

2023



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



LAKE COUNTY

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 and to Michigan. 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 Lake

The 2023 Chartbooks provide a health profile for each county in the jurisdiction. In certain sections, this information is compared to the overall health status of District Health Department #10. The data includes population, education, race, births and deaths, incidence of disease, injuries, and immunizations.

The Michigan Department of Health and Human Services conducts the annual Behavioral Risk Factor Survey, which includes data on all counties in the state on a wide range of health behaviors, such as:

- 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

As backbone support to the MiThrive initiative, DHD#10 helped facilitate the completion of the 2021 Community Health Assessment and the 2022 Community Health Improvement Plan across 31 counties. DHD#10 completed a [Community Health Assessment](#) report for the 10 counties in the jurisdiction, which will facilitate the implementation of the Community Health Improvement Plan across DHD#10 counties. This plan will address the issues identified below:

- Access to Health Care
- Chronic Disease
- Mental Health
- Economic Insecurity
- Substance Use Disorders
- Housing

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

TABLE OF CONTENTS

Demographics	2
Economic Wellbeing	3
Leading Causes of Death & Hospital Discharges	5
Cardiovascular Disease	6
Cancer Incidence	7
Sexual Health	8
Pregnancy & Birth Related Trends	9
Substance Use Disorder	10
Immunizations	11
Behavioral Risk Factor Survey	12
County Health Rankings	16
Additional Information	17

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

	LAKE	MICHIGAN
TOTAL POPULATION	12,594	10,034,113
POPULATION PER SQUARE MILE	21.3	178.0
PERSONS UNDER 5 YEARS	3.4%	5.3%
PERSONS UNDER 18 YEARS	14.4%	21.0%
PERSONS 65 YEARS AND OVER	28.8%	18.7%
DISABILITY, UNDER AGE 65	22.0%	10.1%
GENDER: FEMALES	44.7%	50.3%

ACCESS TO HEALTHCARE

	LAKE	MICHIGAN
SVI	0.8171	NA
UNDER 65 UNINSURED	8.6%	6.0%
HOUSEHOLDS WITH BROADBAND INTERNET	81.3%	86.4%
PRIMARY CARE PROVIDER SHORTAGE SCORE	22	12
DENTAL CARE PROVIDER SHORTAGE SCORE	18	12
MENTAL HEALTH PROVIDER SHORTAGE SCORE	18	16

RACE, ETHNICITY, & HOUSEHOLD

	LAKE	MICHIGAN
WHITE	84.6%	78.8%
BLACK	10.8%	14.1%
AMERICAN INDIAN/ALASKA NATIVE	1.0%	0.7%
ASIAN	0.3%	3.5%
MORE THAN ONE RACE	3.2%	2.8%
HISPANIC	3.8%	5.7%
LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME	3.3%	9.9%
PERSONS PER HOUSEHOLD	2.75	2.48
HIGH SCHOOL GRADUATES	82.0%	91.6%
BACHELOR'S DEGREE OR HIGHER	13.1%	30.6%

SOURCES

US CENSUS BUREAU:

- [POPULATION, APRIL 2022](#)
- [AGE & RACE, APRIL, 2022](#)
- [LANGUAGE OTHER THAN ENGLISH, 2017-2021](#)
- [DISABILITY, UNDER 65, 2022](#)
- [EDUCATION BASED ON PERSONS AGE 25 AND OVER, 2017-2021](#)
- [FEMALE PERSONS, APRIL, 2022](#)
- [PERSONS PER HOUSEHOLD, 2017-2021](#)
- [MEDIAN HOUSEHOLD INCOME, 2017-2021](#)
- [PERSONS IN POVERTY, APRIL 2022](#)
- [PER CAPITA INCOME IN PAST 12 MONTHS, 2017-2021](#)
- [POPULATION PER SQUARE MILE, 2020](#)

[CDC/ATSDR SOCIAL VULNERABILITY INDEX \(SVI\) 2020](#)

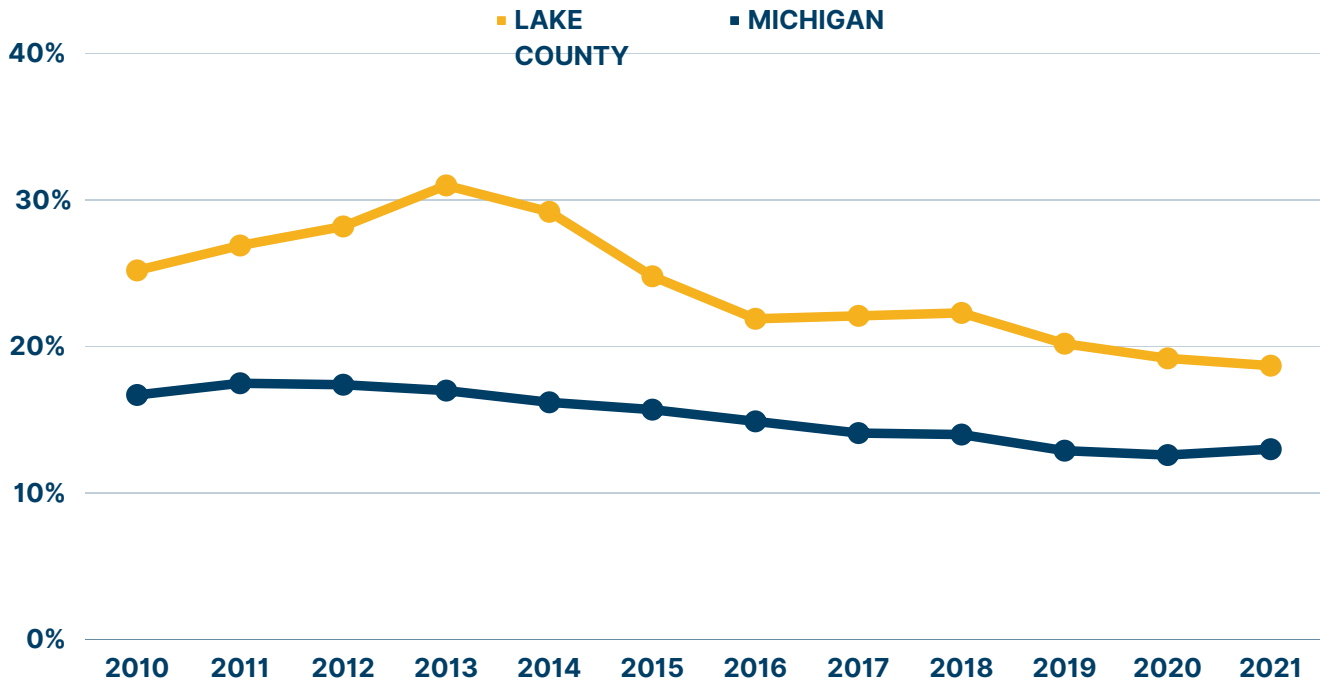
U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES (USDHHS):

- [HEALTH PROFESSIONAL SHORTAGE AREA SCORES 2020](#)

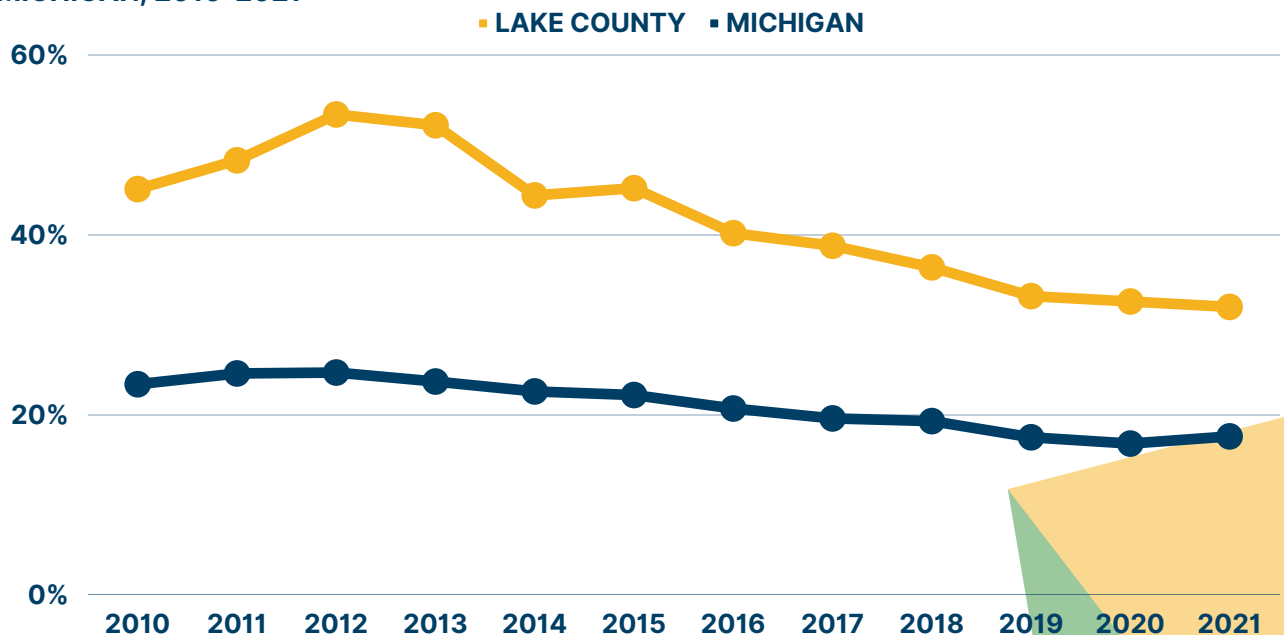
ECONOMIC WELLBEING

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 (ALL AGES) LIVING IN POVERTY IN LAKE COUNTY AND MICHIGAN, 2010-2021



