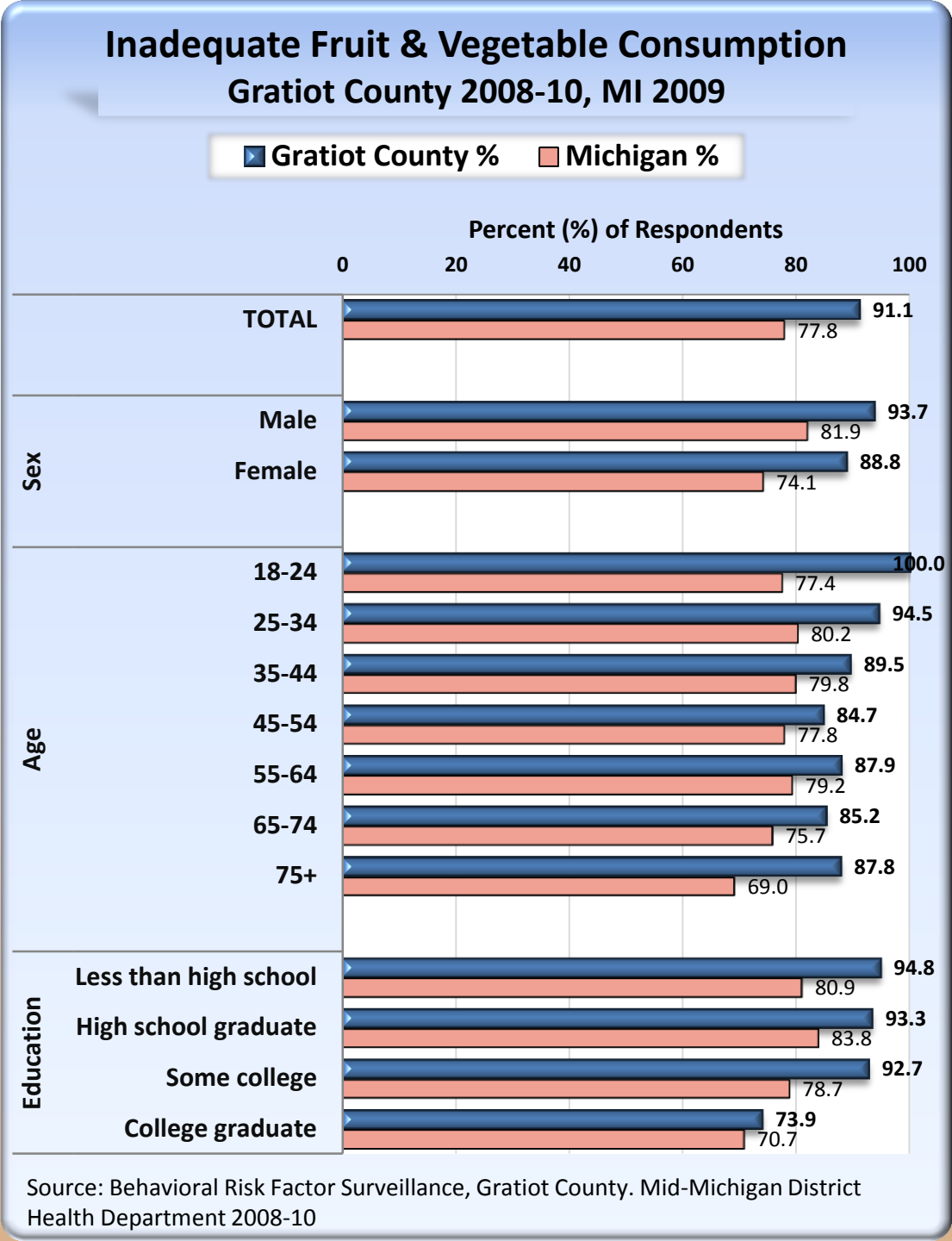
# Physical Activity

- This chart represents the proportion of adults who report they do not engage in any type of leisure time physical activity (excludes physical activity they may engage in at their job). This would include activities like walking, biking, gardening, etc.
- Michigan Physical Activity characteristics:
  - Women more likely to be sedentary
  - Older adults more likely to be sedentary
  - Adults with lower educational attainment more likely to be sedentary



# Diet

- This slide represents the percentage of adults who reported consuming less than 5 combined servings of fruits/vegetables daily.
  - Gratiot County adults fared less well than Michigan adults for all subgroups.

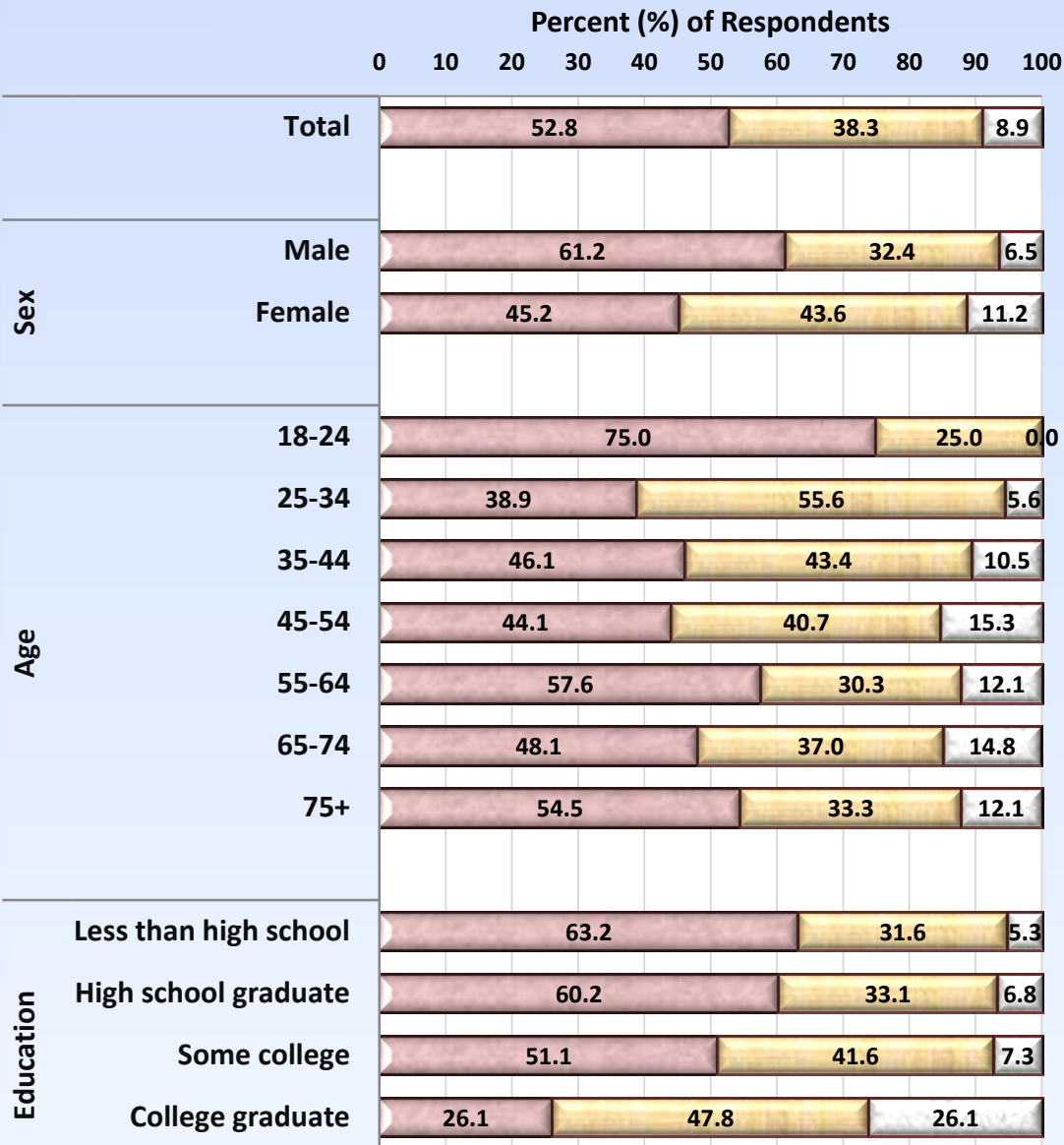


# Diet

- As a general guideline, it's recommended that adults consume at least 5 combined servings of fruits/vegetables daily.
- This chart indicates the daily servings of fruits/vegetables Gratiot County residents reported consuming...
  - Overall, over 50% of adults reported consuming 2 or less servings daily
  - Only a small percentage attain the generally recommended amount

## Fruit & Vegetable Consumption Gratiot County 2008-10

■ 2 or less servings   ■ 3 to 4 servings   ■ 5 or more servings



Source: Behavioral Risk Factor Surveillance, Gratiot County. Mid-Michigan District Health Department 2008-10

# Mortality and Morbidity

- **Leading Causes of Death**
- **Leading Hospitalizations**
- **Leading Ambulatory Care Sensitive Hospitalizations**

# Summary – Mortality & Morbidity

- Mortality: Five common conditions account for two-thirds of all deaths state-wide and for Gratiot County – heart disease, cancer, stroke, chronic lung disease, and unintentional injuries.
  - For the period 2008-10, Gratiot County had a lower mortality rate than Michigan for five of the ten leading causes (cancer, unintentional injuries, diabetes, Alzheimer's, suicide).
  - Mortality trends of significance where Gratiot differs from MI/U.S.
    - *Heart Disease – Gratiot with a higher rate; however, rate trending downward like MI/U.S.*
    - *Stroke – Gratiot with consistently higher rate; however, rate trending downward like MI/U.S.*
    - *Kidney Disease – Gratiot with consistently higher rate; however, stable rate similar to MI trend.*
- Morbidity:
  - A lower proportion of Gratiot County adults than Michigan adults have ever been told by a health care provider they have high blood pressure (27.0% vs. 30.4%). [BRFSS] 😊
  - A lower proportion of Gratiot County adults than Michigan adults have ever been told by a health care provider they have asthma (12.8% vs. 14.7%). [BRFSS] 😊
  - A higher proportion of Gratiot County adults than Michigan adults have ever been told by a health care provider they have diabetes (11.8% and 9.4%). [BRFSS] 😞
  - A higher proportion of Gratiot County adults than Michigan adults have ever been told by a health care provider they have high cholesterol (40.8% vs. 39.9%). 😞

# Summary – Mortality & Morbidity

- Morbidity (continued):

- Cancer Incidence:

- No clear trend for Gratiot County overall cancer incidence for the period 1995 to 2009.
    - No clear trend in Gratiot County breast, prostate, colon or lung cancer incidence for the period 1995 to 2009.

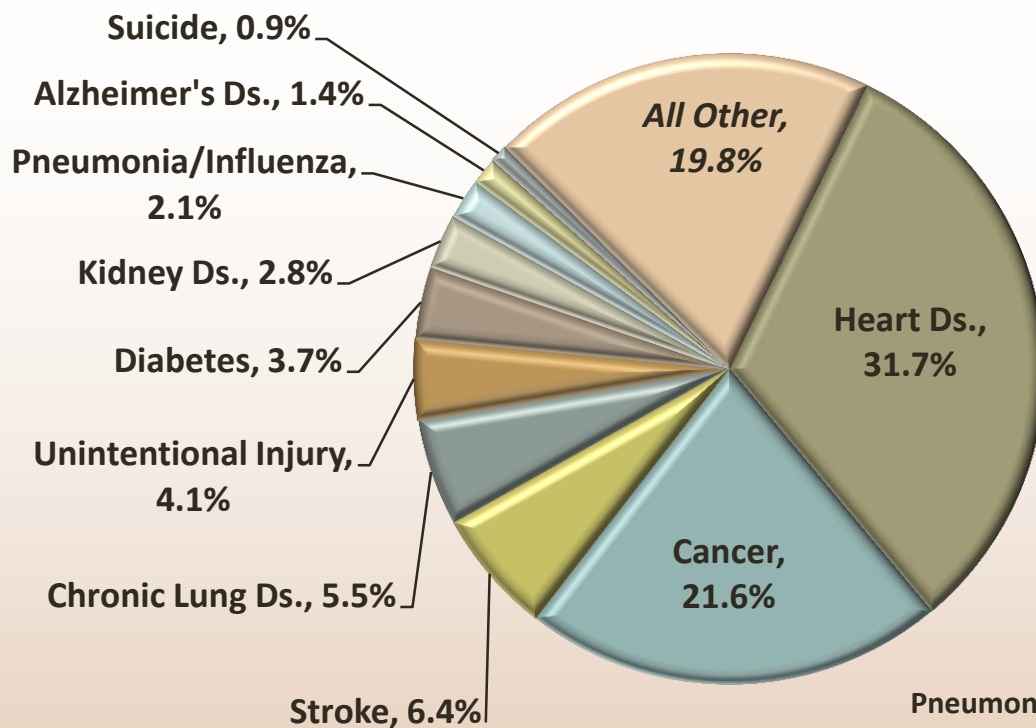
- A lower proportion of Gratiot County women age 40+ years have ever had a mammogram than Michigan women age 40+ years (87.3% vs. 94.2%). 😞

- A lower proportion of Gratiot County adults age 50+ years have ever had a sigmoidoscopy or colonoscopy than Michigan adults age 50+ years (60.8% vs. 70.9%). 😞

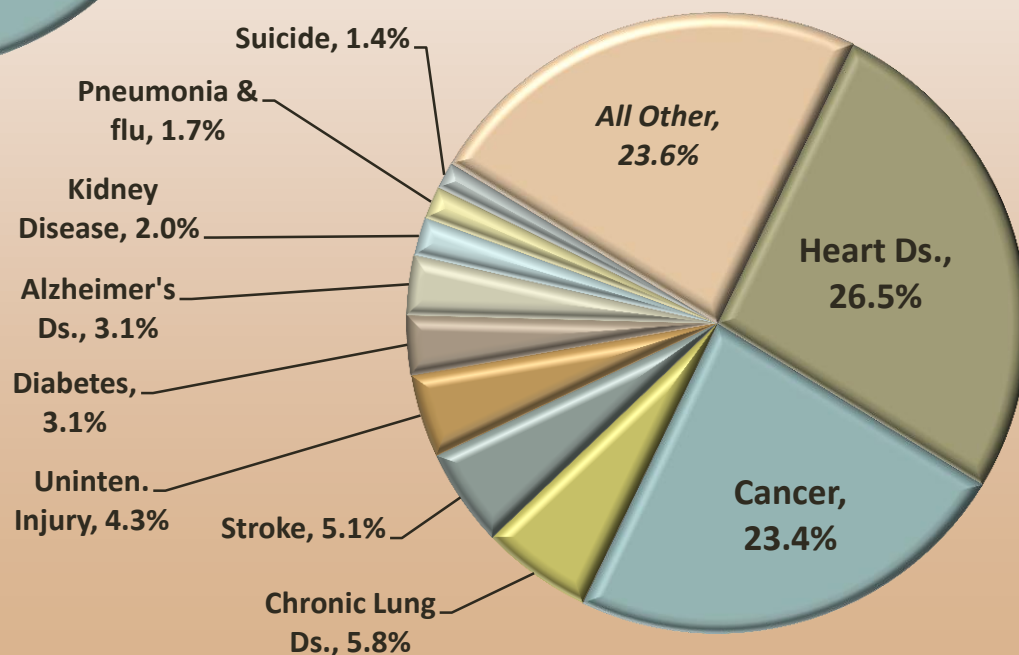
- Ambulatory Care Sensitive (ACS) Hospitalizations:

- During the period 2005-2009, the ACS hospitalization rate was higher for Gratiot County residents (300.1 per 10,000 persons) than Michigan residents (265.5 per 10,000) 😞
    - During the period 2000-2010 Gratiot County ACS hospitalizations as a percentage of total hospitalizations has remained at less than 21%, performing slightly better than Michigan over the decade.

