

2022



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



# KALKASKA Community Data

DHD#10 Chartbooks provide a brief overview 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. Information is collected about poverty, access to preventive care, promotion of healthy lifestyle and behavior, and creation and maintenance of healthy communities.



# 2022 Community Data Kalkaska

The 2022 Chartbooks provide a health profile for Kalkaska County. In certain sections, this information is compared to the overall health status of counties within District Health Department #10. The data includes 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. 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 has completed the Community Health Improvement Plan in 2017. The identified strategic issues included the following:

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

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](mailto:data@dhd10.org)*

## Table of Contents

|  |    |
|--|----|
| Demographics   | 2  |
| Birth Trends   | 3  |
| Poverty Indicators                                     | 4  |
| Economic Wellbeing                                     | 6  |
| Leading Causes of Death & Years of Potential Life Lost | 7  |
| Cardiovascular Disease                                 | 8  |
| Cancer Incidence                                       | 9  |
| Sexual Health  | 10 |
| Pregnancy & Birth Related Trends                       | 11 |
| Immunizations  | 12 |
| Behavioral Risk Factor Survey                          | 13 |
| County Health Rankings                                 | 18 |
| Conclusions  | 19 |

# Demographics

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

## Population

|                            | Kalkaska | Michigan   |
|----------------------------|----------|------------|
| Total Population           | 17,939   | 10,077,331 |
| Population per square mile | 30.6     | 174.8      |
| Persons under 5 years      | 5.1%     | 5.7%       |
| Persons under 18 years     | 20.5%    | 21.5%      |
| Persons 65 years and over  | 20.7%    | 17.7%      |
| Disability, under age 65   | 13.9%    | 10.2%      |
| Gender: Females            | 48.9%    | 50.7%      |

## Income & Economy

|                         | Kalkaska | Michigan |
|-------------------------|----------|----------|
| Persons in poverty      | 12.0%    | 12.6%    |
| Median household income | \$49,402 | \$59,234 |
| Per capita income       | \$25,301 | \$32,854 |
| Unemployment            | 11.1%    | 9.9%     |

## Race, Ethnicity, & Household Characteristics

|  | Kalkaska | Michigan |
|--|----------|----------|
| White                                      | 95.6%    | 79.2%    |
| Black                                      | 0.7%     | 14.1%    |
| American Indian/Alaska Native              | 1.0%     | 0.7%     |
| Asian                                      | 0.6%     | 3.4%     |
| More than one race                         | 2.1%     | 2.5%     |
| Hispanic                                   | 2.2%     | 5.3%     |
| Language other than English spoken at home | 1.7%     | 9.7%     |
| Persons per household                      | 2.45     | 2.45     |
| High school graduates                      | 88.0%    | 91.3%    |
| Bachelor's degree or higher                | 14.4%    | 30.0%    |

### Sources

US Census Bureau:

- [Population, April 2020](#)
- [Age & race, April, 2020](#)
- [Language other than English, 2016-2020](#)
- [Disability, under 65, 2020](#)
- [Education based on persons age 25 and over, 2016-2020](#)
- [Female persons, April, 2020](#)
- [Persons per household, 2016-2020](#)
- [Median household income, 2016-2020](#)
- [Persons in poverty, April 2020](#)
- [Per capita income in past 12 months, 2016-2020](#)
- [Population per square mile, 2010](#)

Bureau of Labor Statistics:

- [Average unemployment percentage, 2020](#)

# Births

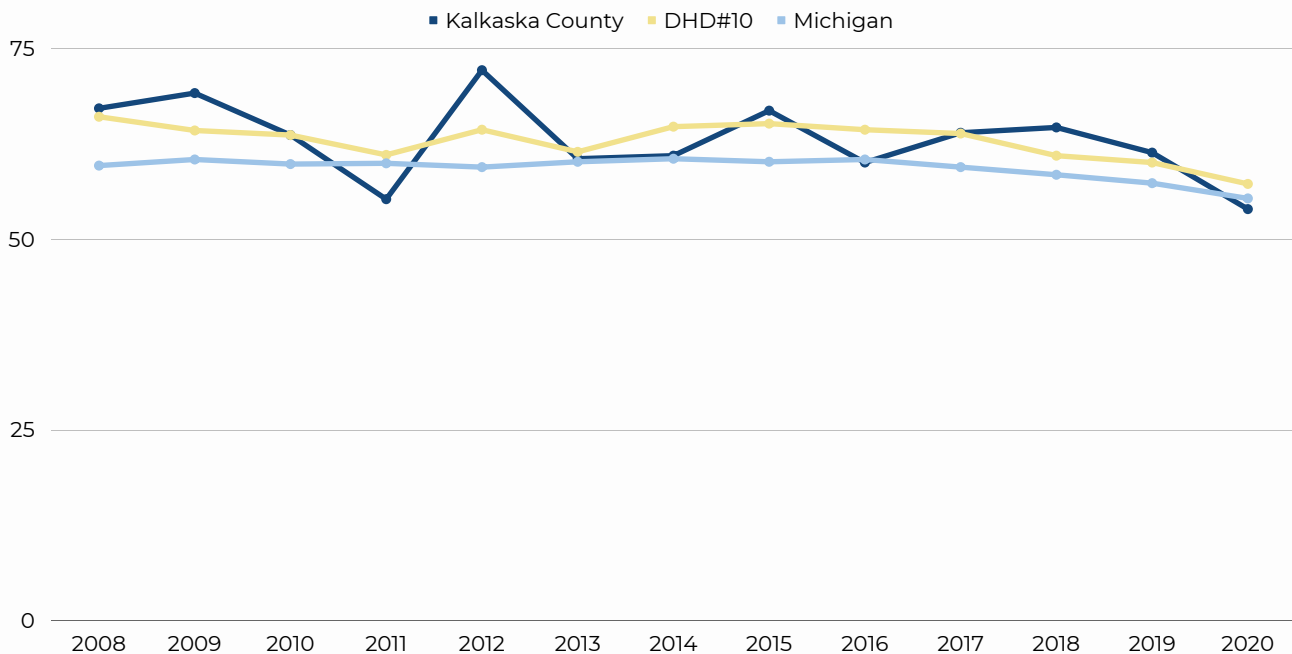
Birth numbers and rates represent growth within a community and offer insight into the future population trends. In this section, births are provided from 2007 to 2020.

Number of Live Births in Kalkaska County, 2007-2020

| Year   | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------|------|------|------|------|------|------|------|
| Births | 234  | 199  | 197  | 178  | 155  | 198  | 167  |

| Year   | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------|------|------|------|------|------|------|------|
| Births | 168  | 183  | 167  | 180  | 186  | 182  | 160  |

Live Birth Rates per 1,000 Female in Kalkaska County, DHD#10, Michigan, 2008-2020



## Sources:

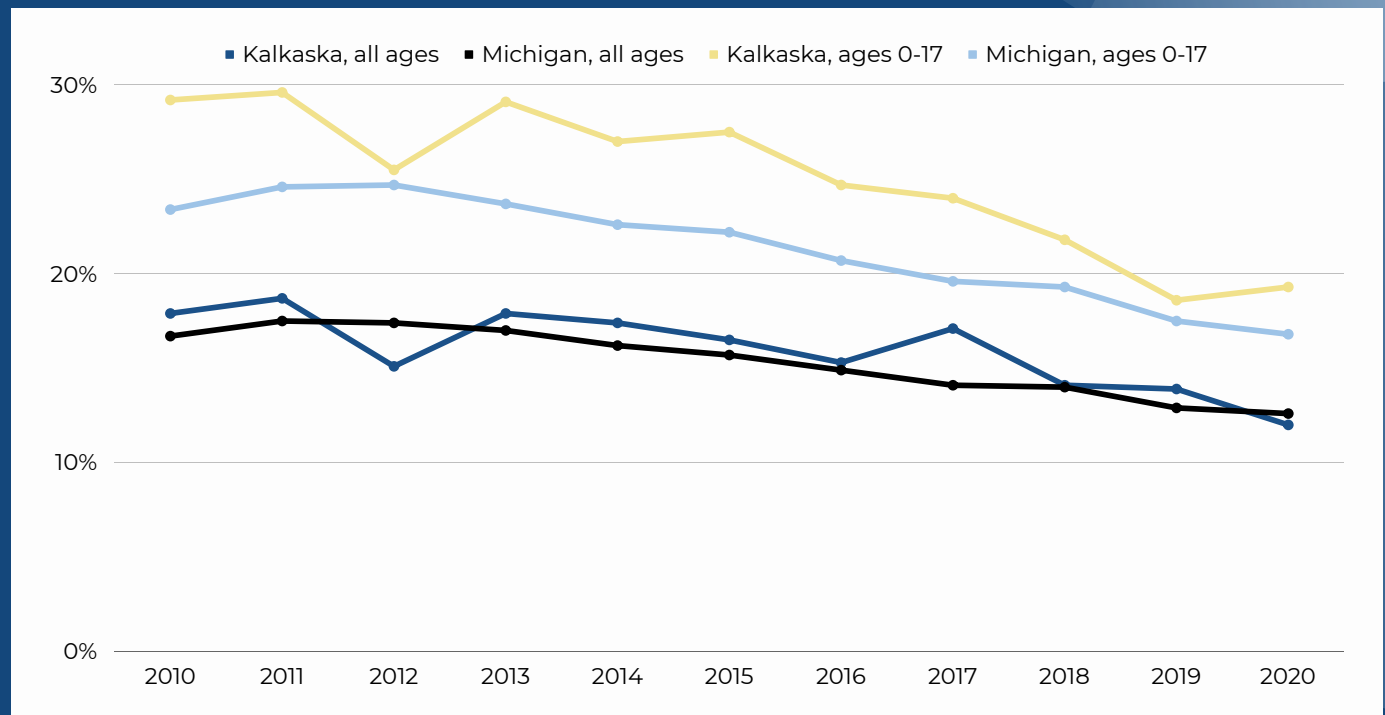
Michigan Department of Health and Human Services (MDHHS)