PERCENTAGE OF POPULATION (0-17 YEARS) LIVING IN POVERTY IN LAKE COUNTY AND MICHIGAN, 2010-2021



SOURCES:

MICHIGAN LEAGUE FOR PUBLIC POLICY

- [POVERTY, 0-17 YEARS, BY COUNTY & STATE 2010-2021](#)
- [POVERTY, ALL AGES, BY COUNTY & STATE, 2010-2021](#)

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.

INCOME & ECONOMY

	LAKE	MICHIGAN
PERSONS IN POVERTY	18.7%	13.0%
MEDIAN HOUSEHOLD INCOME	\$40,382	\$63,444
PER CAPITA INCOME	\$22,434	\$34,768
UNEMPLOYMENT	8.2%	5.9%
PERCENT OF STUDENTS ELIGIBLE FOR FREE OR REDUCED LUNCH	96.8%	53.3%
PERCENTAGE OF CHILDREN (0-4) WHO RECEIVE WOMEN, INFANT, AND CHILDREN (WIC) BENEFITS	62.5%	41.9%

PERCENTAGE OF ADULTS WHO ARE UNEMPLOYED		PERCENTAGE OF CHILDREN (0-5) WITH ALL PARENTS IN THE LABOR FORCE	
	LAKE COUNTY	MICHIGAN	
2021	8.2%	5.9%	64.1%
2020	10.8%	9.9%	67.6%
			66.9%
			67.1%

SOURCES:

MICHIGAN LEAGUE FOR PUBLIC POLICY:

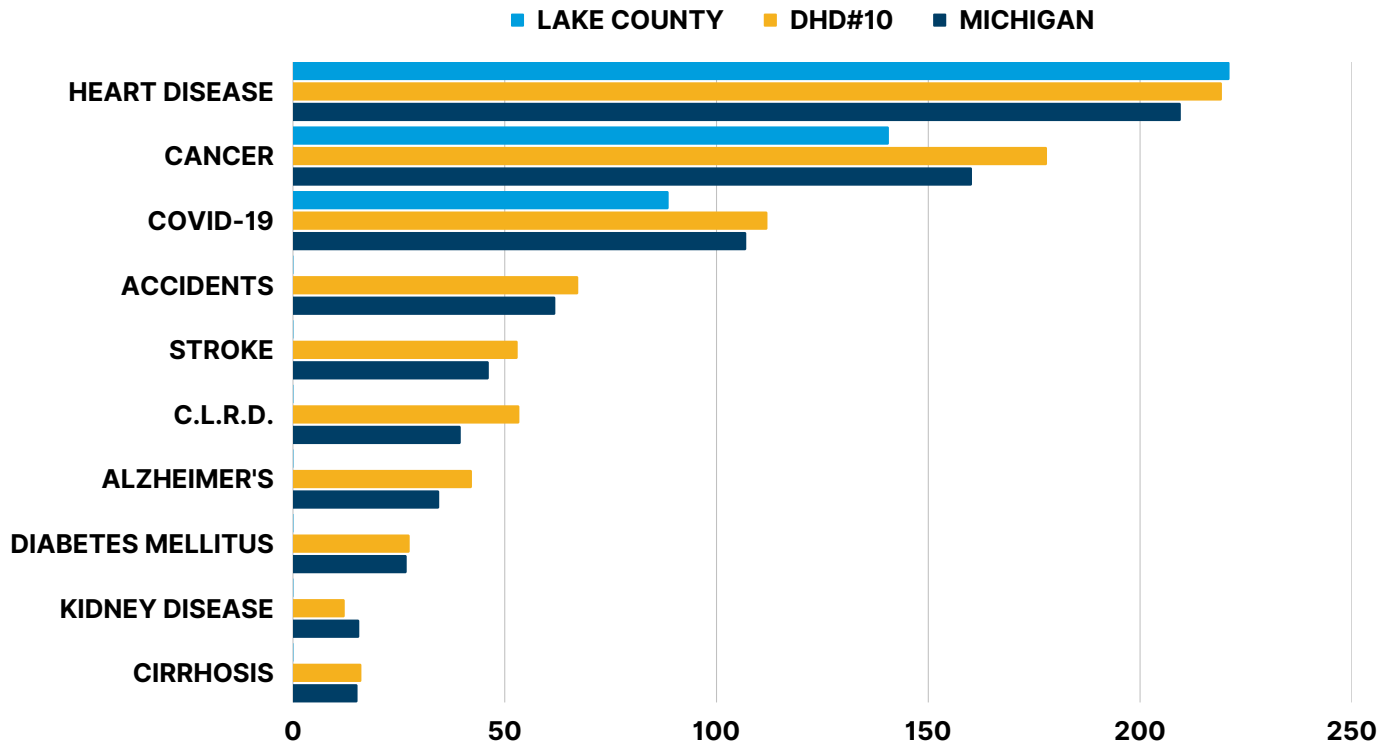
- [PERSONS IN POVERTY \(ALL AGES\) BY COUNTY & STATE, 2021](#)
- [CHILDREN \(0-4\) WHO RECEIVE WIC BENEFITS BY COUNTY & STATE, 2010-2021](#)
- [MEDIAN HOUSEHOLD INCOME BY COUNTY & STATE, 2008-2021](#)
- [PERCENTAGE OF ADULTS WHO ARE UNEMPLOYED, 2020-2021](#)
- [PERCENTAGE OF CHILDREN \(0-5\) WITH ALL PARENTS IN THE LABOR FORCE, 2020 & 2021](#)
- [STUDENTS RECEIVING FREE OR REDUCED-PRICED LUNCH, 2022](#)

U.S. CENSUS BUREAU:

- [PER CAPITA INCOME IN PAST 12 MONTHS, 2017-2021](#)

