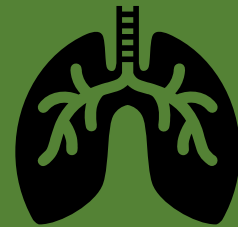




Health Profile 2018



Mason County



***District Health
Department #10***
Healthy People, Healthy Communities



2018 Health Profile

Mason County

The 2018 Chartbooks provide a snapshot of the health status of the District Health Department #10 jurisdiction. Information is presented by county and when available, comparisons are made to the jurisdiction, to Michigan, and to Healthy People 2020 Objectives.

Data include population, education, race, births and deaths, incidence of disease, injuries, and immunizations. Last year, a Behavioral Risk Factor Survey was conducted in the entire 10 county jurisdiction by an independent research and evaluation firm. This random telephone survey reached between 350 to 622 residents in each county for a total number of respondents of 4,699. A wide range of health behaviors were included:

- Health status indicators, such as perception of general health, satisfaction with life, weight (BMI), and levels of high blood pressure.
- Health risk behaviors, such as smoking, drinking, diet, and physical activity
- Clinical preventative measures, such as routine physical checkups, cancer screenings, oral health, and immunizations
- Chronic conditions, such as diabetes, asthma, and cancer

In addition, DHD#10 is completed the Community Health Improvement Plan in 2017. The identified strategic issues are:

- Access to Health Care
- Tobacco Use
- Substance Abuse
- Healthy Lifestyles
- Health Disparities
- Maternal, Infant & Child Health
- Mental Health
- Chronic Disease

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After the data are presented in this Chartbook, the last section will summarize some of the conclusions from the Behavioral Risk Factor Survey and examples of progress completed toward the CHIP goals.

If you have any questions or data requests, please e-mail data@dhd10.org

Demographics

Demographics serve as an important indicator which can be used to disaggregate data to gain more detailed on specific sub-populations (i.e. ethnicity, sex, education level, etc.) and better tailor public health interventions.

Population

	Mason	Michigan
Total Population	29,100	9,962,311
Population per square mile	58.0	174.8
Persons under 5 years	5.1%	5.8%
Persons under 18 years	20.3%	22.1%
Persons 65 years and over	22.9%	16.2%
Disability, under age 65	11.8%	10.4%
Gender: Females	50.3%	50.8%

Income & Economy

	Mason	Michigan
Persons in poverty	13.3%	15.0%
Median household income	\$45,524	\$50,803
Per capita income	\$26,251	\$27,549
Unemployment	5.6%	6.3%

Race, Ethnicity, & Household Characteristics

	Mason	Michigan
White	95.3%	79.6%
Black	0.9%	14.2%
American Indian/Alaska Native	1.1%	0.7%
Asian	0.7%	3.1%
More than one race	1.9%	2.4%
Hispanic	4.6%	5.0%
Language other than English spoken at home	3.8%	9.3%
Persons per household	2.32	2.51
High school graduates	91.9%	89.9%
Bachelor's degree or higher	22.2%	27.4%

Sources

US Census Bureau:

- [Population, July 2017 estimate](#)
- [Age & race, July, 2016](#)
- [Education based on persons age 25 and over, 2012-16](#)
- [Female persons, July, 2016](#)
- [Persons per household, 2012-2016](#)
- [Median household income, July, 2016](#)
- [Persons in poverty, July 2016 estimate](#)
- [Per capita income in past 12 months, 2012-16](#)
- [Population per square mile, 2010](#)

Bureau of Labor Statistics:

- [Average unemployment percentage, 2016](#)

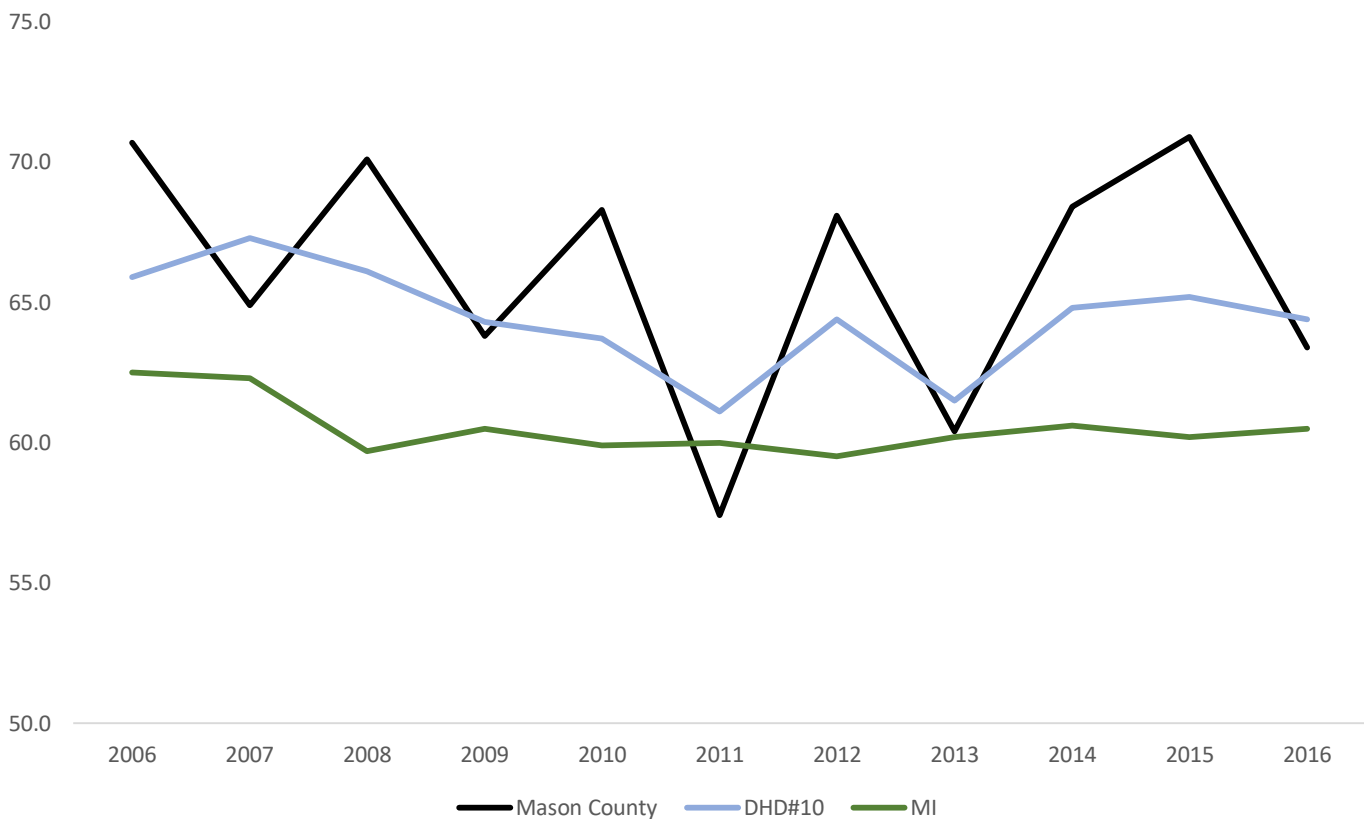
Births

Birth numbers and rates represent growth within a community and offer insight into the future population trends.

Number of Live Births in Mason County, 2007-16

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
313	331	293	315	262	307	271	310	317	281

Live Birth Rates per 1,000 Female in Mason County, DHD#10, and MI, 2006-16



Sources:

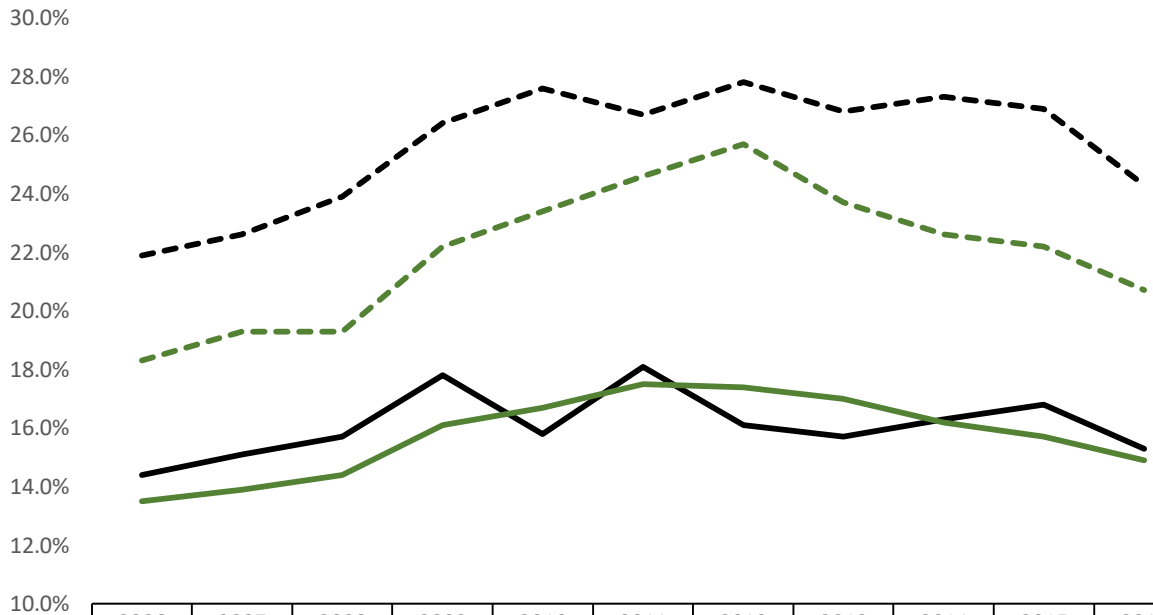
MDHHS

[Live births by county, 2006-16](#); [Live birth rates by county, 2006-16](#); [Live births rates by health jurisdiction, 2006-16](#); [Live births rates by state, 2006-16](#)

Poverty + Poverty Indicators

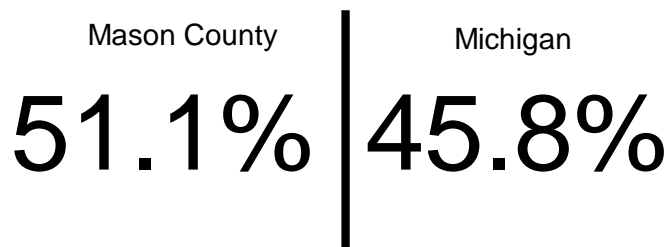
Poverty is strongly linked to negative health outcomes, keeping track of poverty levels and identifying significant change can suggest a positive or negative change within the community.

