Health Profile Chartbook 2015

Lake County

District Health Department #10
Healthy People, Healthy Communities

2015 Chartbooks

The 2015 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. This 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 collecting information for the Community Health Improvement Plan. The four main areas of focus in this plan are

- Poverty
- Access to Preventive Care
- Promotion of Healthy Lifestyle and Behavior
- Creation and Maintenance of Healthy Communities

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.

Demographics

Source: US Census Bureau
- Population , July, 2014 estimate.
- Age and race, July, 2014.
- Education based on persons over age 25, 2010-2014.
- Female persons, July, 2014
- Persons per household, 2010-2014
- Language other than English spoken at home (age 5+), 2010-2014
- Disability, under age 65, 2010-2014
- Mean travel time to work (minutes), age 16+, 2010-2014
- Per capita income in past 12 months, 2010-2014
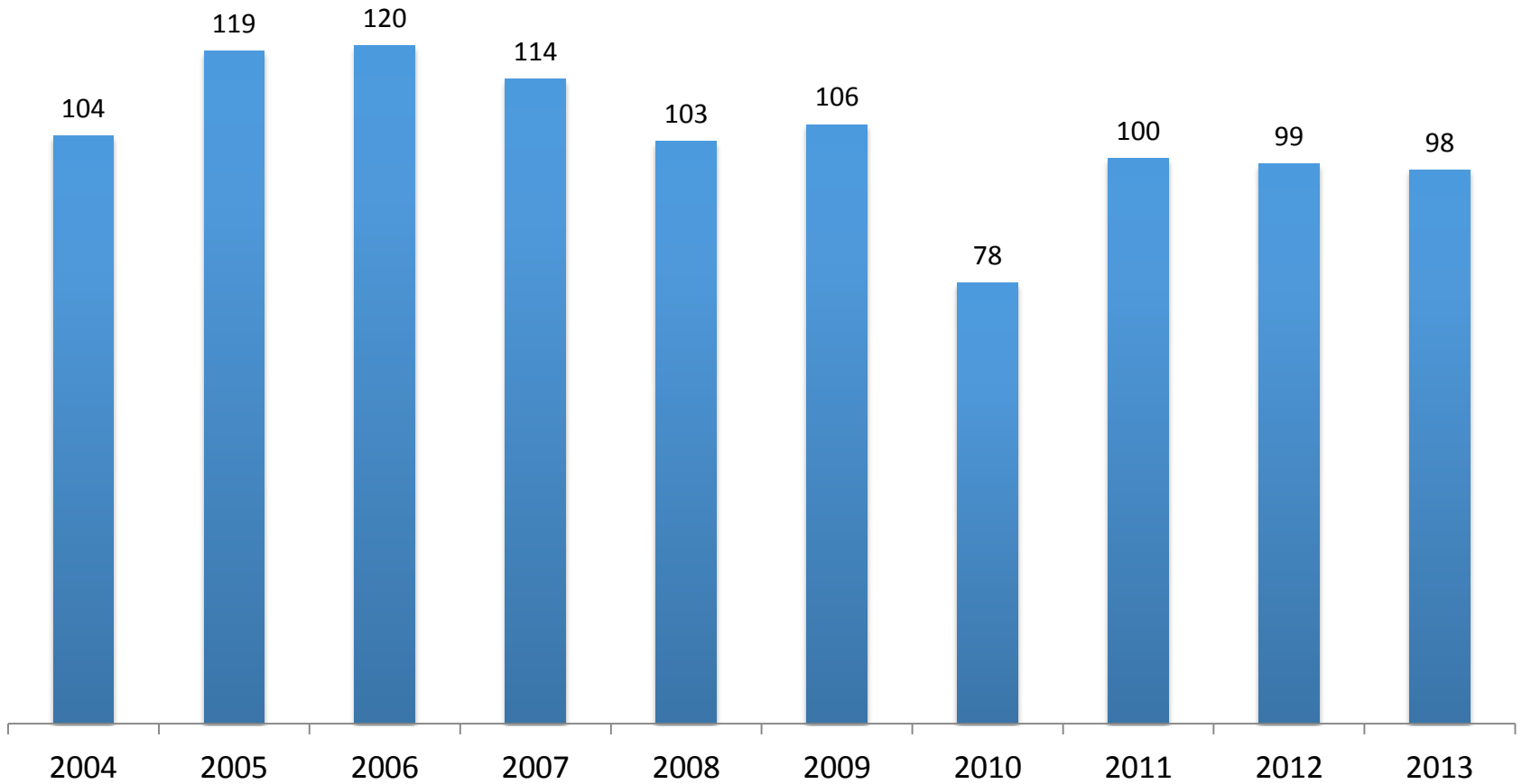- Population per square mile, 2010

Population:	Lake	Michigan
Total population	11,341	9,909,877
Persons under 5 years	3.5%	5.8%
Persons under 18 years	16.9%	22.4%
Persons 65 years and over	26.2%	15.4%
Education: High school graduates	82.3%	89.3%
Bachelor's degree or higher	9.2%	26.4%

Race and Ethnicity:	Lake	Michigan
White	87.2%	79.9%
Black	9.1%	14.2%
American Indian/Alaska Native	0.9%	0.7%
Asian	0.2%	2.9%
More than one race	2.6%	2.3%
Hispanic	2.5%	4.8%

	Lake	Michigan
Gender: females	49.2%	50.9%
Persons per household	2.57	2.52
Language other than English spoken at home	2.1%	9.1%
Disability, under age 65	21.8%	10.2%
Mean travel time to work (minutes)	25.0	24.1
Per capita income	$16,275	$26,143
Population per square mile	20.3	174.8

Births

Number of births by year

Source: Michigan Department of Health and Human Services

Year	Births
2004	104
2005	119
2006	120
2007	114
2008	103
2009	106
2010	78
2011	100
2012	99
2013	98

Poverty

Percent living below the poverty level.

Source: US Census Bureau and Small Area Income and Poverty Estimates (SAIPE) website, provided by Michigan League for Public Policy.
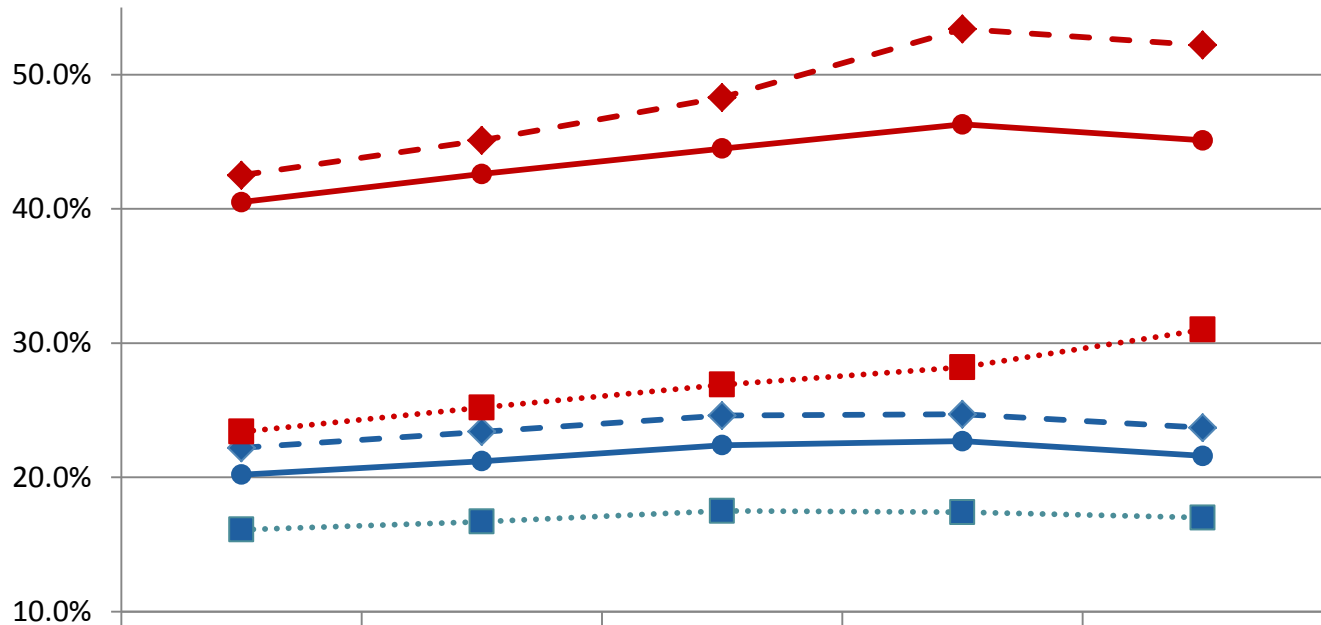
	2009	2010	2011	2012	2013
Michigan - children 0-17	22.2%	23.4%	24.6%	24.7%	23.7%
Lake - children 0-17	42.5%	45.1%	48.3%	53.4%	52.2%
Michigan - children 5-17	20.2%	21.2%	22.4%	22.7%	21.6%
Lake - children 5-17	40.5%	42.6%	44.5%	46.3%	45.1%
Michigan - all ages	16.1%	16.7%	17.5%	17.4%	17.0%
Lake - all ages	23.4%	25.2%	26.9%	28.2%	31.0%

Poverty Indicators

- WIC (Women, Infants, and Children) is determined by the number of children age 0-4 who received benefits in Lake County. Data reflect the county of service.
- School children eligible for free and reduced price meals is based on family income below 185 percent of poverty.
- Percent of births paid by Medicaid.