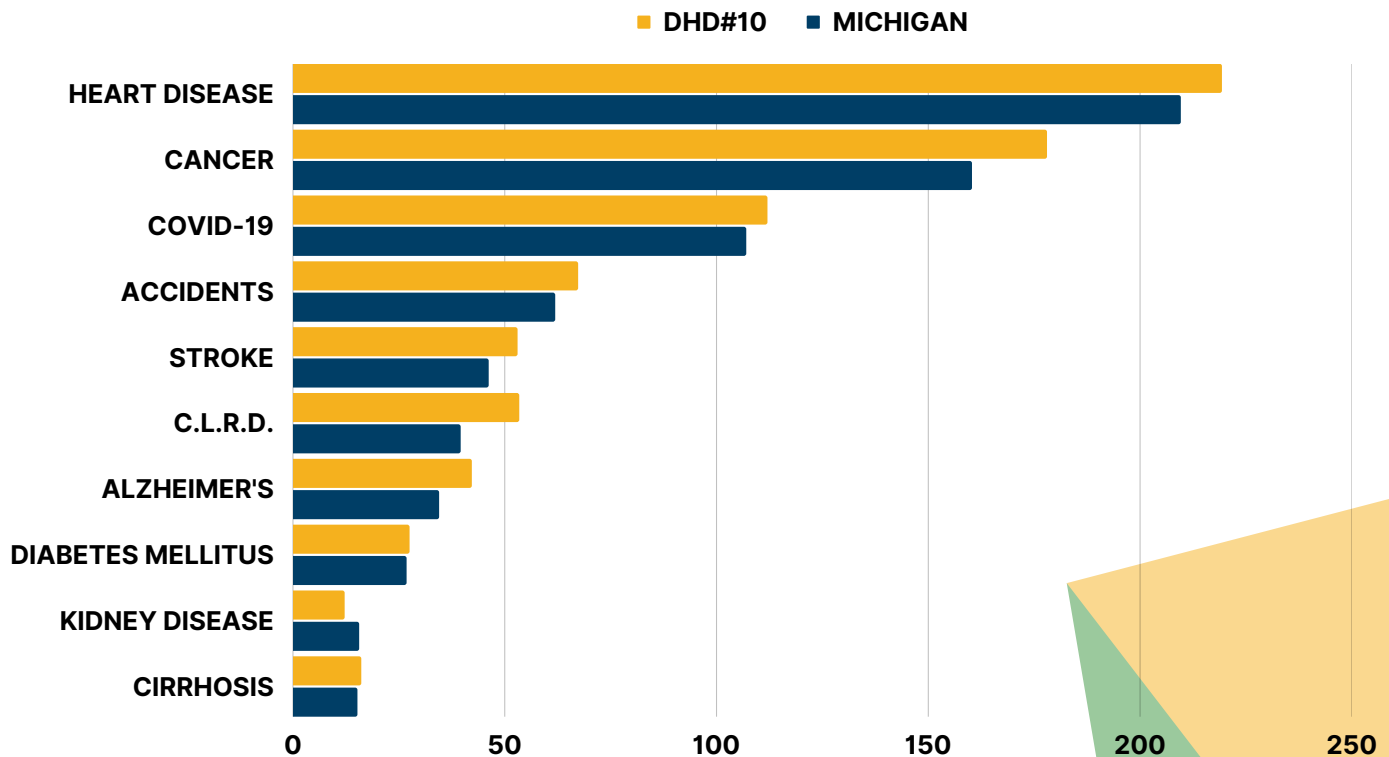
LEADING CAUSES OF DEATH

LEADING CAUSES OF DEATHS PER 100,000 POPULATION, 2021



Note: Rates are per 100,000. Leading causes of death are computed by the direct method, using as the standard population the age distribution of the total population of the United States for the year 2000. Children and discharge data are per 100,000, 2021 population in specified group.

LEADING CAUSES OF HOSPITALIZATIONS PER 100,000 POPULATION, 2021

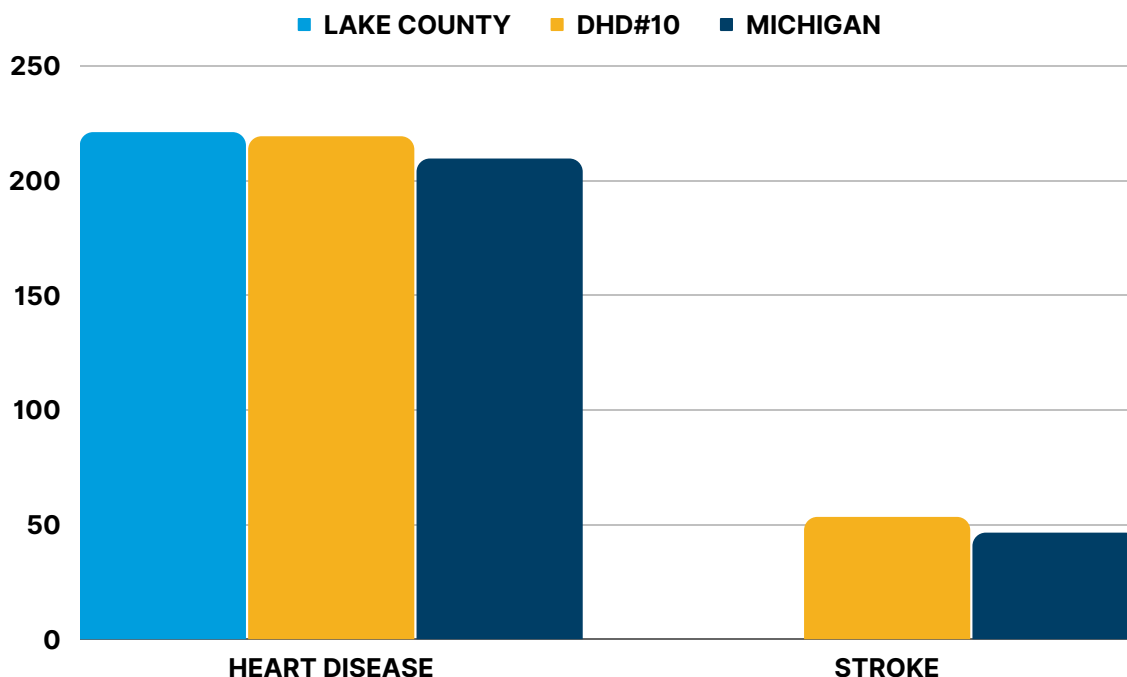


SOURCES: MDHHS

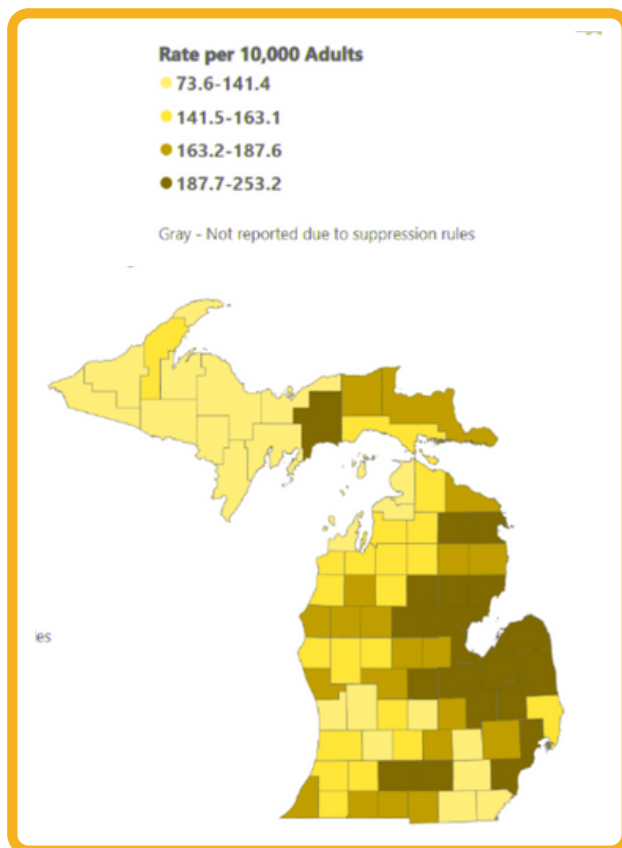
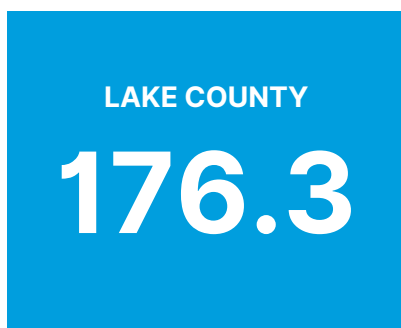
• [LEADING CAUSES OF DEATH, 2021](#)