- [Live births by county, 2007-2020](#)
- [Live birth rates by county, 2008-2020](#)
- [Live births rates by health jurisdiction, 2008-2020](#)
- [Live births rates by state, 2008-2020](#)

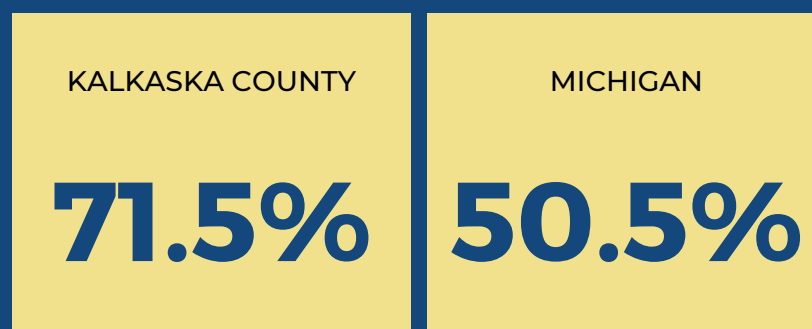
# Poverty & Poverty Indicators

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 Kalkaska County and Michigan, 2010-2020



% of Students Eligible for Free or Reduced Lunch, 2020



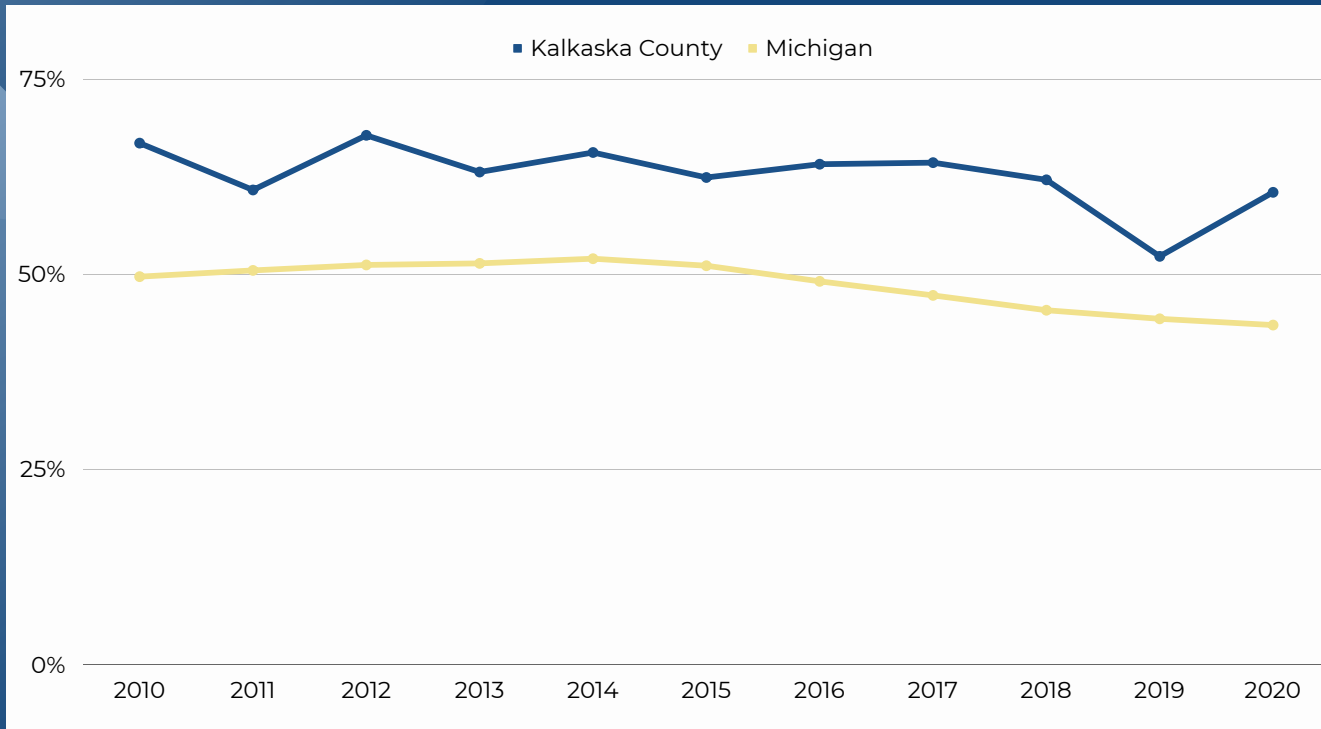
Sources:

Michigan League for Public Policy

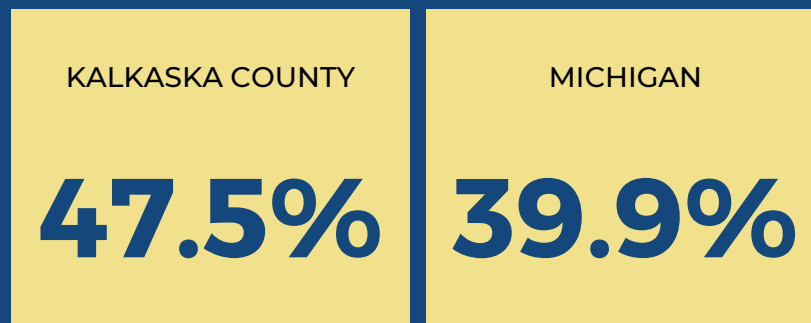
- [Poverty, 0-17 years, by county & state 2010-2020](#)
- [Poverty, all ages, by county & state, 2010-2020](#)
- [Percentage of student eligible for free/reduced lunch, 2020](#)

# Poverty & Poverty Indicators

*Percentage of Children (0-4) Who Receive Women, Infant, and Children (WIC) Benefits in Kalkaska County and Michigan, 2010-2020*



*% of Live Births Paid by Medicaid, 2020*



Sources:

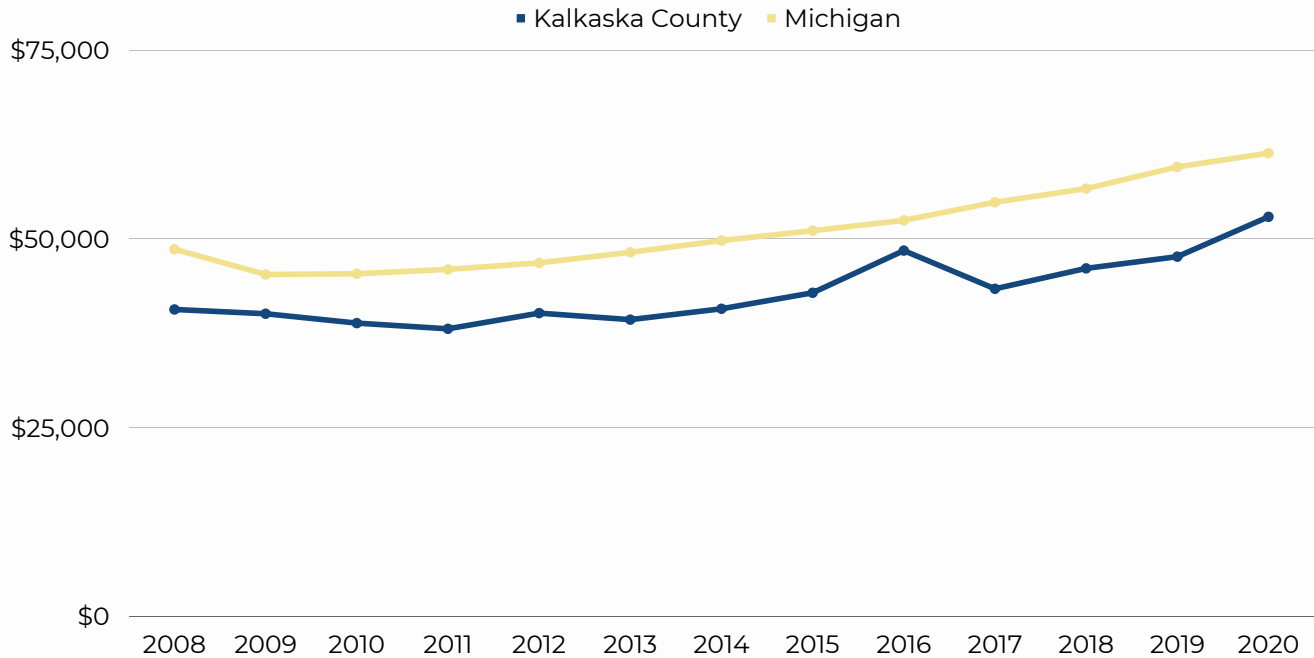
Michigan League for Public Policy

- [Children \(0-4\) who Receive WIC Benefits by County & State, 2010-2020](#)
- [Percentage of Live Births Paid by Medicaid by County & State, 2020](#)