Source: Michigan Department of Health and Human Services and the Michigan Department of Education, provided by Michigan League for Public Policy.
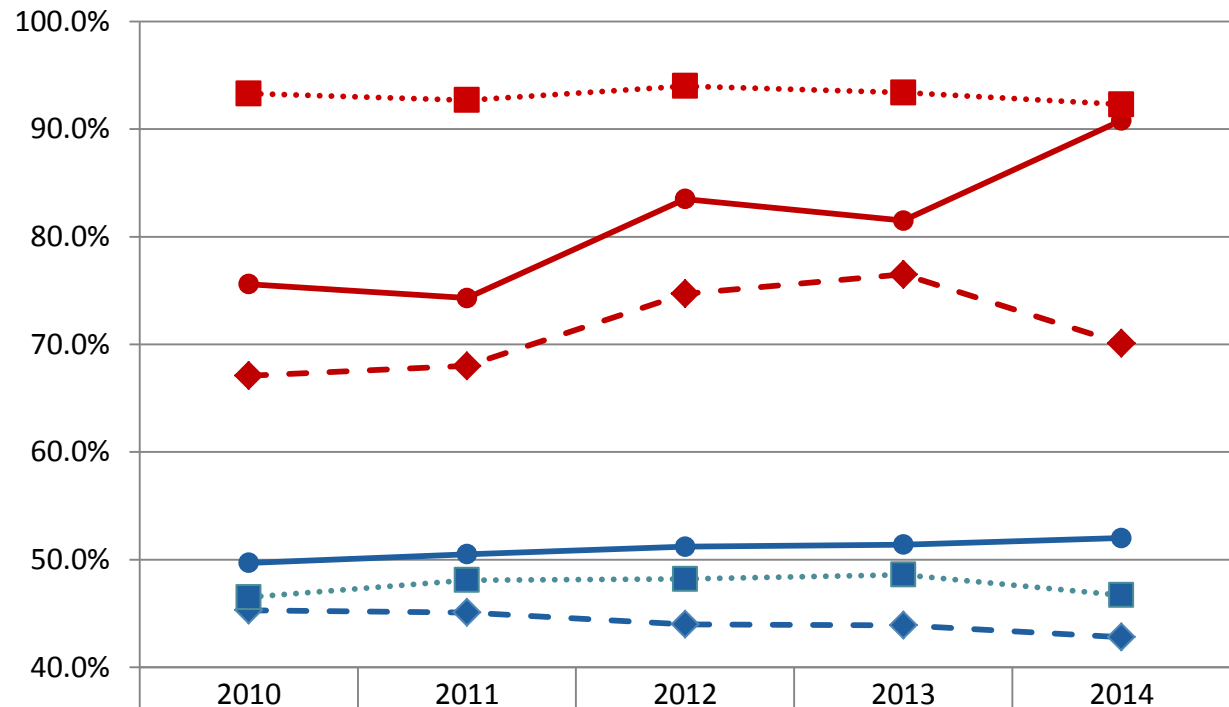
	2010	2011	2012	2013	2014
Michigan - Medicaid paid births	45.3%	45.1%	44.0%	43.9%	42.8%
Lake - Medicaid paid births	67.1%	68.0%	74.7%	76.5%	70.1%
Michigan - Children receiving WIC	49.7%	50.5%	51.2%	51.4%	52.0%
Lake - Children receiving WIC	75.6%	74.3%	83.5%	81.5%	90.8%
Michigan - Free/reduced meals	46.5%	48.1%	48.2%	48.6%	46.7%
Lake - Free/reduced meals	93.3%	92.7%	94.0%	93.4%	92.3%

Median Income and Unemployment

Unemployment is based on the number of unemployed compared to the number in the labor force.

Source: Michigan League for Public Policy provided income data from the US Census Bureau and Small Area Income and Poverty Estimates (SAIPE) and unemployment data from the Bureau of Labor Statistics.

Median Household Income

$45,254 $45,354 $45,931 $46,793 $48,200

$29,373 $28,526 $28,971 $30,897 $30,656

2009   2010   2011   2012   2013

Michigan   Lake

Unemployment

15.5%   12.9%   12.2%   13.1%   11.0%

12.5%   10.3%   9.1%   8.8%   7.3%

2010   2011   2012   2013   2014
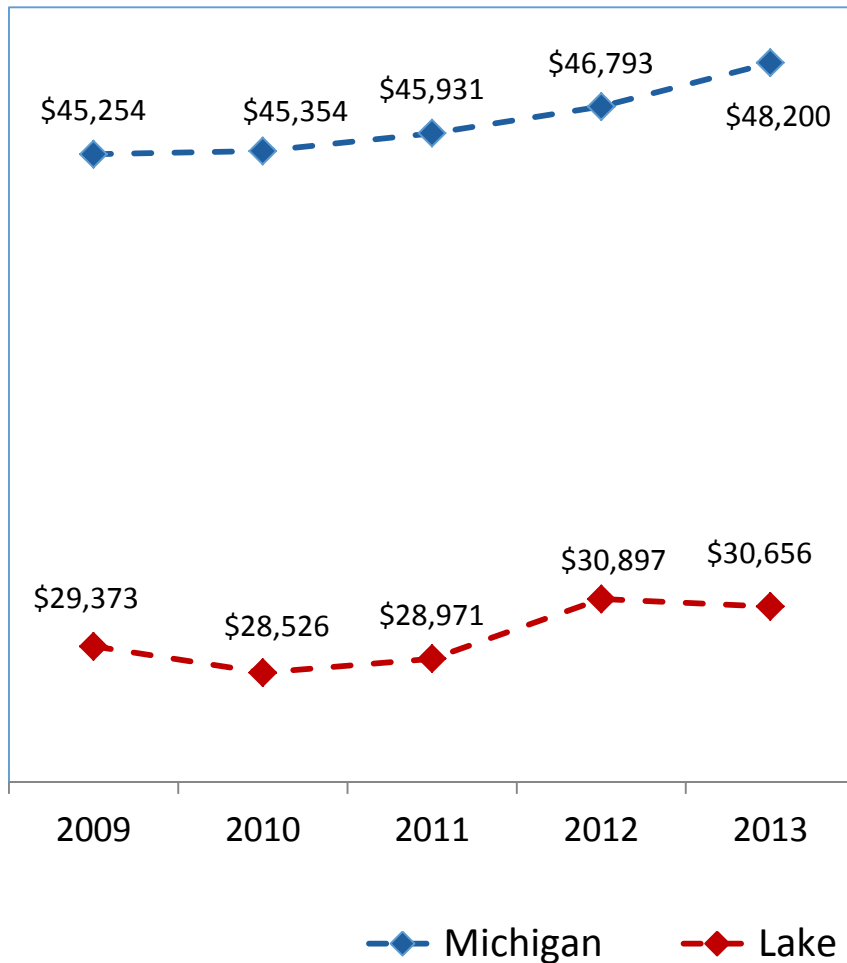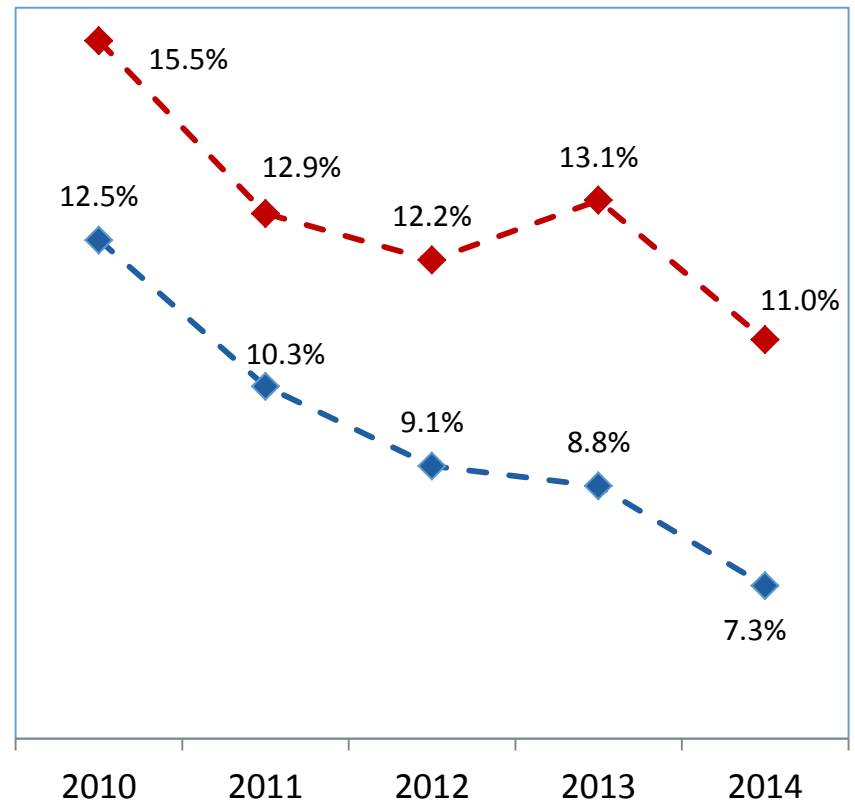
Leading Causes of Death

Leading causes of death are rates per 100,000 population.

* too small to calculate

Source: Michigan Department of Health and Human Services, 2013.

Cause of Death	Michigan	DHD#10	Lake County
Heart disease	199.9	202.0	199.3
Cancer	170.7	187.8	216.0
Chronic lower respiratory disease	46.8	54.4	*
Accidents	39.8	48.7	*
Stroke	36.3	43.9	*
Alzheimer's	26.5	26.3	*
Diabetes	23.7	24.6	*
Pneumonia/Influenza	15.7	15.8	*
Kidney disease	13.9	13.1	*
Suicide	12.9	16.8	*

Years of Potential Life Lost

- 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.
- Rates are per 100,000 population under 75 years of age.

* too small to calculate

Source: Michigan Department of Health and Human Services, 2014.

Cause of Death	Michigan	DHD#10	Lake County
Cancer	1,691.0	1,997.3	1,812.8
Heart disease	1,306.2	1,323.0	3,772.7
Accidents	1,072.2	1,246.7	*
Suicide	425.5	440.3	*
Perinatal	303.8	*	0
Homicide	256.1	*	0
Lower respiratory	234.2	324.9	*
Diabetes	203.6	189.5	*
Liver disease	196.3	189.5	*
Cerebrovascular	168.7	172.9	*

Cardiovascular Disease Mortality

Age adjusted rate per 100,000

Source: Michigan Department of Health and Human Services, 2011-2013.