CARDIOVASCULAR DISEASE

AGE-ADJUSTED MORTALITY RATES FOR CARDIOVASCULAR DISEASE BY CATEGORY, 2019-2021



CARDIOVASCULAR DISEASE HOSPITALIZATION
2016-2019, RATES PER 10,000

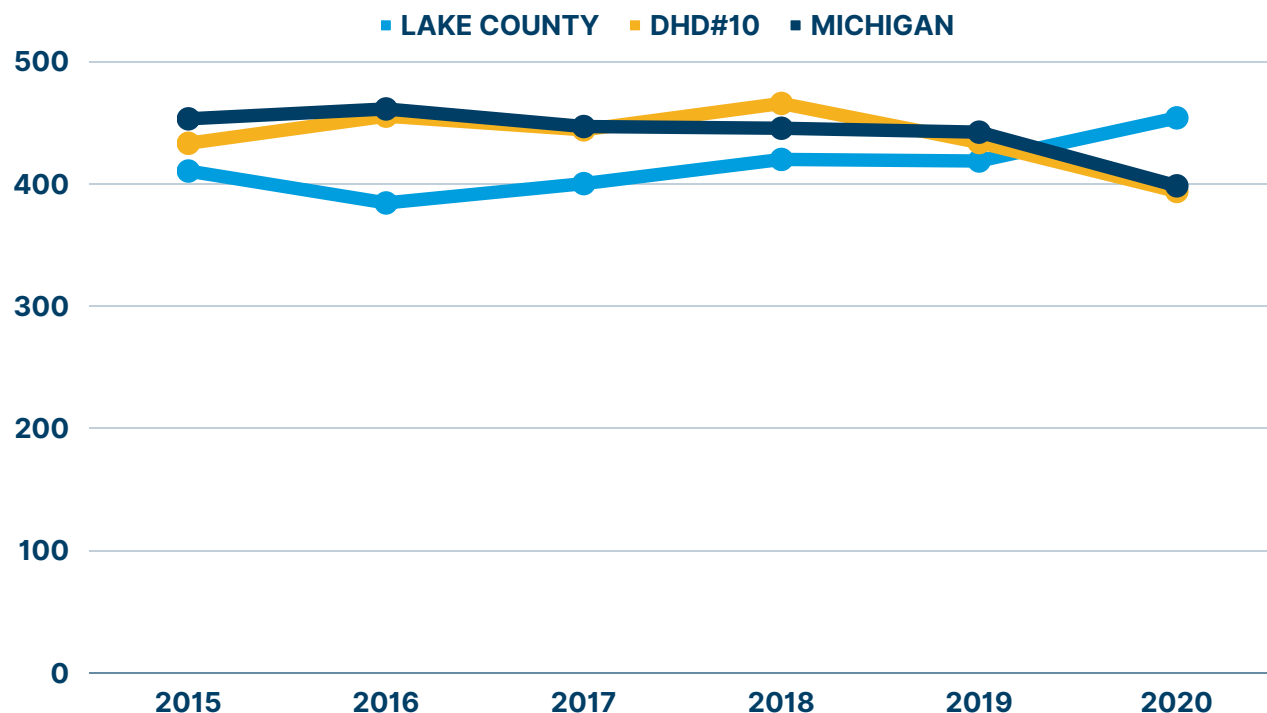


SOURCES: MDHHS

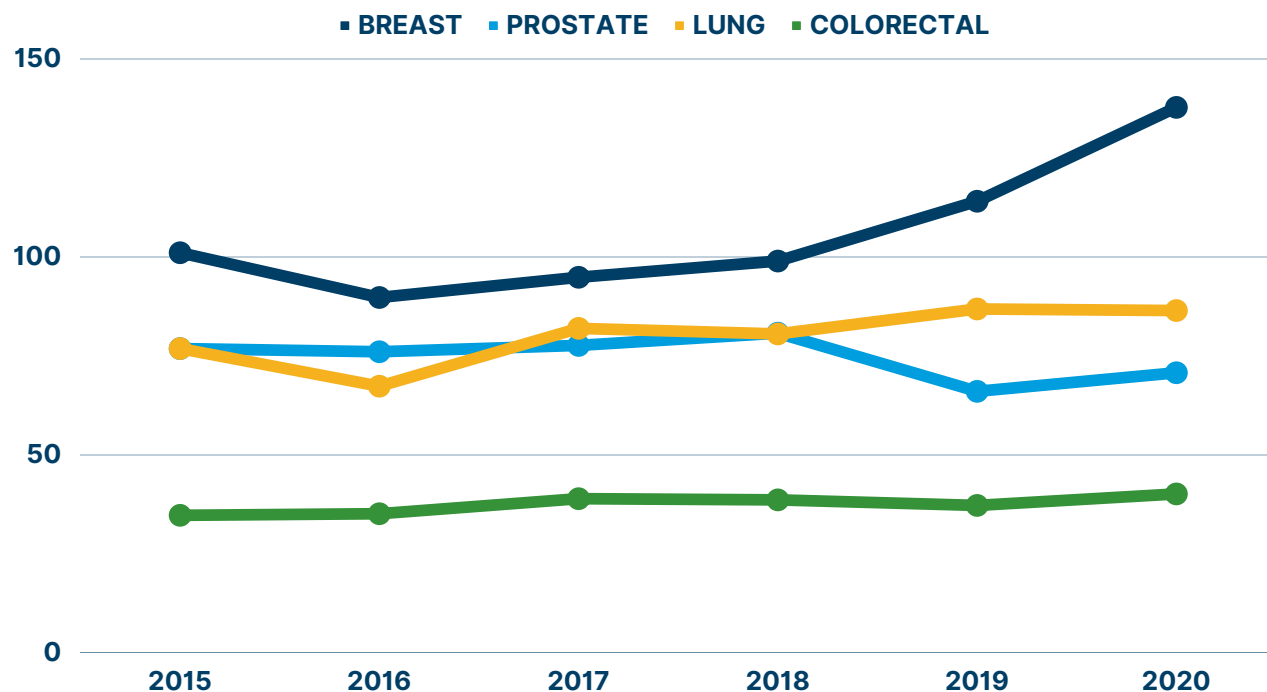
- [MORTALITY TRENDS BY TYPE, COUNTY, HEALTH DISTRICT, STATE, 2018-2020](#)
- [CARDIOVASCULAR HOSPITALIZATION RATES, 2016-2019](#)

CANCER INCIDENCE

FIVE-YEAR AVERAGE AGE-ADJUSTED RATES FOR INVASIVE CANCER INCIDENCE PER 100,000, 2015-2020



FIVE-YEAR AVERAGE AGE-ADJUSTED RATES FOR INVASIVE CANCER INCIDENCE BY LOCATION PER 100,000, LAKE COUNTY, 2015-2020

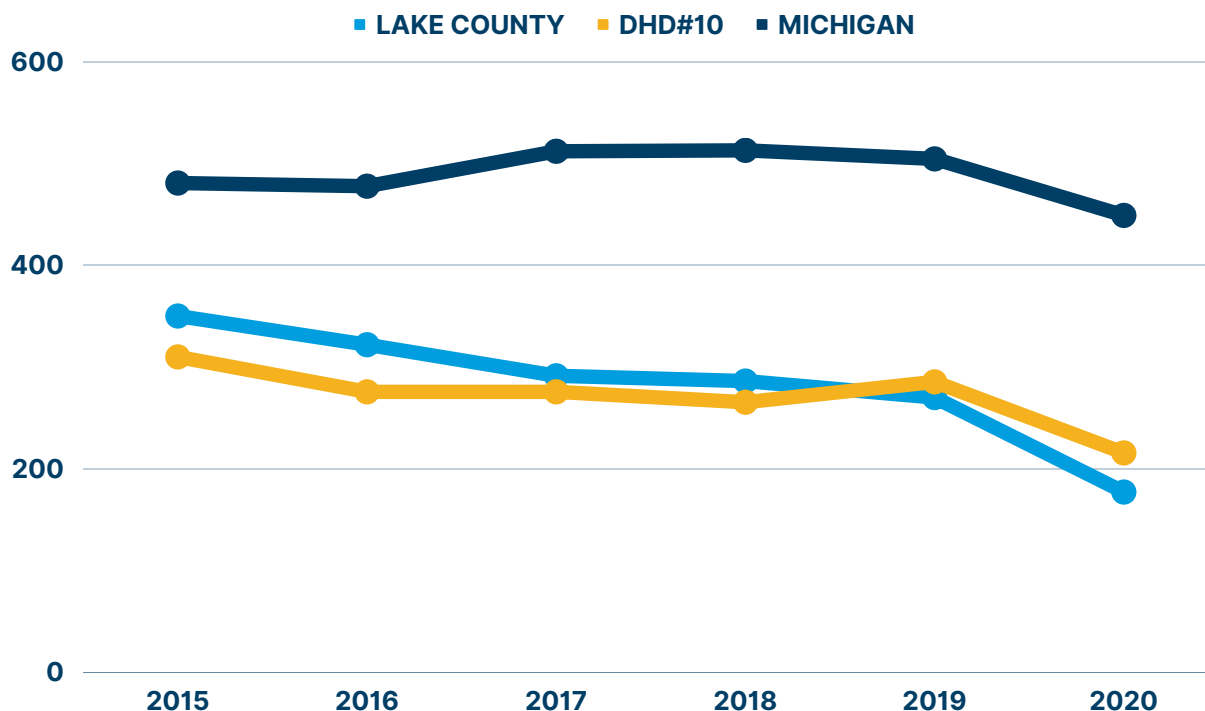


SOURCES: MDHHS

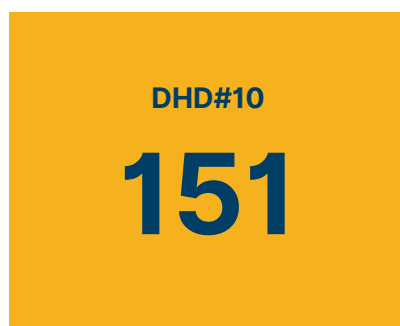
- [FIVE-YEAR AVERAGE AGE-ADJUSTED INVASIVE CANCER INCIDENCE PER 100,000, 2015-2020](#)
- [FIVE-YEAR AVERAGE AGE-ADJUSTED INVASIVE CANCER INCIDENCE BY LOCATION PER 100,000, CRAWFORD COUNTY, 2015-2020](#)