# 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.*

*Median Household Income in Kalkaska County and Michigan, 2008-2020*



| Percentage of Adults who are Unemployed |                 | Percentage of Children (0-5) with All Parents in the Labor Force |       |
|---|-----------------|--|-------|
|   | Kalkaska County | Michigan   |       |
| 2018                                    | 5.9%            | 4.1%   | 60.4% |
| 2020                                    | 11.1%           | 9.9%   | 67.4% |
|   |                 |  | 66.4% |
|   |                 |  | 67.1% |

Sources:

Michigan League for Public Policy

- [Median Household Income by County & State, 2008-2020](#)
- [Percentage of Adults who are Unemployed, 2018 & 2020](#)
- [Percentage of Children \(0-5\) with All Parents in the Labor Force, 2018 & 2020](#)

# Leading Causes of Death

Age-adjusted Mortality Rates per 100,000, 2020; \*Too small to calculate

|                           | Kalkaska | DHD#10 | Michigan |
|---------------------------|----------|--------|----------|
| Heart Disease             | 200.0    | 192.4  | 206.0    |
| Cancer                    | 235.8    | 180.9  | 158.8    |
| COVID-19                  | *        | 43.0   | 86.5     |
| Unintentional Injury      | *        | 69.7   | 56.2     |
| Stroke                    | *        | 54.0   | 44.8     |
| Chronic Lower Respiratory | 76.3     | 63.5   | 42.4     |
| Alzheimer's Disease       | *        | 46.9   | 37.0     |
| Diabetes                  | *        | 23.9   | 26.3     |
| Kidney Disease            | *        | 9.5    | 14.8     |
| Pneumonia/Influenza       | *        | 9.9    | 14.4     |

## Years of Potential Life Lost

Rates per 100,000 under 75 years of age, 2020; \*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.

|                          | Kalkaska | DHD#10  | Michigan |
|--------------------------|----------|---------|----------|
| Cancer                   | 1,895.2  | 1,855.9 | 1,495.9  |
| Heart Disease            | 1,504.1  | 1,447.2 | 1,443.0  |
| Unintentional Injury     | *        | 1,715.7 | 1,438.3  |
| COVID-19                 | *        | 310.2   | 567.9    |
| Suicide                  | *        | 530.3   | 430.0    |
| Homicide                 | 0        | *       | 352.5    |
| Birth-related Conditions | 0        | *       | 291.3    |
| Chronic Liver Disease    | *        | 279.2   | 281.8    |
| Drug-induced Death       | *        | 848.3   | 977.0    |
| Injury by Firearms       | *        | 359.8   | 509.0    |
| Alcohol-induced Death    | *        | 469.5   | 322.0    |

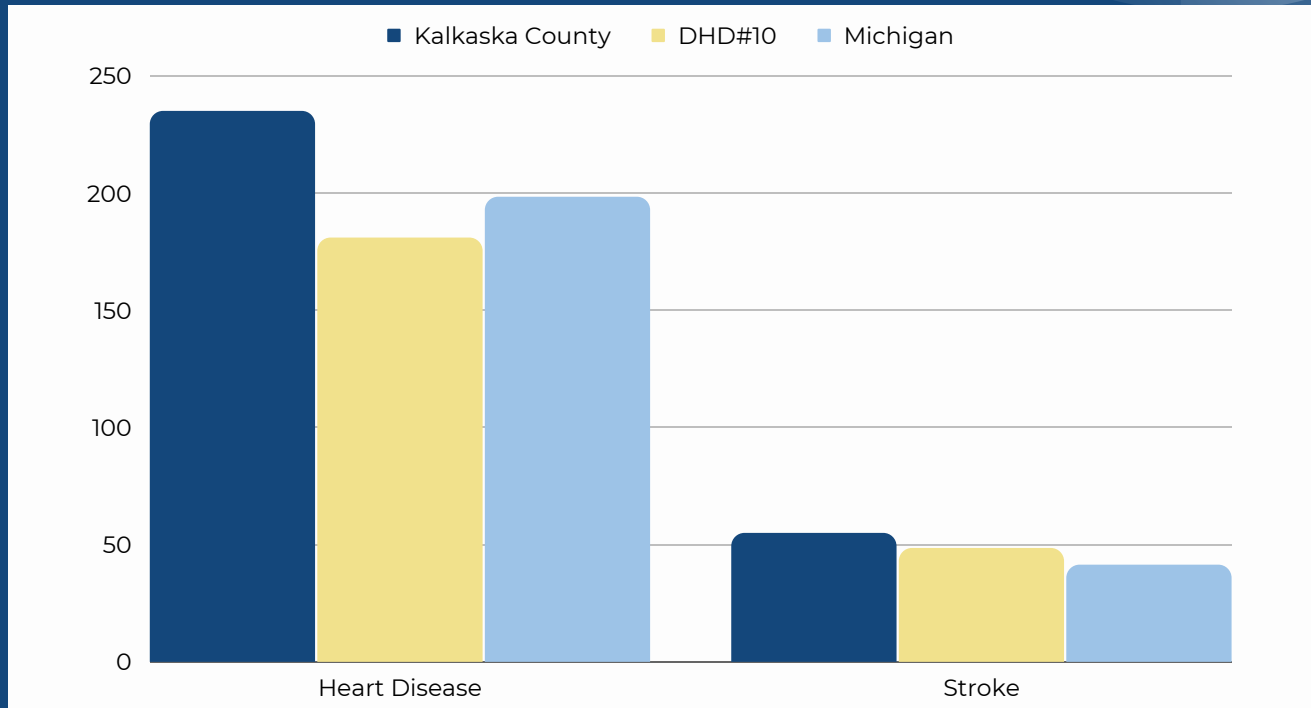
Sources: MDHHS

- [Leading Causes of Death, 2020](#)
- [Years of Potential Life Lost, 2020](#)

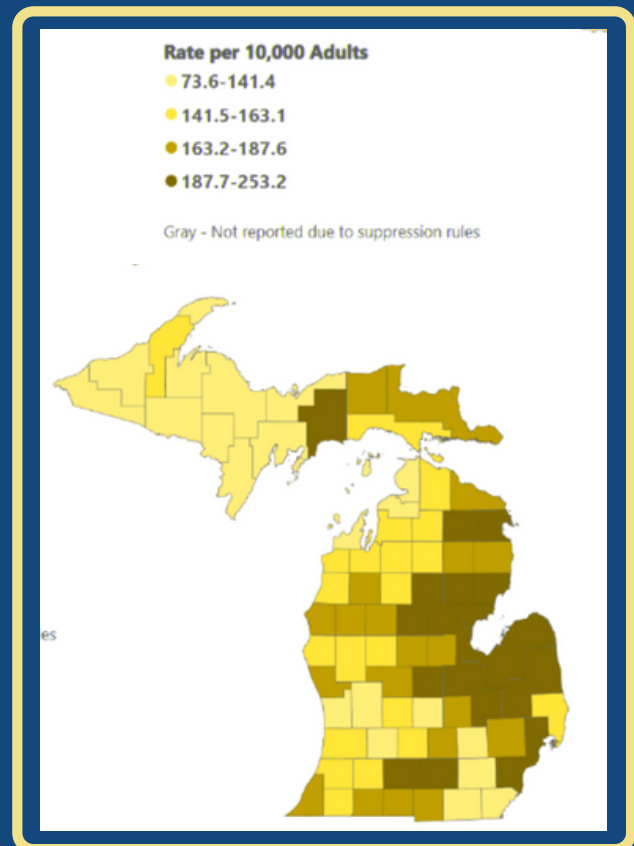
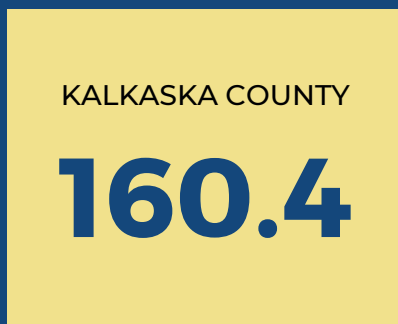