Bar chart showing cardiovascular disease mortality rates for Lake, DHD#10, and Michigan:

Category	Lake	DHD#10	Michigan
Major Cardiovascular Disease	292.8	248.8	254.0
Heart Disease	213.0	185.4	200.9
Stroke	47.6	40.5	37.4

Legend: ■ Lake ⊞ DHD#10 ■ Michigan
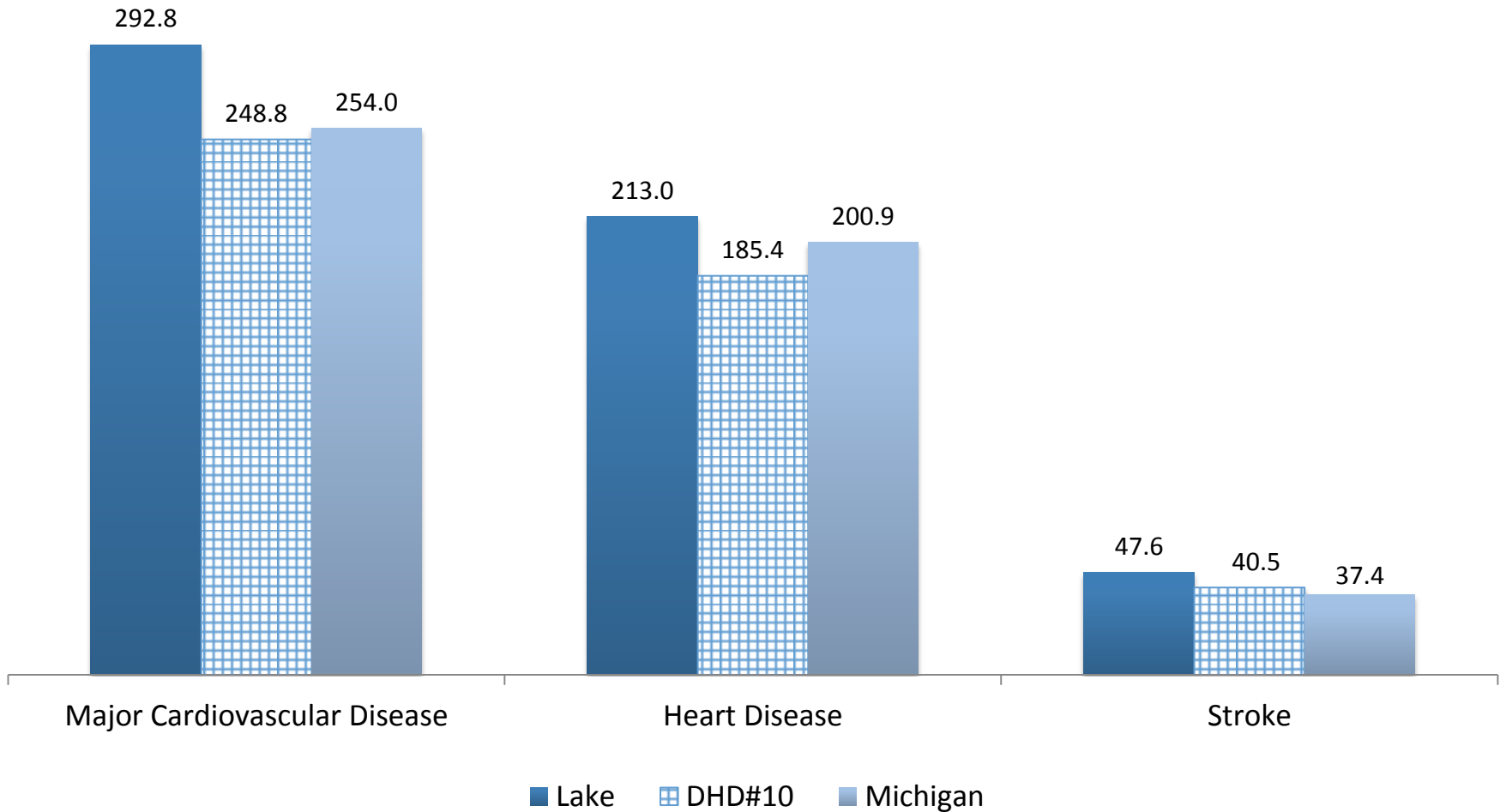
Cancer Incidence and Mortality

Age adjusted rates per 100,000 population

Source: Michigan Department of Health and Human Services
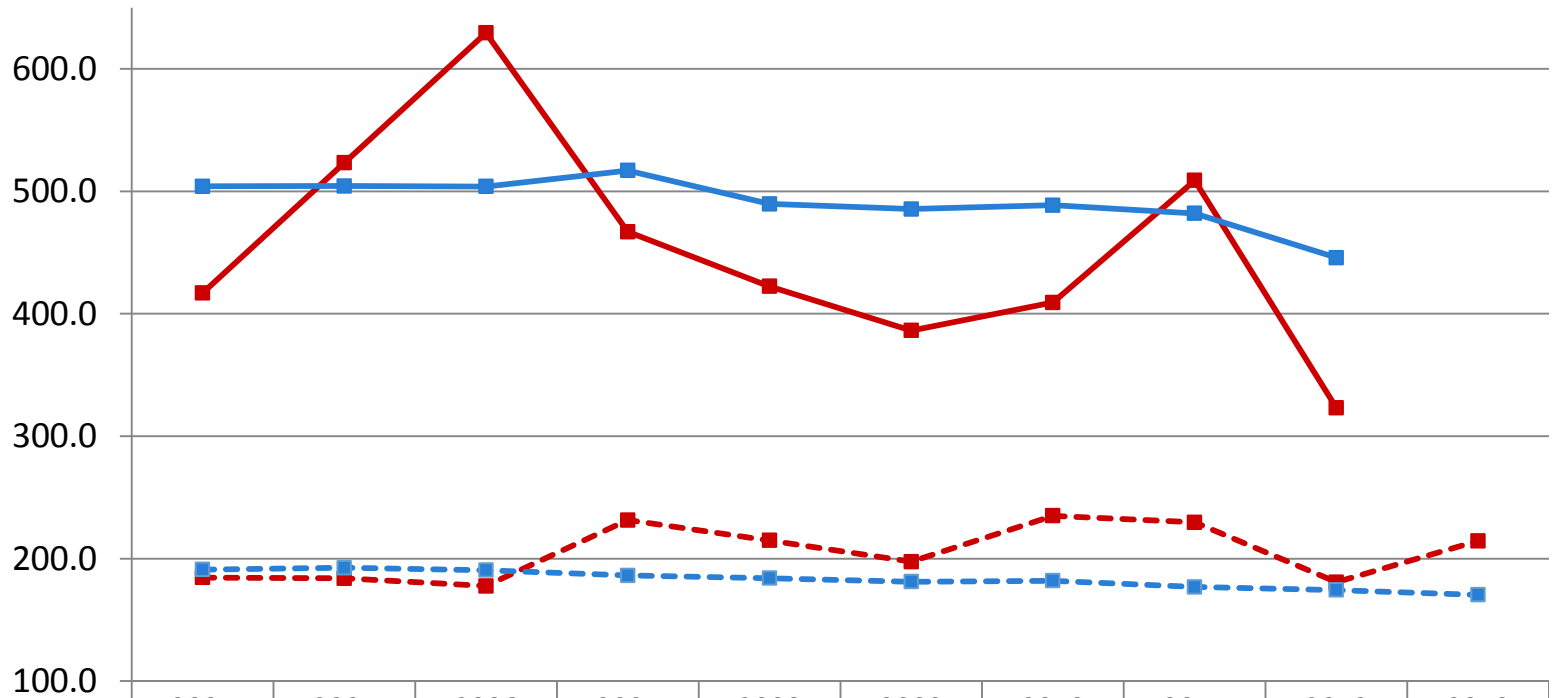
|	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Lake cases	417.0	523.3	629.4	466.9	422.3	386.3	409.2	508.9	323.1	
Michigan cases	504.0	504.3	503.9	516.9	489.7	485.5	488.6	482.0	445.8	
Lake deaths	184.6	183.9	177.6	231.5	214.8	197.5	235.0	229.6	180.8	214.5
Michigan deaths	191.1	192.5	190.5	186.2	184.0	181.2	182.0	176.8	174.4	170.4