## Leading Causes of Death, Gratiot County 2010



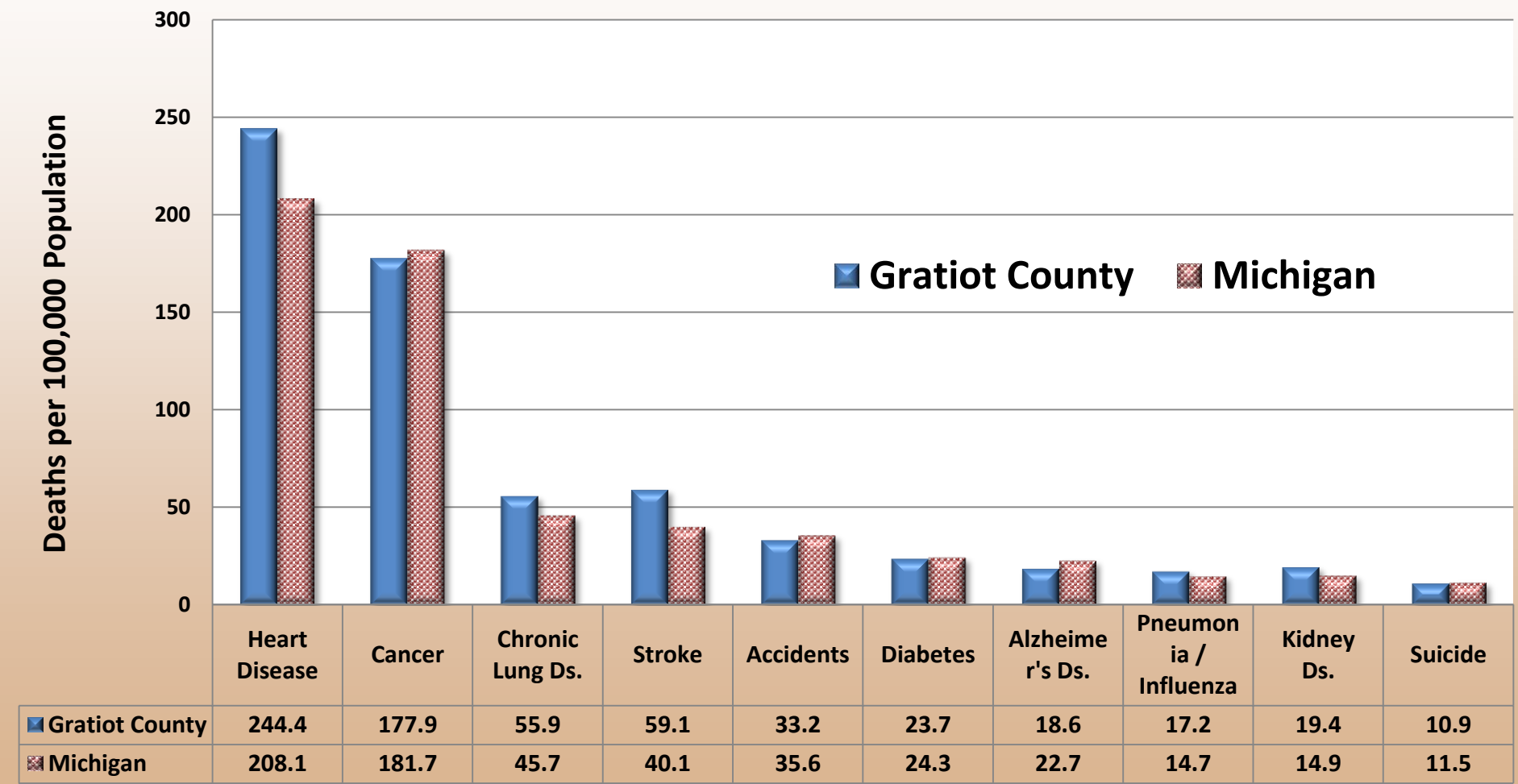
## Leading Causes of Death, Michigan 2010





# Leading Causes of Death

Ten Leading Causes of Death, 2008-10 Avg.  
(Age-adjusted deaths per 100,000 population)

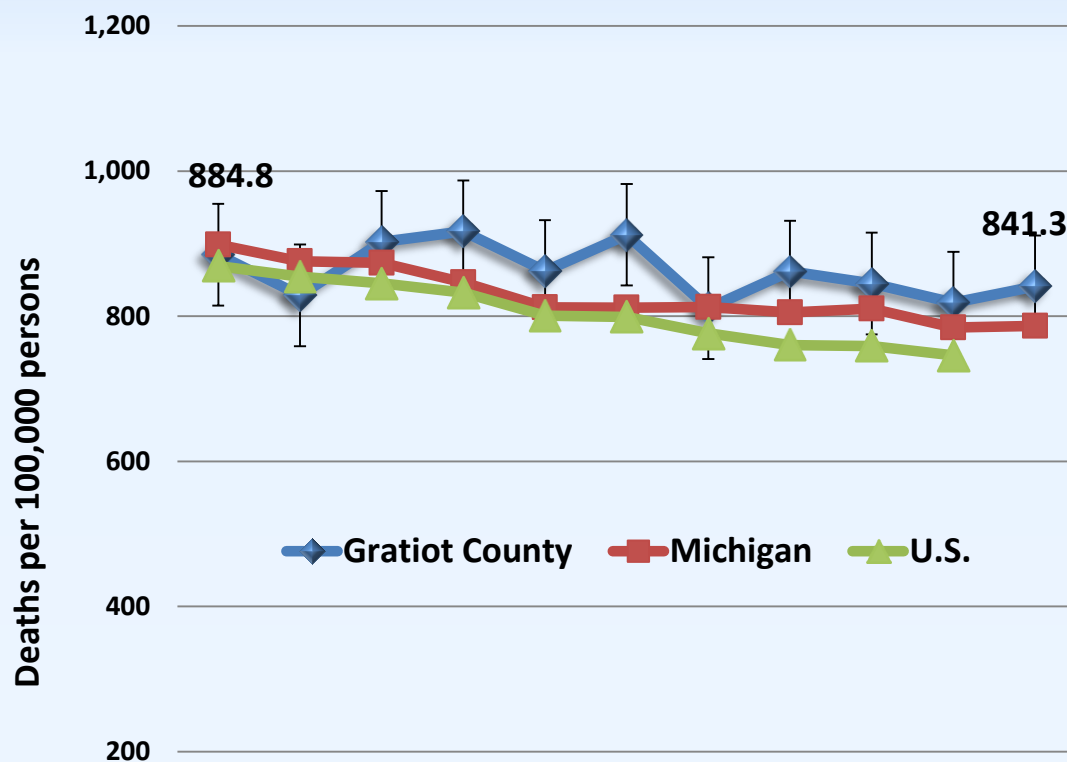


Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Mortality

- Approximately 2,400,000 deaths recorded in the U.S. for 2008.
- The U.S. all cause mortality rate has declined since the 1950's and reached a record low in 2007.
- Life expectancy is now up to 77.9 years, continuing a long term rising trend.
- Michigan and Gratiot County have followed this national trend.

**All Cause Mortality**  
Age-adjusted Deaths per 100,000 Population  
2000-2010 using single-year rates

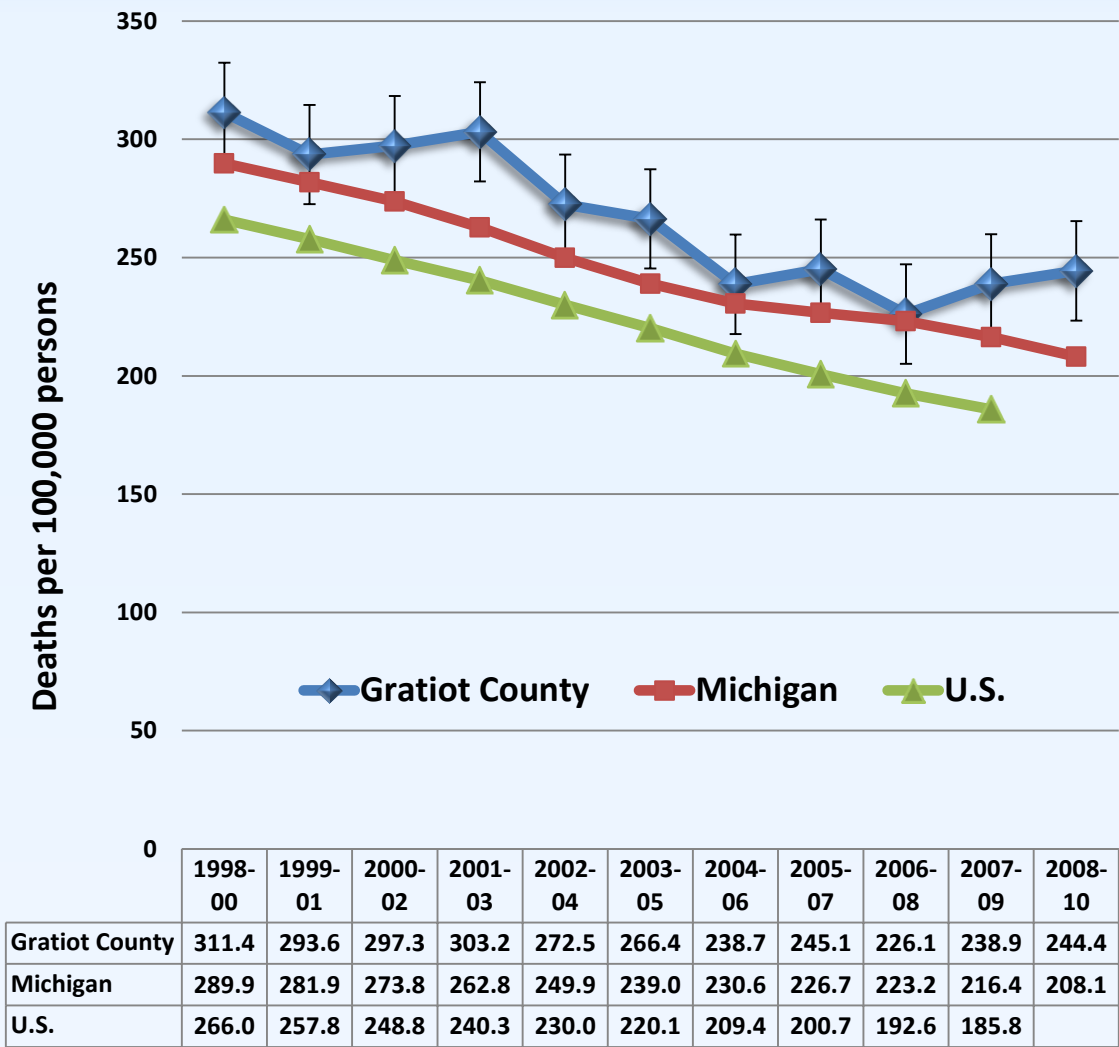


|                | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Gratiot County | 884.8 | 828.8 | 902.3 | 917.1 | 862.4 | 912.3 | 811.0 | 861.7 | 845.0 | 818.7 | 841.3 |
| Michigan       | 898.6 | 875.8 | 873.7 | 846.4 | 812.2 | 811.6 | 812.8 | 805.3 | 810.3 | 784.6 | 786.5 |
| U.S.           | 869.0 | 854.5 | 845.3 | 832.7 | 800.8 | 798.8 | 776.5 | 760.2 | 758.7 | 746.2 |       |

# Mortality - Heart Disease

- Leading cause of death in the U.S., Michigan , and Gratiot County.
- One in three Americans will be affected by heart disease during their lifetime.
- Pattern: Gratiot higher rate than Michigan & U.S.
- Trend: declining all 3 regions
- Contributing factors: high cholesterol, high blood pressure, smoking, obesity