# Cardiovascular Disease

Age-adjusted Mortality Rates for Cardiovascular Disease by Category, 2018-2020



Cardiovascular Disease Hospitalization  
2016-2019, rates per 10,000

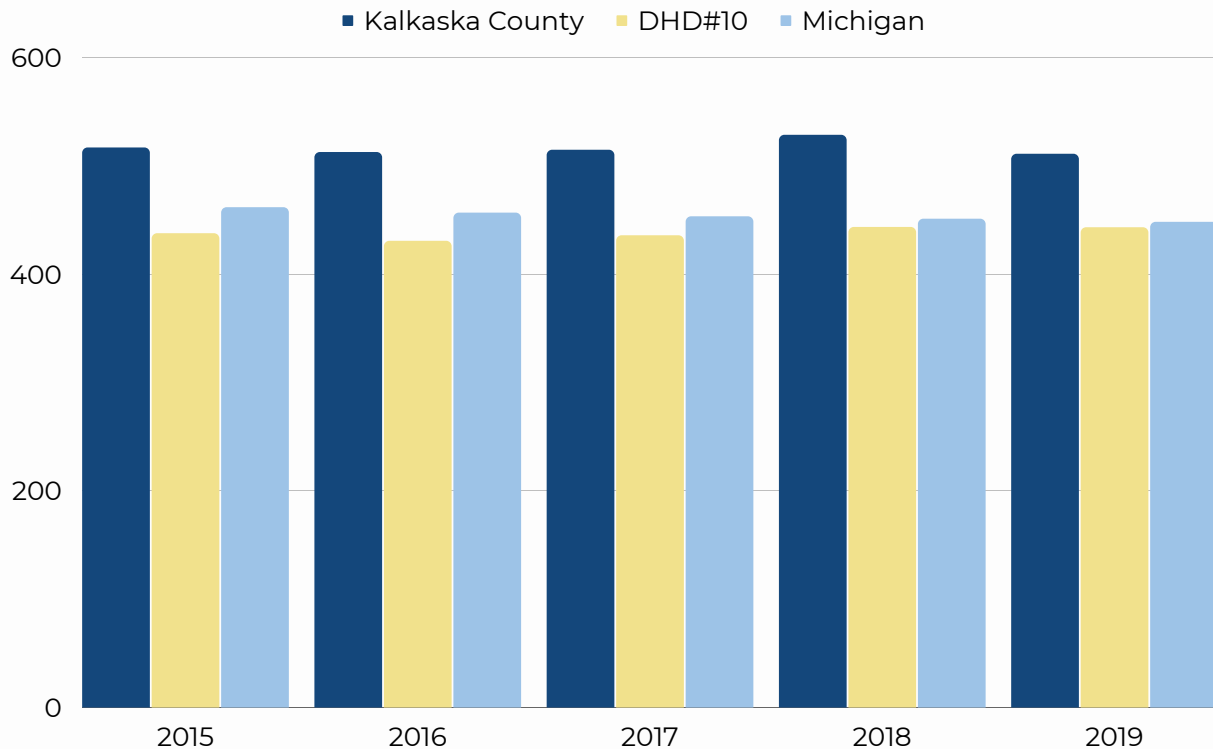


Sources: MDHHS

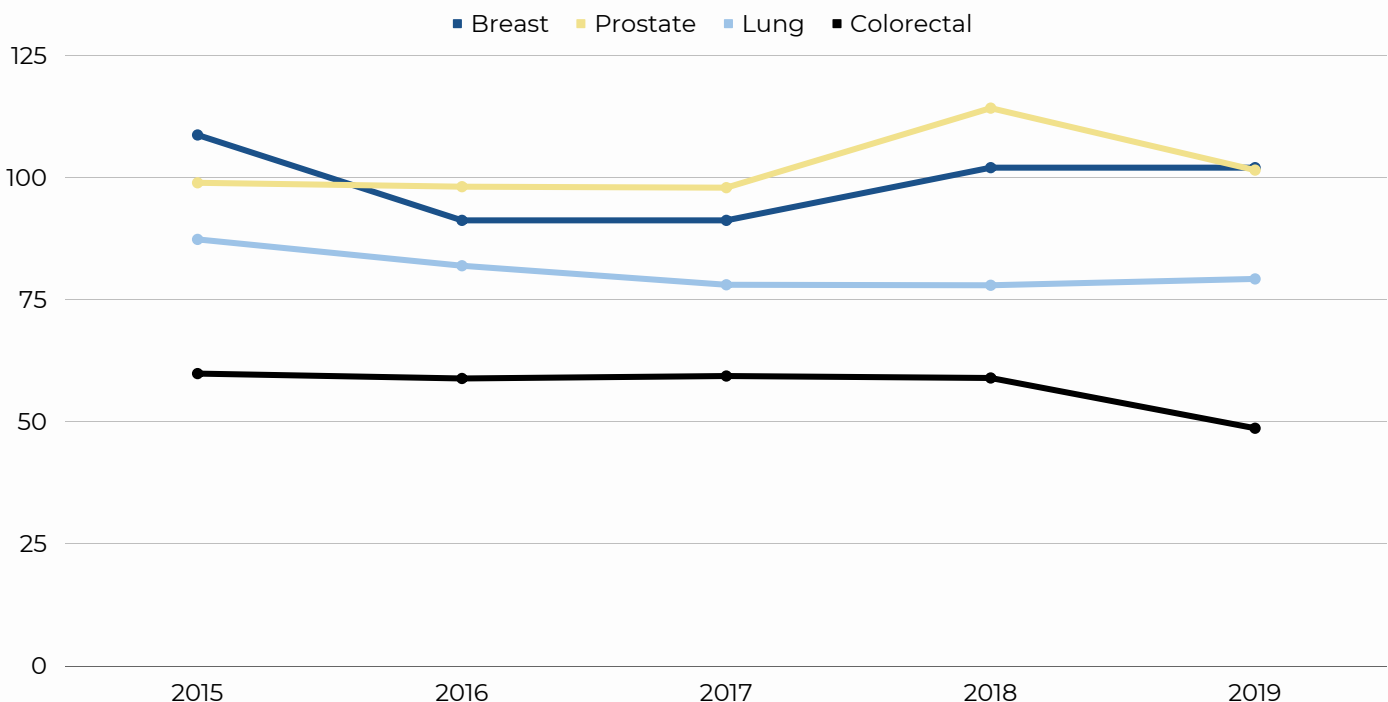
- [Mortality Trends by Type, County, Health District, State, 2018-2020](#)
- [Cardiovascular Hospitalization Rates, 2016-2019](#)

# Cancer Incidence

*Five-year Average Age-adjusted Rates for Invasive Cancer Incidence per 100,000, 2015-2019*



*Five-year Average Age-adjusted Rates for Invasive Cancer Incidence by Location per 100,000, Kalkaska County, 2015-2019*

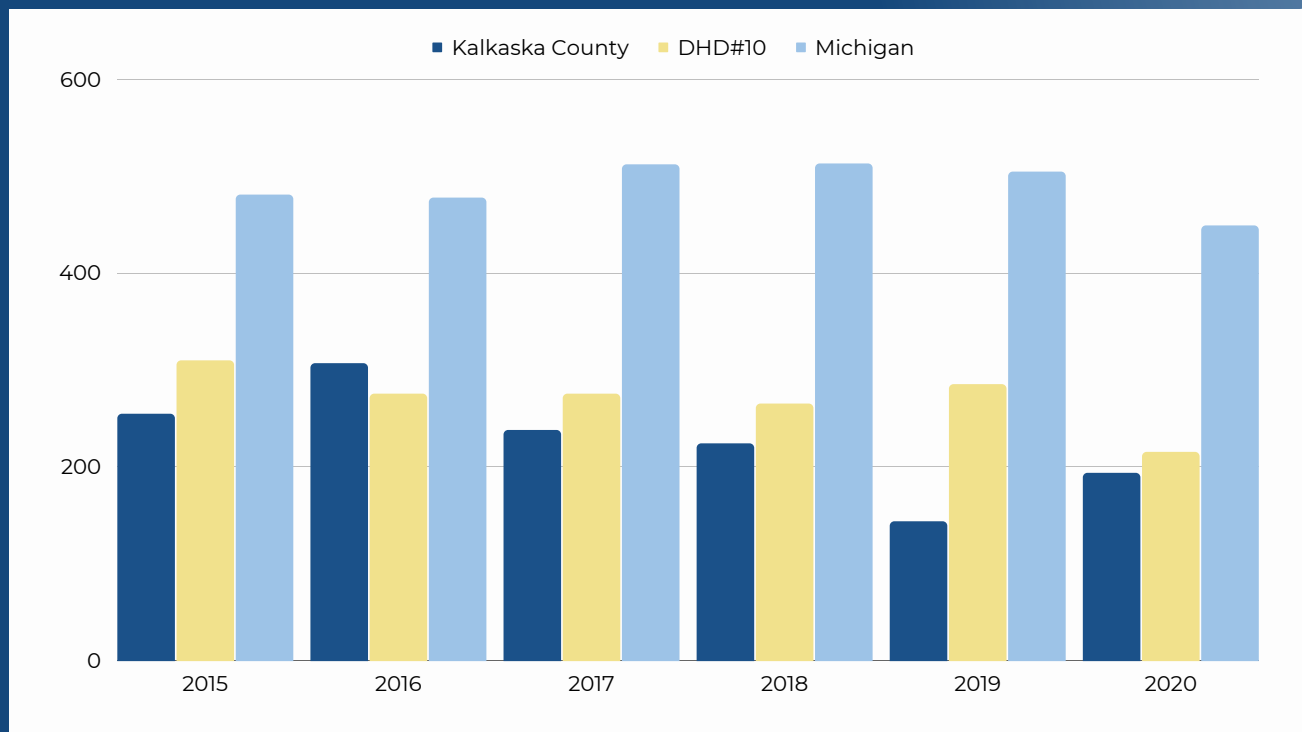


Sources: MDHHS

- [Five-year Average Age-adjusted Invasive Cancer Incidence per 100,000, 2015-19](#)
- [Five-year Average Age-adjusted Invasive Cancer Incidence by Location per 100,000, Kalkaska County, 2015-2019](#)