SEXUAL HEALTH

RATE OF CHLAMYDIA CASES FOR ALL AGE AND SEX, PER 100,000, 2015-2020



OF GONORRHEA CASES, 2020

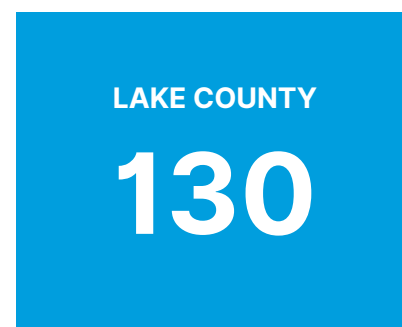
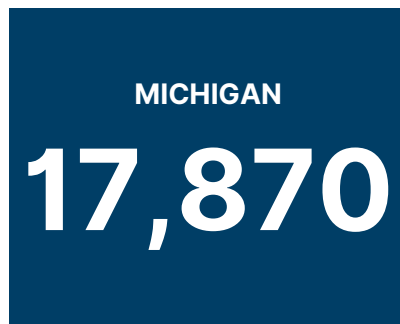


OF WOMEN YOUNGER THAN 20
IN NEED OF PUBLICLY FUNDED
CONTRACEPTIVE SERVICES &
SUPPLIES, 2016

OF NEW HIV CASES, 2021



OF INDIVIDUALS LIVING WITH
HIV, 2021



SOURCES: MDHHS

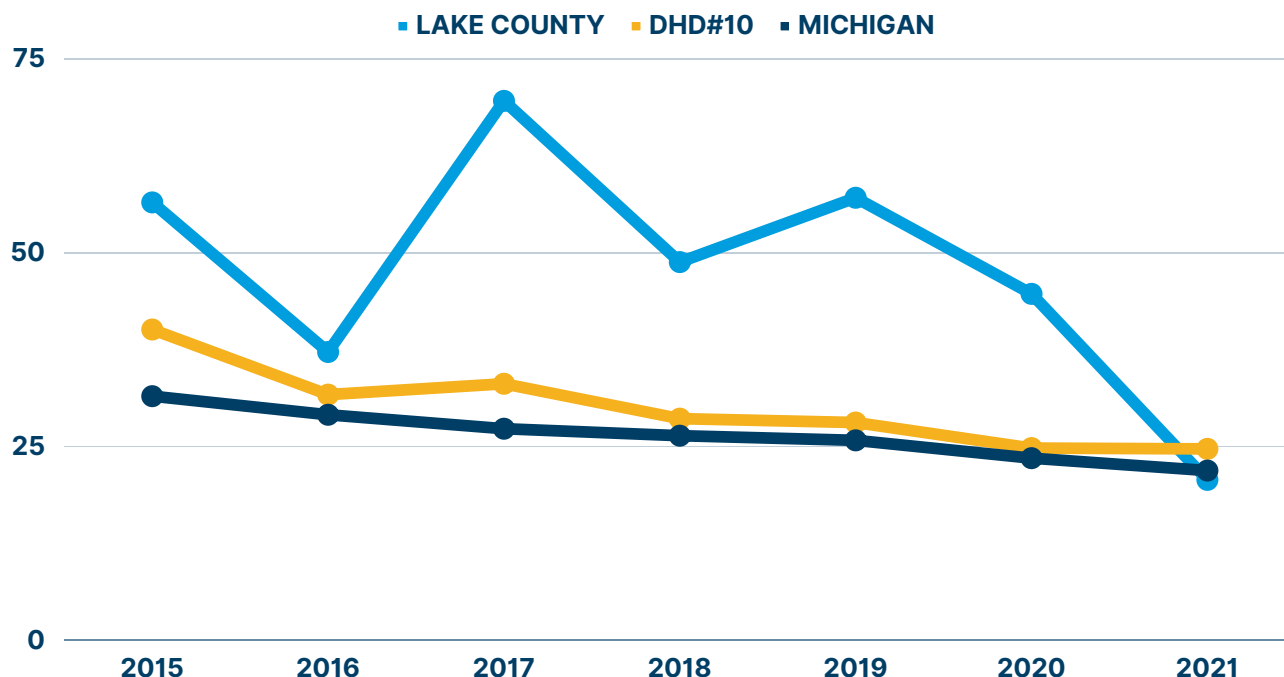
- [FIVE-YEAR AVERAGE RATE OF CHLAMYDIA CASES PER 100,000, 2015-2020](#)
- [NUMBER OF GONORRHEA CASES, 2020](#)
- [NUMBER OF HIV CASES, 2021](#)

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, 2015-2021



BIRTH AND PREGNANCY COMPARED TO MICHIGAN

	LAKE	MICHIGAN
NUMBER OF LIVE BIRTHS	86	101,368
PERCENT OF LIVE BIRTHS WITH LOW BIRTHWEIGHT	11.6%	9.0%
PERCENT OF MOTHERS WHO SMOKED DURING PREGNANCY	36.1%	13.1%

SOURCES: MDHHS

- [TEEN \(15-19 YEARS OF AGE\) PREGNANCY RATE PER 1,000, 2015-2021](#)

MICHIGAN LEAGUE FOR PUBLIC POLICY

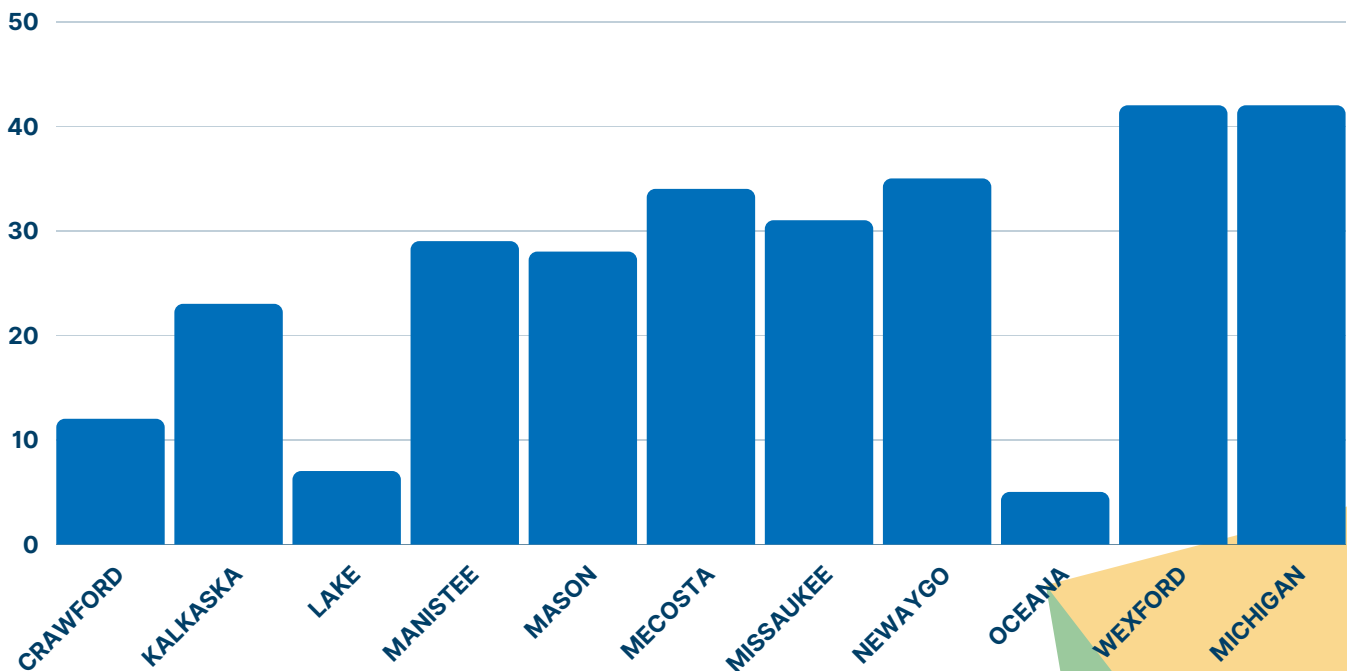
- [NUMBER OF LIVE BIRTHS, 2019-2021](#)
- [PERCENT OF LIVE BIRTHS WITH LOW BIRTHWEIGHT BABIES, 2021](#)
- [PERCENTAGE OF MOTHERS WHO SMOKED DURING PREGNANCY, 2015-2021](#)

SUBSTANCE USE DISORDER

OVERDOSE RATES AND OPIOID PRESCRIPTION RATES FOR LAKE COUNTY AND MICHIGAN, 2020

	LAKE	MICHIGAN
5-YEAR AVERAGE FATAL OVERDOSE RATE PER 100,000 (2016-2020)	6.7	18.5
3-YEAR AVERAGE NONFATAL OVERDOSE ED VISIT RATE PER 100,000 (2018-2020)	289.5	295.7
OPIOID PRESCRIPTION UNIT RATE PER 1,000 (2020)	69,933.3	47,584.7

