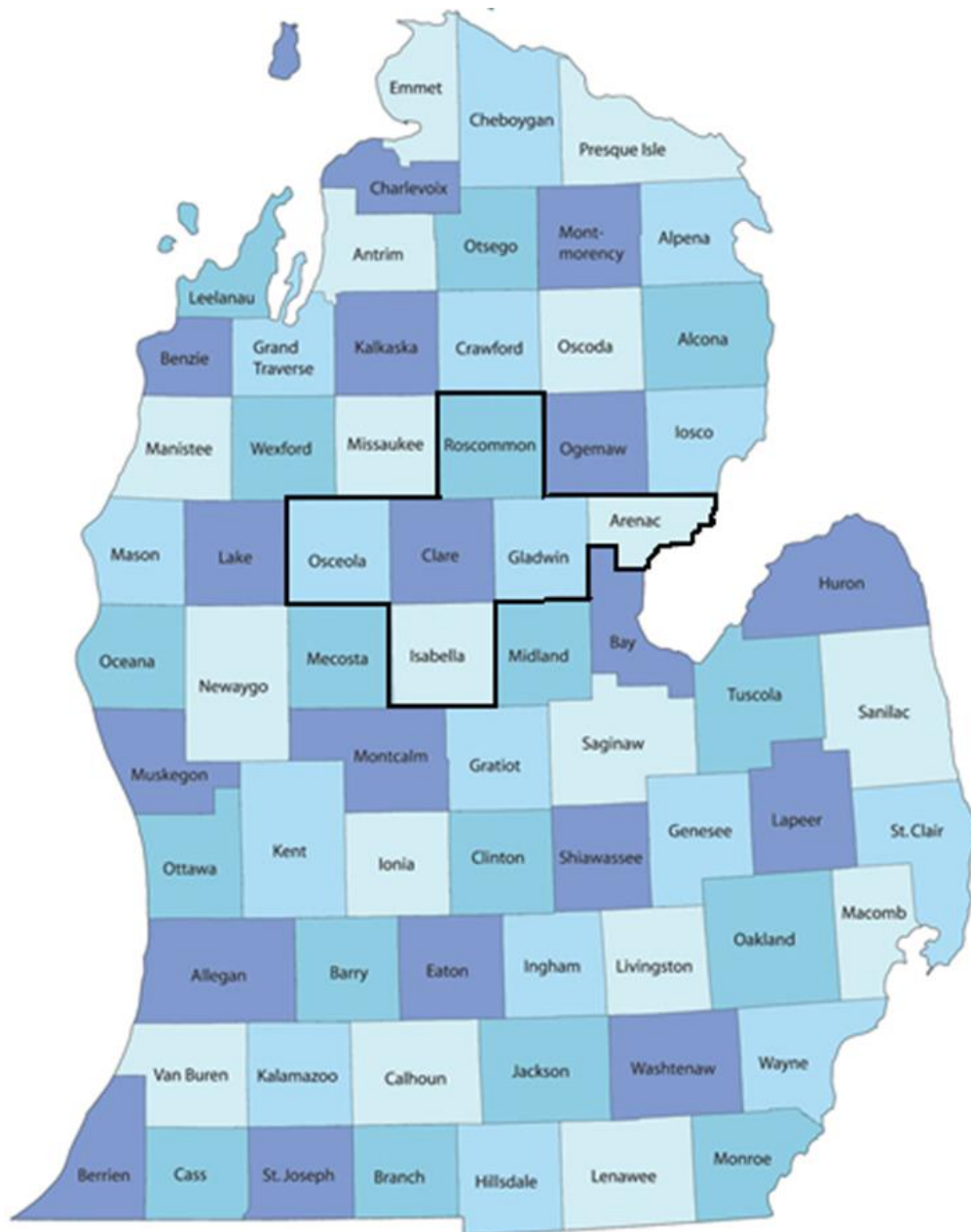


# Central Michigan Region Health Indicators Report

## Part Four: Clinical Care Data



July 2015

# Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

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## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Introduction

This report provides health indicator data for the residents of the central Michigan region which includes the Michigan counties of Arenac, Clare, Gladwin, Isabella, Osceola, and Roscommon. The report comprises six parts each in a separate volume.