# Sexual Health

Rate of Chlamydia Cases for all age and sex, per 100,000, 2015-2020



# of Gonorrhea Cases, 2020



# of Women younger than 20  
in Need of Publicly Funded  
Contraceptive Services &  
Supplies, 2016



# of new HIV Cases, 2020



# of individuals living with  
HIV, 2020



Sources: MDHHS

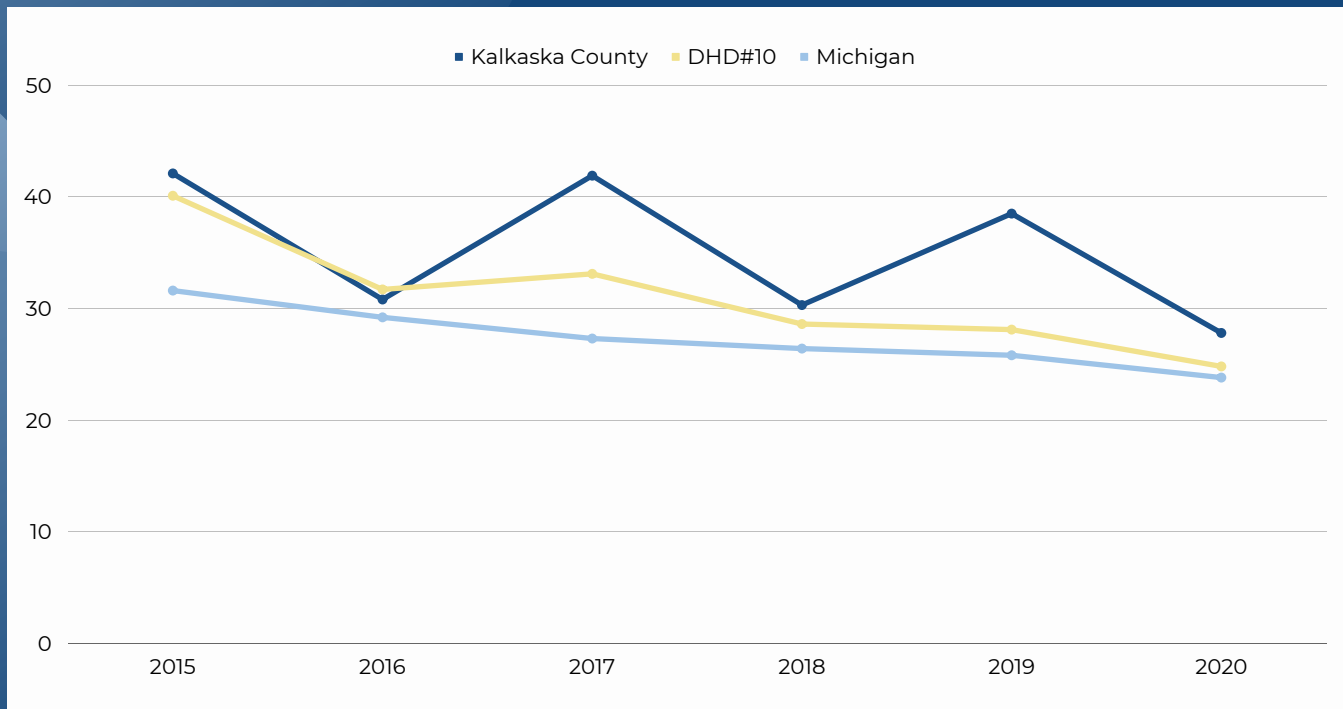
- [Five-year Average Rate of Chlamydia Cases per 100,000, 2015-2020](#)
- [Number of Gonorrhea Cases, 2020](#)
- [Number of HIV Cases, 2020](#)

Guttmacher Data Center

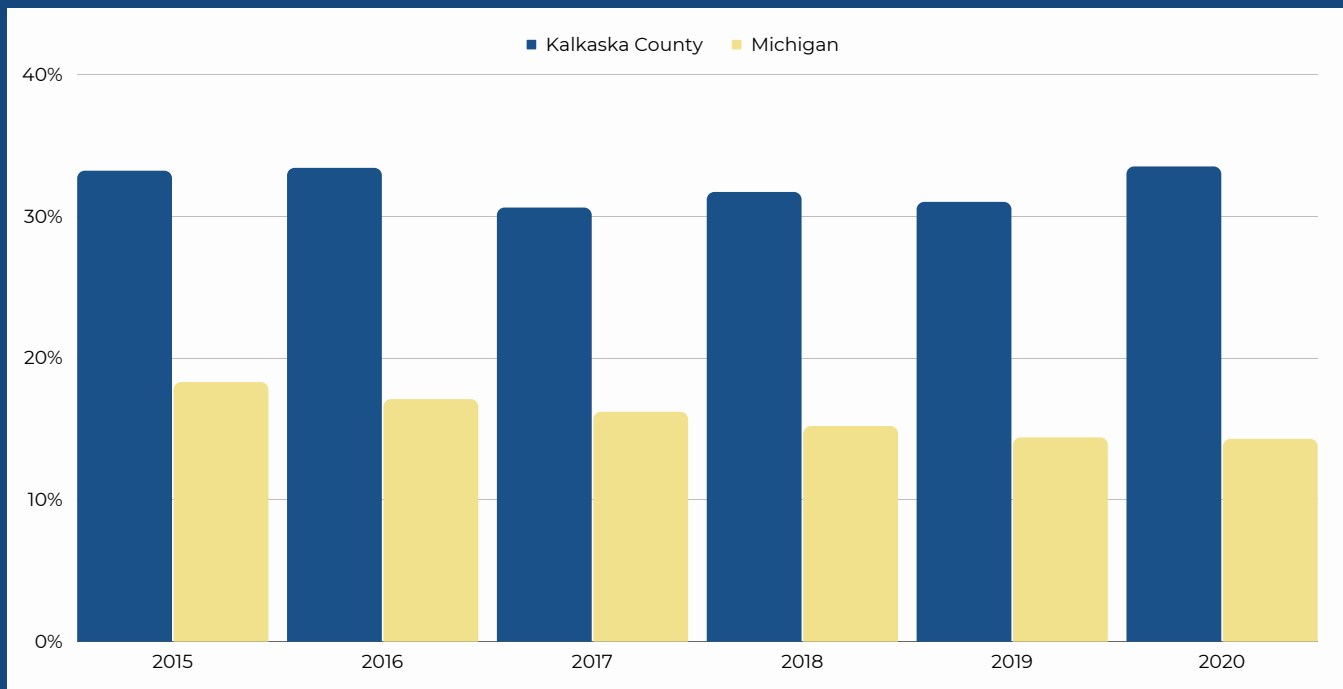
- [Number of Women in Need of Publicly Funded Contraceptive Services & Supplies, 2016](#)

# Pregnancy & Birth-Related Trends

*Teen (15-19 years of age) Pregnancy Rate per 1,000, 2015-2020*



*Percentage of Mothers Who Smoked During Pregnancy, 2015-2020*



Sources: MDHHS

- [Teen \(15-19 years of age\) Pregnancy Rate per 1,000, 2015-2020](#)

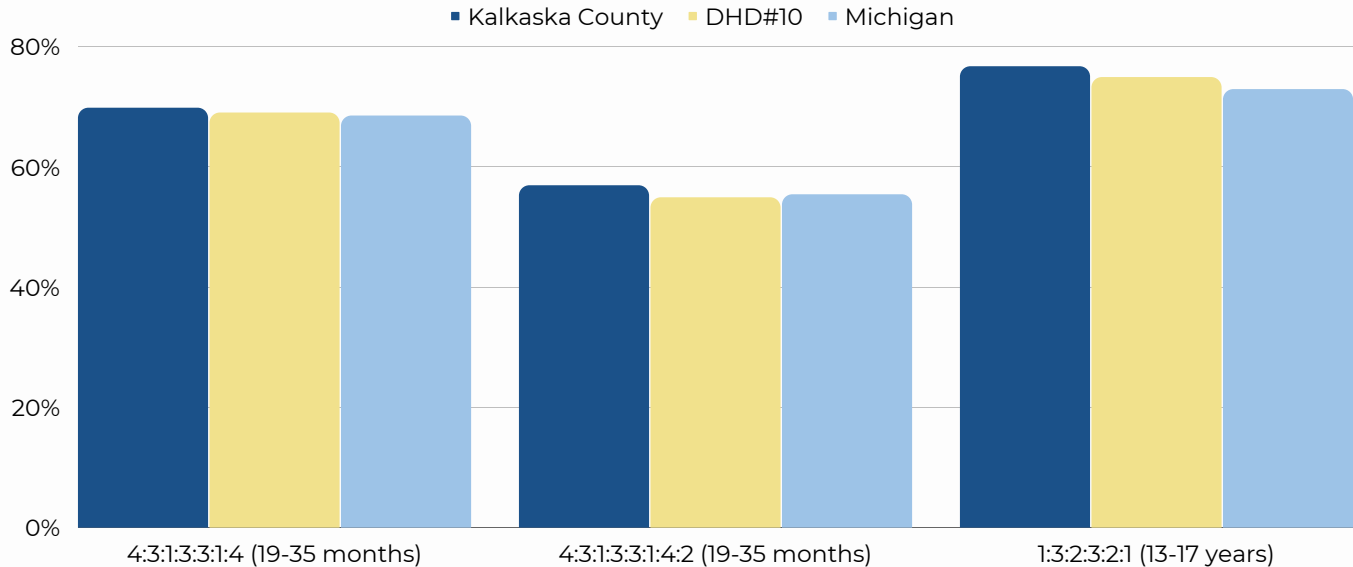
Michigan League for Public Policy

- [Percentage of Mothers Who Smoked During Pregnancy, 2015-2020](#)

# Immunization

*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.*

*Percent of Children that received CDC Recommended Childhood Immunizations, 2020-2022*



## Immunization Key

- 4:3:1:3:3:1:4 includes 4 doses of DTaP, 3 polio, 1 MMR, 3 Hib, 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), Kalkaska County vs. Michigan, 2020-22

|        | Kalkaska County | Michigan |
|--------|-----------------|----------|
| Male   | 44.2%           | 43.1%    |
| Female | 47.4%           | 45.1%    |

Sources:

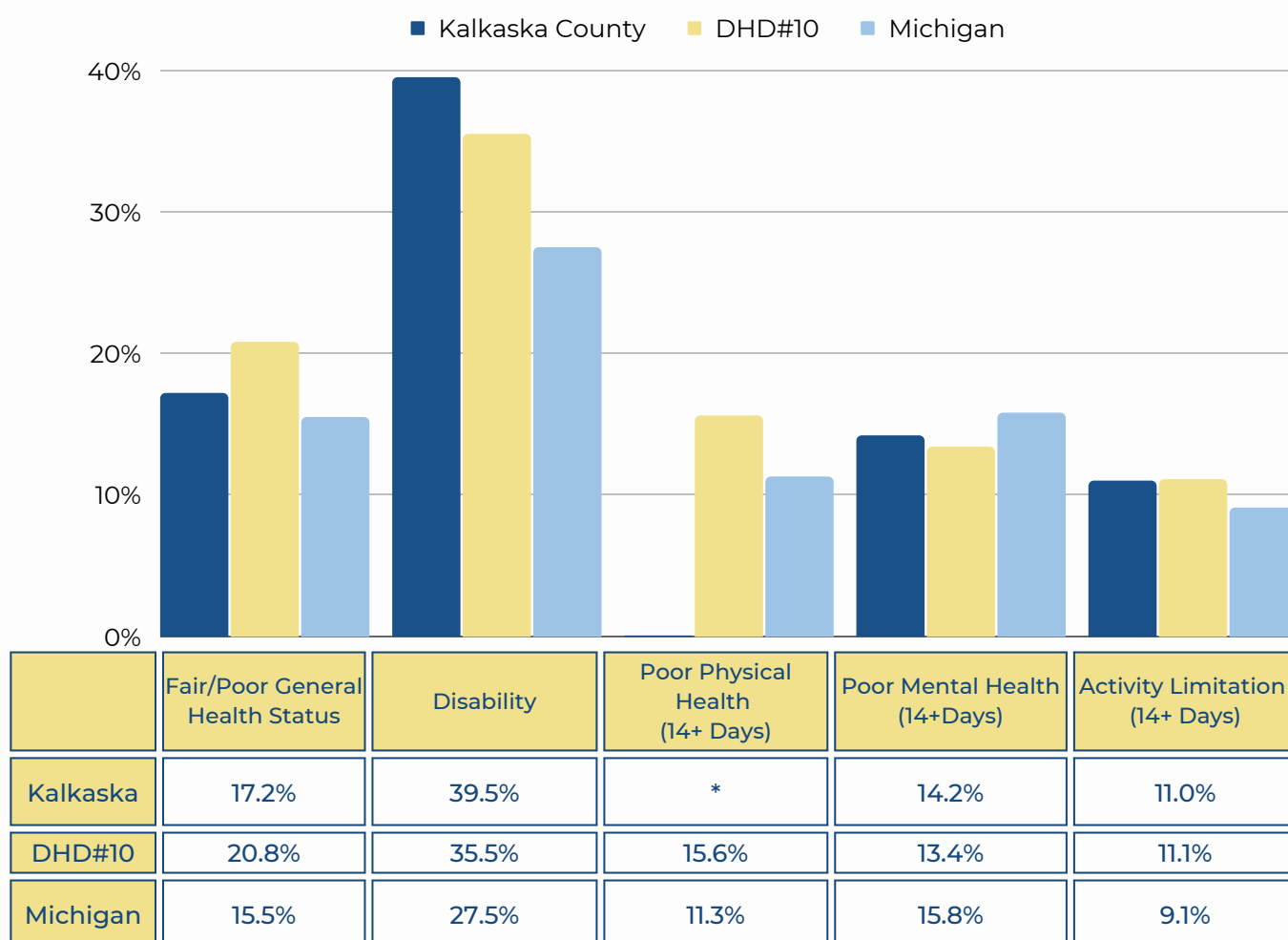
[Michigan Care Improvement Registry](https://www.dhd10.org)

# Behavioral Risk Factors

*In previous years, DHD#10 hired an independent research and evaluation firm to conduct a regional Behavioral Risk Factor Survey (BRFSS) 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 BRFSS.*

*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 (2020) [can be accessed here](#).*

Self-Reported Health Status Indicators

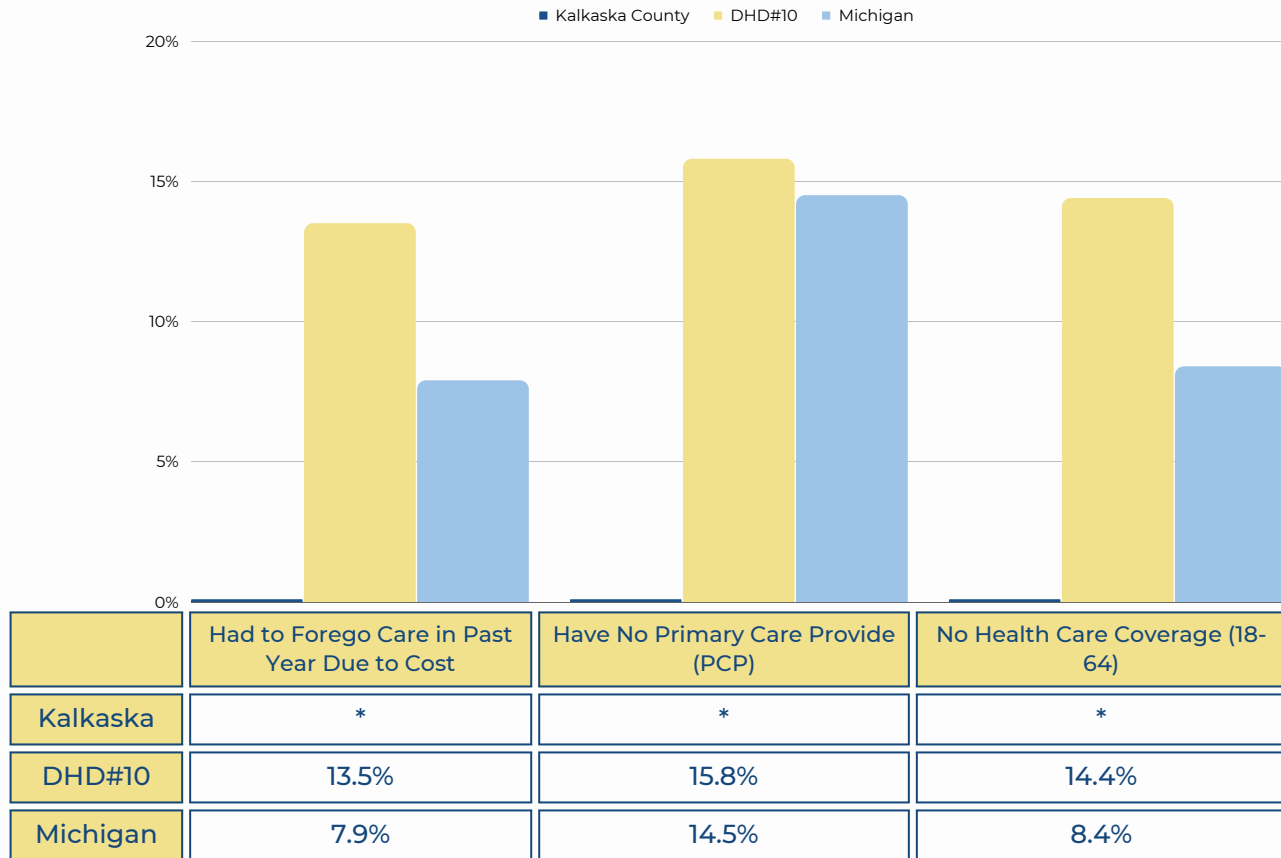


Sources:

Michigan Department of Health & Human Services

- [Michigan Behavioral Risk Factor Surveillance System, 2020](#)

# BRFSS: Access to Healthcare



## Health Care Provider

| Number of Residents per Health | Care Provider (2020) |          |
|--------------------------------|----------------------|----------|
|                                | Kalkaska County      | Michigan |
| Primary Care Physician         | 3,530:1              | 1,280:1  |
| Dentist                        | 3,560:1              | 1,340:1  |
| Mental Health Provider*        | 2,230:1              | 370:1    |

\*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:

Michigan Department of Health & Human Services

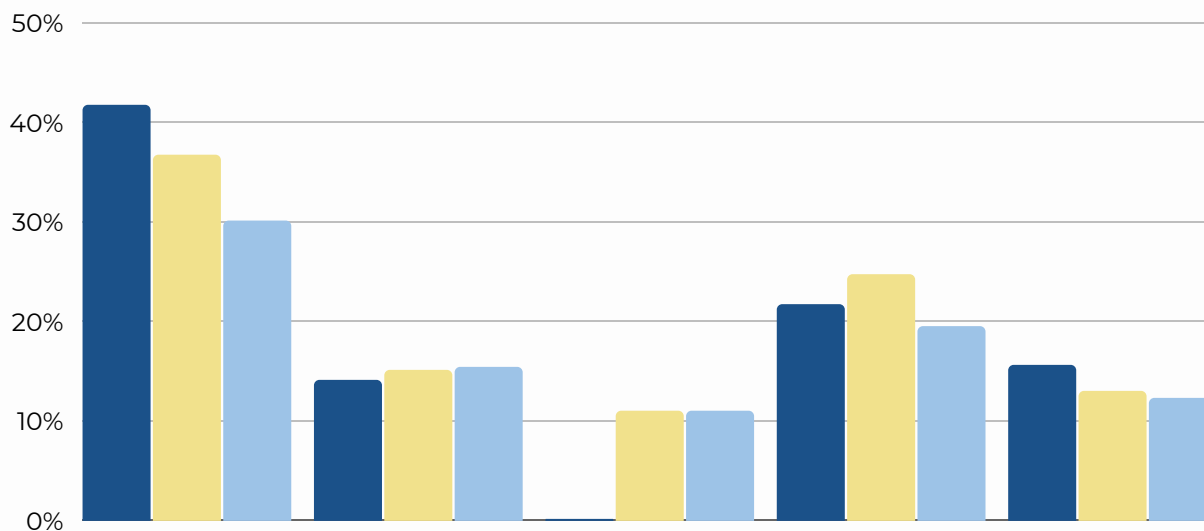
- [Michigan Behavioral Risk Factor Surveillance System, 2020](#)