Percentage of Population (0-17 years and all ages) Living in Poverty in Mason County and MI, 2006-16



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
--- Mason - children 0-17	21.9%	22.6%	23.9%	26.4%	27.6%	26.7%	27.8%	26.8%	27.3%	26.9%	24.3%
- - - Michigan - children 0-17	18.3%	19.3%	19.3%	22.2%	23.4%	24.6%	25.7%	23.7%	22.6%	22.2%	20.7%
— Mason - all ages	14.4%	15.1%	15.7%	17.8%	15.8%	18.1%	16.1%	15.7%	16.3%	16.8%	15.3%
— Michigan - all ages	13.5%	13.9%	14.4%	16.1%	16.7%	17.5%	17.4%	17.0%	16.2%	15.7%	14.9%

% of Students Eligible for Free or Reduced Lunch, 2016



Sources:

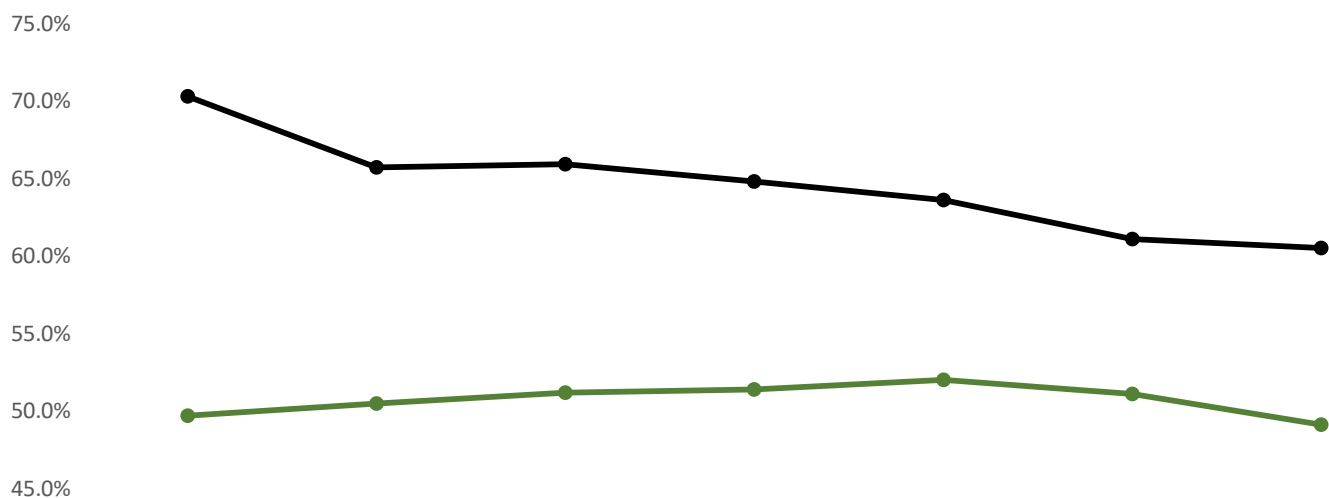
Michigan League for Public Policy

[Poverty, 0-17 years, by county & state 2006-16](#); [Poverty, all ages, by county & state, 2006-16](#);

[Percentage of student eligible for free/reduced lunch, 2016](#)

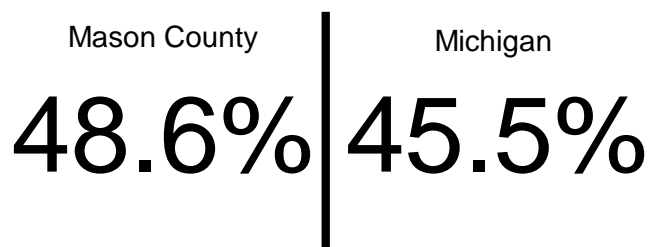
Poverty + Poverty Indicators

Percentage of Children (0-4) Who Receive Women, Infant, and Children (WIC) Benefits in Mason County and MI, 2006-16



	2010	2011	2012	2013	2014	2015	2016
—●— Mason County	70.3%	65.7%	65.9%	64.8%	63.6%	61.1%	60.5%
—●— Michigan	49.7%	50.5%	51.2%	51.4%	52.0%	51.1%	49.1%

% of Live Births Paid by Medicaid, 2015



Sources:

Michigan League for Public Policy

[Children \(0-4\) who Receive WIC Benefits by County & State, 2006-16;](#)

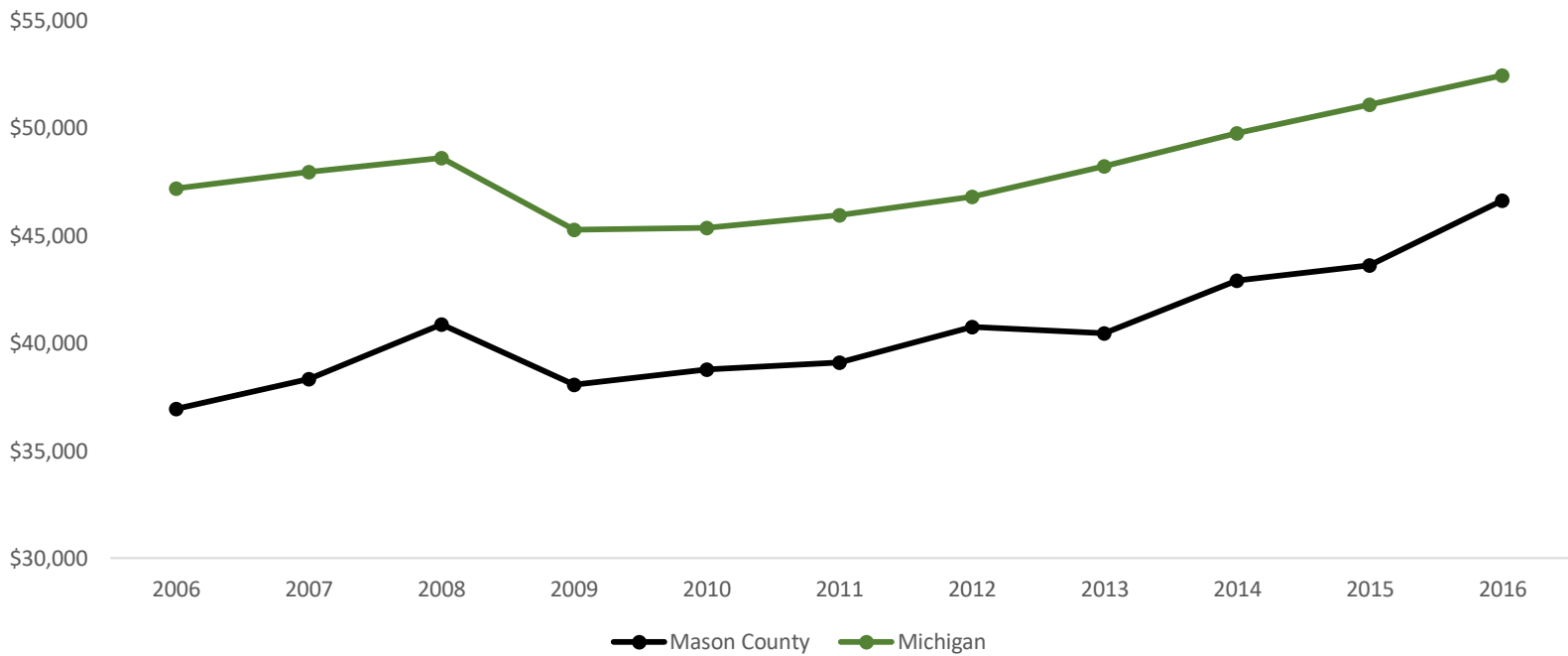
[Percentage of Live Births Paid by Medicaid by County & State, 2015](#)

Economic Wellbeing

Economic wellbeing is a quick hint into the health of a community by providing indicators that focus on economic hardships. Studies have shown that those who live in poverty are at a higher risk for both acute and chronic diseases.

	Percentage of Adults who are Unemployed		Percentage of Children (0-5) with All Parents in the Labor Force	
	Mason County	Michigan	Mason County	Michigan
2010	12.3%	12.5%	63.9%	66.0%
2016	5.6%	4.9%	65.7%	66.4%

Median Household Income in Mason County and MI, 2006-16



Sources:

Michigan League for Public Policy

[Median Household Income by County & State, 2006-16](#); [Percentage of Adults who are Unemployed, 2010 & 2016](#); [Percentage of Children \(0-5\) with All Parents in the Labor Force, 2010 & 2016](#)

Leading Causes of Death

Rates per 100,000, 2016; *Too small to calculate

	Mason	DHD#10	Michigan
Heart Disease	173.5	181.9	200.8
Cancer	136.9	187.2	167.1
Chronic Lower Respiratory	63.3	75.1	44.7
Stroke	50	45.3	39.1
Accidents	68.6	49.1	50.8
Diabetes	*	17.1	21.5
Alzheimer's Disease	*	43.6	33.8
Suicide	*	18.5	13.4
Pneumonia/Influenza	*	10.8	13.7
Kidney Disease	*	12.3	14.5

Years of Potential Life Lost

Rates per 100,000 under 75 years of age, 2016; *Too small to calculate

The number of years of potential life lost are rates calculated as the number of years between the age at death and 75 years of age for persons dying before their 75th year.