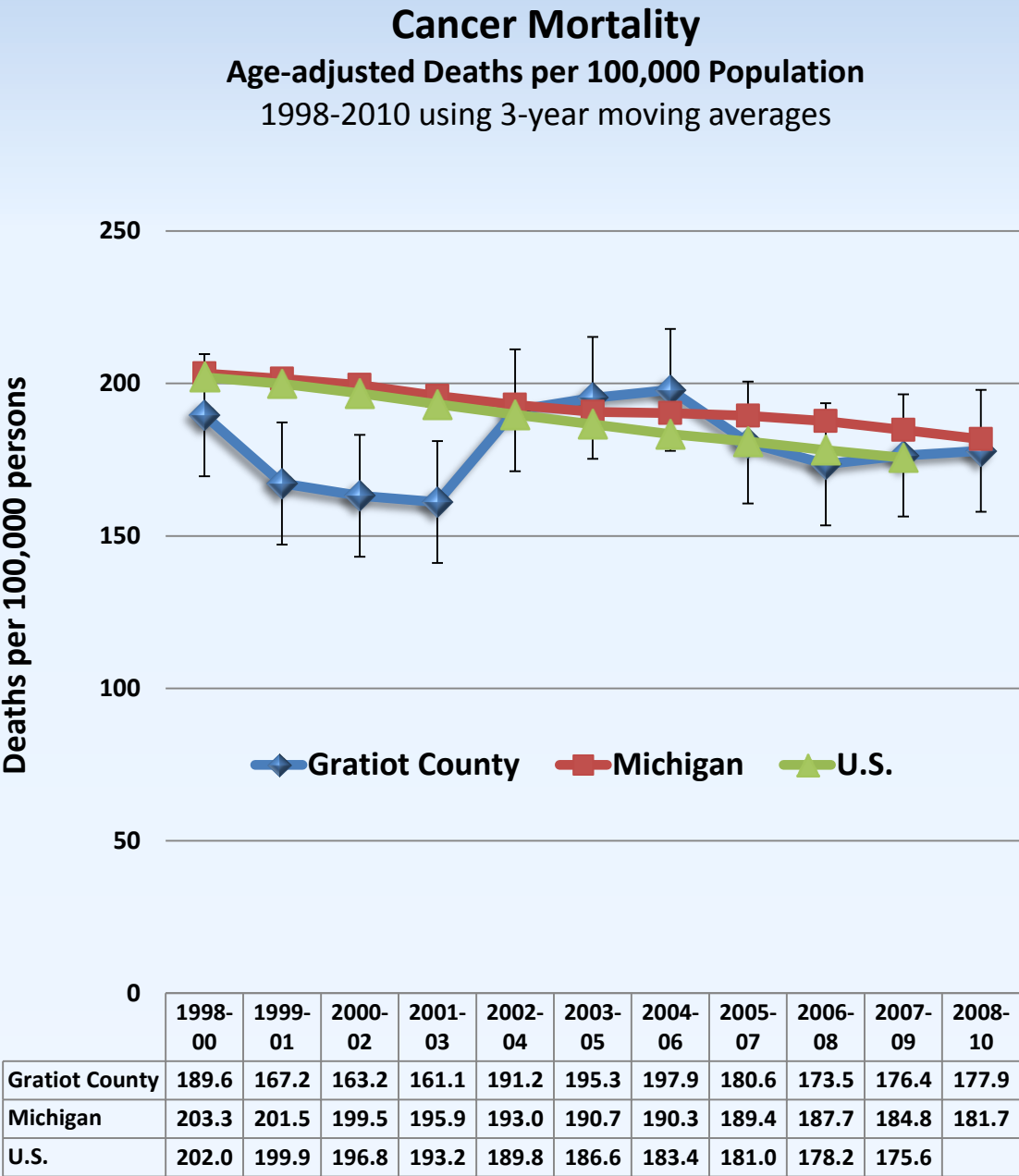
**Heart Disease Mortality**  
Age-adjusted Deaths per 100,000 Population  
1998-2010 using 3-year moving averages



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

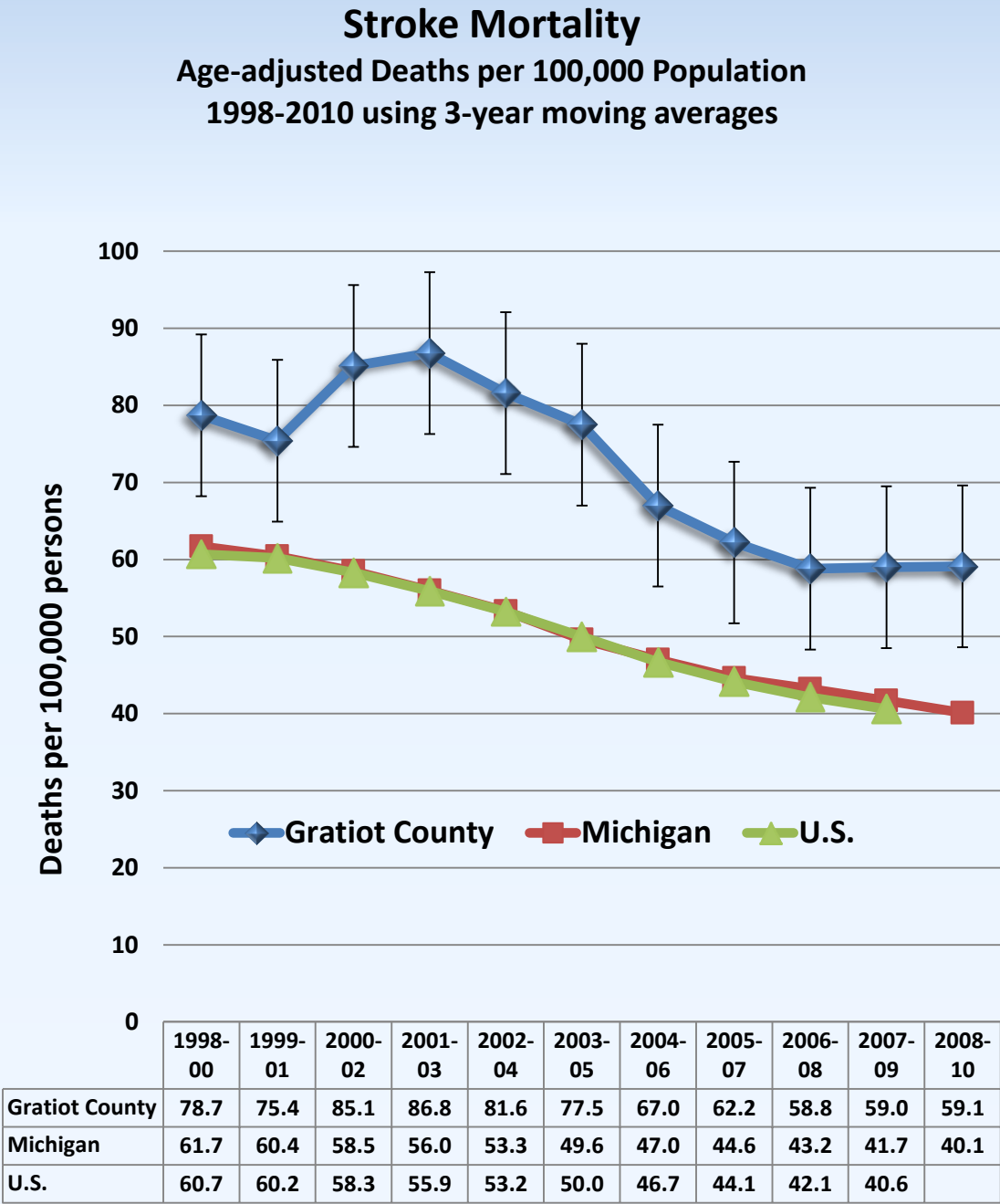
# Mortality - Cancer

- Second leading cause of death in the U.S., Michigan , and Gratiot County.
- Pattern: Gratiot with fluctuating rate the past decade, but of similar magnitude as Michigan & U.S. rate for most recent years data available.
- Trend: declining mortality rate over time for Michigan & U.S.



# Mortality - Stroke

- Pattern: Gratiot with higher rate than Michigan & U.S. over the period tracked.
- Trend: declining mortality rate for all 3 regions, although decline has stalled for Gratiot for most recent years data available.



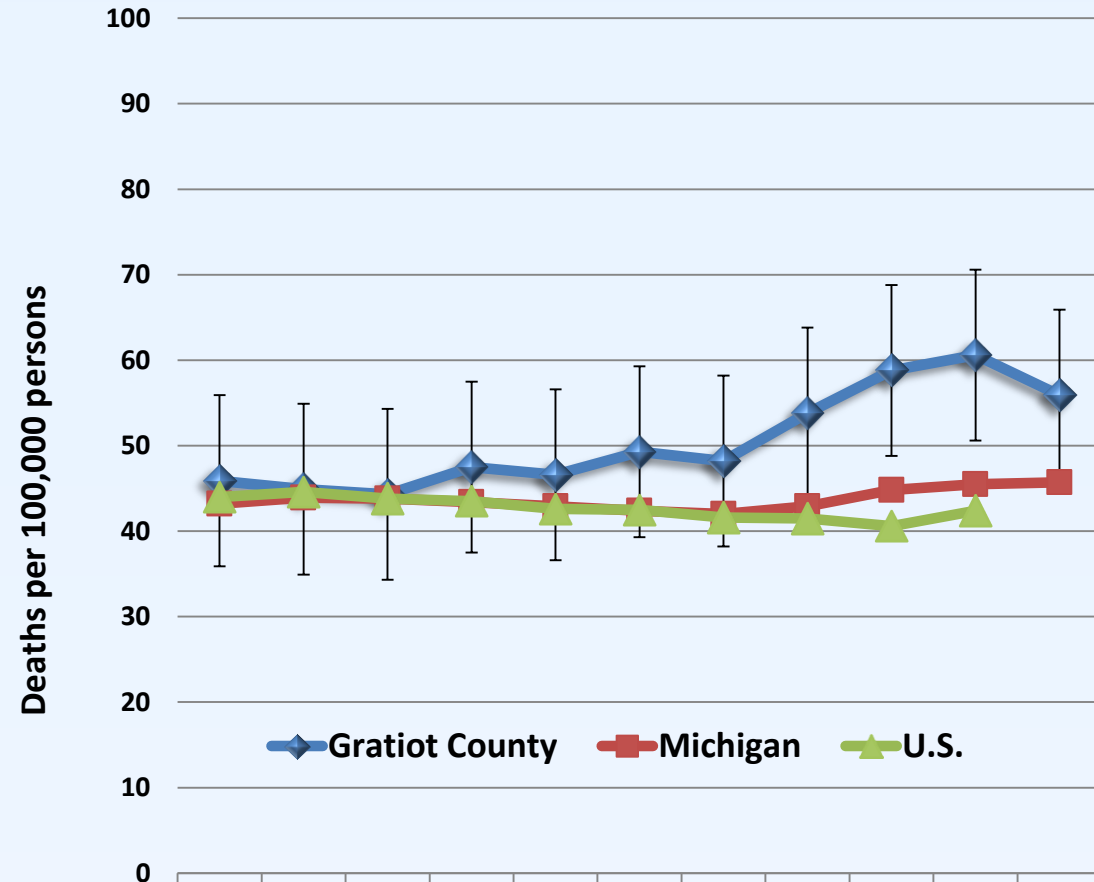
Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Mortality - Chronic Lower Respiratory Disease

- Pattern: Gratiot generally with higher rate than Michigan & U.S.
- Trend: mortality rate appeared to be declining early part of decade for Michigan & U.S., but most recent years suggest rate increasing for Michigan and Gratiot.

## Chronic Lower Resp. Disease Mortality

Age-adjusted Deaths per 100,000 Population  
1998-2010 using 3-year moving averages



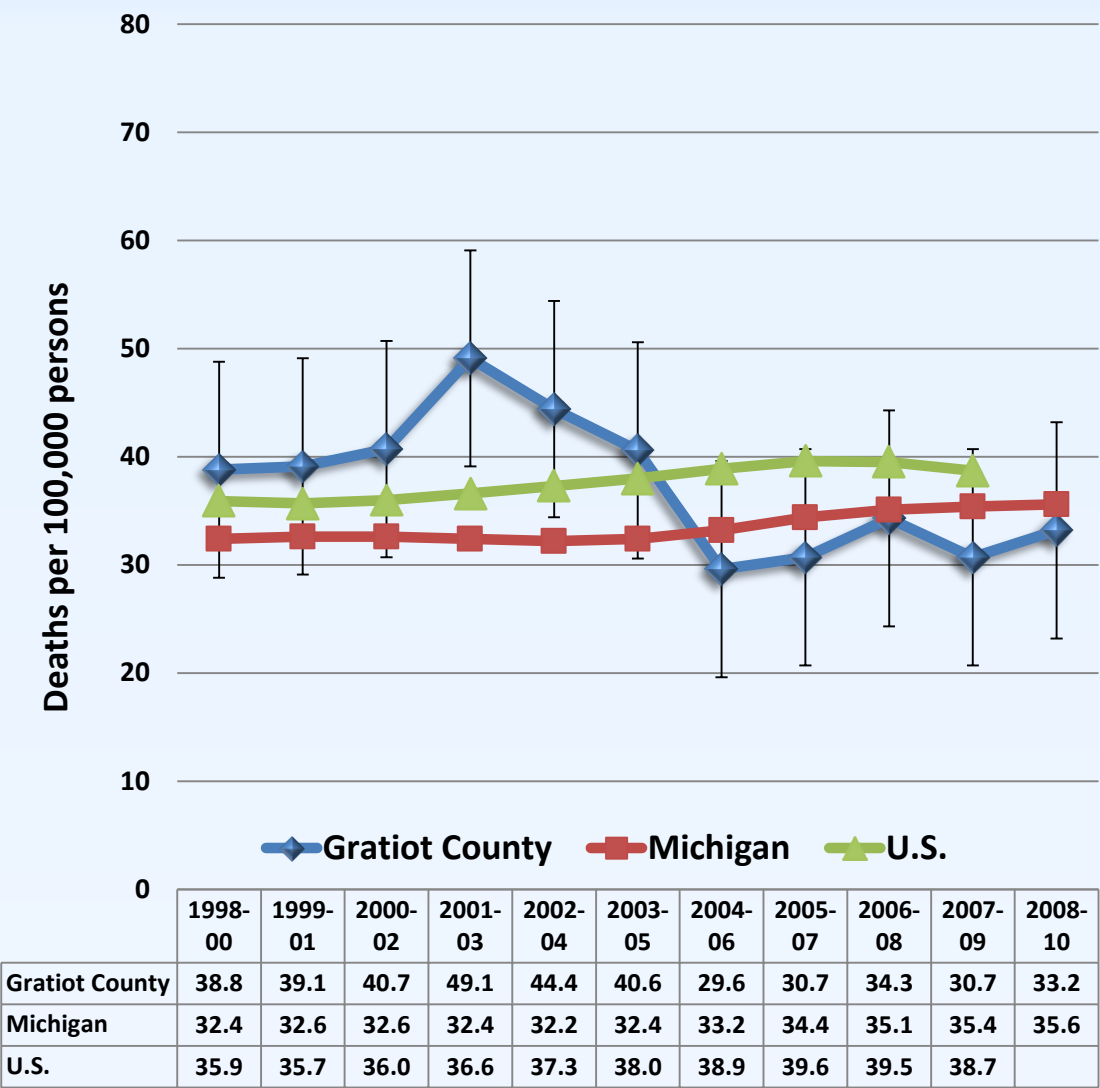
|                | 1998-00 | 1999-01 | 2000-02 | 2001-03 | 2002-04 | 2003-05 | 2004-06 | 2005-07 | 2006-08 | 2007-09 | 2008-10 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Gratiot County | 45.9    | 44.9    | 44.3    | 47.5    | 46.6    | 49.3    | 48.2    | 53.8    | 58.8    | 60.6    | 55.9    |
| Michigan       | 43.2    | 43.9    | 43.8    | 43.4    | 42.9    | 42.4    | 42.0    | 42.9    | 44.8    | 45.5    | 45.7    |
| U.S.           | 44.0    | 44.6    | 43.8    | 43.5    | 42.6    | 42.5    | 41.6    | 41.5    | 40.6    | 42.4    |         |

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

# Mortality - Injury

- Pattern: Gratiot with fluctuating rate in relation to Michigan & U.S.
- Trend: generally increasing mortality rate for Michigan & U.S.