County Health Rankings

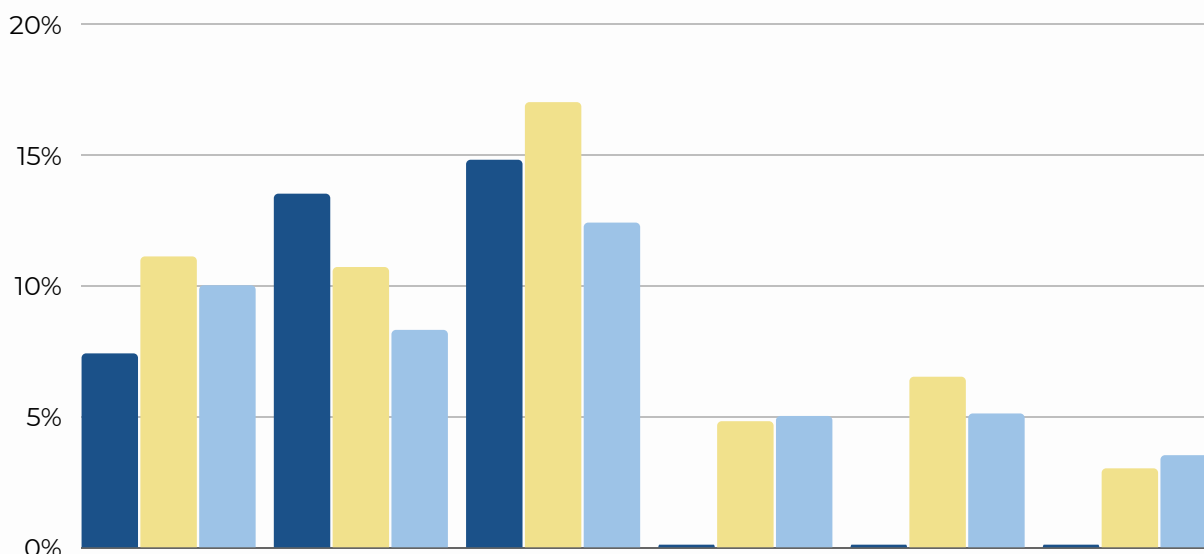
- [County vs. State Rankings, 2020](#)

# BRFSS: Chronic Conditions

■ Kalkaska County ■ DHD#10 ■ Michigan



|          | Arthritis | Lifetime Asthma | Current Asthma | Depression | Diabetes |
|----------|-----------|-----------------|----------------|------------|----------|
| Kalkaska | 41.7%     | 14.1%           | *              | 21.7%      | 15.6%    |
| DHD#10   | 36.7%     | 15.1%           | 11.0%          | 24.7%      | 13.0%    |
| Michigan | 30.1%     | 15.4%           | 11.0%          | 19.5%      | 12.3%    |



|          | Any Cardiovascular Disease | COPD (Chronic Obstructive Pulmonary Disease) | Cancer, All types | Angina | Heart Attack | Stroke |
|----------|----------------------------|--|-------------------|--------|--------------|--------|
| Kalkaska | 7.4%                       | 13.5%  | 14.8%             | *      | *            | *      |
| DHD#10   | 11.1%                      | 10.7%  | 17.0%             | 4.8%   | 6.5%         | 3.0%   |
| Michigan | 10.0%                      | 8.3%   | 12.4%             | 5.0%   | 5.1%         | 3.5%   |

Sources:

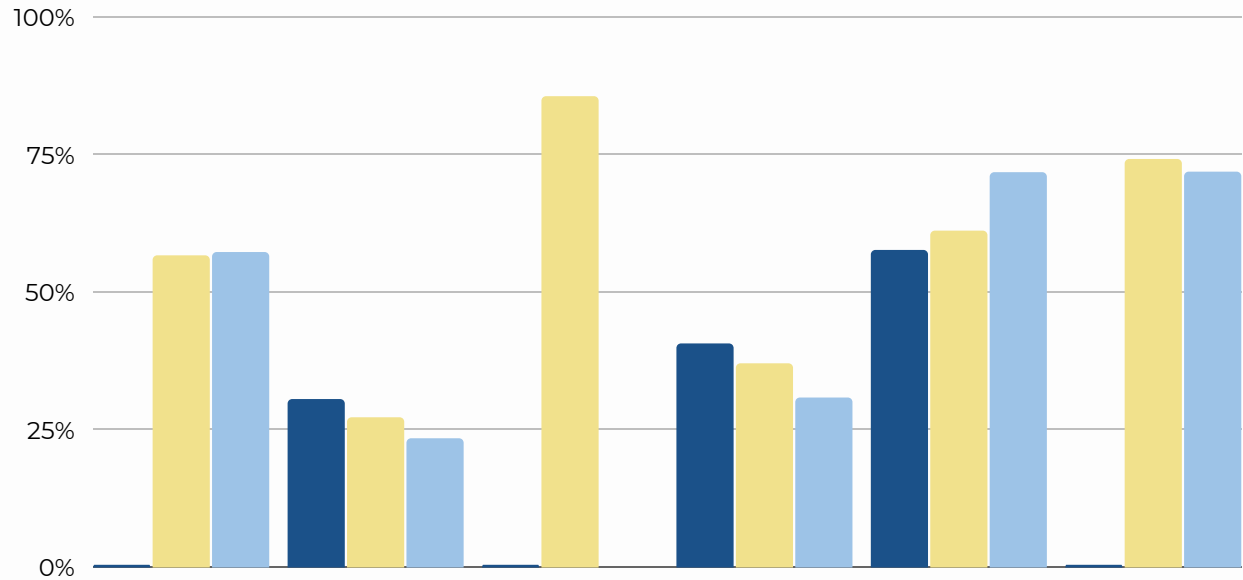
Michigan Department of Health & Human Services

- [Michigan Behavioral Risk Factor Surveillance System, 2020](#)



# BRFSS: Clinical Preventative Practices

■ Kalkaska County ■ DHD#10 ■ Michigan



|          | Ever had PSA Test (males, 50+ only) | No routine checkup in past year | Have had cholesterol checked | No dental visit in past year | Had flu vaccine in past year (65+ only) | Had pneumonia vaccine (65+ only) |
|----------|-------------------------------------|---------------------------------|------------------------------|------------------------------|---|----------------------------------|
| Kalkaska | *                                   | 30.5%                           | *                            | 40.6%                        | 57.6%                                   | *                                |
| DHD#10   | 56.6%                               | 27.2%                           | 85.4%                        | 37.0%                        | 61.1%                                   | 74.1%                            |
| Michigan | 57.2%                               | 23.4%                           | *                            | 30.8%                        | 71.7%                                   | 71.8%                            |

## Preventative Practices in Michigan, 2020

Ever had sigmoidoscopy or colonoscopy (50+ only)

79.4%

Had sigmoidoscopy or colonoscopy in past 5 years (50+ only)