	Mason	DHD#10	Michigan
Heart Disease	1,256.5	1,368.0	1,374.3
Cancer	1,408.8	1,861.0	1,604.7
Chronic Lower Respiratory	742.5	392.0	255.4
Homicide	*	*	280.3
Accidents	2,018.0	1,189.9	1,356.9
Diabetes	*	139.7	195.8
Pneumonia/Influenza	*	271.1	99.8
Suicide	*	542.2	427.3
Drug-induced	*	527.6	953.0
Alcohol-induced	*	354.5	205.6

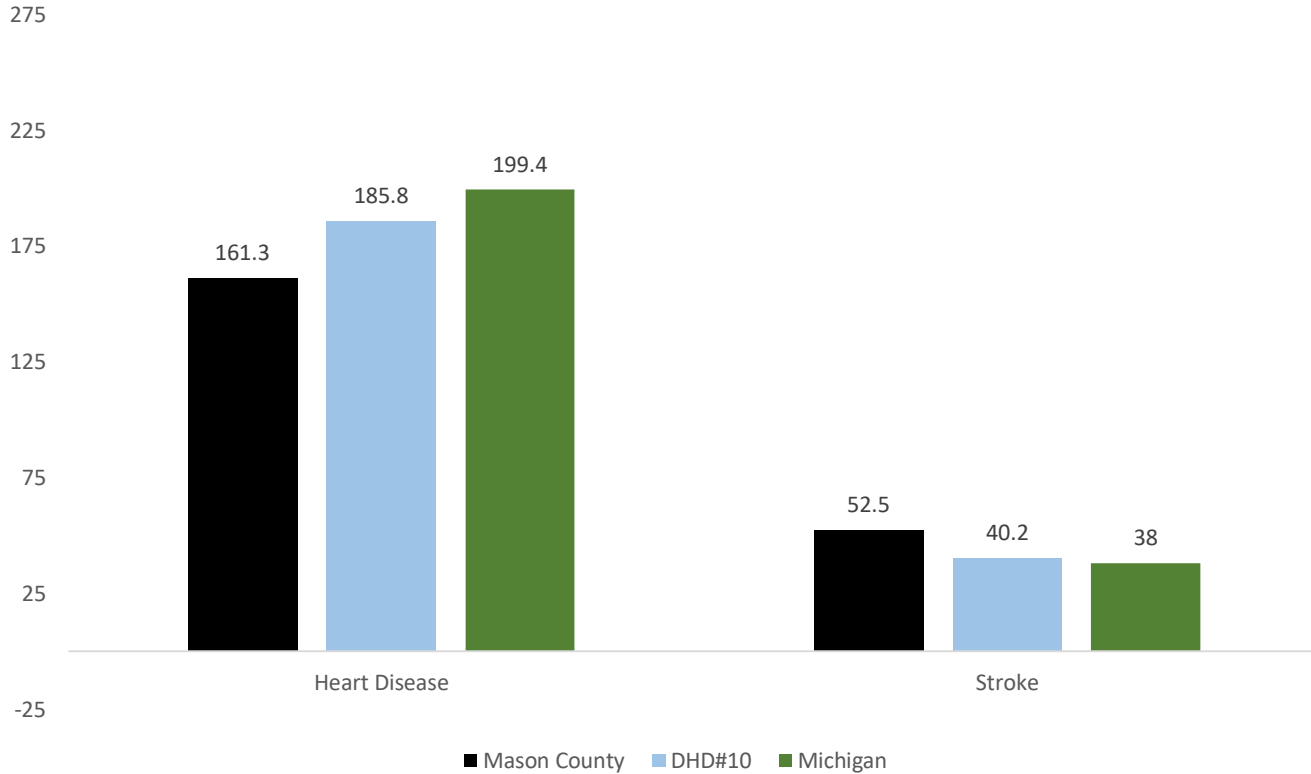
Sources:

Michigan Department of Health & Human Services

[Leading Causes of Death, 2016; Years of Potential Life Lost, 2016](#)

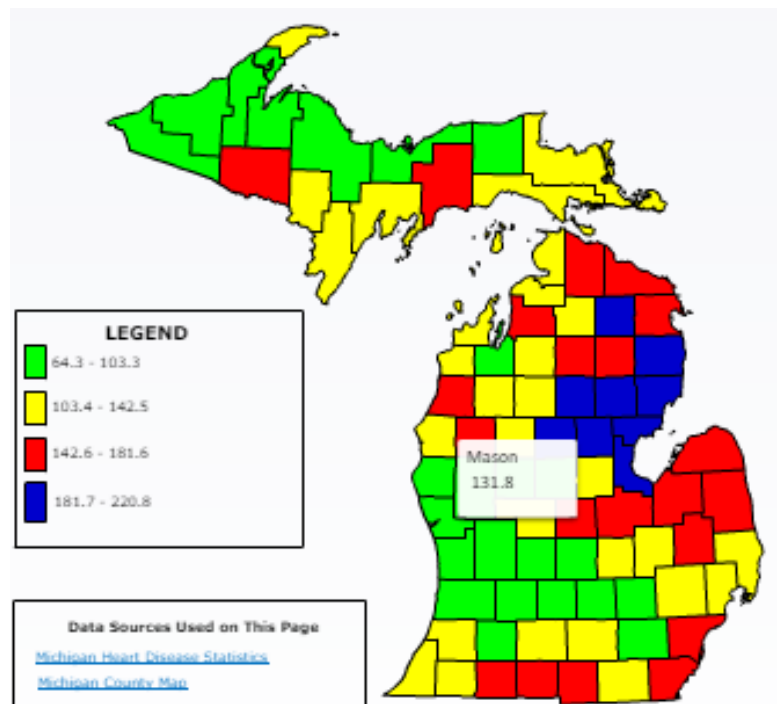
Cardiovascular Disease Snapshot

Cardiovascular age-adjusted mortality rates by type, 2014-16



Cardiovascular disease hospitalization rates per 10,000, 2014

Mason County | Michigan
131.8 | **121.2**



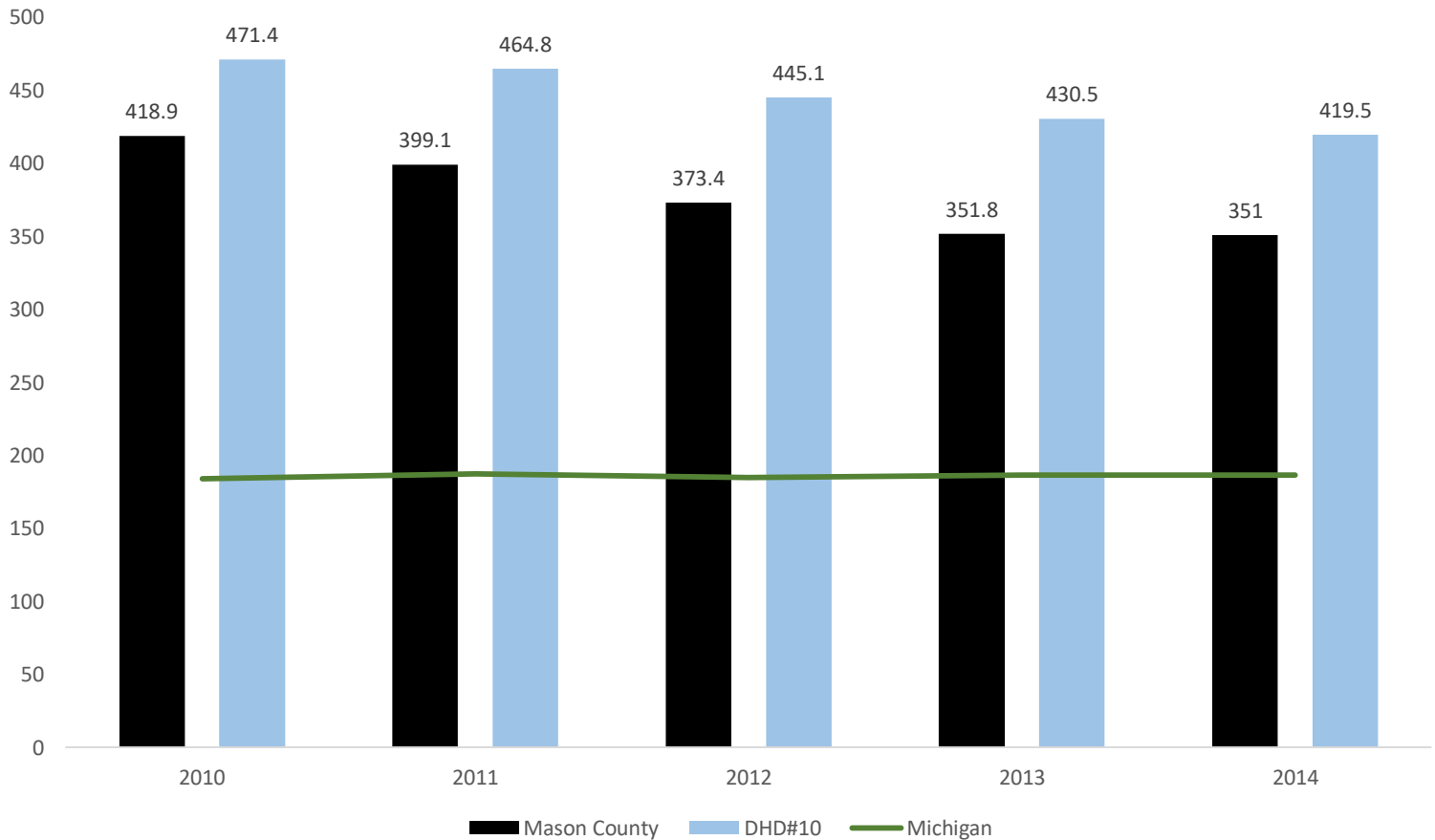
Sources:

Michigan Department of Health & Human Services

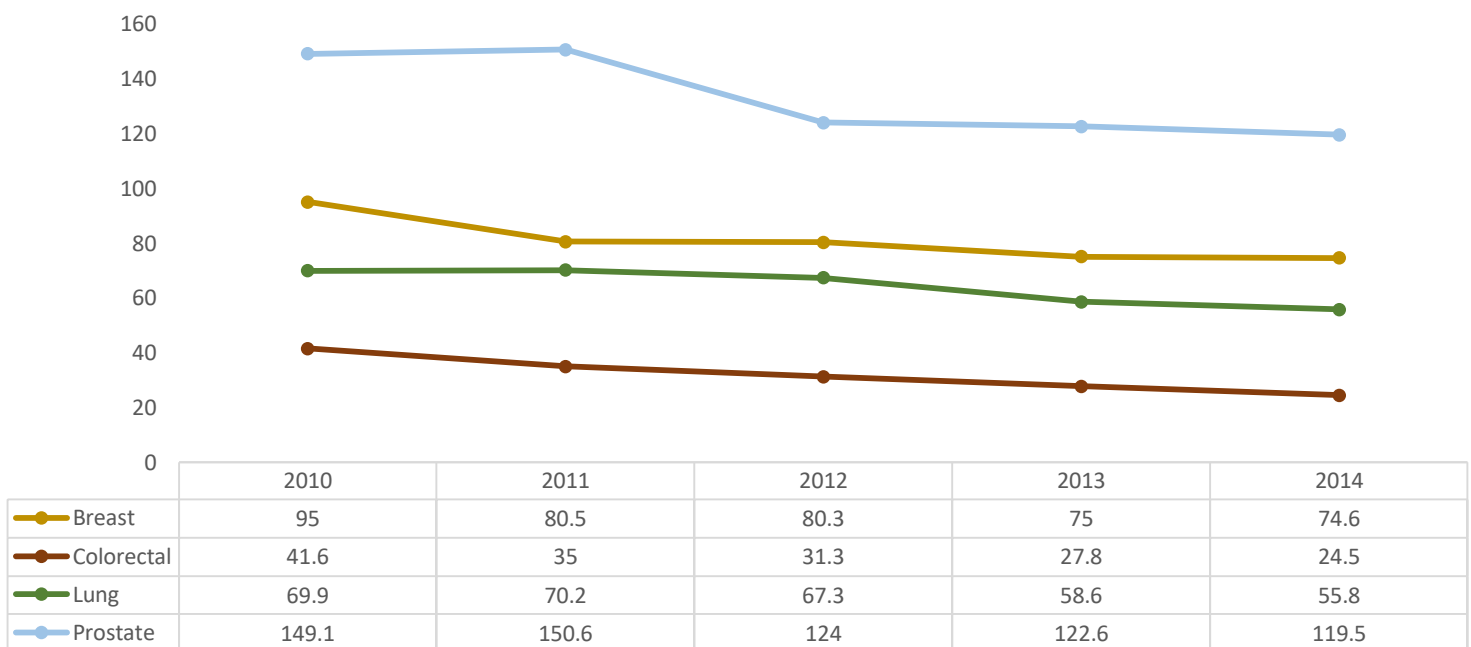
[Mortality Trends by Type, County, Health District, State, 2014-16](#); [Cardiovascular Hospitalization Rates, 2014](#);

Cancer Incidence

Five-year Average Age-adjusted Invasive Cancer Incidence per 100,000, 2010-14



Five-year Average Age-adjusted Invasive Cancer Incidence by Location per 100,000, Mason County, 2010-14



Sources:

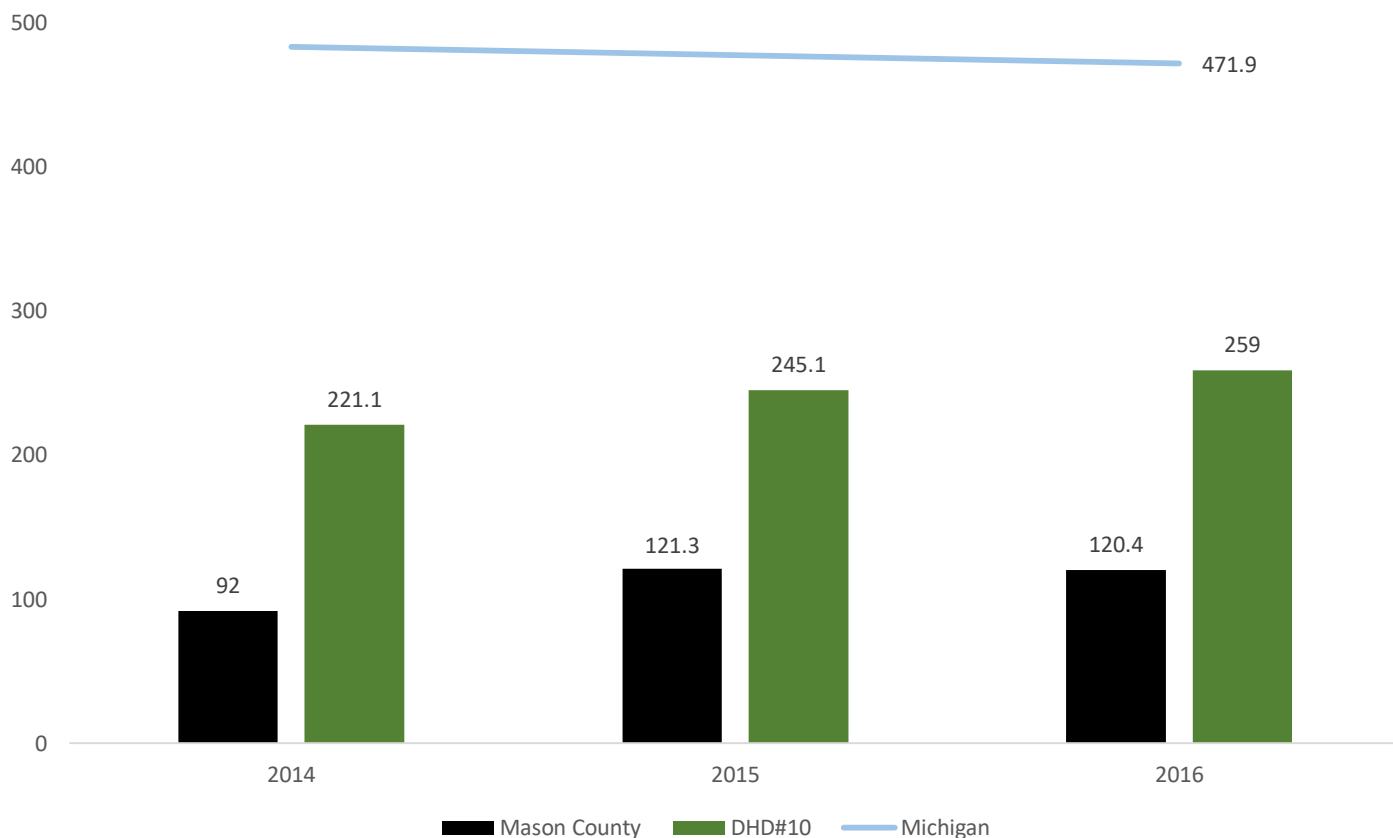
Michigan Department of Health & Human Services

[Five-year Average Age-adjusted Invasive Cancer Incidence per 100,000, 2010-14;](#)

[Five-year Average Age-adjusted Invasive Cancer Incidence by Location per 100,000, Mason County, 2010-14](#)

Sexual Health

Five-year Average Rate of Chlamydia Cases per 100,000, 2014-16



of Gonorrhea Cases, 2017

Mason County

0

DHD#10

67

of Women aged 13-44 in Need of Publicly Funded Contraceptive Services & Supplies, 2014

Mason County

1,740

Sources:

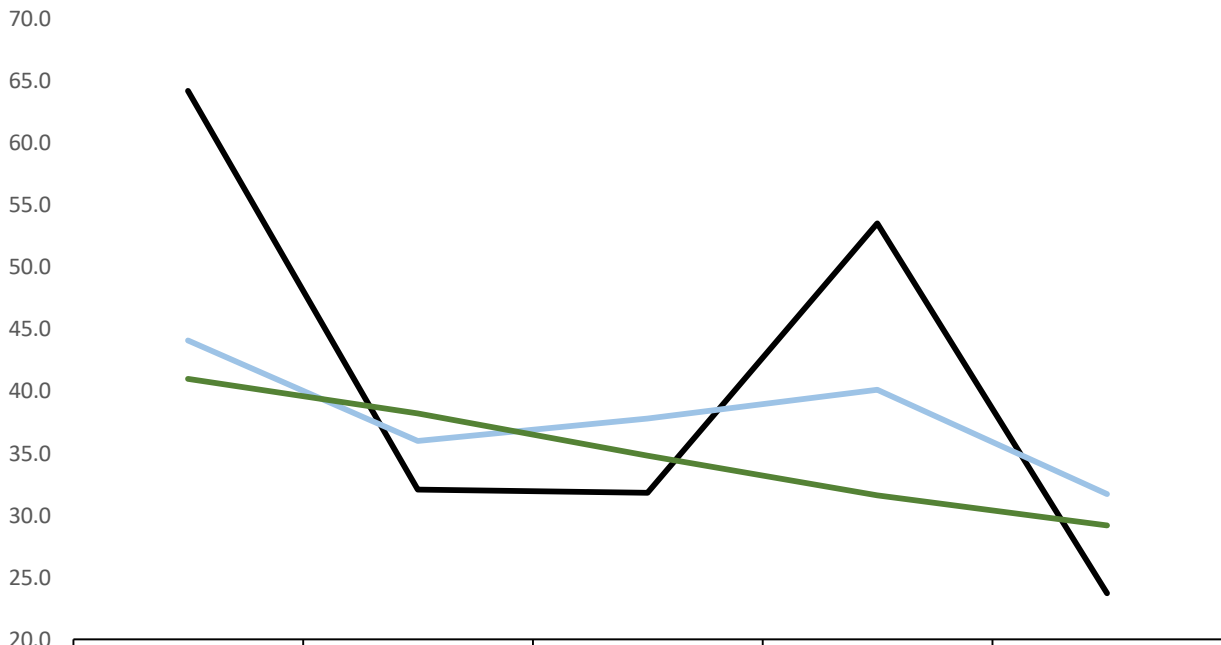
Michigan Department of Health & Human Services

[Five-year Average Rate of Chlamydia Cases per 100,000, 2014-16](#); [Number of Gonorrhea Cases, 2017](#)

[Number of Women in Need of Publicly Funded Contraceptive Services & Supplies, 2014](#)