COUNTY RANKING OF SUBSTANCE USE VULNERABILITY INDEX BY COUNTY, 2020
 **COUNTIES WITH LOWER SCORES ARE MORE VULNERABLE

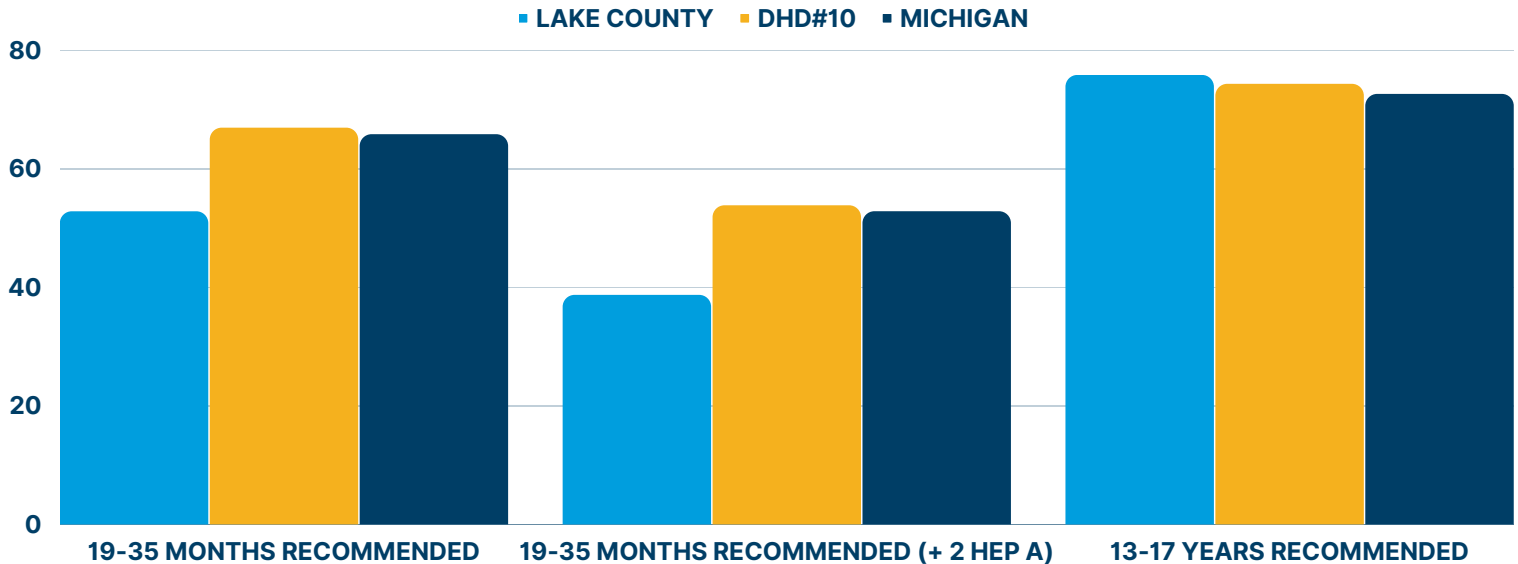


SOURCES: MDHHS
 • [MICHIGAN OVERDOSE DASHBOARD, 2020](#)

IMMUNIZATION

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

PERCENT OF CHILDREN THAT RECEIVED CDC RECOMMENDED CHILDHOOD IMMUNIZATIONS, MARCH 2023



RECOMMENDED VACCINES

- 19-35 MONTHS
 - 4 DTAP, 3 POLIO, 1 MMR, 3 HIB, 3 HEP B, 1 VARICELLA (CHICKENPOX), 4 PCV
- 19-35 MONTHS (+ 2 OPTIONAL HEP A)
 - 2 DOSES OF HEP A ARE OPTIONALLY RECOMMENDED IN ADDITION TO THE ABOVE RECOMMENDED
- 13-17 YEARS
 - 1 TDAP, 3 POLIO, 2 MMR, 3 HEP B, 2 VARICELLA (CHICKENPOX), 1 MENACWY, (2 OR 3 HPV - MALES & FEMALES)

PERCENTAGE OF HPV VACCINATION COMPLETION BY GENDER (13-17 YEARS OF AGE), LAKE COUNTY VS. MICHIGAN, 2023

	LAKE COUNTY	MICHIGAN
MALE	43.5%	43.1%
FEMALE	45.2%	45.4%

PREVENTATIVE VACCINATION COMPLETION IN OLDER ADULTS (65+ ONLY), 2021

	HAD FLU VACCINE IN PAST YEAR	HAD PNEUMONIA VACCINE
DHD#10	61.8%	68.3%
MICHIGAN	67.5%	72.1%

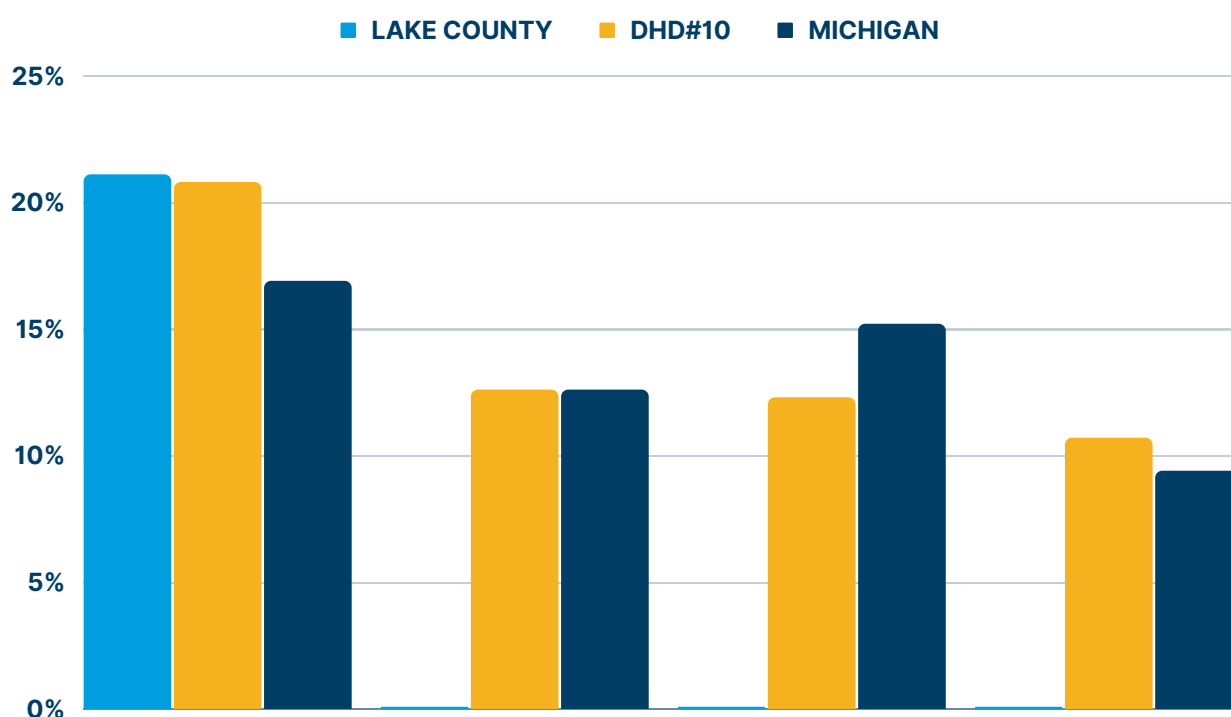
SOURCES:
[MICHIGAN CARE IMPROVEMENT REGISTRY](#)
[MICHIGAN BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2019-2021](#)

BEHAVIORAL RISK FACTORS

The national Behavioral Risk Factor Surveillance System (BRFSS) collects data on health behaviors and conditions through annual telephone surveys. These surveys are conducted by the state and are the only source of state-specific and population-based estimates of these factors. The following geographic areas will be presented: County Level, DHD#10 Region, & Michigan. There will be some data sets with no county level comparison – data is suppressed when there are not enough responses to accurately represent the county as a whole.

The Michigan Behavioral Risk Factor Survey is completed annually through randomized telephone surveys for Michigan residents 18+. The most recent Michigan Behavioral Risk Factor Survey Annual Table (2021) [can be accessed here](#).