Cancer Incidence Trends

Age adjusted rate per 100,000

Source: Michigan Department of Health and Human Services
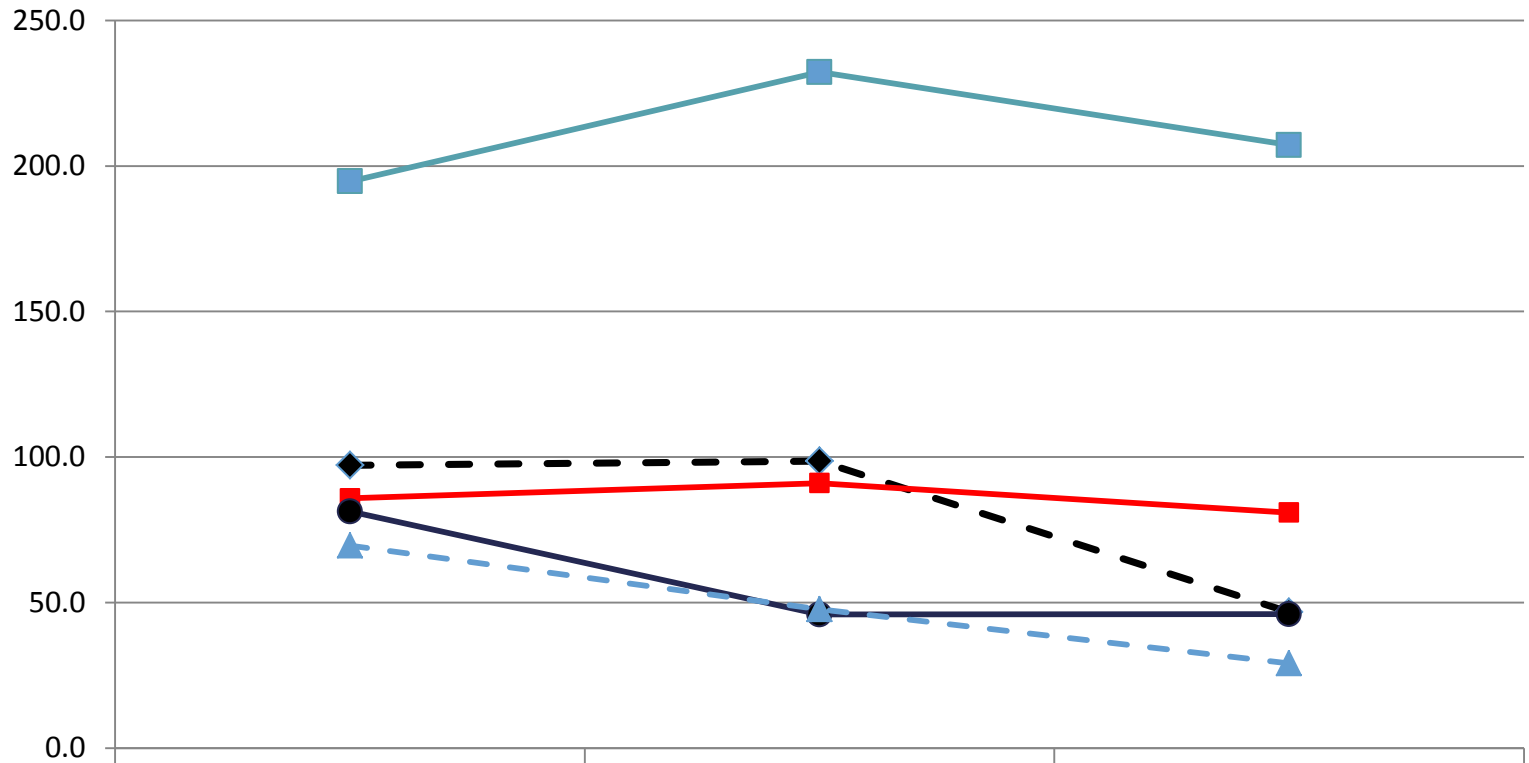
	1998-2002	2003-2007	2008-2012
◆ Prostate	97.2	98.6	46.7
■ Lung	85.8	91.0	80.9
● Breast	81.3	45.9	46.0
▲ Colon	69.6	47.7	29.1
■ All Other Sites	194.7	232.3	207.2

Fatal Injuries

The Healthy People 2020 targets for fatal injuries per 100,000 are as follows:
Suicide: 10.2   Poisoning: 13.1   Falls: 7.0
Drowning: 1.1   Burn/fire/flame: 0.86   Firearm related: 9.8
Motor vehicle traffic crash related: 12.4

Source: Michigan Resident Death files, Data Development Section, Michigan Department of Health and Human Services.

*too small to calculate

Fatal Injuries and Rates		Number of fatal injuries		Rates per 100,000 population	
		Annual average 2008-2012	2013	Annual average 2008-2012	2013
Lake	Unintentional (transport)	2.0	2	*	*
	Unintentional (other)	4.2	5	*	*
	Self-inflicted/suicide	2.4	2	*	*
	Assault/homicide	0.2	2	*	*
	Other	0	0	*	*
Michigan	Unintentional (transport)	1,071.2	1,093	10.8	11.0
	Unintentional (other)	2,626.6	3,036	26.5	30.7
	Self-inflicted/suicide	1,214.6	1,296	12.2	13.1
	Assault/homicide	661.0	634	6.7	6.4
	Other	458.0	426	4.6	4.3

Sexually Transmitted Diseases: Gonorrhea and Chlamydia

- Gonorrhea: The Healthy People 2020 target for females is no more than 257 incident cases and males no more than 198 incident cases per 100,000 population aged 15-44 years be reported per year.
- Chlamydia: The Healthy People 2020 target for females aged 15-24 attending family planning clinics with the past 12 months and testing positive for chlamydia will be less than 6.7%.

Source: Michigan Sexually Transmitted Disease Section, Michigan Department of Health and Human Services.

*too small to calculate

Gonorrhea						
	Number of Cases			Rate per 100,000		
	2004-2008 average	2009-2013 average	2014	2004-2008	2009-2013	2014
Lake	5.4	1.6	4	*	*	*
DHD#10	51.8	28.0	33	10.6	10.7	*
Michigan	17,376.6	13,170.2	9,666	131.5	133.2	97.5

Chlamydia						
	Number of Cases			Rate per 100,000		
	2004-2008 average	2009-2013 average	2014	2004-2008	2009-2013	2014
Lake	23.4	20.8	37	177.5	181.2	0
DHD#10	422.4	533.4	674	201.7	204.1	258.3
Michigan	41,192.8	48,515.0	44,843	484.3	490.7	452.5

Birth Related Trends

Smoked during pregnancy

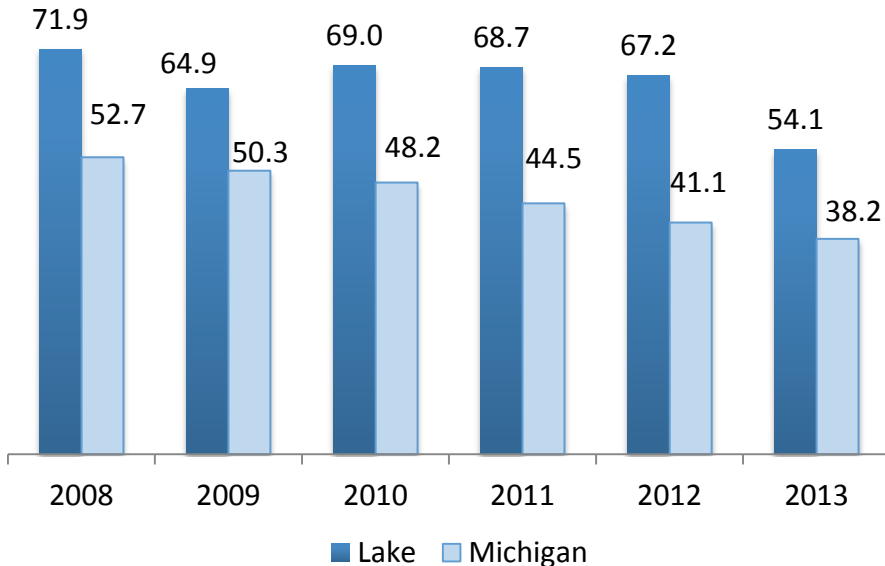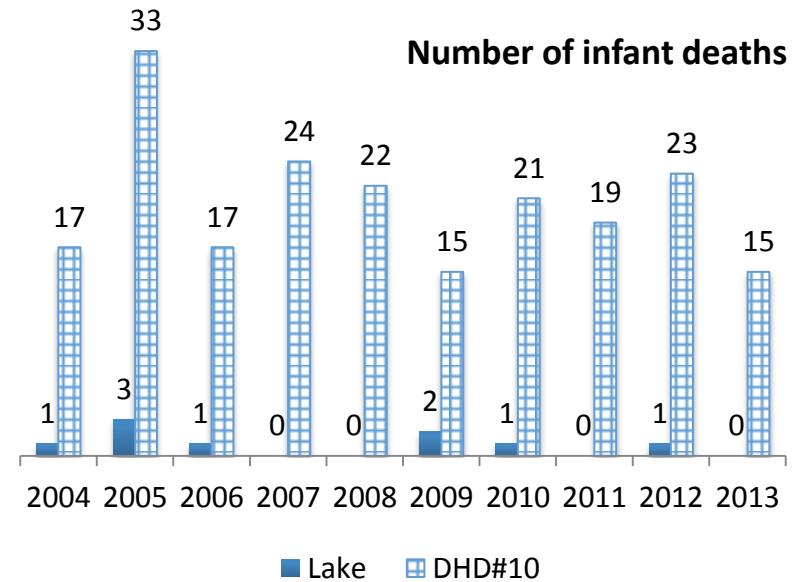| Year	Lake	Michigan
2010	38.5%	18.0%
2011	38.3%	19.0%
2012	41.0%	20.2%
2013	39.7%	21.6%
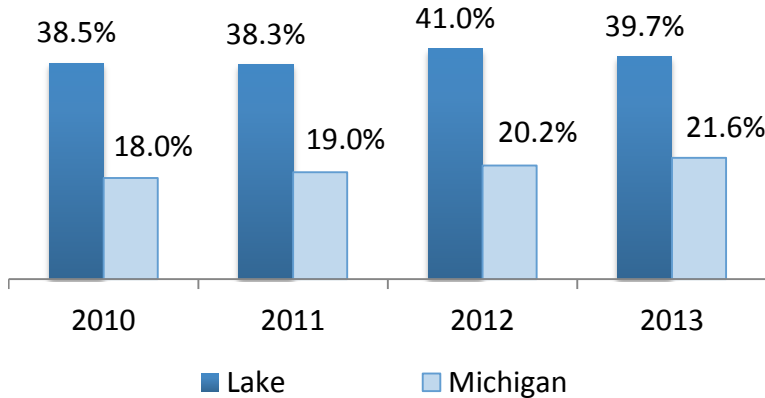
■ Lake   ☐ Michigan

- Smoked while pregnant were those who had a history of smoking, but never quit, plus those who quit at some point between estimated conception and birth date. Three year averages. Healthy People 2020 goal is 1.4%. Source: Michigan Department of Health and Human Services data provided by Michigan League for Public Policy

- Teen pregnancy rates are per 1,000 females ages 15-19 and include live births, abortions, and estimated miscarriages. Healthy People 2020 target for teen pregnancies among 15-17 year olds is 36.2 per 1,000 females; target among 18-19 year olds is 105.9. Source: Michigan Department of Health and Human Services.