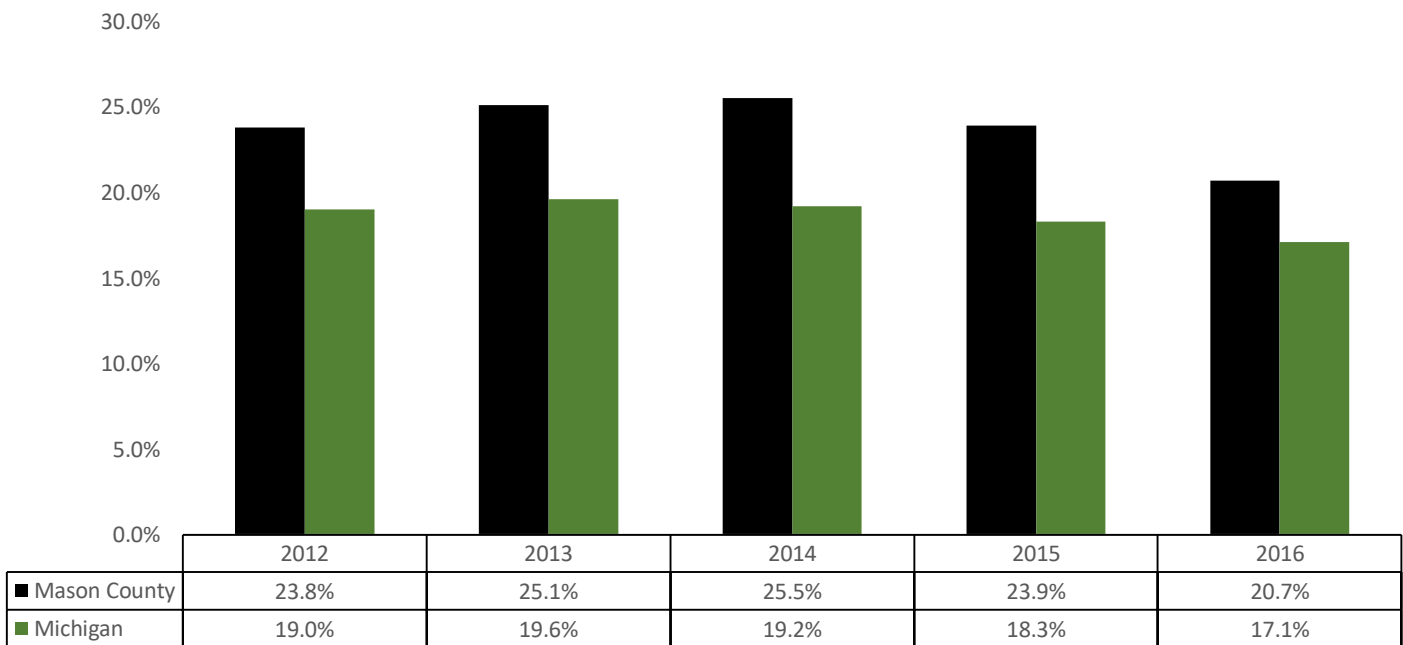
Pregnancy & Birth Related Trends

Teen (15-19 years of age) Pregnancy Rate per 1,000, 2012-16



	2012	2013	2014	2015	2016
— Mason County	64.2	32.1	31.8	53.5	23.7
— DHD#10	44.1	36.0	37.8	40.1	31.7
— Michigan	41.0	38.2	34.8	31.6	29.2

Percentage of Mothers Who Smoked During Pregnancy, 2012-16



Sources:

Michigan Department of Health & Human Services

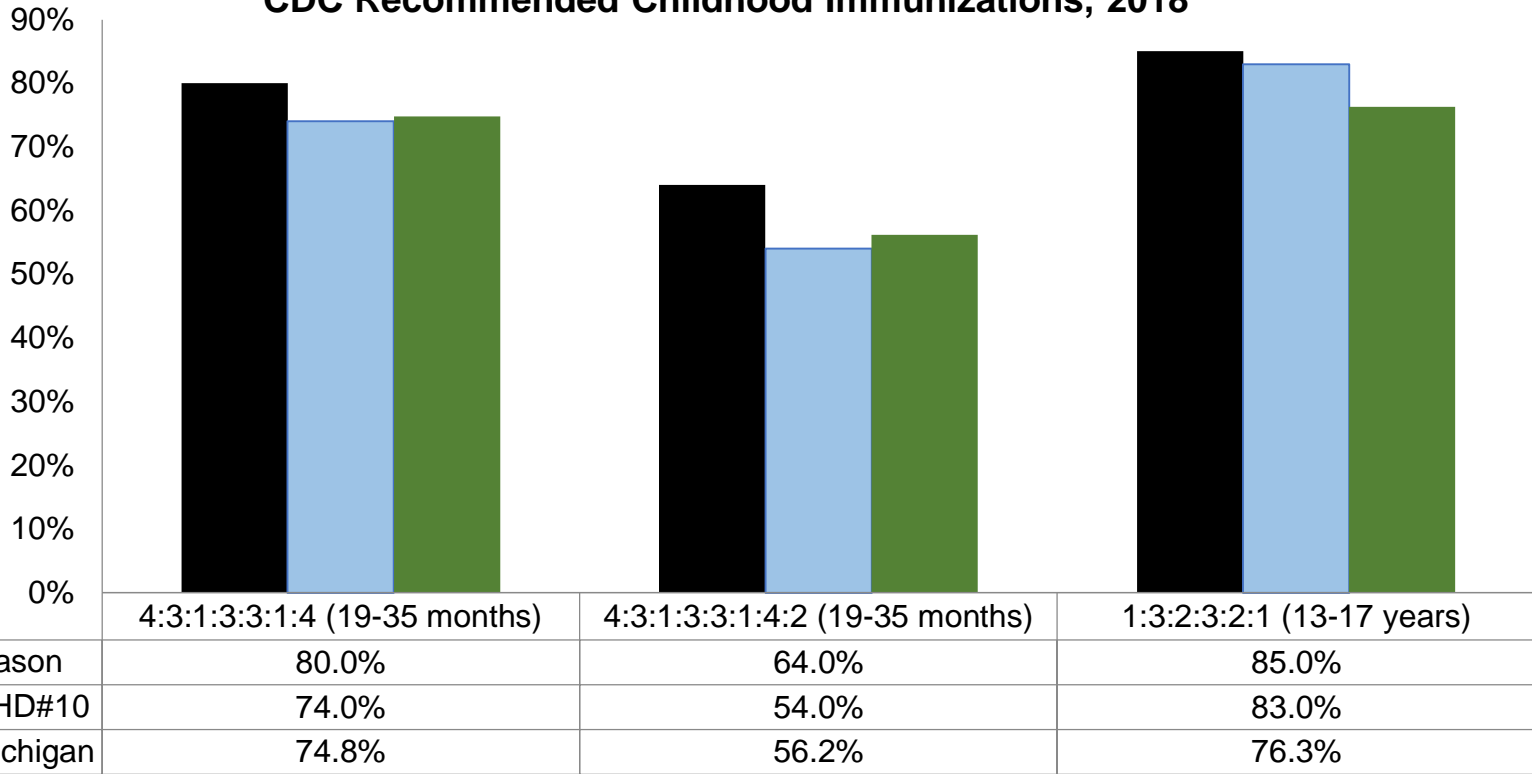
[Teen \(15-19 years of age\) Pregnancy Rate per 1,000, 2012-16;](#)

[Percentage of Mothers Who Smoked During Pregnancy, 2012-16](#)

Immunization Snapshot

Immunization compliance is one of public health's greatest defenses against many communicable diseases. Our Immunization nurses work tirelessly providing education and vaccines from infants to the senior population.

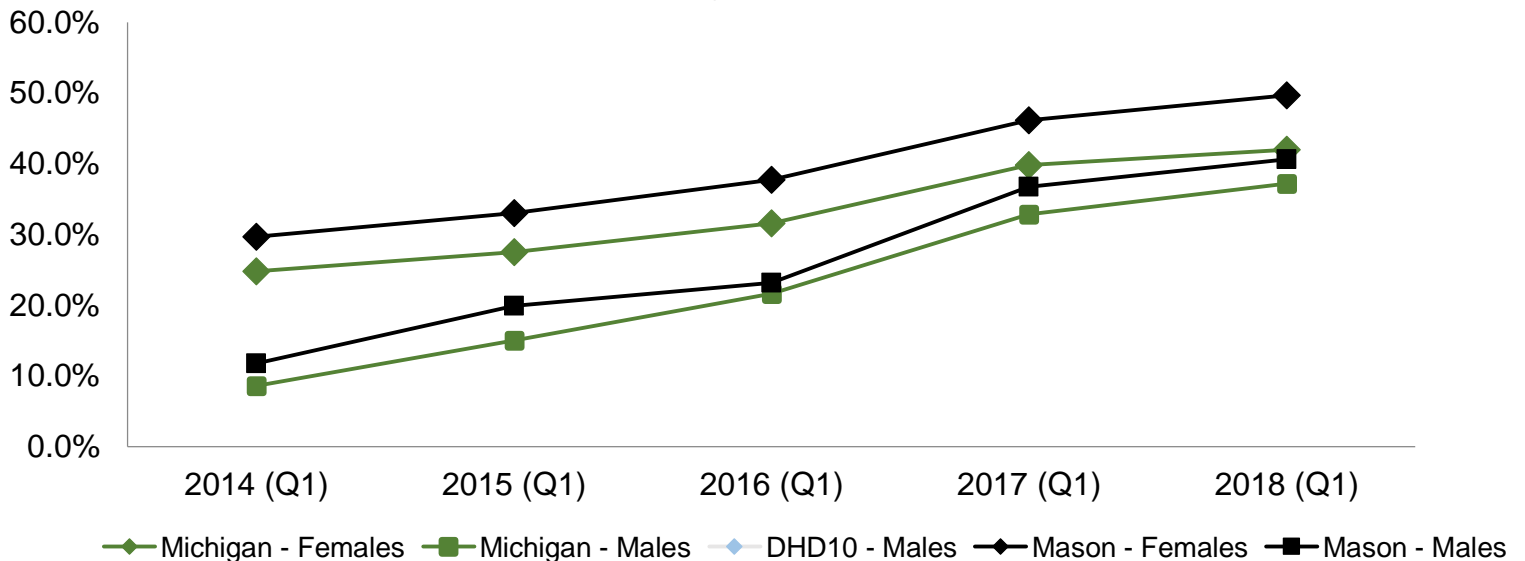
CDC Recommended Childhood Immunizations, 2018



Immunizations Key

- 4:3:1:3:3:1:4 includes 4 doses of DTaP, 3 polio, 1 MMR, 3Hib, 3 Hepatitis B, 1 varicella, and 4 PCV7/13. This is the percent of 19-35-month-old children who have received these immunizations.
- 4:3:1:3:3:1:4:2 includes the above vaccines with the addition of 2 doses of Hepatitis A. This is the percent of 19-35-month-old children who have received these immunizations.
- 1:3:2:3:2:1 includes 1 Tdap, 3 IPV, 2 MMR, 3 HepB, 2 Varicella, and 1 Meningococcal. This is the percent of 13-17-year olds who have received these immunizations.