SELF-REPORTED HEALTH STATUS INDICATORS



	FAIR/POOR GENERAL HEALTH STATUS	POOR PHYSICAL HEALTH (14+ DAYS)	POOR MENTAL HEALTH (14+ DAYS)	ACTIVITY LIMITATION (14+ DAYS)
LAKE	21.1%	*	*	*
DHD#10	20.8%	12.6%	12.3%	10.7%
MICHIGAN	16.9%	12.6%	15.2%	9.4%

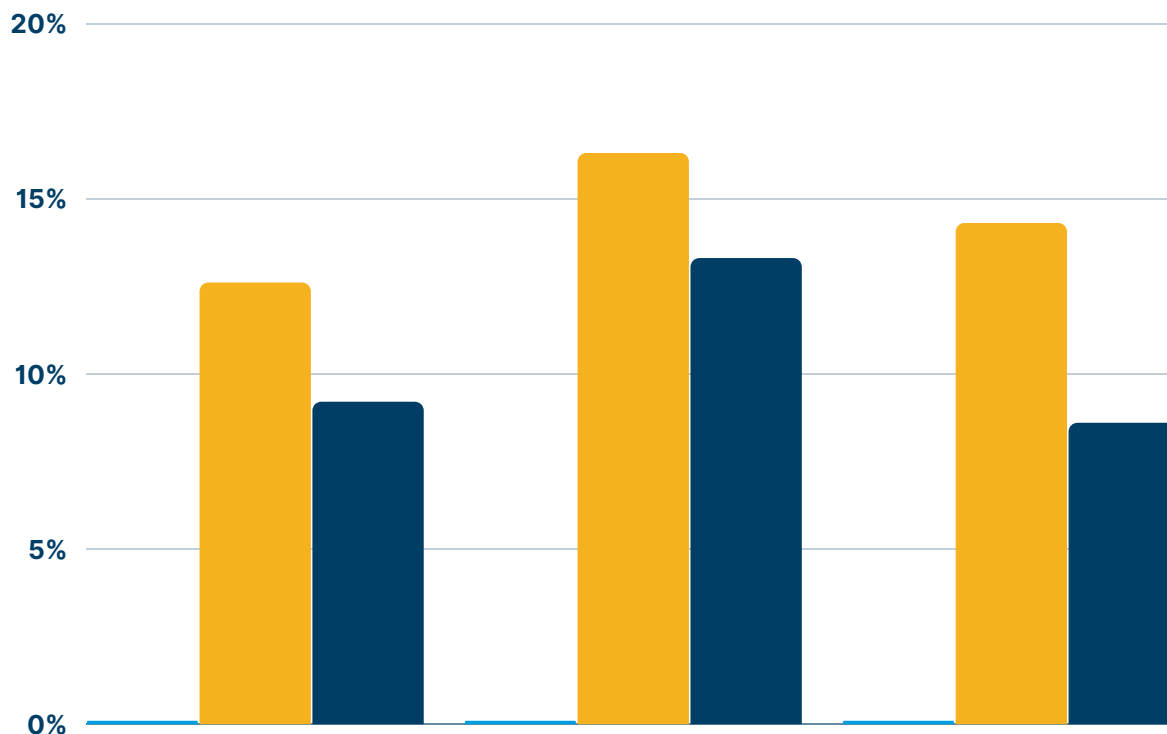
SOURCES:

MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES

- [MICHIGAN BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2021](#)

BRFSS: ACCESS TO HEALTHCARE

■ LAKE COUNTY ■ DHD#10 ■ MICHIGAN



	HAD TO FOREGO CARE IN PAST YEAR DUE TO COST	HAVE NO PRIMARY CARE PROVIDER (PCP)	NO HEALTH CARE COVERAGE (18-64)
LAKE	*	*	*
DHD#10	12.6%	16.3%	14.3%
MICHIGAN	9.2%	13.3%	8.6%

NUMBER OF RESIDENTS PER HEALTHCARE PROVIDER IN 2020

	LAKE COUNTY	MICHIGAN
PRIMARY CARE PHYSICIAN	11,570:1	1,240:1
DENTIST	1,120:1	1,270:1
MENTAL HEALTH PROVIDER*	1,230:1	320:1

*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

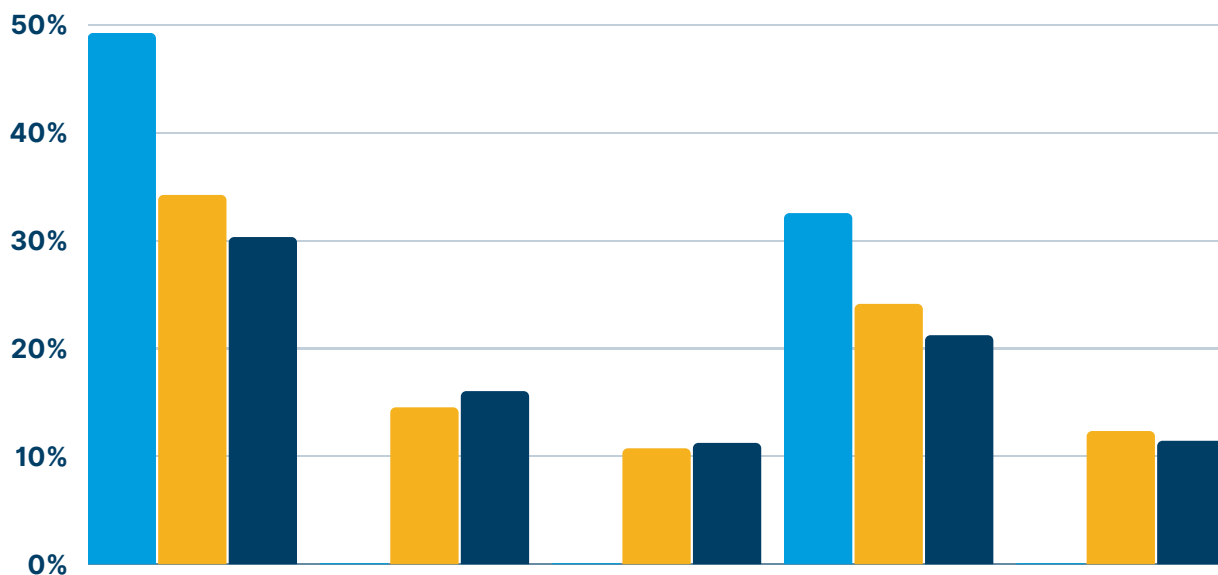
- [MICHIGAN BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2021](#)

COUNTY HEALTH RANKINGS

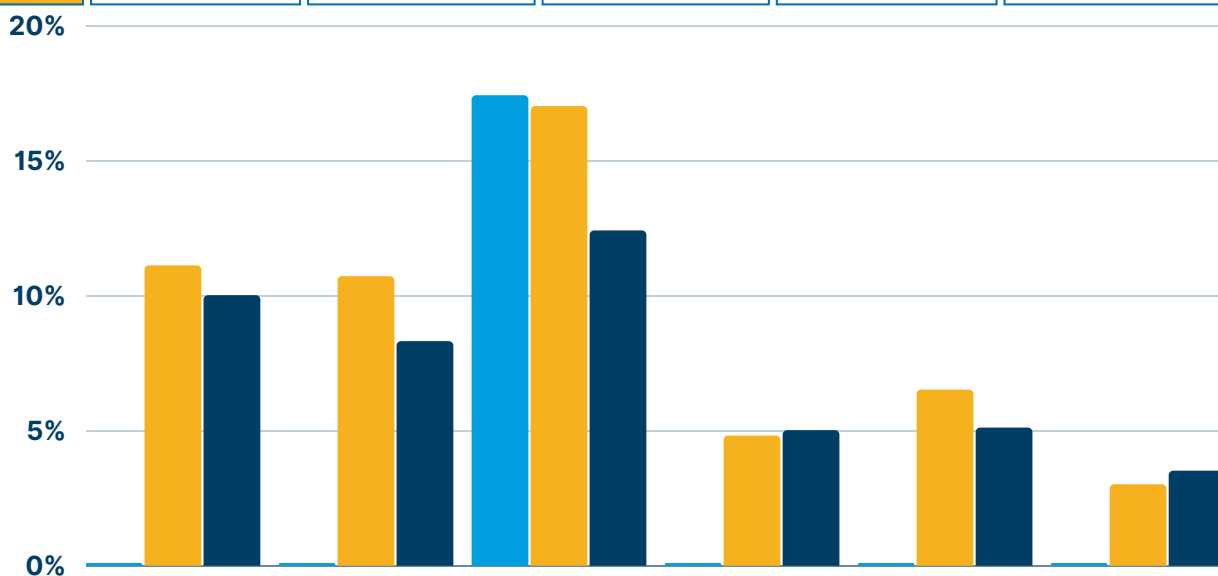
- [COUNTY VS. STATE RANKINGS, 2023](#)