- Infant deaths are those occurring to those under one year of age. Source: Michigan Department of Health and Human Services.
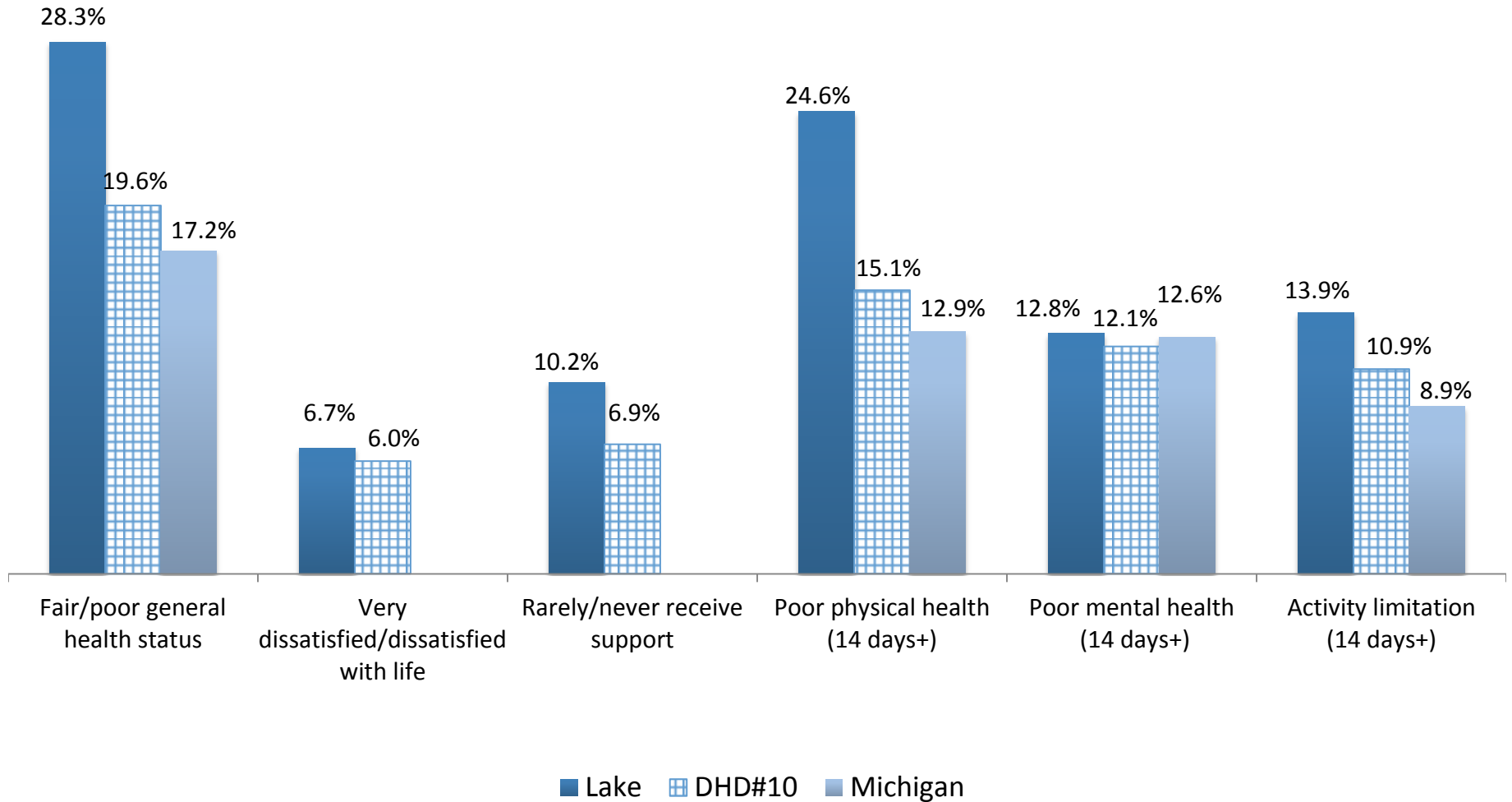
Teen pregnancy rate per 1000, ages 15-19

Year	Lake	Michigan
2008	71.9	52.7
2009	64.9	50.3
2010	69.0	48.2
2011	68.7	44.5
2012	67.2	41.1
2013	54.1	38.2

■ Lake   ☐ Michigan

Number of infant deaths

Year	Lake	DHD#10
2004	1	17
2005	3	33
2006	1	17
2007	0	24
2008	0	22
2009	2	15
2010	1	21
2011	0	19
2012	1	23
2013	0	15

■ Lake   ⊞ DHD#10

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Health Status

Lake ▦ DHD#10 ▪ Michigan

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Health Care Access

Number of people per health care provider

	Lake	Michigan
Primary care physicians	5,749:1	1,246:1
Dentists	1,898:1	1,485:1
Mental health providers	2,277:1	487:1

Mental health providers include psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists who meet certain qualifications and certifications. Source: County Health Rankings, 2015.

Legend: ■ Lake ⊞ DHD#10 ■ MI

Chart data:

No health care coverage (18-64)
- Lake: 10.1%
- DHD#10: 11.1%
- MI: 15.6%

Have no primary care provider (PCP)
- Lake: 12.7%
- DHD#10: 17.4%
- MI: 16.3%

Had to forego care in past year due to costs
- Lake: 9.2%
- DHD#10: 12.4%
- MI: 15.0%

Visited ER/ED 2 or more times in past year
- Lake: 20.3%
- DHD#10: 13.5%

Confident can navigate health care system
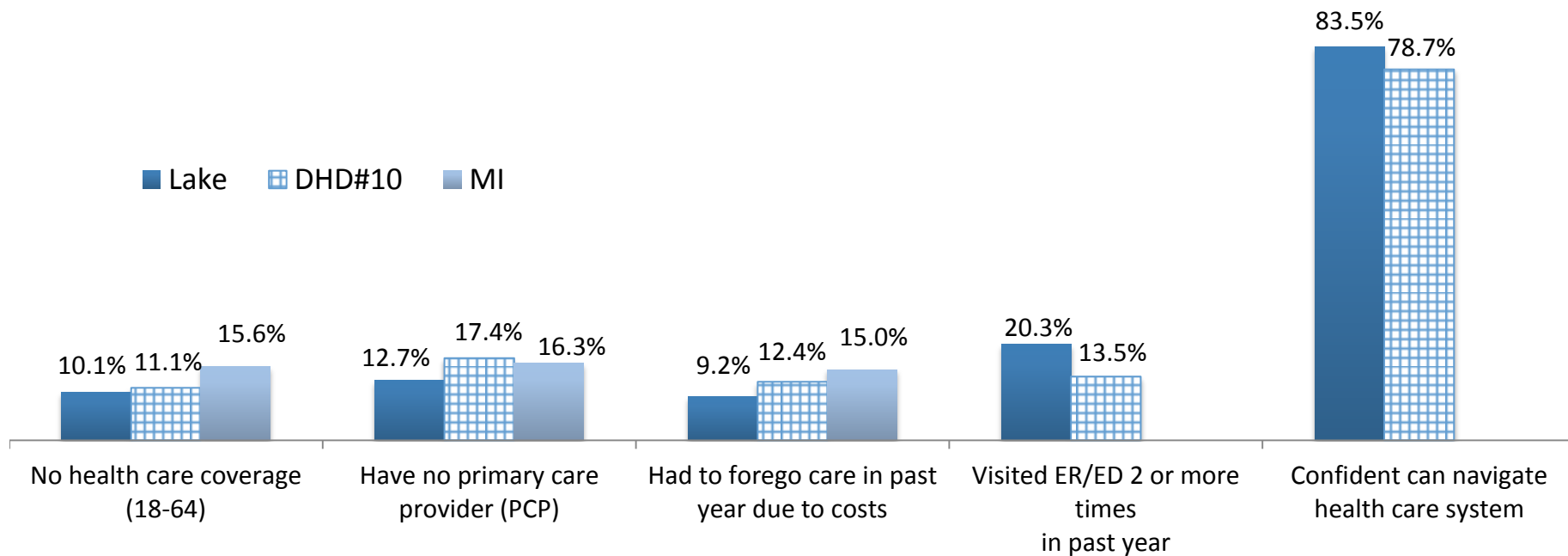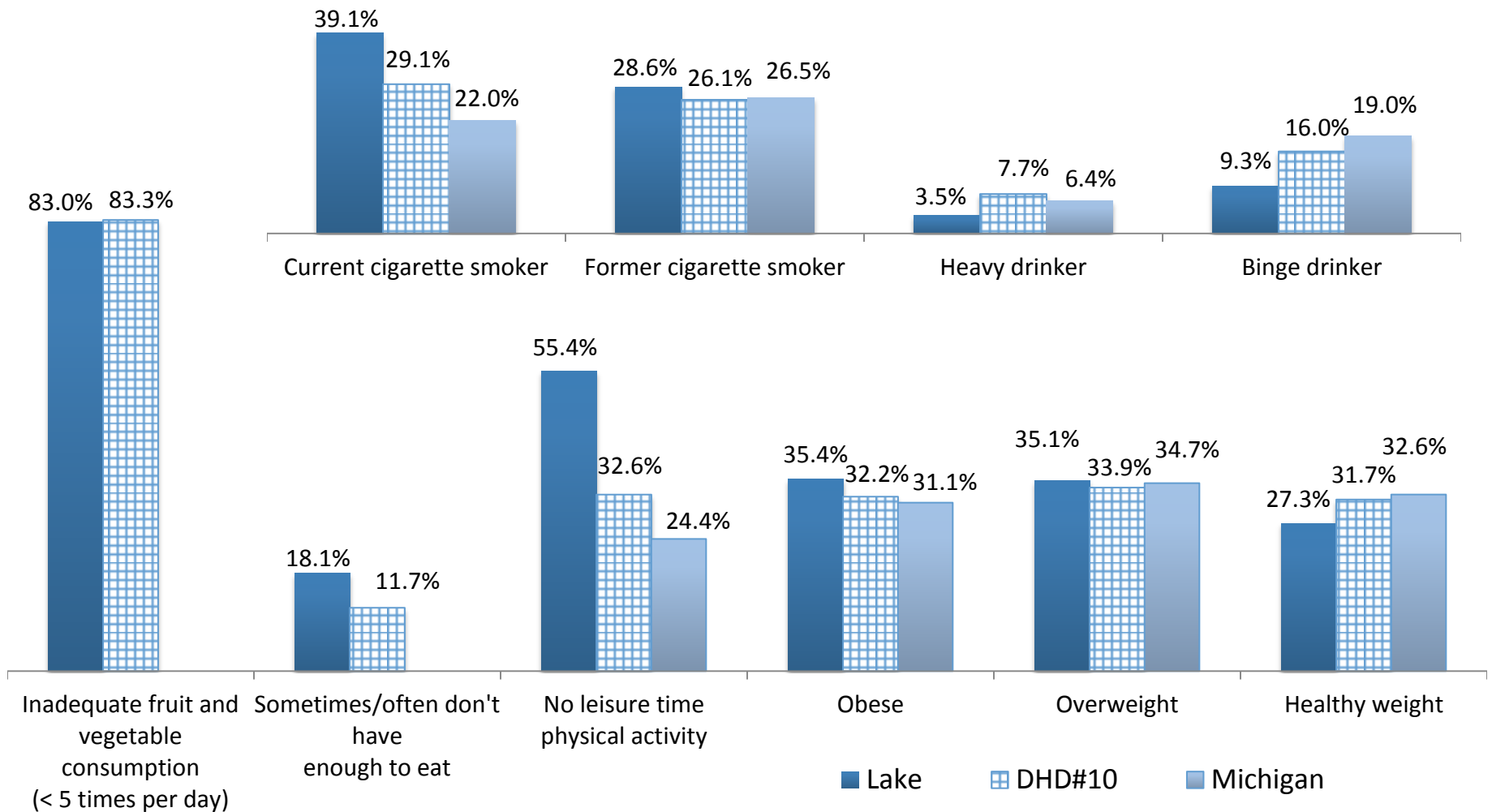- Lake: 83.5%
- DHD#10: 78.7%