**Unintentional Injury Mortality**  
Age-adjusted Deaths per 100,000 Population  
1998-2010 using 3-year moving averages

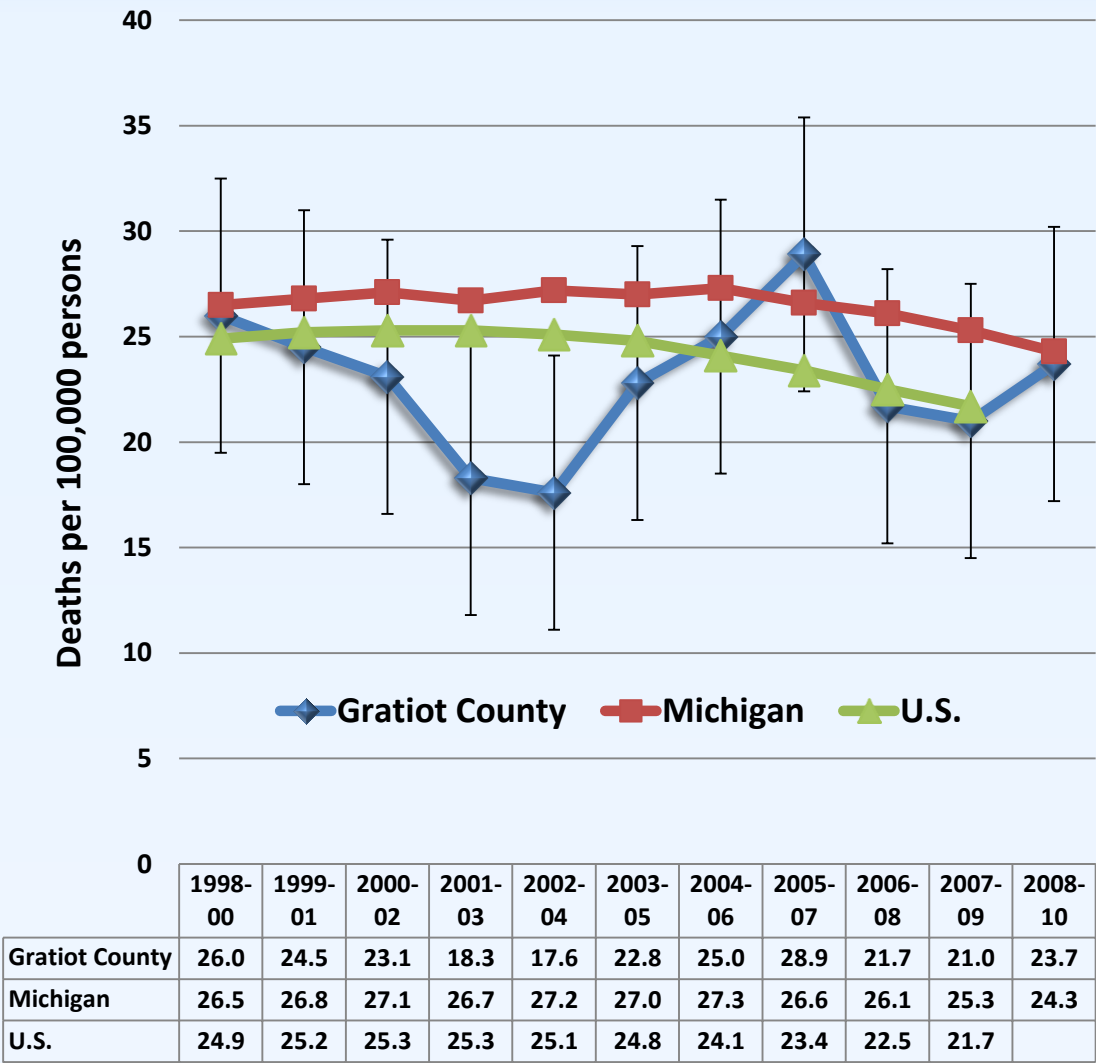


Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Mortality - Diabetes

- Pattern: Fluctuating rate for Gratiot in relation to Michigan & U.S., but generally of lower magnitude.
- Trend: declining mortality rate second half of decade for Michigan & U.S.

**Diabetes Mellitus Mortality**  
Age-adjusted Deaths per 100,000 Population  
1998-2010 using 3-year moving averages



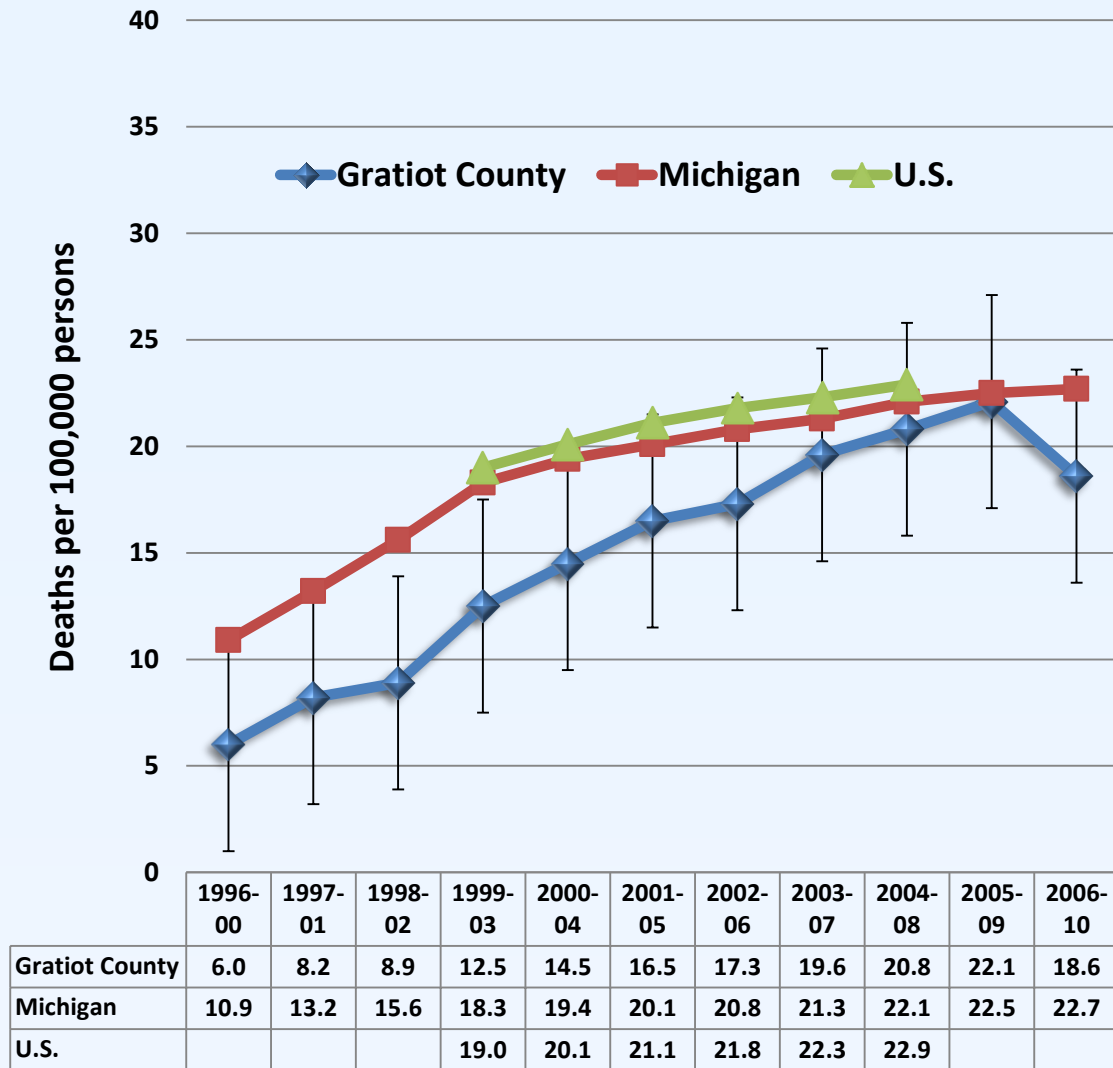
Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.



# Mortality - Alzheimer's Disease

- Pattern: Gratiot with lower rate than Michigan & U.S.
- Trend: increasing rate for all 3 regions.

**Alzheimer's Disease Mortality**  
Age-adjusted Deaths per 100,000 Population  
1996-2010 using 5-year moving averages

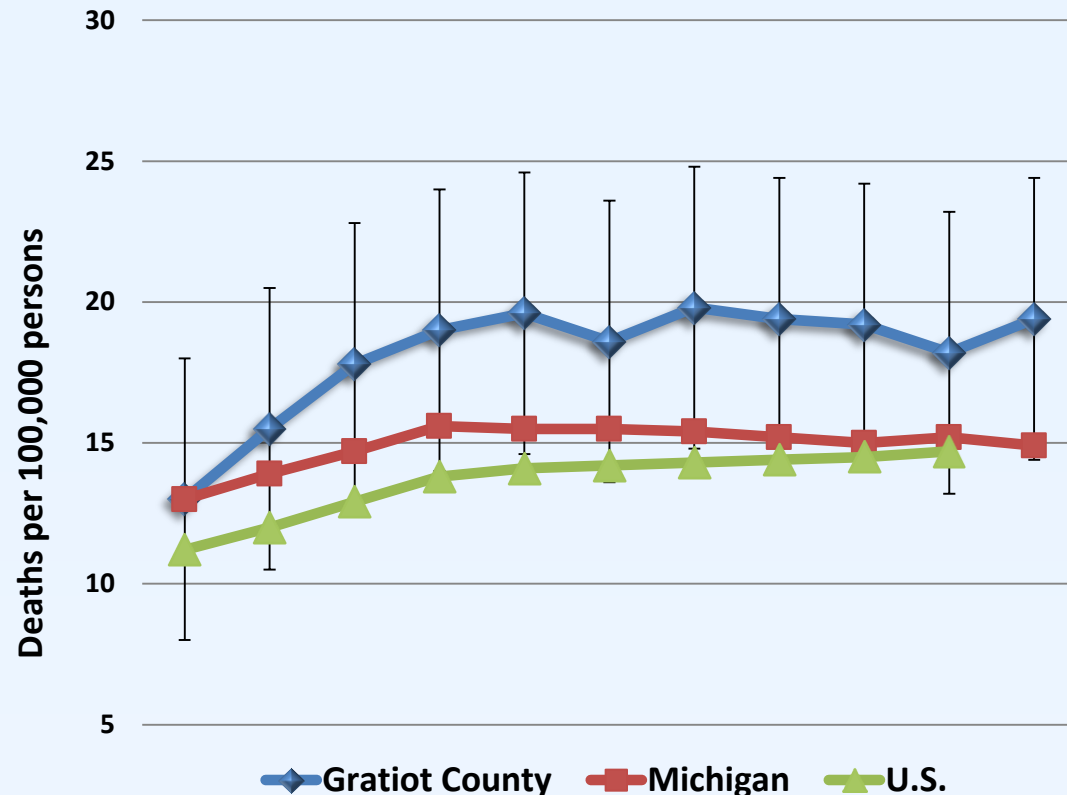


Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Mortality - Kidney Disease

- Pattern: Gratiot with higher rate than Michigan & U.S.
- Trend: after increasing during early part of decade, mortality rate appears to have stabilized for Michigan & Gratiot, while continuing to increase nationally.

**Kidney Disease Mortality**  
Age-adjusted Deaths per 100,000 Population  
1996-2010 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 | 2006-10 |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Gratiot County | 13.0    | 15.5    | 17.8    | 19.0    | 19.6    | 18.6    | 19.8    | 19.4    | 19.2    | 18.2    | 19.4    |
| Michigan       | 13.0    | 13.9    | 14.7    | 15.6    | 15.5    | 15.5    | 15.4    | 15.2    | 15.0    | 15.2    | 14.9    |
| U.S.           | 11.2    | 12.0    | 12.9    | 13.8    | 14.1    | 14.2    | 14.3    | 14.4    | 14.5    | 14.7    |         |

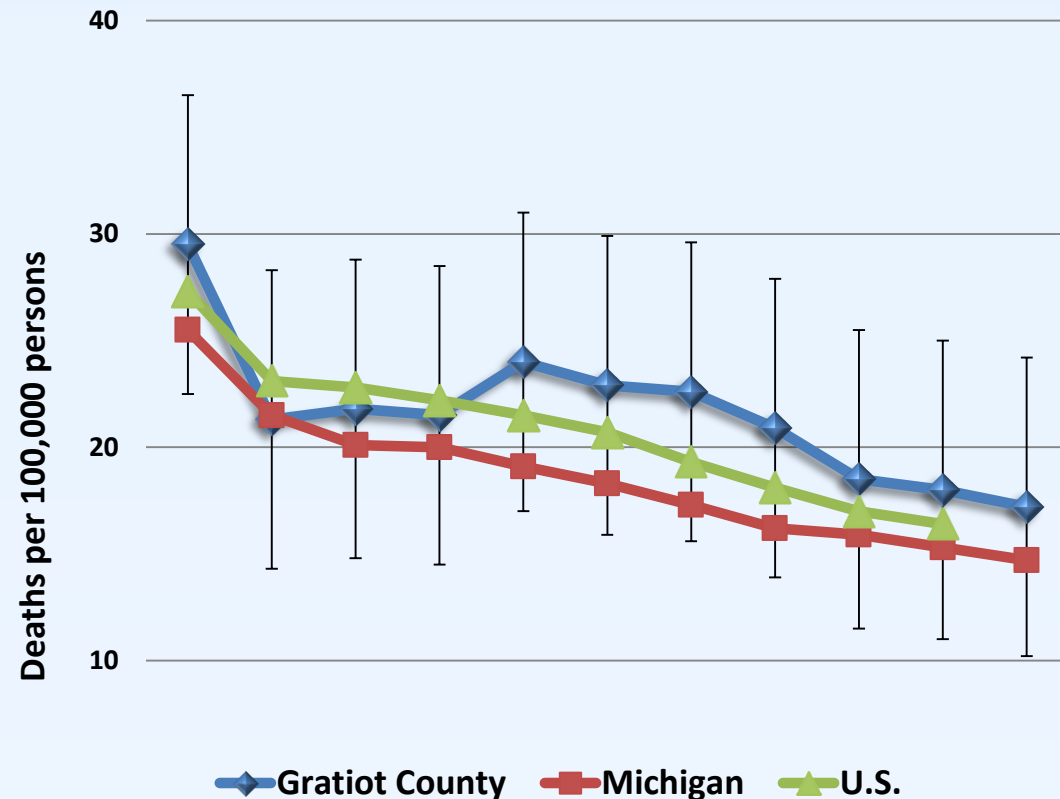
Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Mortality - Pneumonia & Influenza

- Pattern: Gratiot with higher rate than Michigan & U.S. second half of decade.
- Trend: declining mortality rate for all 3 regions.