BRFSS: CHRONIC CONDITIONS

LAKE COUNTY DHD#10 MICHIGAN



	ARTHRITIS	LIFETIME ASTHMA	CURRENT ASTHMA	DEPRESSION	DIABETES
LAKE	49.2%	*	*	32.5%	*
DHD#10	34.2%	14.5%	10.7%	24.1%	12.3%
MICHIGAN	30.3%	16.0%	11.2%	21.2%	11.4%



	ANY CARDIOVASCULAR DISEASE	COPD (CHRONIC OBSTRUCTIVE PULMONARY DISEASE)	CANCER, ALL TYPES	ANGINA (CHEST PAIN)	HEART ATTACK	STROKE
LAKE	*	*	17.4%	*	*	*
DHD#10	11.0%	10.7%	16.3%	4.4%	6.2%	3.3%
MICHIGAN	9.7%	8.1%	13.0%	4.6%	4.7%	3.6%

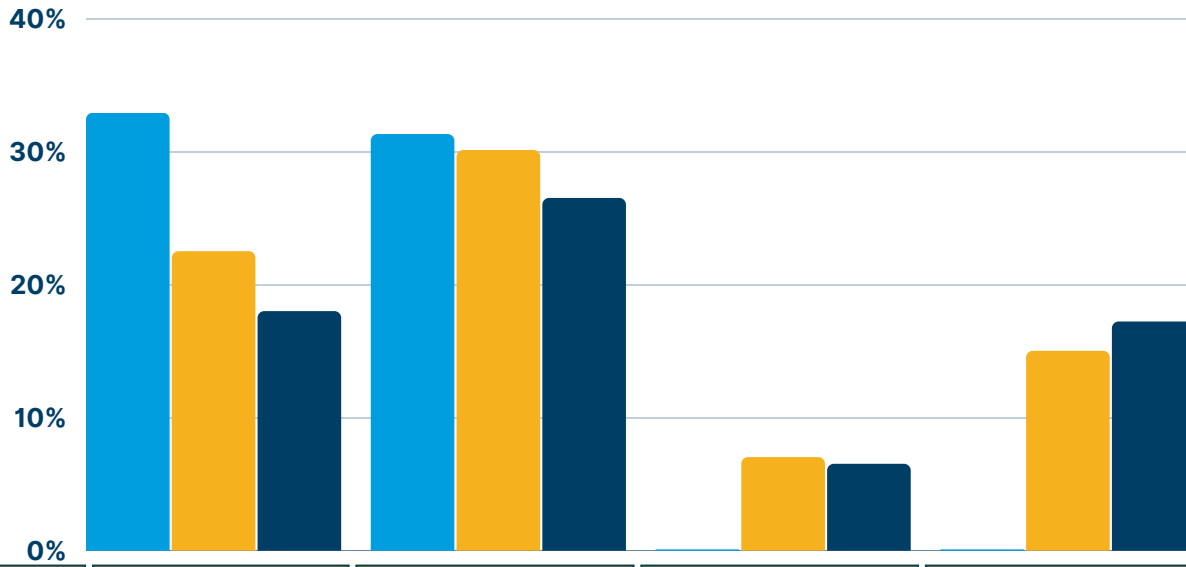
SOURCES:

MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES

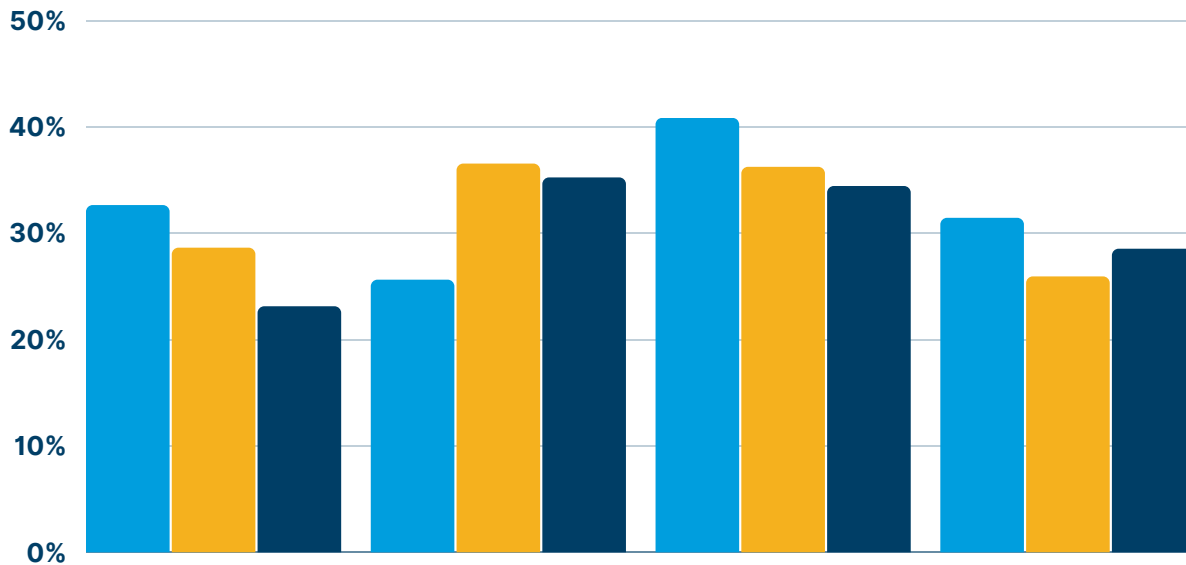
- MICHIGAN BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2021

BRFSS: RISK BEHAVIORS

■ LAKE COUNTY ■ DHD#10 ■ MICHIGAN



	CURRENTLY SMOKE CIGARETTES	FORMERLY SMOKE CIGARETTES	DRINK HEAVILY	CURRENTLY BINGE DRINK
LAKE	32.9%	31.3%	*	*
DHD#10	22.5%	30.1%	7.0%	15.0%
MICHIGAN	18.0%	26.5%	6.5%	17.2%



	NO LEISURE TIME PHYSICAL ACTIVITY	OBESE	OVERWEIGHT	HEALTHY WEIGHT
LAKE	32.6%	25.6%	40.8%	31.4%
DHD#10	28.6%	36.5%	36.2%	25.9%
MICHIGAN	23.1%	35.2%	34.4%	28.5%

SOURCES:
 MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES
 • [MICHIGAN BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM, 2021](#)

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 (2023) [can be accessed here.](#)

LAKE COUNTY HEALTH RANKINGS (2023)		OVERALL 81 OUT OF 83
HEALTH OUTCOMES		81
LENGTH OF LIFE	PREMATURE DEATH	75
QUALITY OF LIFE	POOR OR FAIR HEALTH: POOR PHYSICAL HEALTH DAYS; POOR MENTAL HEALTH DAYS; LOW BIRTH WEIGHT	83
HEALTH FACTORS		82
HEALTH BEHAVIORS	SMOKING; OBESITY; FOOD ENVIRONMENT; PHYSICAL ACTIVITY; EXCESSIVE DRINKING; ALCOHOL IMPAIRED DRIVING DEATHS; SEXUALLY TRANSMITTED INFECTIONS; TEEN BIRTHS	82
CLINICAL CARE	UNINSURED; RATIOS OF PHYSICIANS, DENTISTS, AND MENTAL HEALTH PROVIDERS TO POPULATION; PREVENTABLE HOSPITAL STAYS; DIABETIC MONITORING; MAMMOGRAPHY SCREENING	76
SOCIAL AND ECONOMIC FACTORS	EDUCATIONS; UNEMPLOYMENT; POVERTY; CHILDREN IN SINGLE-PARENT HOUSEHOLDS; SOCIAL ASSOCIATIONS; VIOLENT CRIME; INJURY DEATHS	81
PHYSICAL ENVIRONMENT	AIR POLLUTION; DRINKING WATER VIOLATIONS; SEVERE HOUSING PROBLEMS; DRIVING ALONG TO WORK AND LONG COMMUTE	43

SOURCES:

COUNTY HEALTH RANKINGS

- [COUNTY VS. STATE RANKINGS, 2023](#)



THANK YOU!

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

ADDITIONAL INFORMATION

DISTRICT HEALTH DEPARTMENT #10:
WWW.DHD10.ORG

NORTH MICHIGAN CHIR MITHRIVE:
WWW.NORTHERNMICHIGANCHIR.ORG/MITHRIVE/

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES:
WWW.MICHIGAN.GOV/MDHHS

COMMUNITY HEALTH RANKING:
WWW.COUNTYHEALTHRANKINGS.ORG

BEHAVIORAL RISK FACTOR SURVEY:
WWW.CDC.GOV/BRFSS

MICHIGAN LEAGUE FOR PUBLIC POLICY:
WWW.MLPP.ORG