**Part One: Demographic Data** - Current population demographics and changes in demographic composition over time play a determining role in the types of health and social services needed by communities.

**Part Two: Social and Economic Data** – Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community's ability to engage in healthy behaviors.

**Part Three: Physical Environment Data** - A community's health also is affected by the physical environment. A safe, clean environment that provides access to healthy food and recreational opportunities is important to maintaining and improving community health.

**Part Four: Clinical Care Data** - A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of those who are not insured, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access.

**Part Five: Health Behavior Data** - Health behaviors such as poor diet, a lack of exercise, and substance abuse contribute to poor health status.

**Part Six: Health Outcome Data** - Measuring morbidity and mortality rates allows assessing linkages between social determinants of health and outcomes. By comparing the prevalence of certain chronic diseases to indicators in other categories with outcomes, various causal relationships may emerge, allowing a better understanding of how certain community health needs may be addressed.

The report was prepared with data and information provided by [Community Commons](#) on July 23, 2015. Please see [Health Indicators Report footnotes](#) for information about the data background, analysis methodologies and other related notes.

This document was produced by the Central Michigan District Health Department under a project supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number P10RH28456 for Rural Health Network Development Planning for \$98,864. This information and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsement be inferred by HRSA, HHS, or the U.S. Government.

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Clinical Care Data

A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of those who are not insured, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access.

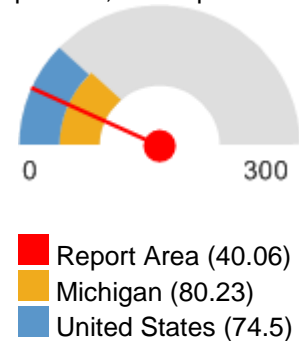
Rates of morbidity, mortality, and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests, and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

### Access to Primary Care

This indicator reports the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing sub-specialties within the listed specialties are excluded. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Total Population, 2012	Primary Care Physicians, 2012	Primary Care Physicians, Rate per 100,000 Pop.
Report Area	189,713	76	40.06
Arenac County, MI	15,477	5	32.31
Clare County, MI	30,753	10	32.52
Gladwin County, MI	25,484	10	39.24
Isabella County, MI	70,617	35	49.56
Osceola County, MI	23,276	8	34.37
Roscommon County, MI	24,106	8	33.19
Michigan	9,883,360	7,929	80.23
United States	313,914,040	233,862	74.5

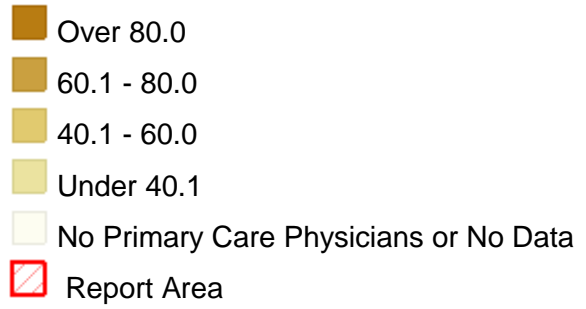
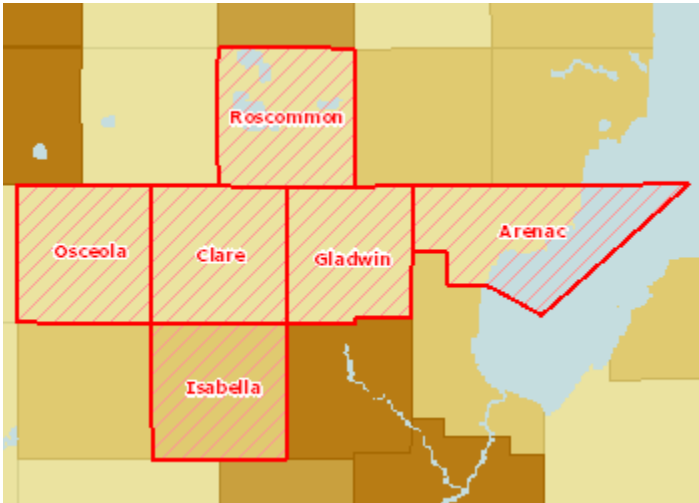
Primary Care Physicians, Rate per 100,000 Pop.