Percentage of HPV Vaccination Completion by Sex (13-17 Years of Age), Michigan vs. Mason County



Sources:

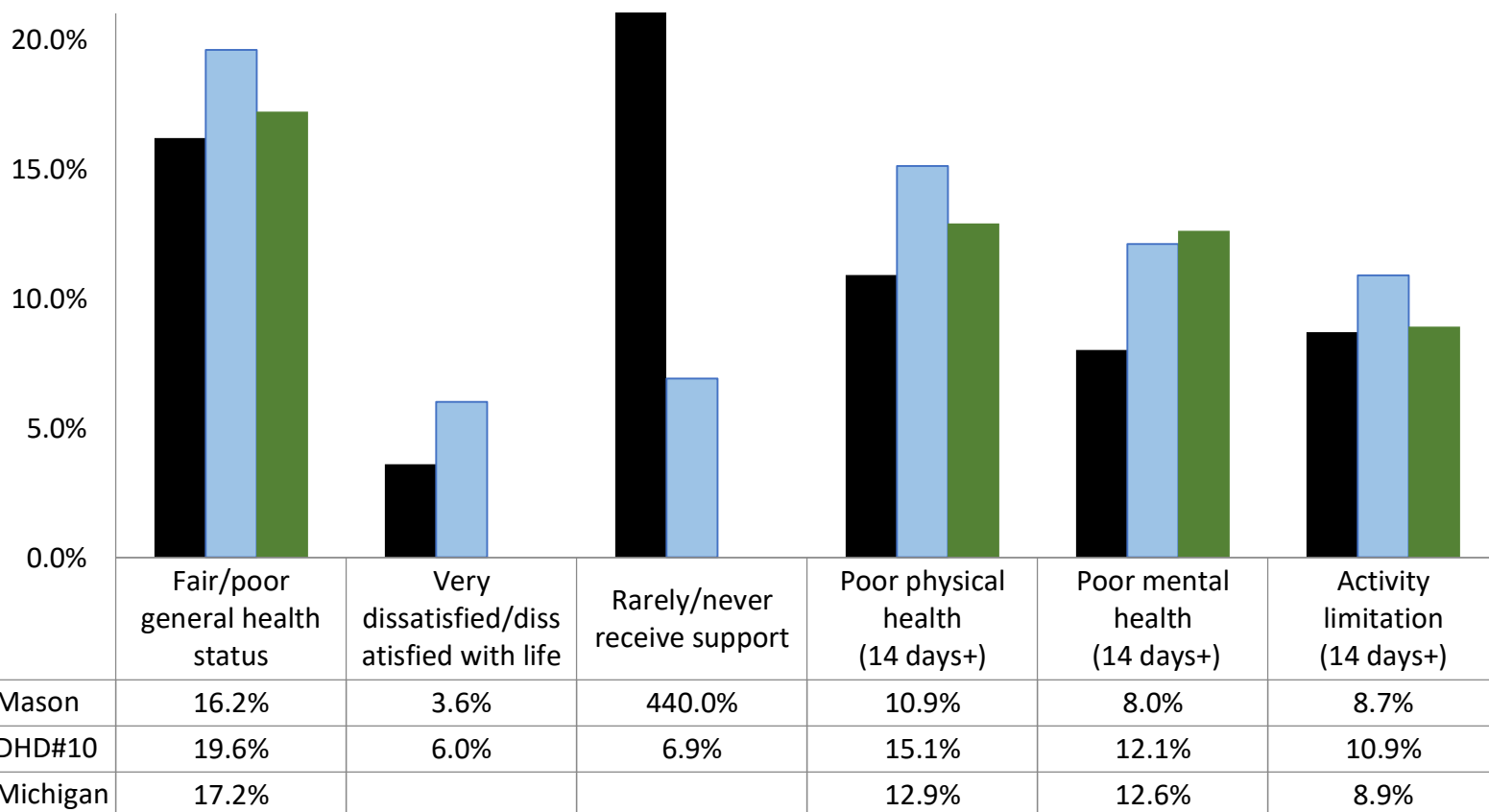
Michigan Care Improvement Registry

Behavioral Risk Factor Survey Snapshot

In 2013, DHD#10 hired an independent research and evaluation firm to conduct a regional Behavioral Risk Factor Survey to bolster our survey response rates to increase validity and to obtain comprehensive and inclusive survey results. The following geographic areas will be presented: DHD#10 Region, County Level, & Michigan. There will be some data sets with no Michigan comparison – this is due to DHD#10 adding customized questions to the BRFS.

The Michigan Behavior Risk Factor Survey is completed annually through randomized telephone surveys for Michigan residents 18+. The most recent Michigan Behavioral Risk Factor Survey Annual Table (2016) can be accessed [here](#).

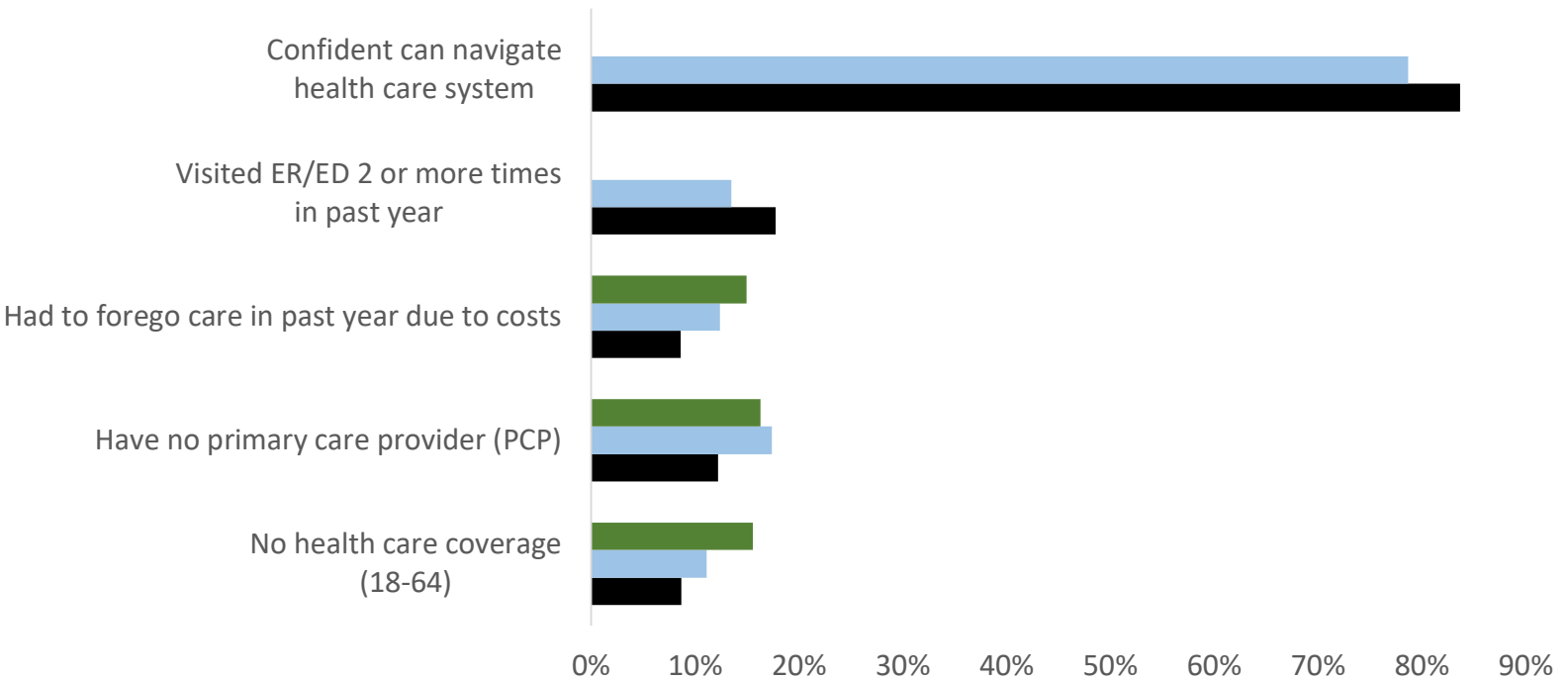
Self-Reported Health Status Indicators



Sources:

District Health Department #10
 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
 Michigan Department of Health & Human Services
[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)

Access to Healthcare



	No health care coverage (18-64)	Have no primary care provider (PCP)	Had to forego care in past year due to costs	Visited ER/ED 2 or more times in past year	Confident can navigate health care system
■ MI	15.6%	16.3%	15.0%		
■ DHD#10	11.1%	17.4%	12.4%	13.5%	78.7%
■ Mason	8.7%	12.2%	8.6%	17.8%	83.7%