## Pneumonia and Influenza Mortality

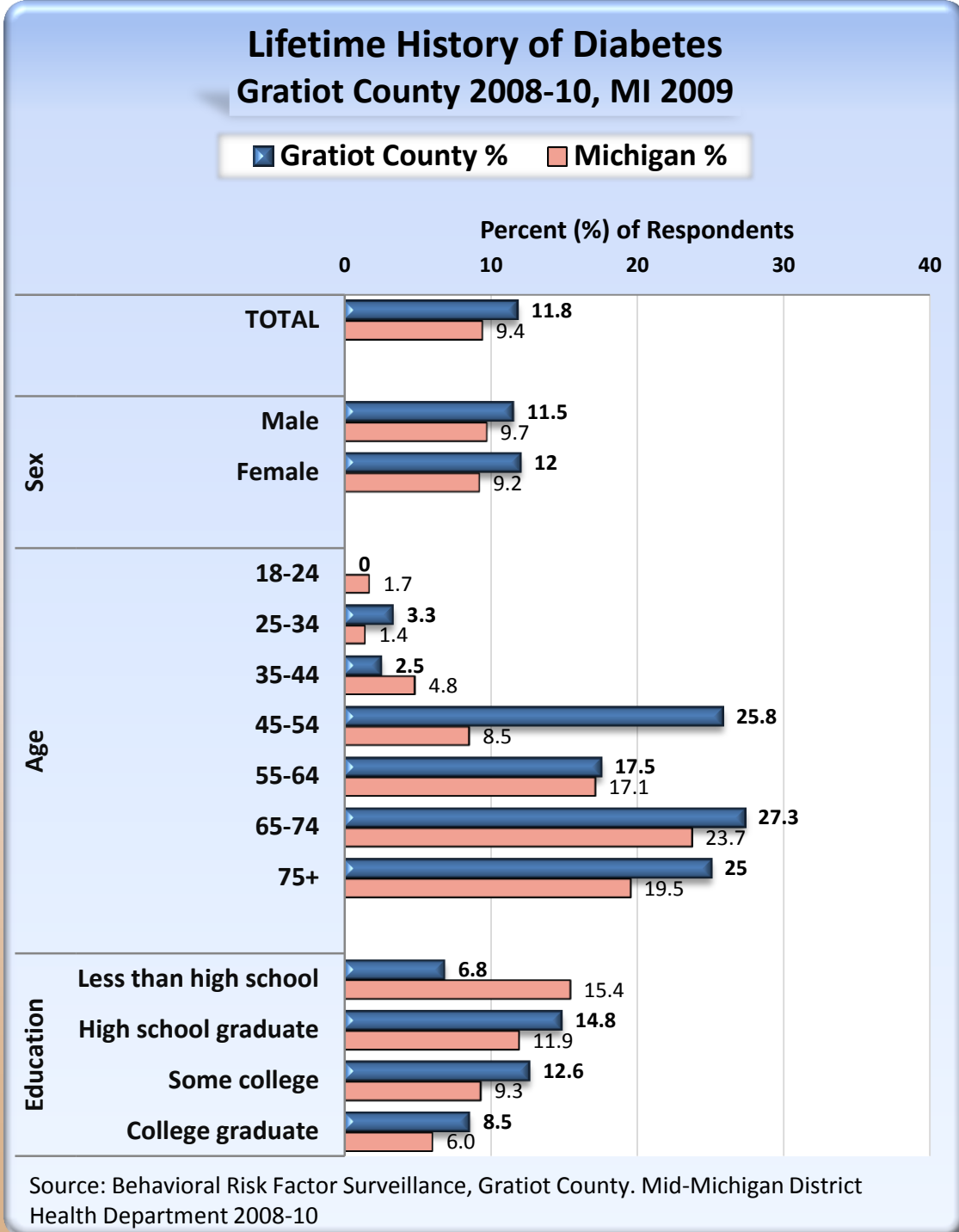
Age-adjusted Deaths per 100,000 Population  
1998-2010 using 3-year moving averages



|                |         |         |         |         |         |         |         |         |         |         |         |
|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0              | 1998-00 | 1999-01 | 2000-02 | 2001-03 | 2002-04 | 2003-05 | 2004-06 | 2005-07 | 2006-08 | 2007-09 | 2008-10 |
| Gratiot County | 29.5    | 21.3    | 21.8    | 21.5    | 24.0    | 22.9    | 22.6    | 20.9    | 18.5    | 18.0    | 17.2    |
| Michigan       | 25.5    | 21.5    | 20.1    | 20.0    | 19.1    | 18.3    | 17.3    | 16.2    | 15.9    | 15.3    | 14.7    |
| U.S.           | 27.3    | 23.1    | 22.8    | 22.2    | 21.5    | 20.7    | 19.3    | 18.1    | 17.0    | 16.4    |         |

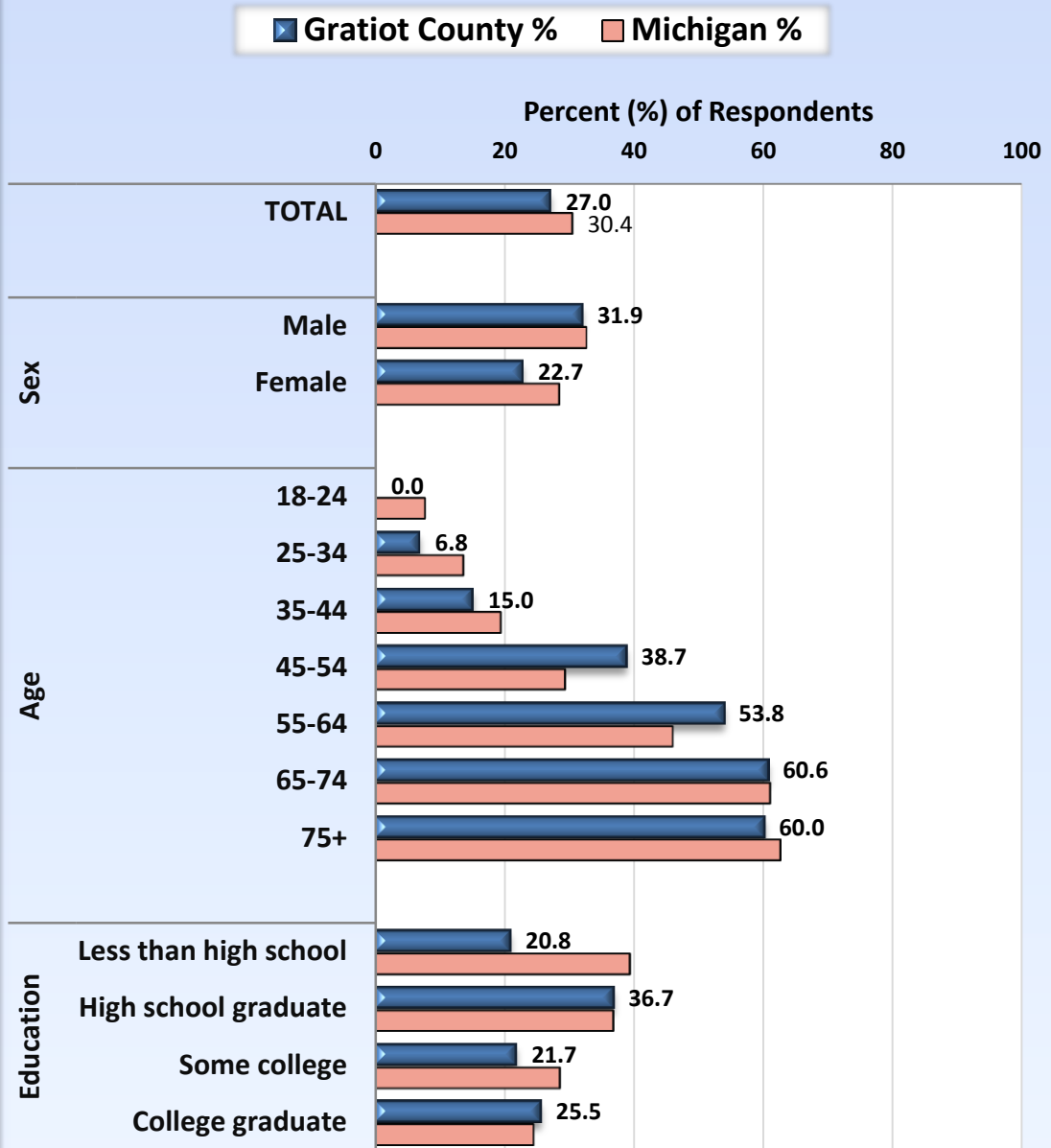
Source: Michigan Resident Death Files. Division for Vital Records & Health Statistics, Michigan Department of Community Health.

# Chronic Disease - Diabetes



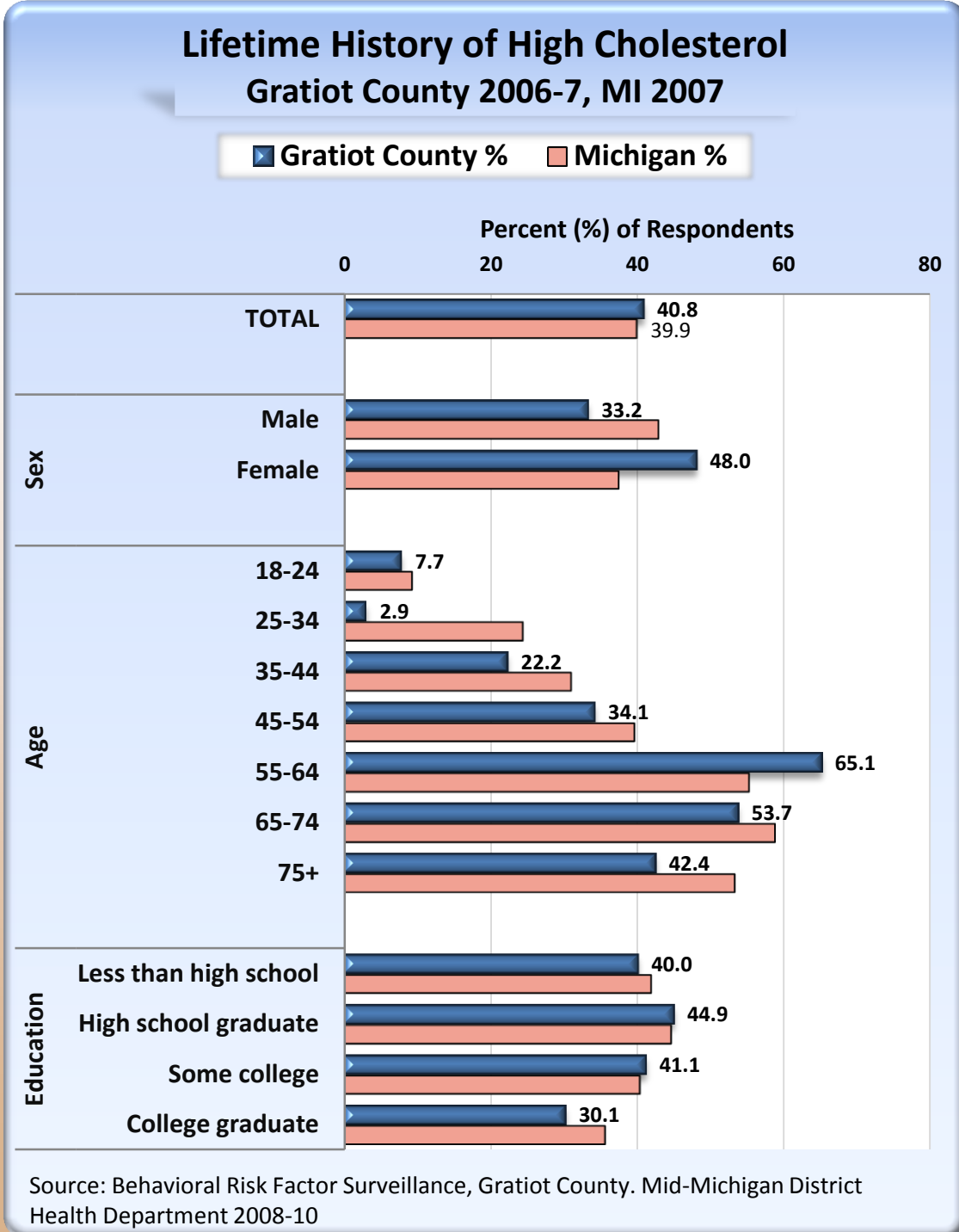
# Chronic Disease – High Blood Pressure

Lifetime History of Hypertension  
Gratiot County 2008-10, MI 2009



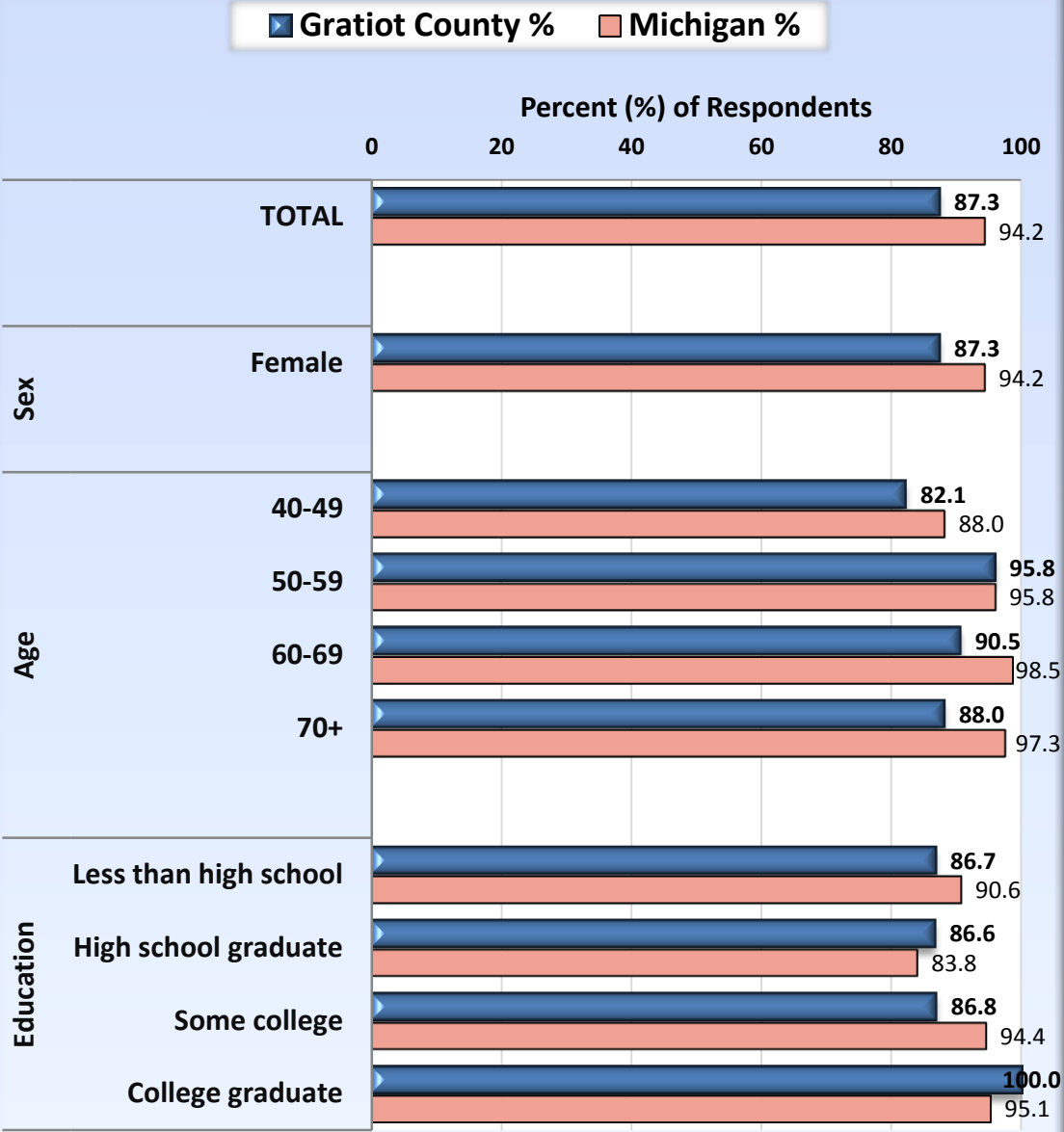
Source: Behavioral Risk Factor Surveillance, Gratiot County. Mid-Michigan District Health Department 2008-10