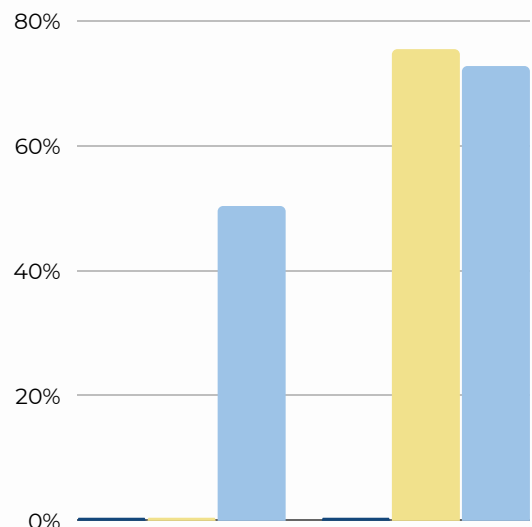
55.6%

Ever had pap test

89.3%

Had appropriately timed pap test

68.7%



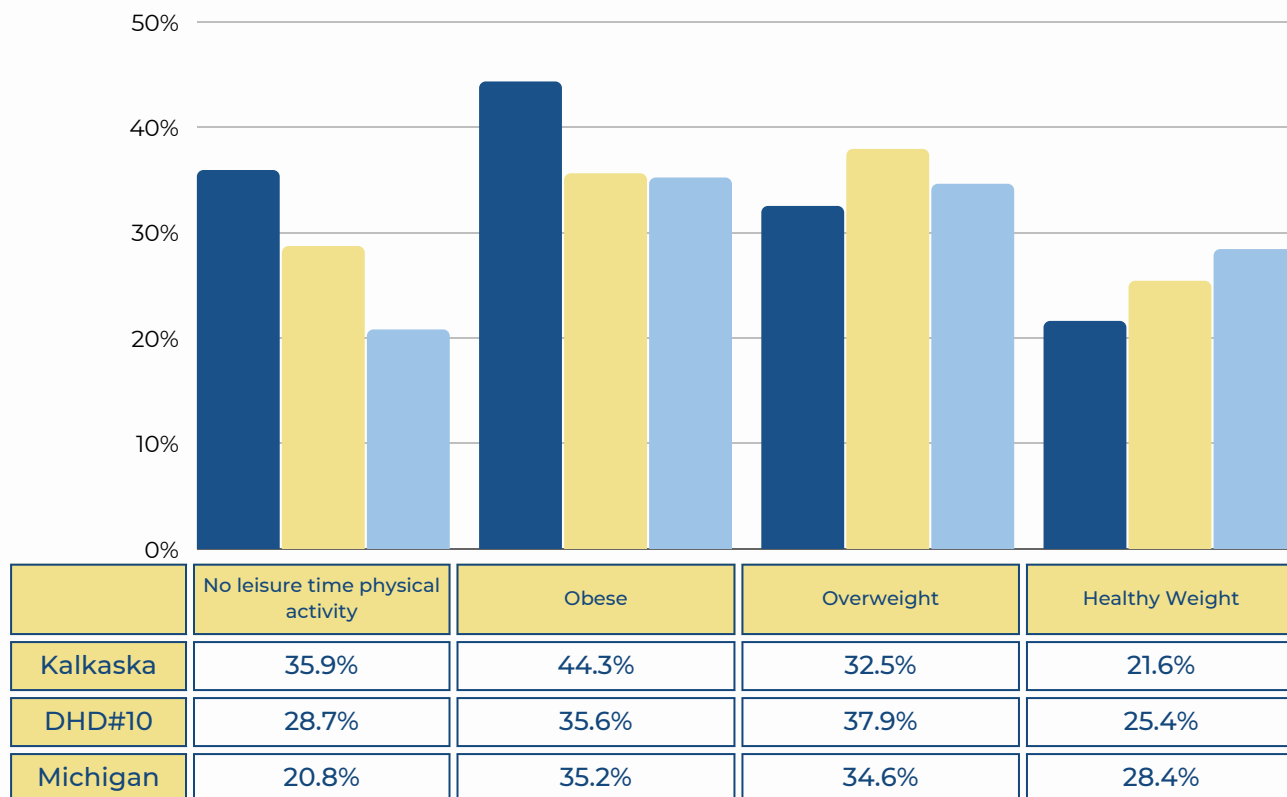
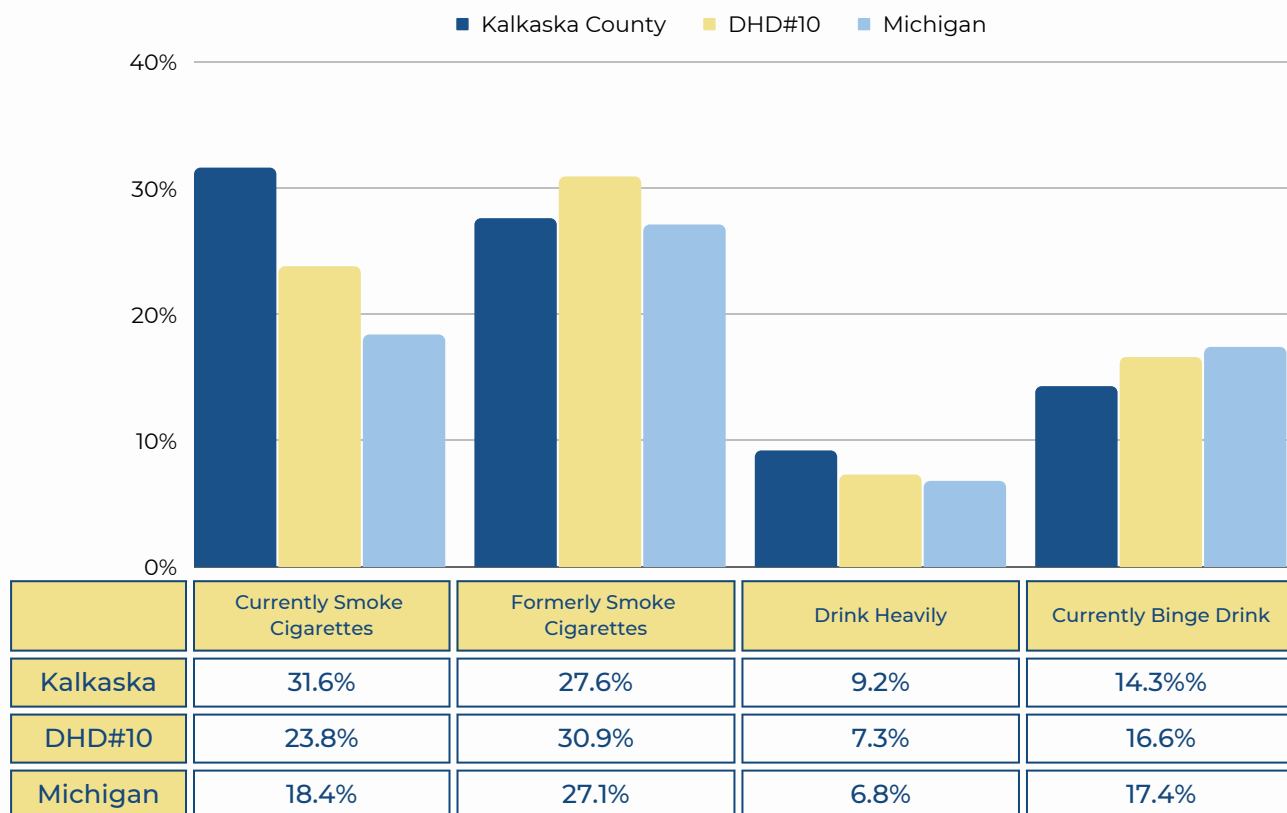
| Had mammogram in past year (females, 40+ only) | Had mammogram in past 2 years (females, 40+ only) |
|--|---|
| *  | *   |
| *  | 75.4%   |
| 50.3%  | 72.7%   |

Sources:

Michigan Department of Health & Human Services

- Michigan Behavioral Risk Factor Surveillance System, 2020

# BRFS: Risk Behaviors



Sources:

Michigan Department of Health & Human Services

- [Michigan Behavioral Risk Factor Surveillance System, 2020](#)

# 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 (2020) [can be accessed here.](#)

| Kalkaska County Health Ranking (2020)  |                             |   | Ranking (out of 83 counties) |
|--|-----------------------------|---|------------------------------|
| Health Outcomes  |                             |   | 52                           |
| 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) | Length of Life              | Premature death   | 56                           |
|  | Quality of Life             | Poor or fair health; poor physical health days; poor mental health days; low birth weight   | 43                           |
| Health Factors   |                             |   | 74                           |
| Represents what influences the health of a county  | Health Behaviors            | Smoking; obesity; food environment; physical activity; excessive drinking; alcohol impaired driving deaths; sexually transmitted infections; teen births    | 51                           |
|  | Clinical Care               | Uninsured; ratios of physicians, dentists and mental health providers to population; preventable hospital stays; diabetic monitoring; mammography screening | 80                           |
|  | Social and Economic Factors | Education; unemployment; poverty; children in single-parent households; social associations; violent crime; injury deaths                                   | 69                           |
|  | Physical Environment        | Air pollution; drinking water violations; severe housing problems; driving alone to work and long commute   | 39                           |

## Sources:

County Health Rankings

- [County vs. State Rankings, 2020](#)

# Conclusions: Community Health Improvement Plan



| <b>Chronic Disease Strategy Progress</b>   |  |
|--|--|
| Collaborate with the Northern Michigan Diabetes Prevention Program Collaborative   |  |
| Partner with non-traditional agencies to reach vulnerable populations, i.e., Community Mental Health, Dept. of Health and Human Services                     |  |
| <b>Healthy Lifestyle Strategy Progress</b>   |  |
| Partner with <i>Shape Up North</i> to implement obesity prevention initiatives   |  |
| Partner with the Northern Michigan Public Health Alliance to implement the Community Health Innovation Region Obesity Prevention Plan                        |  |
| Partner with the Kalkaska Memorial Health Center to implement strategies included in the Munson Healthcare Obesity Prevention/ Reduction Plan                |  |
| Increase communication among partner agencies to avoid duplication of efforts to increase collective impact  |  |
| <b>Tobacco Use Strategy Progress</b>   |  |
| Partner with the Live Well Kalkaska Substance Free Coalition and the Kalkaska Memorial Teen Health Corner to provide tobacco prevention programming to youth |  |
| Partner to promote the use of Towards No Tobacco curriculum for 6th grades students and the Fourth R Program for high school students                        |  |
| Assist with planning and implementing youth driven tobacco prevention events for Great American Smokeout and Kick Butts Day                                  |  |

Sources:

District Health Department #10

- [Community Health Improvement Plan Progress Report, 2019](#)



# Thank You!

We appreciate you taking the time to read about the health status of Kalkaska County within District Health Department #10's ten-county jurisdiction. If you have any questions, please feel free to reach out via email at [info@dhd10.org](mailto:info@dhd10.org).

## Additional Information

District Health Department #10:  
<https://www.dhd10.org>

North Michigan CHIR MiThrive:  
<https://northernmichiganchir.org/mithrive/>

Michigan Department of Health and Human Services:  
<https://www.michigan.gov/mdhhs>

Community Health Ranking:  
<https://www.countyhealthrankings.org>

Behavioral Risk Factor Survey:  
<https://www.cdc.gov/brfss>

Michigan League for Public Policy:  
<https://mlpp.org>