Provider Snapshot

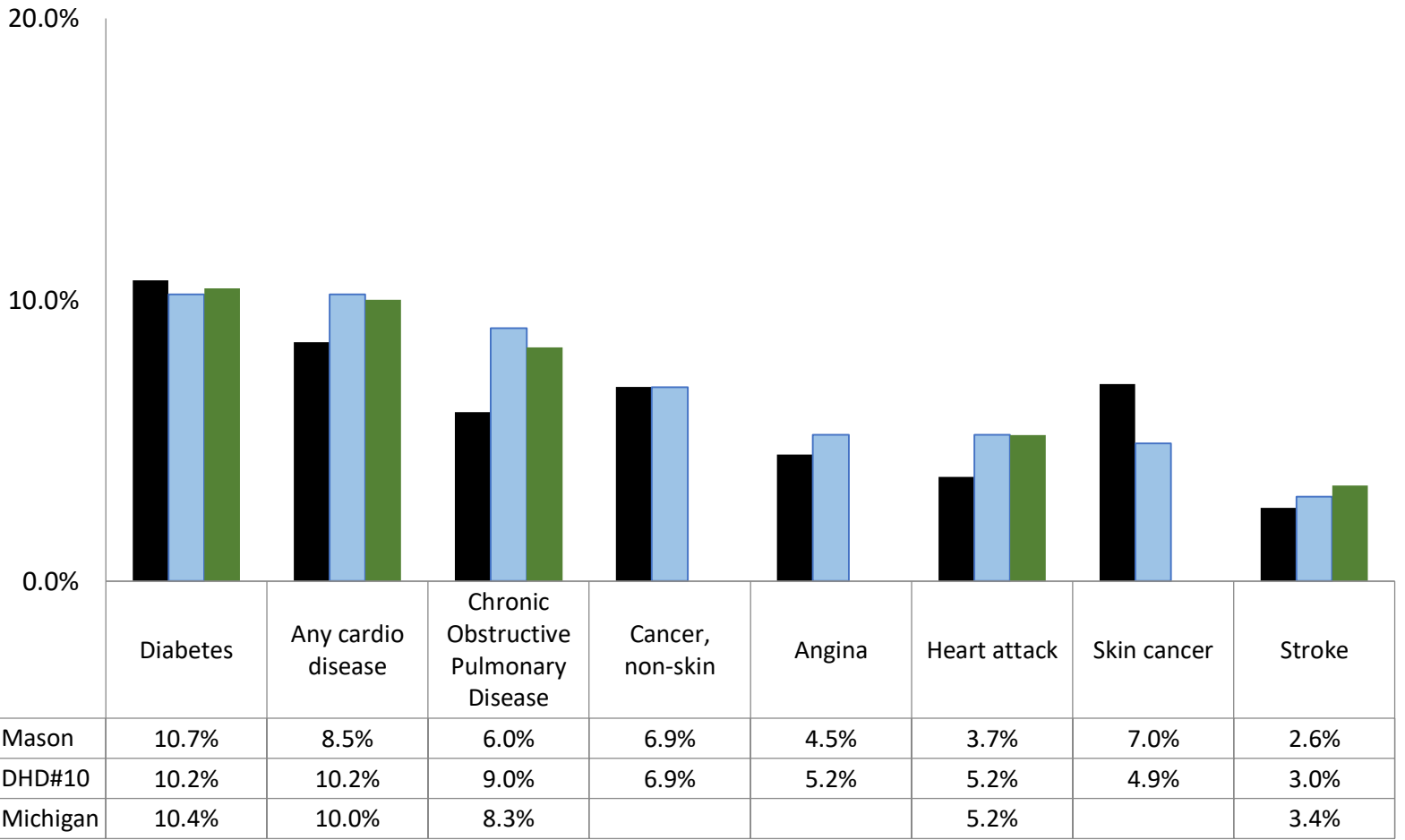
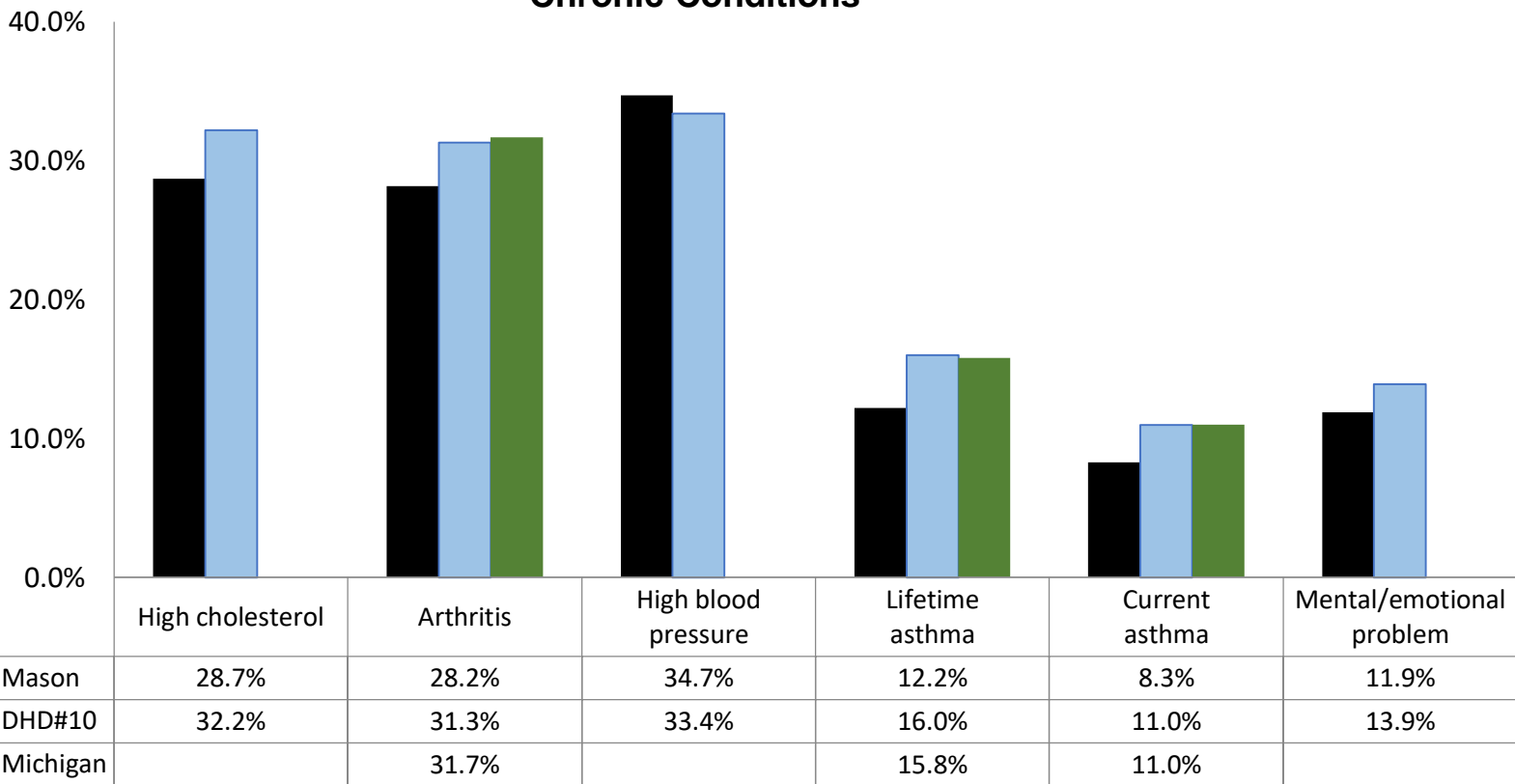
Number of Residents per Health Care Provider (2014)		
	Mason	Michigan
Primary Care Physician	1,200:1	1,240:1
Dentist	1,920:1	1,420:1
Mental Health Provider*	360:1	460:1

*Mental health providers include psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists who meet certain qualifications and certifications.

Sources:

District Health Department #10
 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
 Michigan Department of Health & Human Services
[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)
 County Health Rankings
[County vs. State Rankings, 2018](#)