Data Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File. 2012. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

Access to Primary Care Physicians, Rate per 100,000 Pop. by County, AHRF 2012

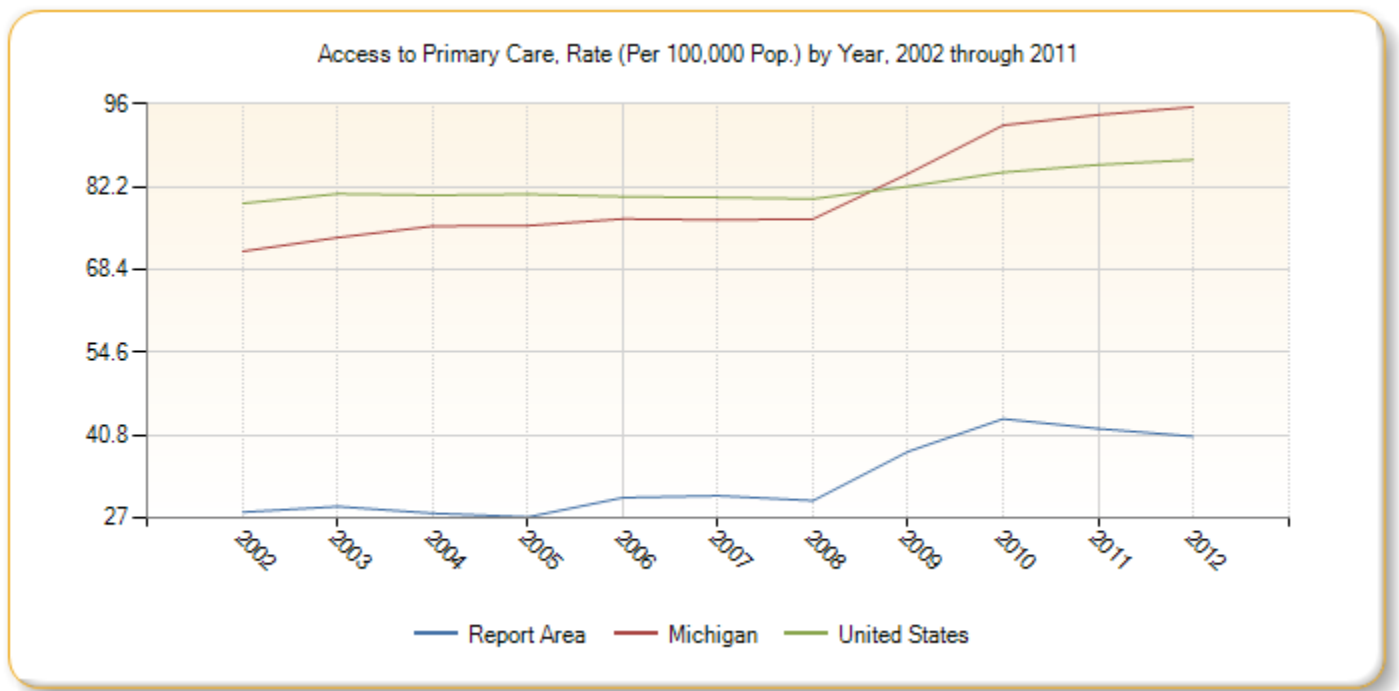


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Access to Primary Care, Rate (Per 100,000 Pop.) by Year, 2002 through 2011

This indicator reports the rate of primary care physicians per 100,000 population by year. This figure represents all primary care physicians practicing patient care, including hospital residents. In counties with teaching hospitals, this figure may differ from the rate reported above.