Source: District Health Department #10 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
Michigan Behavioral Risk Factor Surveillance System, 2014 (Michigan comparison)
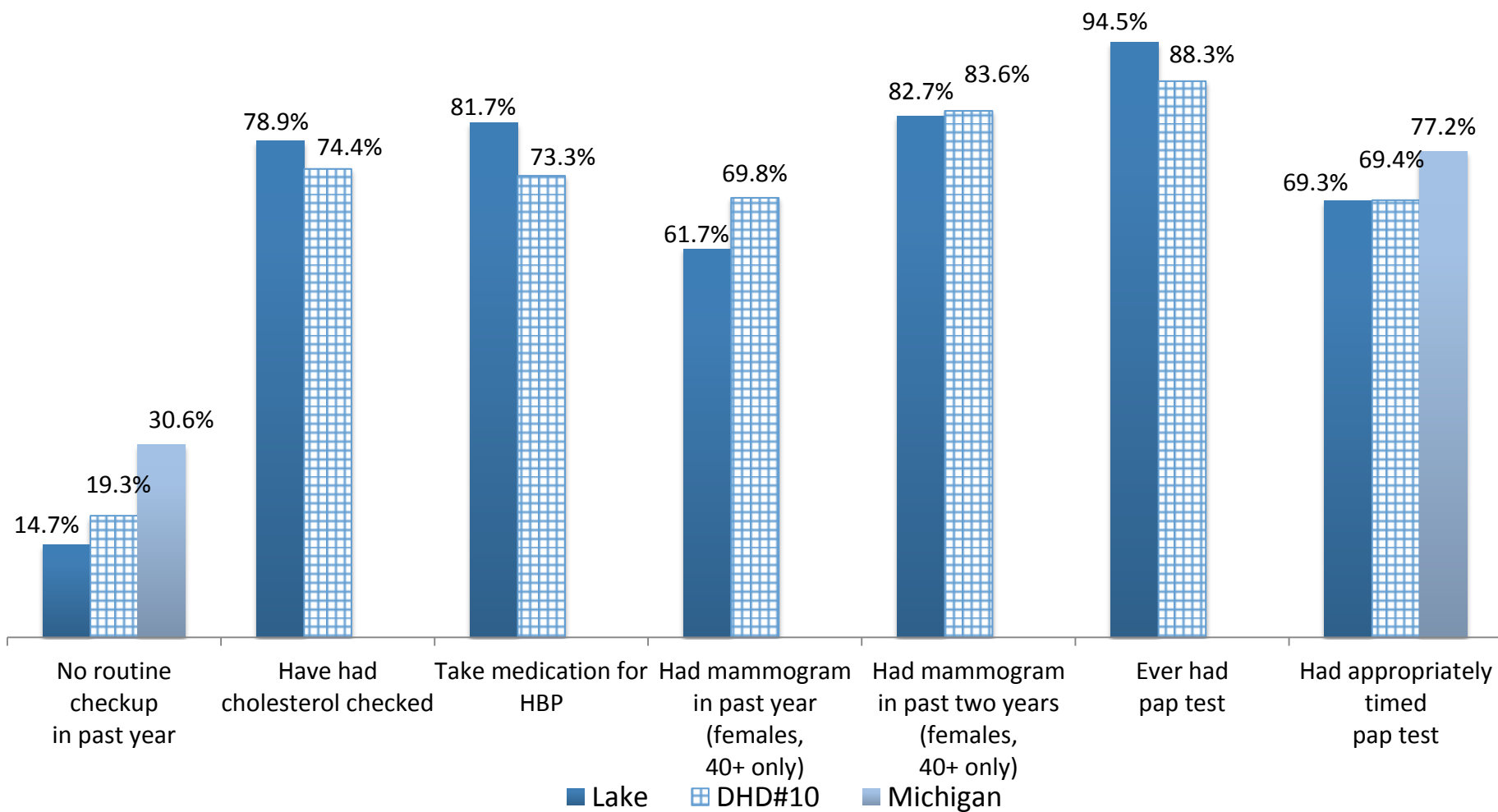
Risk Behaviors

Source: District Health Department #10 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
Michigan Behavioral Risk Factor Surveillance System, 2014 (Michigan comparison)

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Clinical Preventive Practices