# Chronic Disease – High Cholesterol



# Prevention - Screening

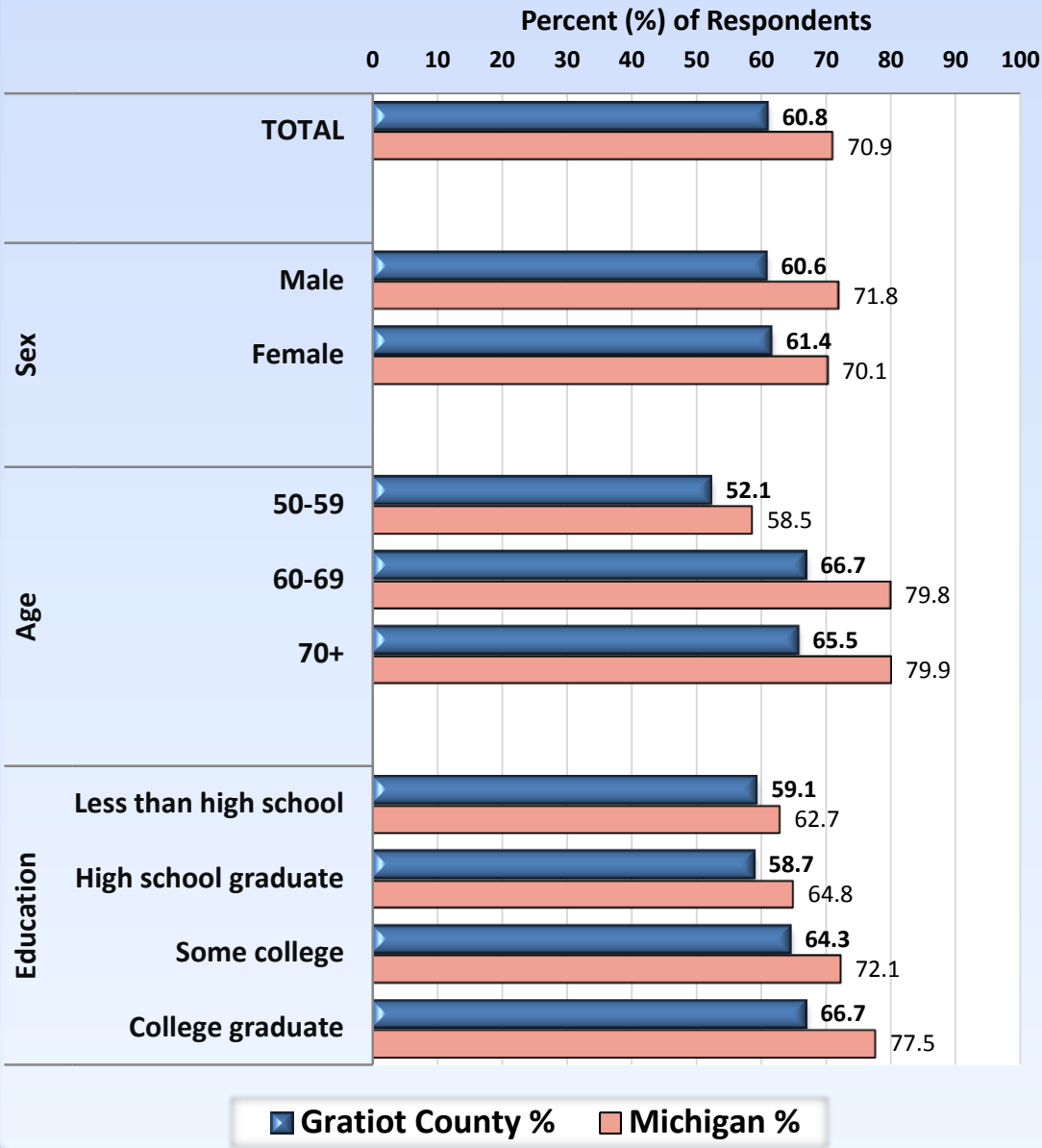
**Ever Had Mammogram (age 40+, female only)**  
**Gratiot County 2008-10, MI 2009**



Source: Behavioral Risk Factor Surveillance, Gratiot County. Mid-Michigan District Health Department 2008-10

# Prevention - Screening

## Ever Had Colonoscopy/Sigmoidoscopy (Adults age 50+) Gratiot County 2008-10, MI 2009



Source: Behavioral Risk Factor Surveillance, Montcalm County.  
Mid-Michigan District Health Department 2008-10



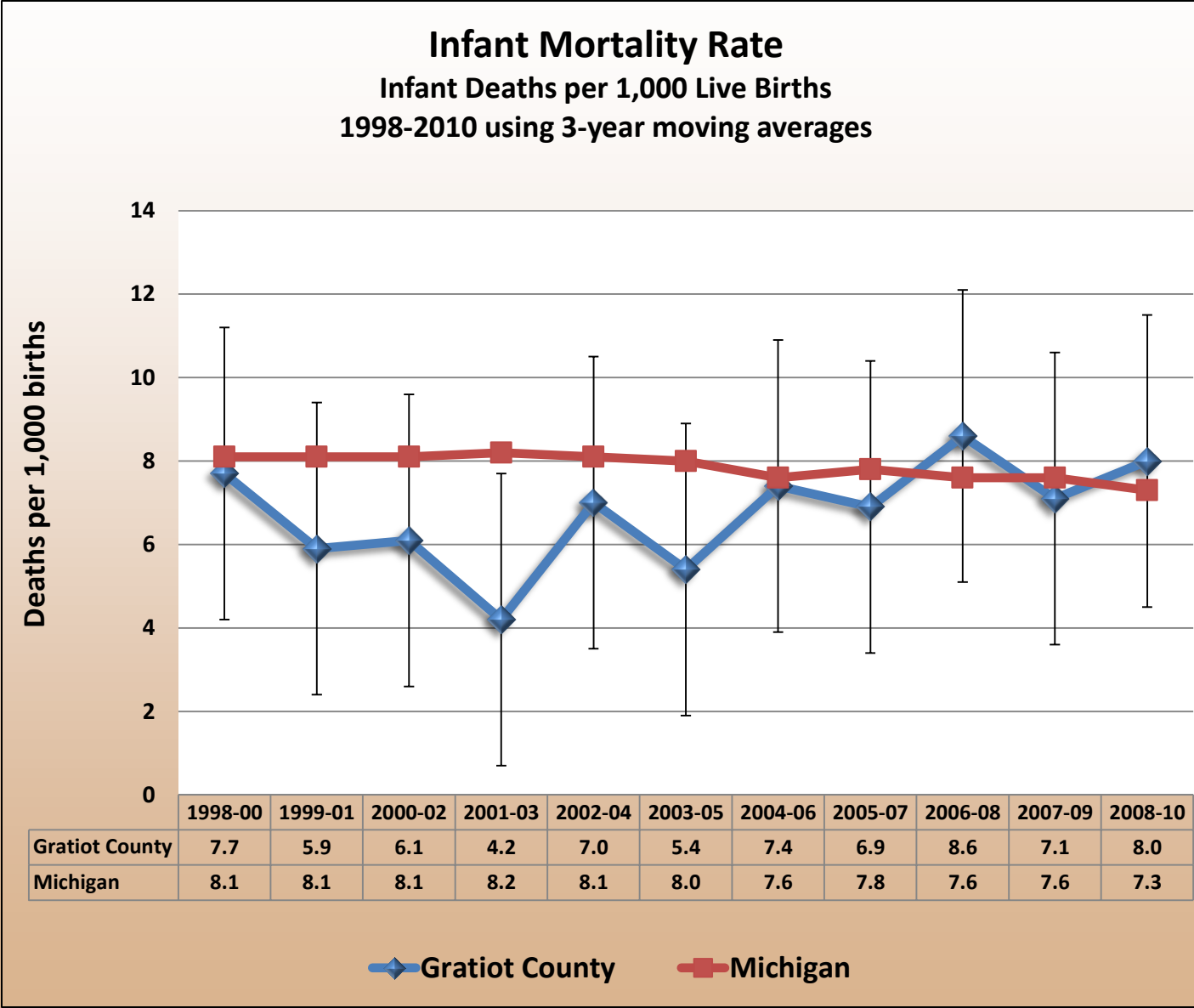
# Maternal and Child Health

- **Infant Mortality**
- **Teen Pregnancy**
- **Maternal & Birth Characteristics**
- **Child & Adolescent Health-related Behaviors**

# Summary – Maternal & Child Health

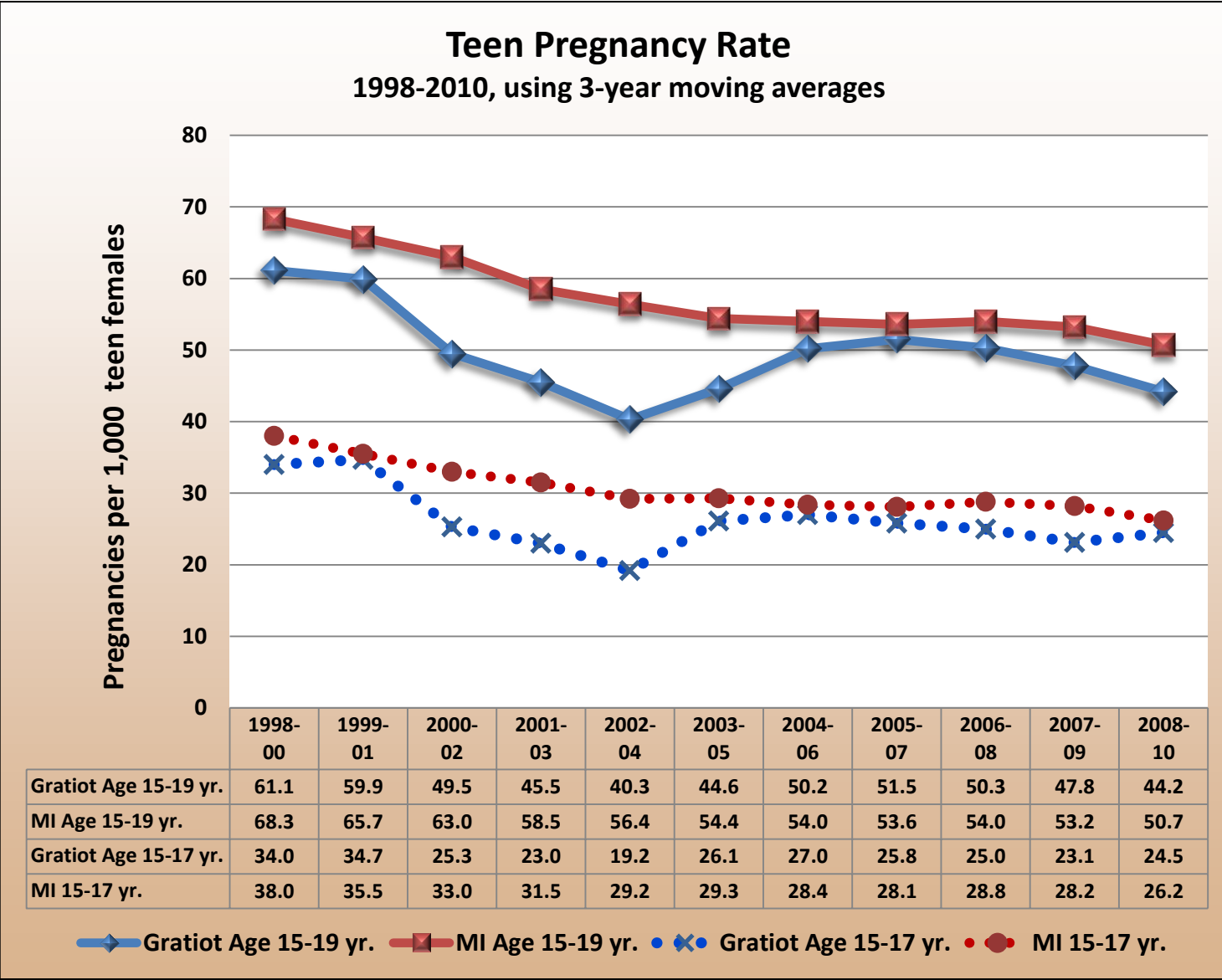
- Infant Mortality: The Michigan infant mortality rate remained fairly stable during the past decade at about 8 deaths per 1,000 births. Gratiot County has generally experienced a lower or similar infant mortality rate as Michigan during this period.
- Teen Pregnancy: Gratiot County has experienced a lower teen pregnancy rate than Michigan over the past decade, and has followed a similar downward trend in the rate as that of Michigan for teens age 15-17 and 15-19 years.
- Maternal & Birth Characteristics: Gratiot County women giving birth generally have been found to have a greater frequency of certain maternal risk factors than Michigan women, most notably smoking while pregnant and inadequate prenatal care.
- Adolescent Behaviors: Although no trend data is available for Gratiot adolescents, recent use of tobacco, alcohol and marijuana are of concern. Self reported weight status indicates about 18% of high school adolescents are obese.