Report Area	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Report Area	27.97	28.91	27.78	27.16	30.4	30.7	29.89	38.07	43.5	41.87	40.59
Arenac County, MI	40.73	34.66	23.09	29.15	29.37	30.11	30.56	37.29	44.03	44.73	32.31
Clare County, MI	31.56	25.33	25.13	22.11	31.94	29.32	26.39	36.54	42.04	41.89	32.52
Gladwin County, MI	26.17	25.98	33.12	29.4	33.32	26.63	19.29	27.21	35.03	34.81	43.16
Isabella County, MI	24.8	27.84	29.47	28.96	31.91	34.49	37.44	46.15	51.2	49.56	49.56
Osceola County, MI	17.02	25.52	16.78	12.63	16.96	21.6	21.81	30.83	38.25	38.28	34.37
Roscommon County, MI	34.86	38.12	34.48	38.35	34.53	35.27	31.95	36.46	36.81	28.67	33.19
Michigan	71.43	73.72	75.61	75.7	76.83	76.65	76.81	84.35	92.41	94.15	95.47
United States	79.41	80.99	80.76	80.94	80.54	80.38	80.16	82.22	84.57	85.83	86.66



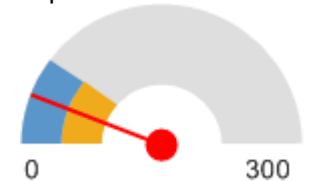
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Access to Dentists

This indicator reports the number of dentists per 100,000 population. This indicator includes all dentists - qualified as having a doctorate in dental surgery (D.D.S.) or dental medicine (D.M.D.), who are licensed by the state to practice dentistry and who are practicing within the scope of that license.

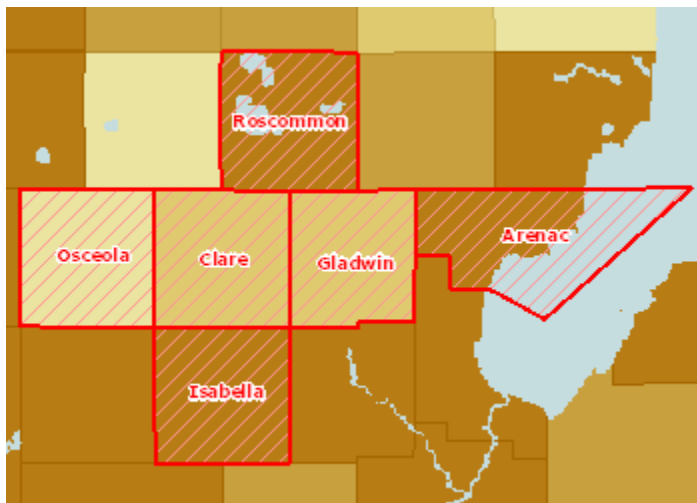
Report Area	Total Population, 2013	Dentists, 2013	Dentists, Rate per 100,000 Pop.
Report Area	189,258	67	35.4
Arenac County, MI	15,487	6	38.74
Clare County, MI	30,569	8	26.17
Gladwin County, MI	25,493	6	23.54
Isabella County, MI	70,436	33	46.85
Osceola County, MI	23,259	3	12.9
Roscommon County, MI	24,014	11	45.81
Michigan	9,895,622	6,663	67.33
United States	316,128,839	199,743	63.18

Dentists, Rate per 100,000 Pop.



- Report Area (35.4)
- Michigan (67.33)
- United States (63.18)

Data Source: US Department of Health Human Services, Health Resources and Services Administration, Area Health Resource File. 2013. Source geography: County



**Access to Dentists, Rate per 100,000 Pop. by County, AHRF 2013**

- Over 50.0
- 35.1 - 50.0
- 20.1 - 35.0
- Under 20.1
- No Dentists
- Report Area

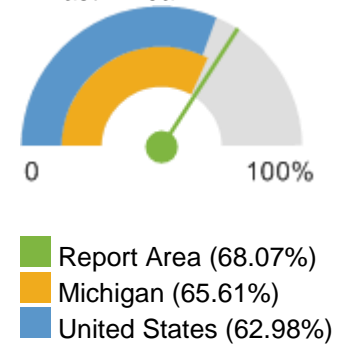
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Cancer Screening - Mammogram