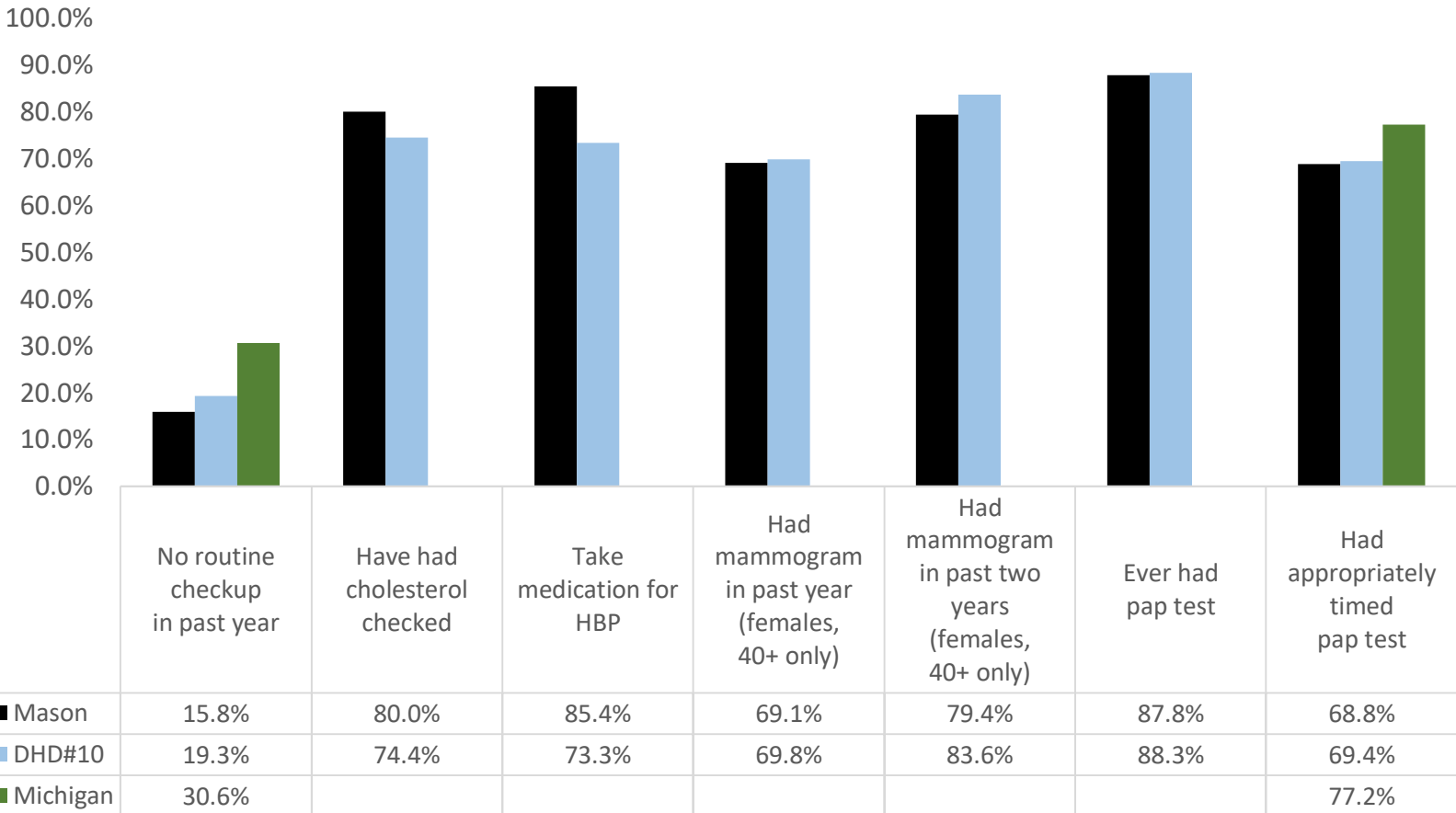
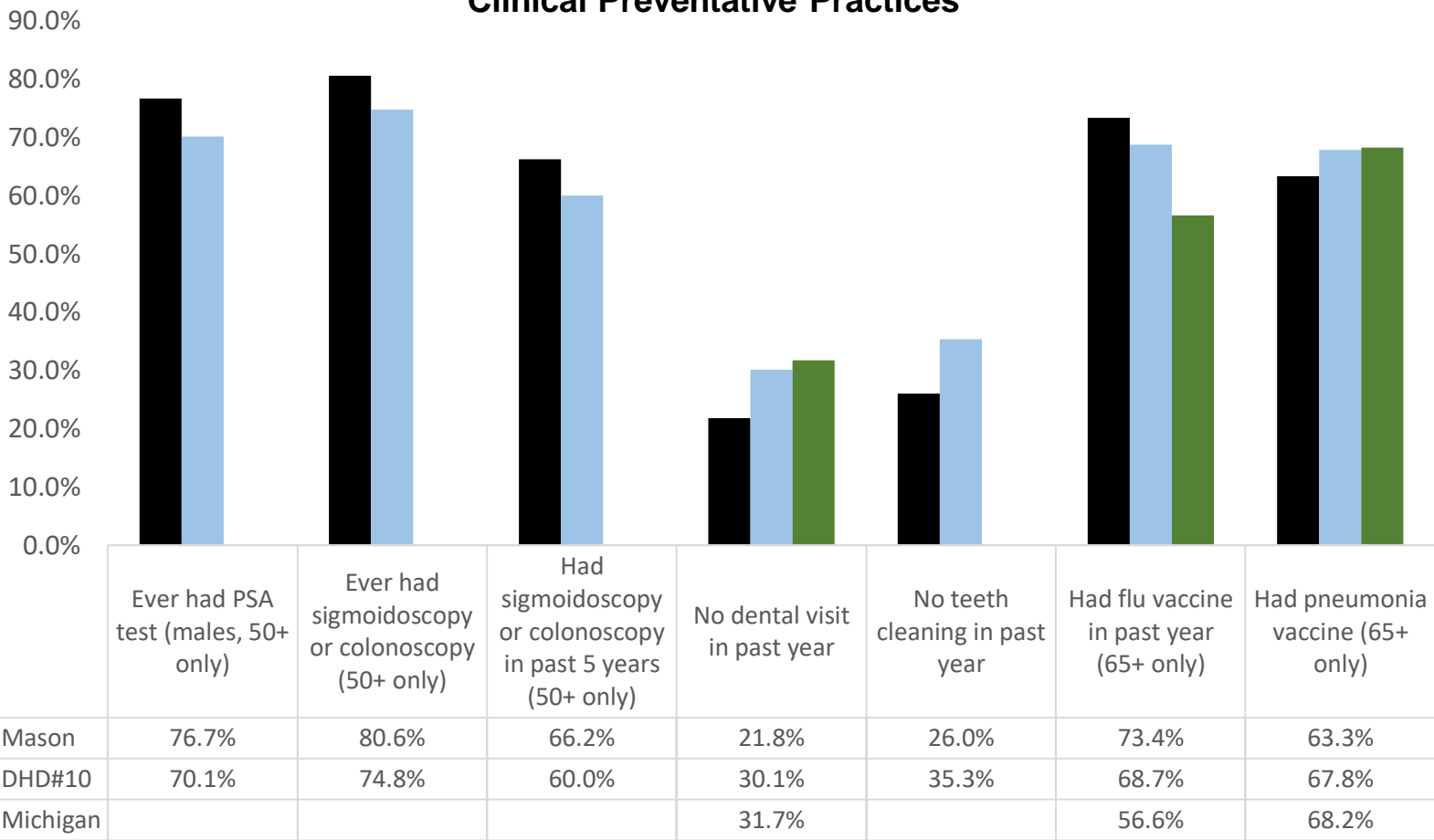
Chronic Conditions



Sources:

District Health Department #10
 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
 Michigan Department of Health & Human Services
[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)

Clinical Preventative Practices



Sources:

District Health Department #10
 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
 Michigan Department of Health & Human Services
[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)

Risk Behaviors

35.0%

30.0%

25.0%

20.0%

15.0%

10.0%

5.0%

0.0%

Current cigarette smoker Former cigarette smoker Heavy drinker Binge drinker

■ Mason	20.8%	27.6%	3.3%	13.8%
■ DHD#10	29.1%	26.1%	7.7%	16.0%
■ Michigan	22.0%	26.5%	6.4%	19.0%

90.0%

80.0%

70.0%

60.0%

50.0%

40.0%

30.0%

20.0%

10.0%

0.0%

Inadequate fruit/vegetable consumption (< 5 times per day) Sometimes/often don't have enough to eat No leisure time physical activity Obese Overweight Healthy weight

■ Mason	84.8%	5.1%	35.5%	33.5%	30.9%	31.8%
■ DHD#10	83.3%	11.7%	32.6%	32.2%	33.9%	31.7%
■ Michigan			24.4%	31.1%	34.7%	32.6%

Sources:

District Health Department #10

Behavioral Risk Factor Survey, 2014-2015 (County and District results)

Michigan Department of Health & Human Services

[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)

County Health Rankings

County Health Rankings is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The County Health Rankings measure the health of nearly all counties in the nation and rank them within states. Below is an overall snapshot at the county level vs. all ranked counties (**83 in total**).

The most recent County Health Rankings (2019) can be accessed [here](#).

Mason County Health Ranking Snapshot (2018)			Ranking (out of 83 counties)
Health Outcomes			48
<i>Represents how healthy a county is, using factors of how long people live and how healthy they feel while they are alive (quality of life)</i>	Length of Life	Premature death	43
	Quality of Life	Poor or fair health; poor physical health days; poor mental health days; low birth weight	57
Health Factors			23
<i>Represents what influences the health of a county</i>	Health Behaviors	Smoking; obesity; food environment; physical activity; excessive drinking; alcohol impaired driving deaths; sexually transmitted infections; teen births	23
	Clinical Care	Uninsured; ratios of physicians, dentists and mental health providers to population; preventable hospital stays; diabetic monitoring; mammography screening	16
	Social and Economic Factors	Education; unemployment; poverty; children in single-parent households; social associations; violent crime; injury deaths	44
	Physical Environment	Air pollution; drinking water violations; severe housing problems; driving alone to work and long commute	29

Sources:
 County Health Rankings
[County vs. State Rankings, 2018](#)

Conclusions: Behavioral Risk Factor Survey

Behavioral Risk Factor Survey Findings

*The district-wide BRFS findings show both **strengths** and **opportunities** for improvement in the health status of our communities*

Strengths

- Most enjoy good to excellent general health, physical health, and mental health
- Adequate social and emotional support
- Large majority have health care coverage and a primary care provider (PCP)
- Most have had no problems receiving needed medical care
- Binge drinking lower than Michigan and US
- Most buy fresh fruits/vegetables locally and feel fresh produce is readily available in their community
- Strong majority have routine physical checkups and health screening/tests, such as mammograms
- Vast majority receiving information on how to manage diabetes, heart attack, angina/CHD, COPD
- Majority of adults aged 65+ immunized against pneumonia and flu

Opportunities for Improvement

- DHD#10 area lags behind Michigan and/or US on most indicators measured
- One in five with fair to poor general health
- Physical health and activity limitation worse than MI
- Nearly one in three obese; one in three overweight but not obese
- Nearly three in ten are current smokers
- Prevalence of heavy drinking higher than MI/US
- Nearly one-third not engaging in leisure time physical activity
- Inadequate fruit/vegetable consumption
- Three in ten have not visited the dentist in past year
- One in three have hypertension
- One in ten have diabetes; one in five over age 55 have diabetes
- Higher prevalence than MI and/or US on chronic conditions such as asthma, heart attacks, heart disease, and cancer
- Nearly one-third have high cholesterol

Sources:

District Health Department #10

Behavioral Risk Factor Survey, 2014-2015 (County and District results)

Michigan Department of Health & Human Services

[Michigan Behavioral Risk Factor Surveillance System, 2014;](#)

Conclusions: Community Health Improvement Plan



MASON COUNTY

TOP 3 HEALTH ISSUES Identified by Key Stakeholders



Chronic Disease Strategy Progress

Integrate health and wellness programming to where people already are (work and school)



Promote resources for chronic disease prevention in the worksites



Conduct assessments for employees that include mental health and well being



Develop a Speakers bureau to provide presentations to worksites and schools



Healthy Lifestyles Strategy Progress

Increase fitness opportunities for seniors



Provide education on Walk with Ease to healthcare providers



Substance Abuse Strategy Progress

Provide support to physicians in implementing practices to a) educate patients on the proper use of and risks associated with opiates; b) offer alternative options for pain management; c) screen and refer for mental health issues and pain management



Expand the Leeward Coalition partners to include Department of Health and Human Services, Community Mental Health, Mercy Health, 211, etc.



Sources:

District Health Department #10

[Community Health Improvement Plan Progress Report, 2018](#)