# Infant Mortality



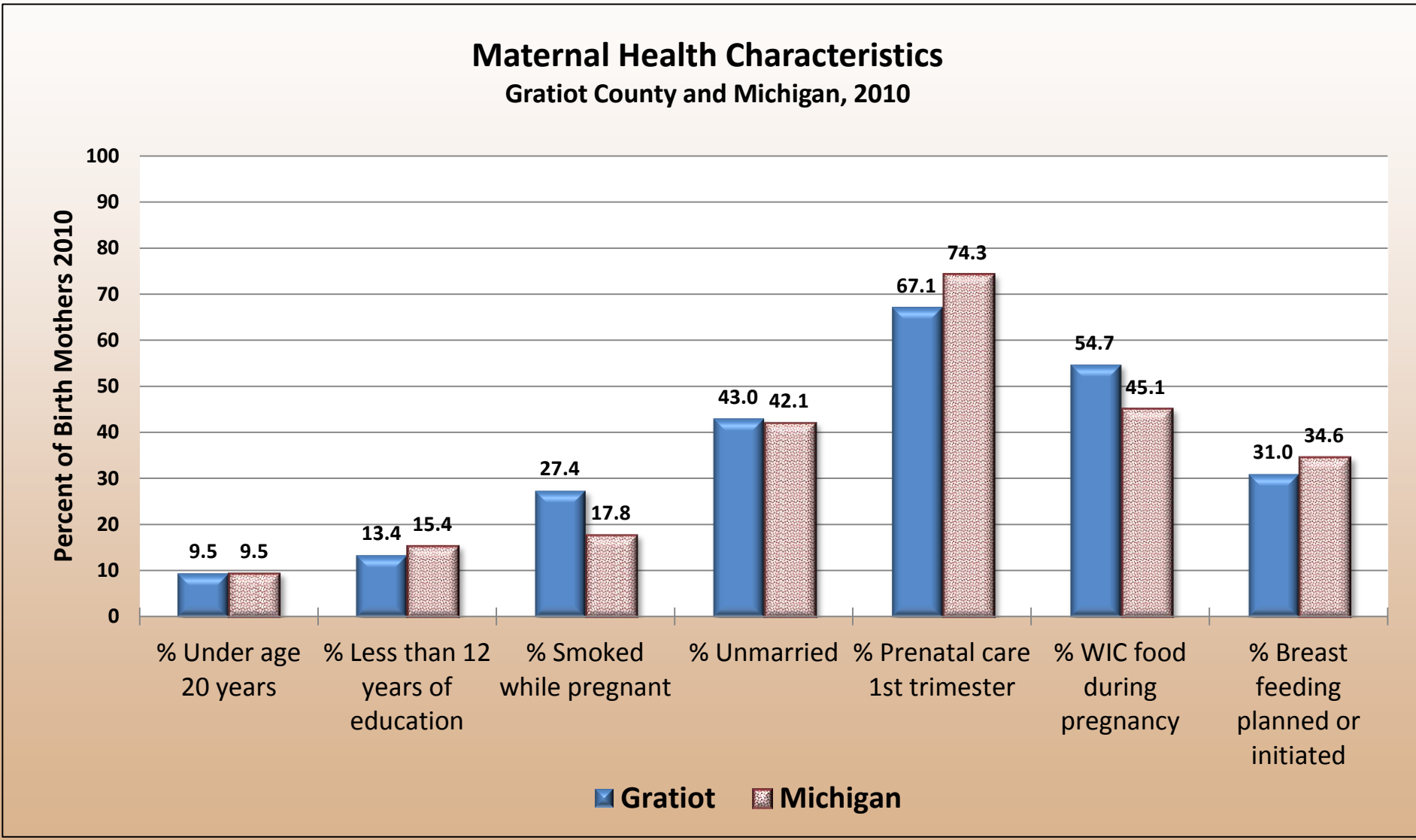
Source: Michigan Resident Births File. Division for Vital Records and Health Statistics, Michigan Department of Community Health

# Teen Pregnancy



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

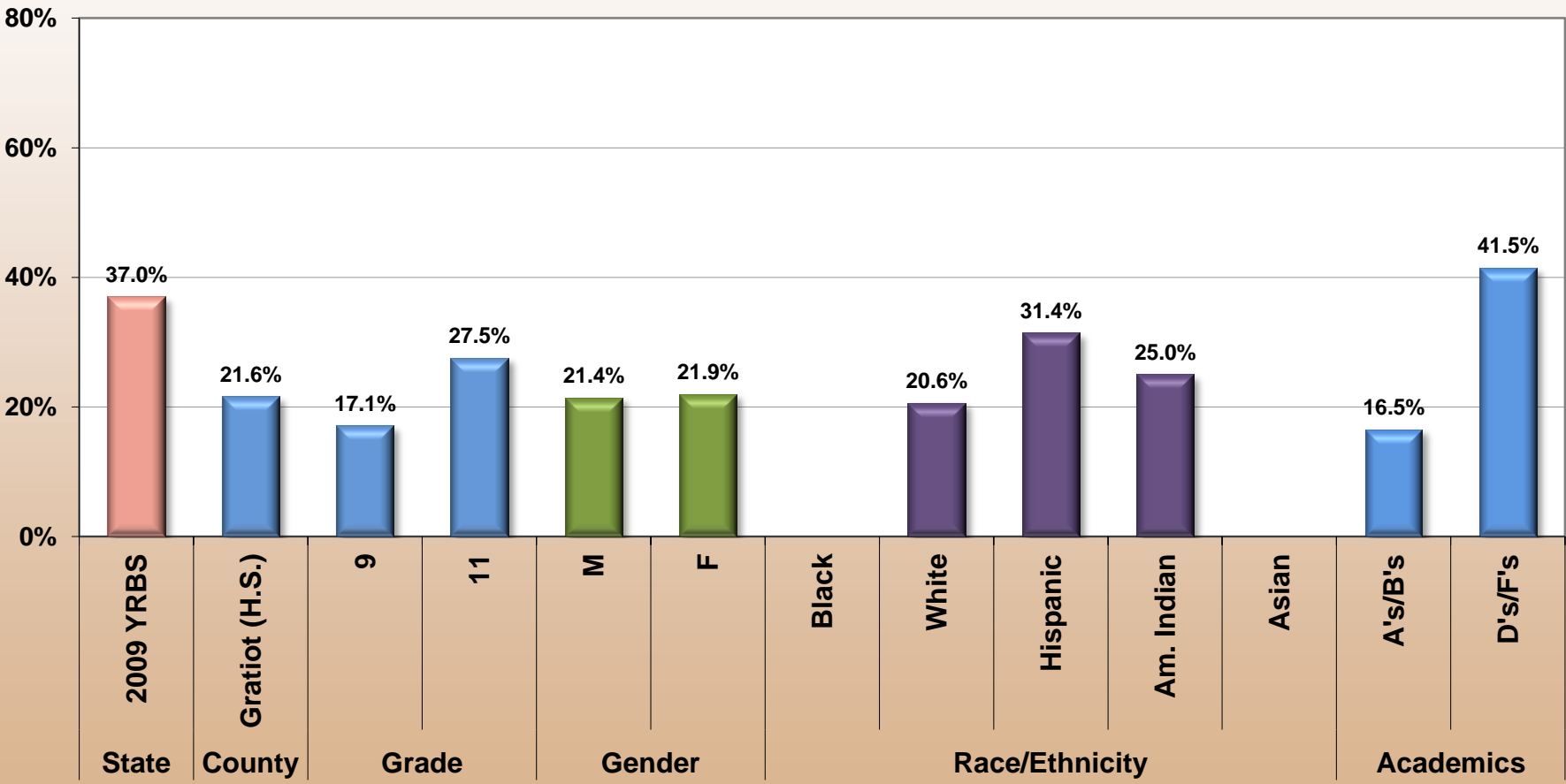
# Maternal & Birth Characteristics



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

# Child and Adolescent Behaviors

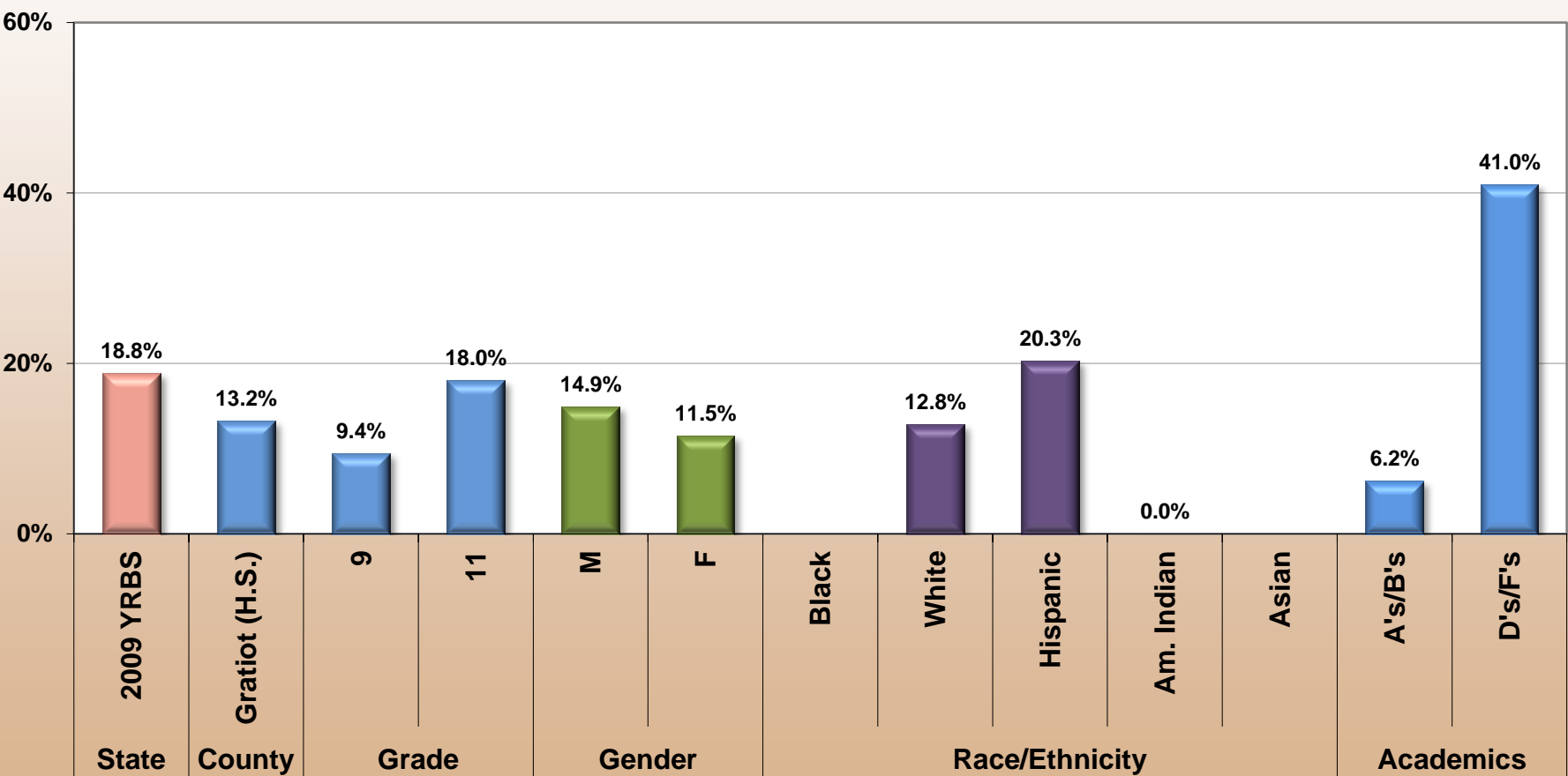
Percentage of students who had at least one drink of alcohol during the past 30 days. School Year 2011-12, Gratiot County



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

# Child and Adolescent Behaviors

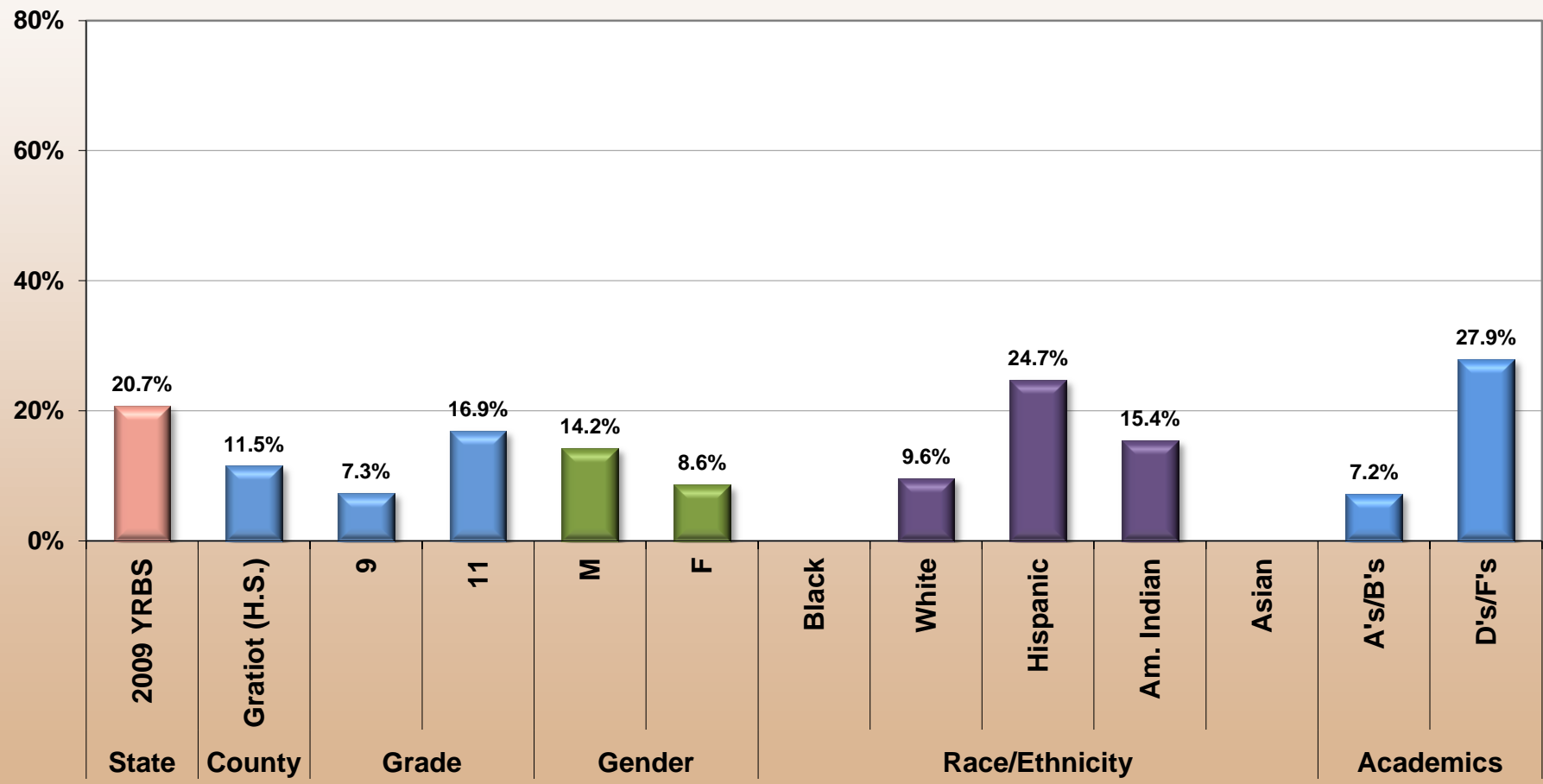
Percentage of students who smoked cigarettes during the past 30 days.  
School Year 2011-12, Gratiot County