Lake · DHD#10 · Michigan

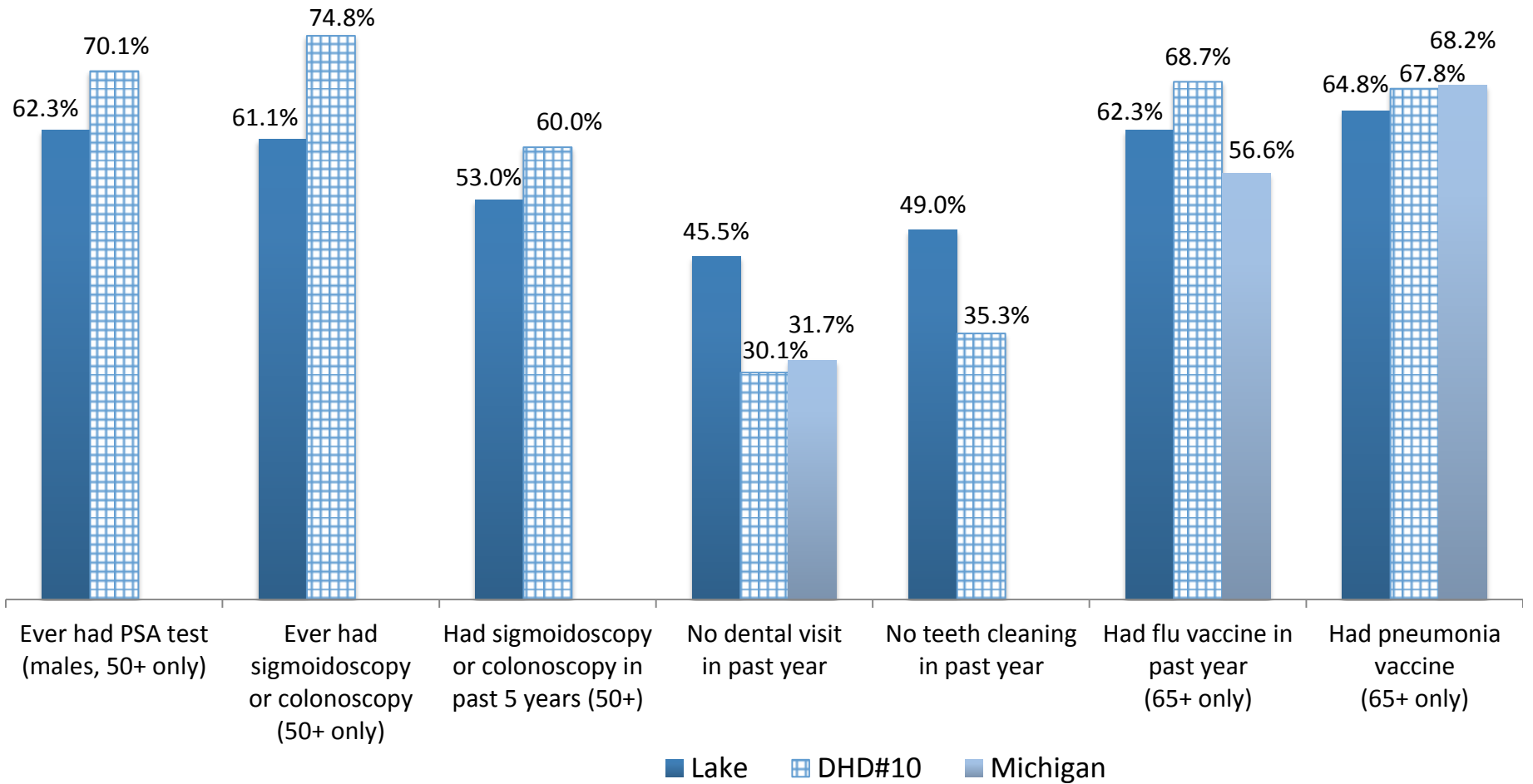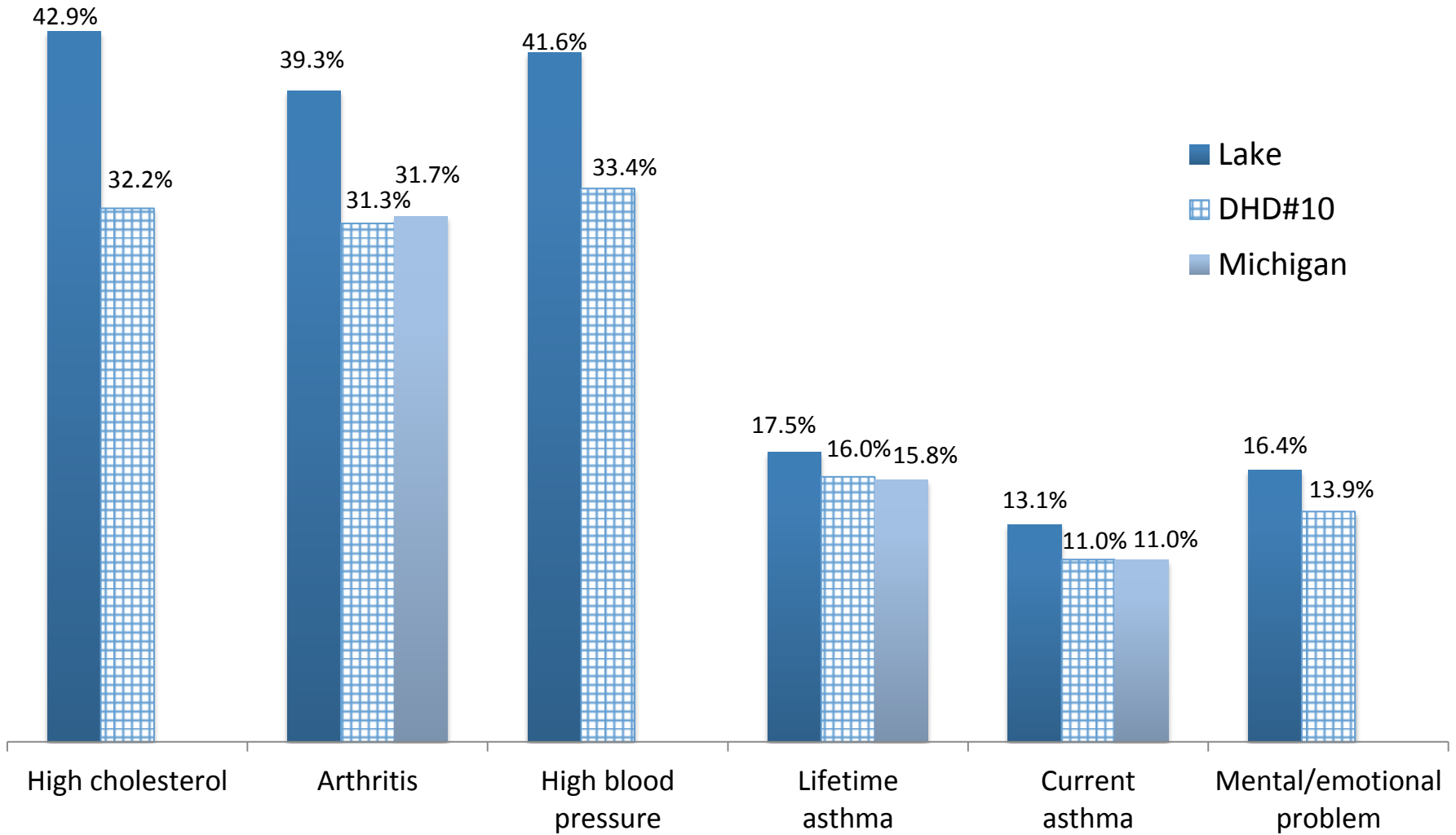| Category	Lake	DHD#10	Michigan
No routine checkup in past year	14.7%	19.3%	30.6%
Have had cholesterol checked	78.9%	74.4%	
Take medication for HBP	81.7%	73.3%	
Had mammogram in past year (females, 40+ only)	61.7%	69.8%	
Had mammogram in past two years (females, 40+ only)	82.7%	83.6%	
Ever had pap test	94.5%	88.3%	
Had appropriately timed pap test	69.3%	69.4%	77.2%

Source: District Health Department #10 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
Michigan Behavioral Risk Factor Surveillance System, 2014 (Michigan comparison)

Clinical Preventive Practices, continued

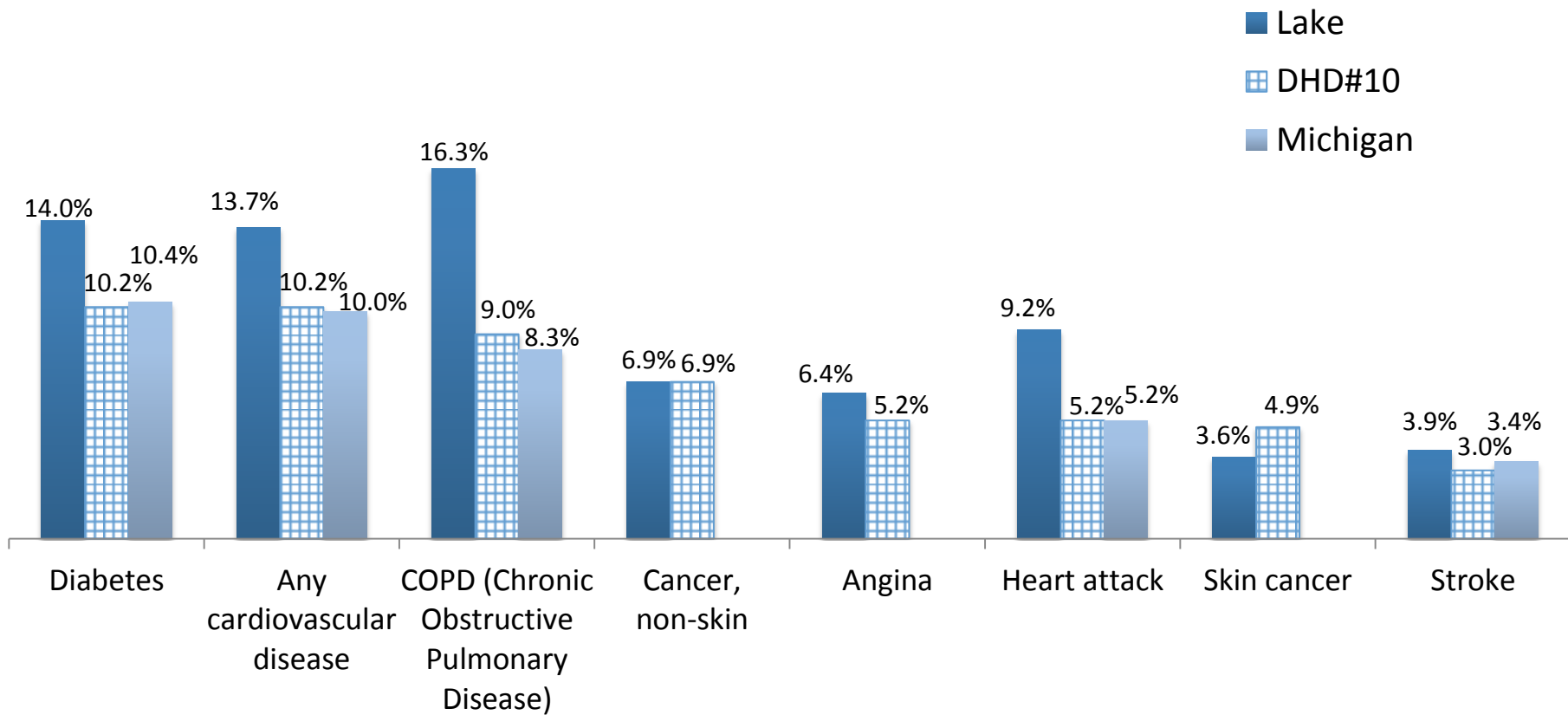| Category	Lake	DHD#10	Michigan
Ever had PSA test (males, 50+ only)	62.3%	70.1%	
Ever had sigmoidoscopy or colonoscopy (50+ only)	61.1%	74.8%	
Had sigmoidoscopy or colonoscopy in past 5 years (50+)	53.0%	60.0%	
No dental visit in past year	45.5%	30.1%	31.7%
No teeth cleaning in past year	49.0%	35.3%	
Had flu vaccine in past year (65+ only)	62.3%	68.7%	56.6%
Had pneumonia vaccine (65+ only)	64.8%	67.8%	68.2%

■ Lake   ⊞ DHD#10   ■ Michigan

Source: District Health Department #10 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
Michigan Behavioral Risk Factor Surveillance System, 2014 (Michigan comparison)