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

# Child and Adolescent Behaviors

Percentage of students who used Marijuana during the past 30 days.  
School Year 2011-12, Gratiot County

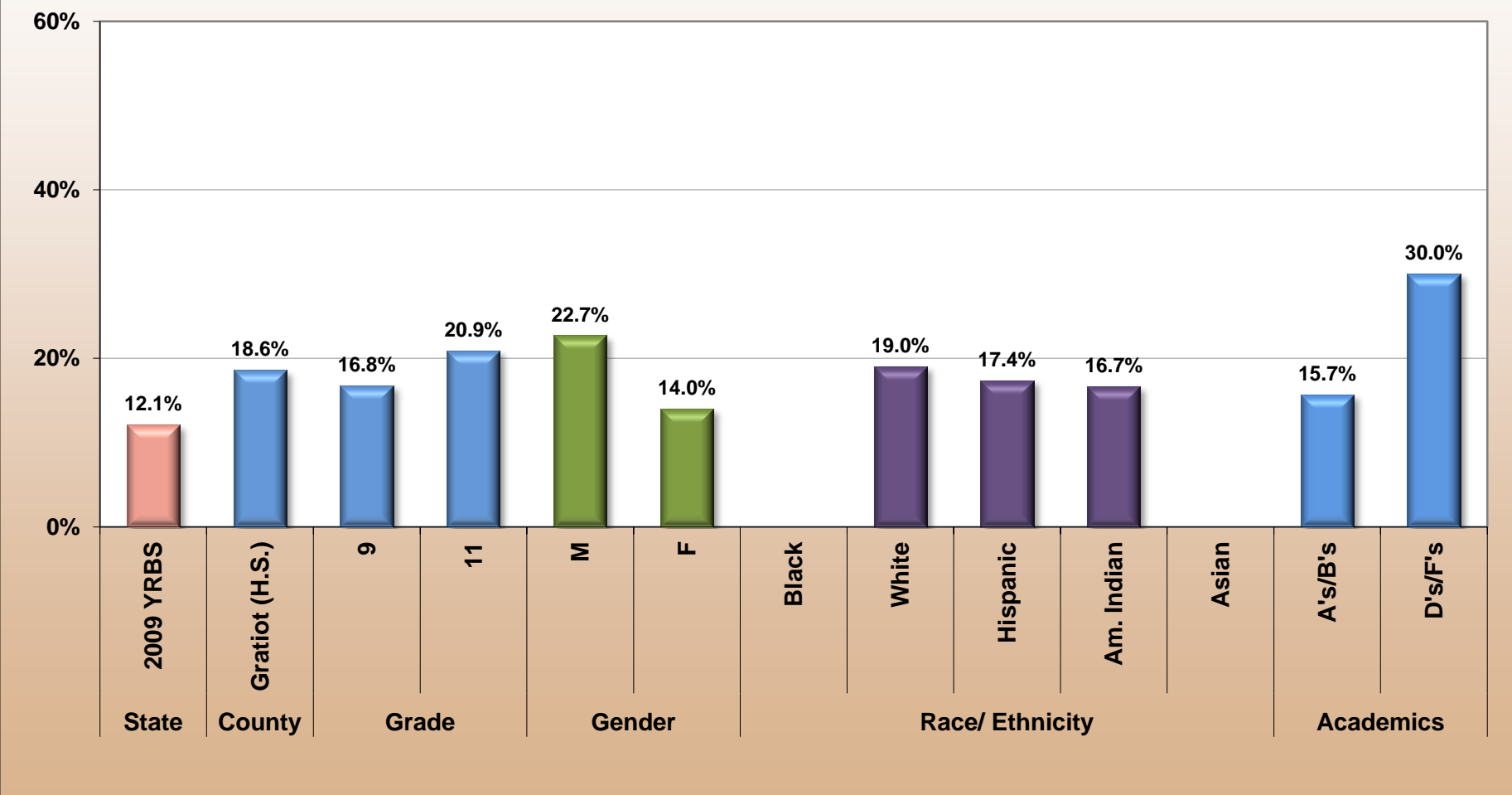


Source: Michigan Profile for Healthy Youth. Michigan Department of Education.



# Child and Adolescent Behaviors

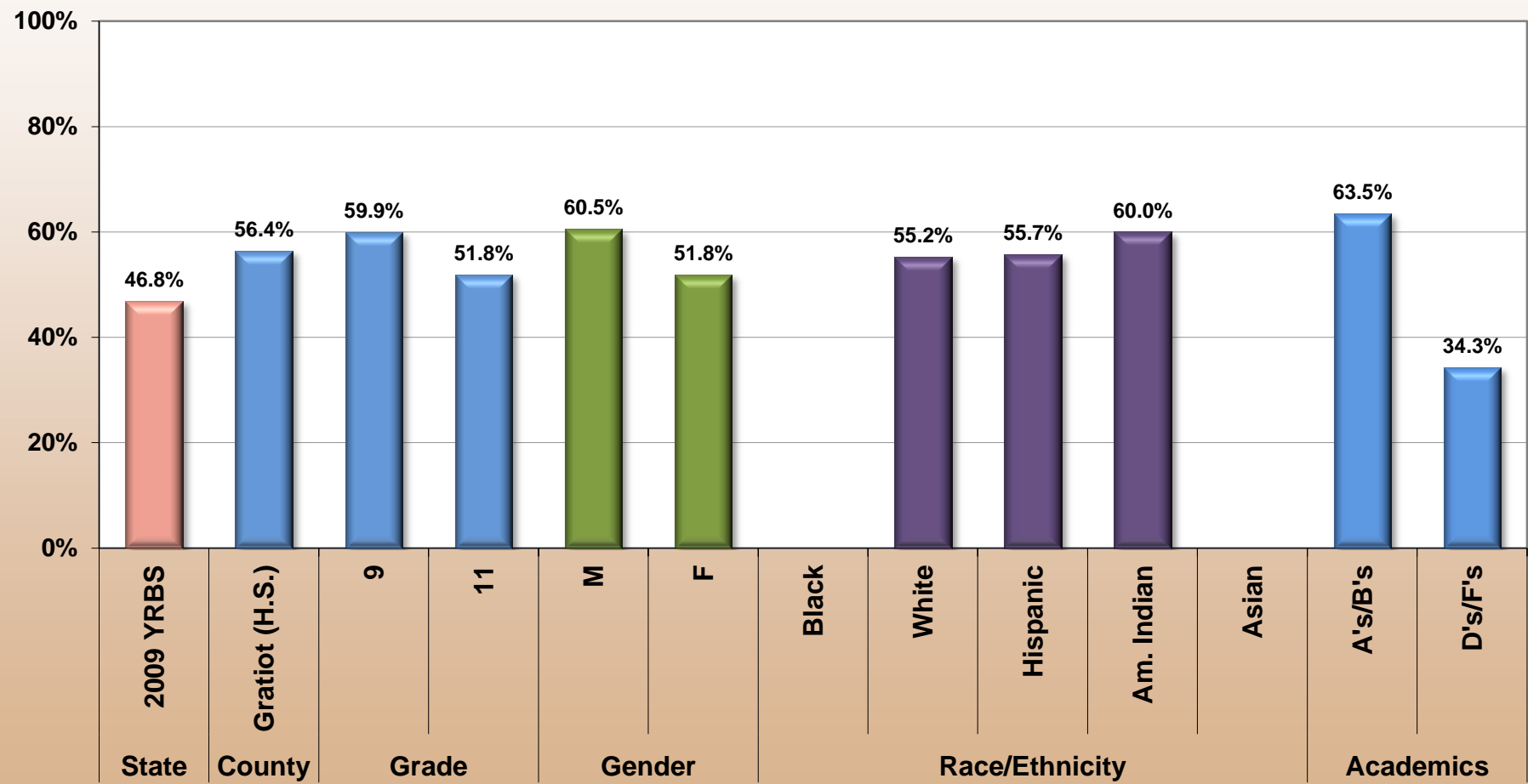
Percentage of students who are obese (at or above the 95th percentile for BMI by age and sex). SY2012, Gratiot County



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

# Child and Adolescent Behaviors

Percentage of students who were physically active for at least 60 minutes per day on five of the past seven days. SY2012, Gratiot County



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

# Live Well Gratiot

## Community Health Needs Survey

- **Demographics**
- **Health Insurance Status**
- **General Health**
- **Access to Health Care**
- **Lifestyle and Behaviors**
- **Family Characteristics**
- **Community Issues and Concerns**

| <u>Community</u> Perceived 'Serious Problem' Issues |       |
|---|-------|
| Top 20 - Ordered by 'Serious Problem'               | %     |
| Jobs (availability)                                 | 61.7% |
| Overweight children                                 | 45.0% |
| Overweight adults                                   | 44.9% |
| Alcohol/drug use                                    | 40.7% |
| Cancer  | 34.6% |
| Contaminated Sites                                  | 34.5% |
| Smoking   | 28.4% |
| Drinking Water quality                              | 26.3% |
| Prescription drug abuse                             | 22.2% |
| Teen pregnancy                                      | 22.1% |
| Child abuse   | 21.4% |
| Diabetes  | 21.2% |
| Child abuse   | 21.4% |
| Watershed quality                                   | 20.6% |
| Traffic crashes (alcohol/drug related)              | 17.6% |
| Transportation                                      | 16.0% |
| Domestic violence                                   | 15.4% |
| Secondhand smoke                                    | 15.2% |
| Heart disease                                       | 15.0% |
| Alzheimer's Disease                                 | 14.7% |

| <u>Provider</u> Perceived 'Serious Problem' Issues |       |
|--|-------|
| Top 20 - Ordered by 'Serious Problem'              | %     |
| Overweight adults                                  | 100%  |
| Overweight children                                | 81.8% |
| Substance abuse treatment                          | 77.8% |
| Alcohol/drug use                                   | 70.0% |
| Jobs   | 70.0% |
| Prescription drug abuse                            | 70.0% |
| Healthy food availability                          | 63.6% |
| Contaminated sites                                 | 60.0% |
| Smoking  | 60.0% |
| Diabetes   | 45.5% |
| Heart disease                                      | 40.0% |
| Teen pregnancy                                     | 33.3% |
| Secondhand smoke                                   | 30.0% |
| Healthcare access                                  | 27.3% |
| Traffic crashes (alcohol/drug related)             | 22.2% |
| Alzheimer's Disease                                | 20.0% |
| Dental care access                                 | 20.0% |
| Gambling   | 20.0% |
| Mental illness                                     | 20.0% |
| Child abuse  | 20.0% |

# Recommended Health Priorities

- Addressing access to primary care and preventive services. Supported by local economic environment; prevalence of individuals either uninsured or under-insured; delayed/deferred medical and dental care and prescription adherence; delayed prenatal care; prevalence of preventive screening tests.
- Addressing obesity. Supported by adult and adolescent obesity prevalence, adult diabetes prevalence, rates of elevated cholesterol and blood pressure in adults, adult sedentary rates, dietary habits, heart and kidney disease mortality.
- Addressing tobacco use (smoking). Supported by adult & adolescent smoking prevalence, maternal smoking rates, relatively high rates of heart, lung, and stroke mortality.
- Alcohol and Drug related issues. Supported by provider and community concerns, but limited data. (focus on: underage drinking? adolescent binge drinking? prescription drug abuse? alcohol/drug related traffic crashes? Treatment access?)
  - When we talk about strategies, we need to think about root causes and upstream factors... How can we assimilate the community and provider concerns about influence of joblessness and educational/job skills training needs with health and wellbeing... Is this better suited to address through Gratiot Master (GREAT) Plan?
  - How do we address the concerns about Gratiot County's history of environmental contamination and consequent issues with drinking water and watershed quality?

# Gratiot Regional Excellence & Transformation (GREAT) Plan

## Proposed Actions Supporting Health & Healthy Lifestyles...

- Goal 1: Preserve County's Rural Character
  - *Obj. 1.4: Protect the quality of the County's ground & surface water*
- Goal 2: Strengthen existing cities/villages to serve as quality community centers for living, working, and recreating.
  - *Obj. 2.3: Provide more recreation options & places of interest*
- Goal 3: Provide quality public services
  - *Obj. 3.4: Provide public transit services within & connecting the county*
  - *Obj. 3.7: Provide non-motorized facilities to increase opportunities for non-motorized transport (walking, biking, etc.)*
- Goal 4: Provide and sustain economic opportunities by growing/attracting employers
  - *Obj. 4.5: Minimize impact of industrial land use on the environment*
  - *Obj. 4.6: Establish visitor and recreation-oriented businesses*

# Gratiot Regional Excellence & Transformation (GREAT) Plan

## Areas supporting health & healthy lifestyles – (CONTINUED)

- Goal 5: Provide high quality of life opportunities, such as cultural and recreational resources
  - *Obj. 5.1: Provide public access to the waterfront*
  - *Obj. 5.2: Enhance parks & recreational opportunities that meet the needs of all segments of the community*
  - *Obj. 5.3: Enhance the walkability of the cities*
  - *Obj. 5.4: Ensure that adequate land is reserved for parks, open space, and trails.*
  - *Obj. 5.5: Develop a countywide community center*
- Goal 6: Provide quality educational opportunities & experiences for all residents
  - *Obj. 6.1: Enhance quality of local public school system*
  - *Obj. 6.3: Develop the skills area residents need for employment opportunities*
- Goal 7: Strengthen community collaboration to elevate Gratiot County as a whole
  - *Obj. 7.1: Nurture community involvement, pride, and awareness*
  - *Obj. 7.2: Enhance relationship with educational system to maximize quality of recreational facilities and services*
  - *Obj. 7.3: Foster relationships with local institutions for the social benefit of all*

# Small Group Discussion

1. What are existing programs/initiatives already addressing identified priorities?
2. What are potential strategies to enhance existing initiatives or create new opportunities?
3. What community resources are available to us?