Chronic Conditions

Legend: Lake, DHD#10, Michigan

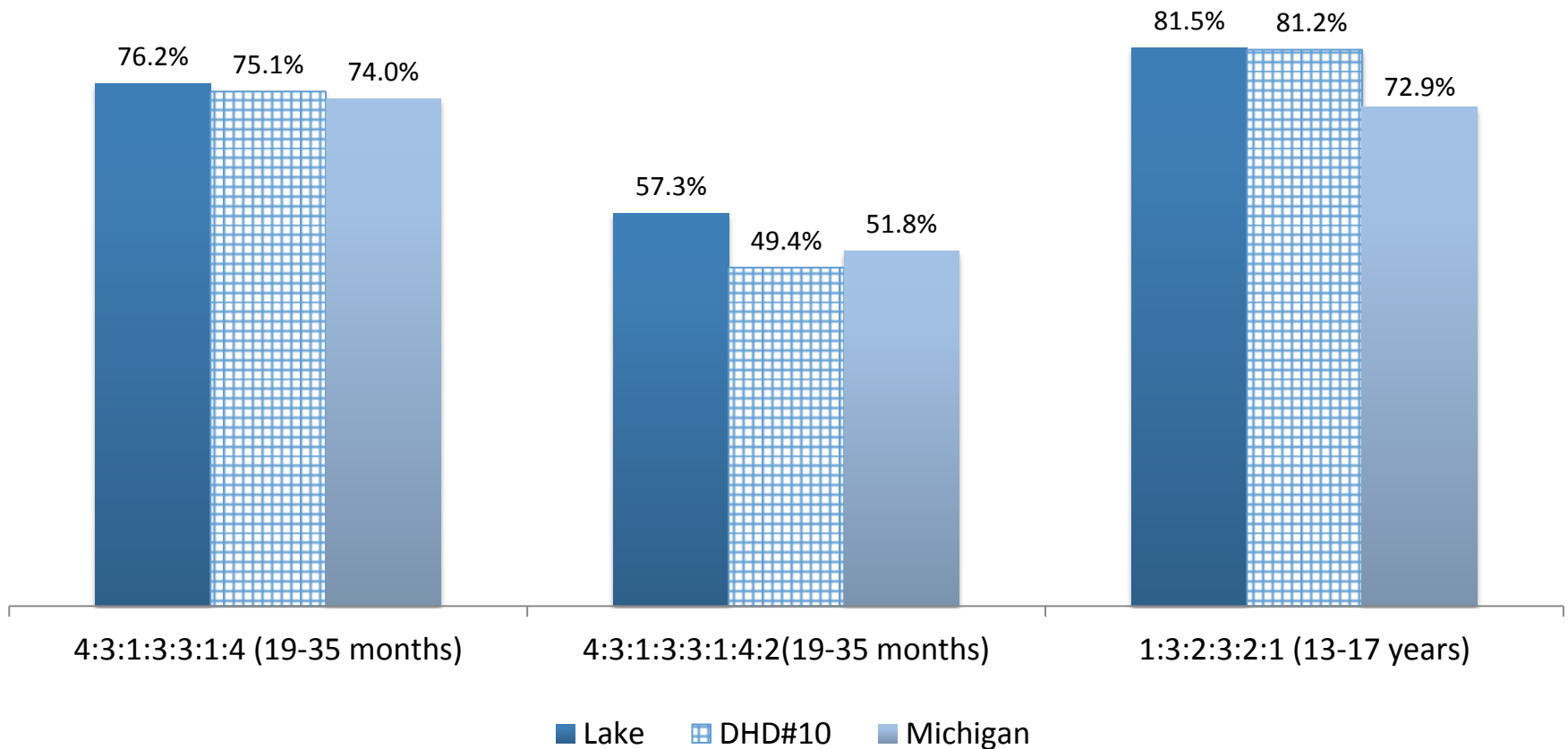| Condition	Lake	DHD#10	Michigan
High cholesterol	42.9%	32.2%	
Arthritis	39.3%	31.3%	31.7%
High blood pressure	41.6%	33.4%	
Lifetime asthma	17.5%	16.0%	15.8%
Current asthma	13.1%	11.0%	11.0%
Mental/emotional problem	16.4%	13.9%	

Chronic Conditions, continued

Source: District Health Department #10 Behavioral Risk Factor Survey, 2014-2015 (County and District results)
Michigan Behavioral Risk Factor Surveillance System, 2014 (Michigan comparison)

Childhood Immunizations

- 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.

Source: MCIR (Michigan Care Improvement Registry) data, December 31, 2015.

Bar chart data:

4:3:1:3:3:1:4 (19-35 months)
- Lake: 76.2%
- DHD#10: 75.1%
- Michigan: 74.0%

4:3:1:3:3:1:4:2 (19-35 months)
- Lake: 57.3%
- DHD#10: 49.4%
- Michigan: 51.8%

1:3:2:3:2:1 (13-17 years)
- Lake: 81.5%
- DHD#10: 81.2%
- Michigan: 72.9%

Legend: ■ Lake   ⊞ DHD#10   ■ Michigan

HPV Compliance Rates

Percentages are based upon those males and females, ages 13-17, who have received the HPV series.

Source: MCIR (Michigan Care Improvement Registry).
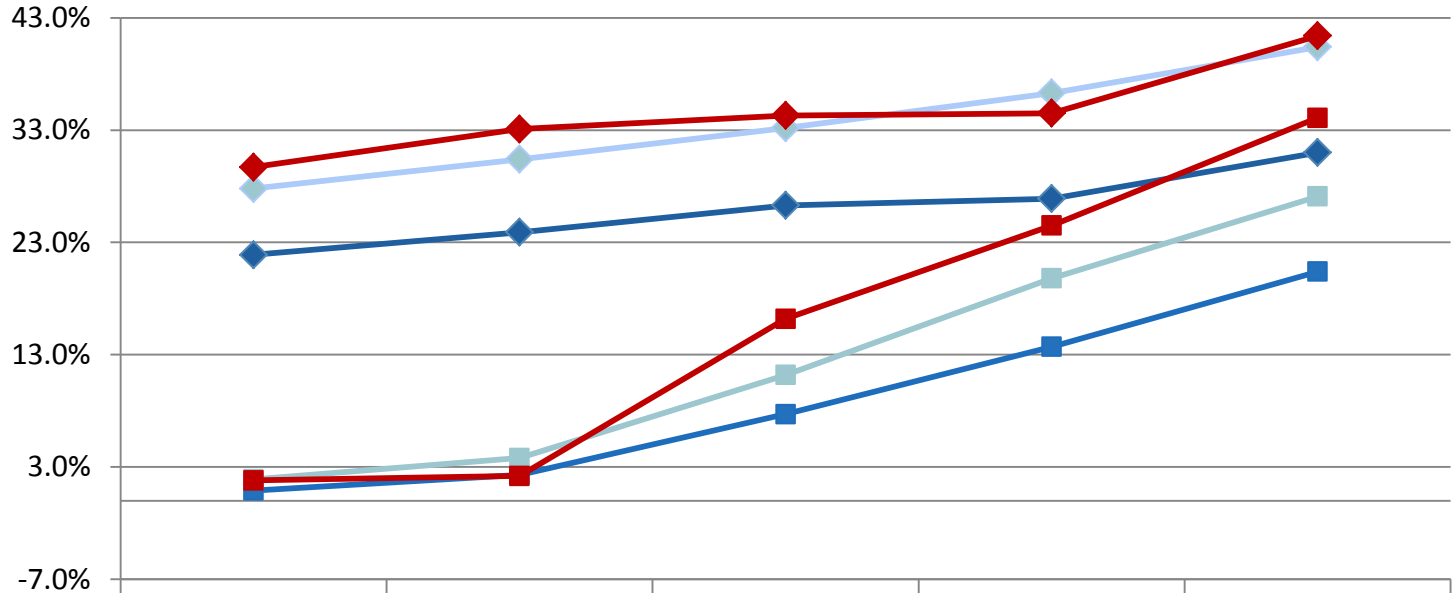
	January 2012	January 2013	January 2014	January 2015	January 2016
Michigan - Females	21.9%	23.9%	26.3%	26.9%	31.0%
Michigan - Males	0.9%	2.3%	7.7%	13.7%	20.4%
DHD10 - Females	27.8%	30.4%	33.2%	36.3%	40.4%
DHD10 - Males	1.9%	3.8%	11.2%	19.8%	27.1%
Lake - Females	29.7%	33.1%	34.3%	34.5%	41.4%
Lake - Males	1.8%	2.2%	16.2%	24.5%	34.1%

County Health Rankings

"County Health Rankings, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, measure the health of nearly all counties in the nation and rank them within states."

www.countyhealthrankings.org

Overall Ranking	Influencing Factors	Components	Ranking (out of 82 counties)
Health Outcomes			70
Represents how health 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	59
	Quality of Life	Poor or fair health; poor physical health days; poor mental health days; low birth weight	77
Health Factors			81
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	79
	Clinical Care	Uninsured; ratios of physicians, dentists and mental health providers to population; preventable hospital stays; diabetic monitoring; mammography screening	77
	Social and Economic Factors	Education; unemployment; poverty; children in single-parent households; social associations; violent crime; injury deaths	82
	Physical Environment	Air pollution; drinking water violations; severe housing problems; driving alone to work and long commute	40

Conclusions: BRFS

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

Conclusions: CHIP

Community Health Improvement Plan (CHIP) Successes

Significant progress has been made in 2015 toward our Community Health Improvement Plan goals. The information provided in the Chartbooks is essential in identifying areas of need in our communities as well as providing baseline measurements to determine if goals have been reached. The following are examples of the progress achieved in each of the four areas:

Poverty
- Number of residents with health insurance has increased from 80% in 2012 to 91% in 2015.

Access to Preventive Care
- Adolescent health centers were opened in Grayling and Shelby schools.
- STD clinics have been established in all ten counties.
- HPV immunization rates for females age 13-17 have increased from 27.8% in 2012 to 37.2% in 2015 and rates for males increased from 1.9% to 21.4%.

Promotion of Healthy Lifestyle and Behavior
- Rates of obesity and overweight decreased from 70.2% in 2012 to 68.9% in 2015.
- Three communities hosted Call to Action Summits on overweight and obesity; Enhancements to trails and parks were completed in Lake County; no leisure time physical activity decreased from 26.1% to 25%.
- Walking challenges, worksite programs, and health eating policies were provided throughout the ten county area.

Creation and Maintenance of Healthy Communities
- Cadillac City Council passed a Tobacco-free Outdoor Recreation Area Resolution for city parks, walking and bike trails, playgrounds, fishing piers, athletic fields, and skate park.
- A food policy council was established in Lake County.
- Local community health coalitions have now been established in all ten counties and the Regional Northwest Michigan Chronic Disease Prevention Coalition has been re-established to address high rates of chronic diseases across the jurisdiction.