This indicator reports the percentage of female Medicare enrollees, age 67-69 or older, who have received one or more mammograms in the past two years. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67-69	Female Medicare Enrollees with Mammogram in Past 2 Years	Percent Female Medicare Enrollees with Mammogram in Past 2 Year
Report Area	26,674	2,280	1,552	68.07%
Arenac County, MI	2,182	172	123	72.09%
Clare County, MI	5,264	463	303	65.44%
Gladwin County, MI	5,442	459	305	66.45%
Isabella County, MI	4,543	411	259	63.02%
Osceola County, MI	3,384	280	197	70.36%
Roscommon County, MI	5,859	495	364	73.54%
Michigan	940,574	76,285	50,049	65.61%
United States	53,131,712	4,402,782	2,772,990	62.98%

Percent Female Medicare Enrollees with Mammogram in Past 2 Year

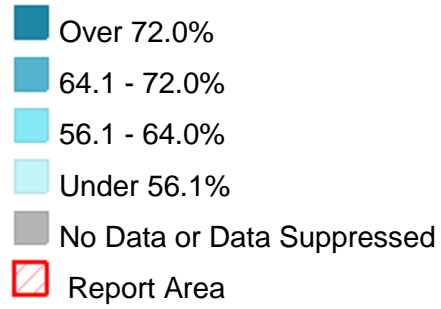
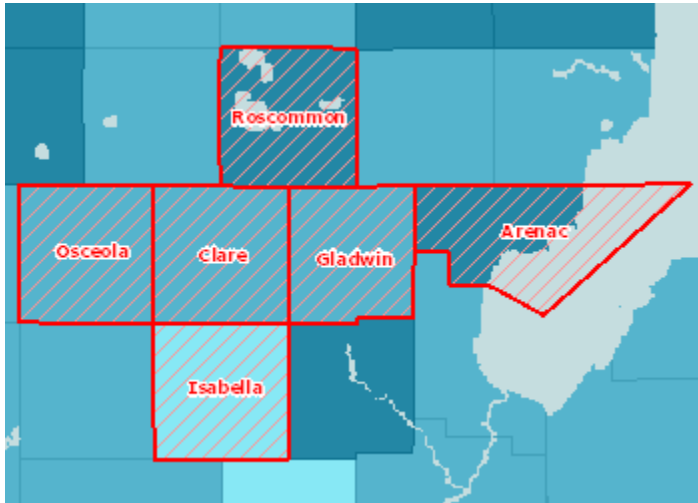


Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County



## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

**Mammogram (Past 2 Years), Percent of Female Medicare Enrollees, Age 67-69 by County, DA 2012**

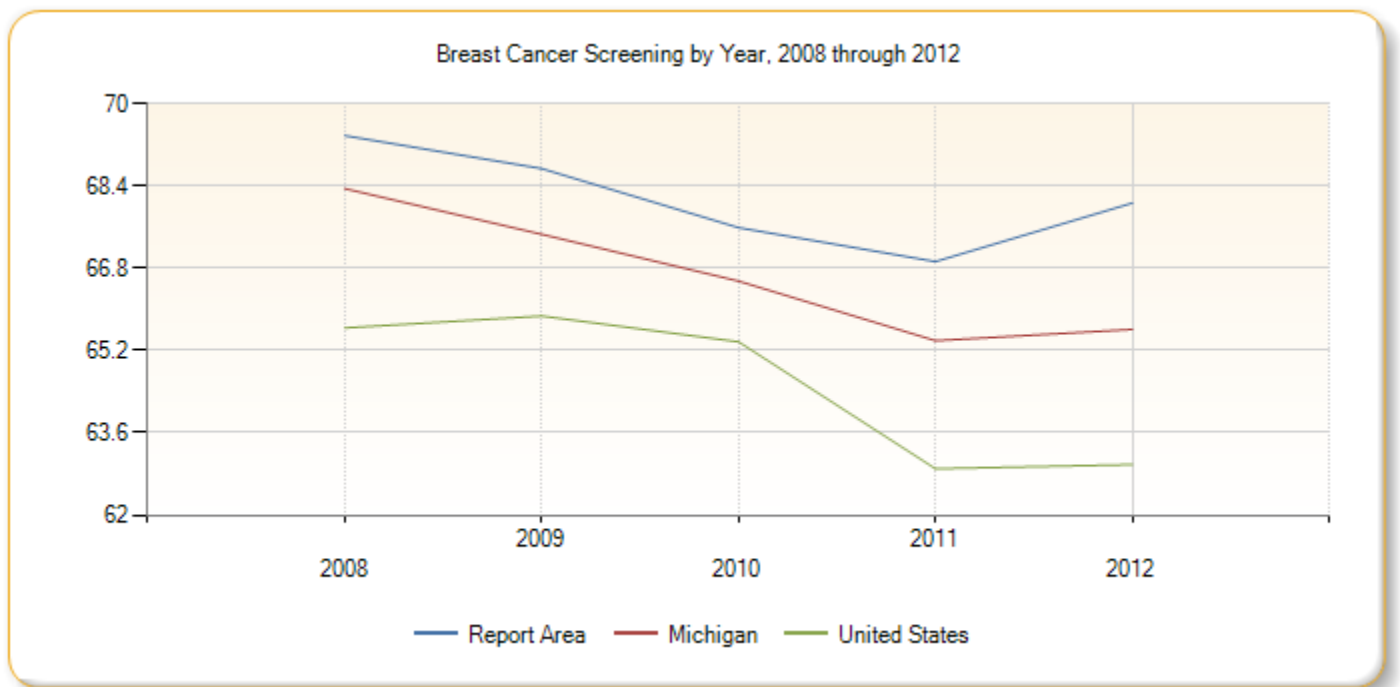


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Breast Cancer Screening by Year, 2008 through 2012

Percent of Female Medicare Beneficiaries Age 67-69 with Mammogram in Past 2 Years

Report Area	2008	2009	2010	2011	2012
Report Area	69.38	68.74	67.59	66.93	68.07
Arenac County, MI	73.33	69.55	69.15	71.16	72.09
Clare County, MI	64.82	64.91	62.05	63.42	65.44
Gladwin County, MI	67.7	70.18	68.15	67.32	66.45
Isabella County, MI	70.29	66.91	63.32	59.41	63.02
Osceola County, MI	68.54	70.99	72.63	74.07	70.36
Roscommon County, MI	73.47	70.51	71.16	69.71	73.54
Michigan	68.35	67.46	66.55	65.39	65.61
United States	65.64	65.87	65.37	62.9	62.98



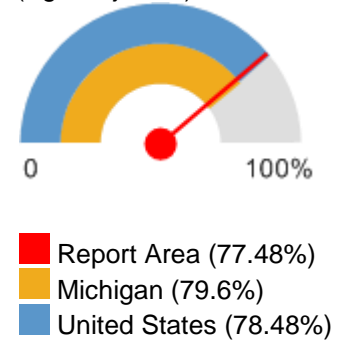
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Cancer Screening - Pap Test

This indicator reports the percentage of women aged 18 and older who self-report that they have had a Pap test in the past three years. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Female Population Age 18	Estimated Number with Regular Pap Test	Crude Percentage	Age-Adjusted Percentage
Report Area	145,833	103,009	77.11%	77.48%
Arenac County, MI	12,254	no data	suppressed	suppressed
Clare County, MI	23,818	18,245	76.6%	77.1%
Gladwin County, MI	20,188	16,272	80.6%	78.2%
Isabella County, MI	52,011	40,309	77.5%	78.5%
Osceola County, MI	17,354	12,946	74.6%	72.3%
Roscommon County, MI	20,208	15,237	75.4%	79%
Michigan	6,130,697	4,837,120	78.9%	79.6%
United States	176,847,182	137,191,142	77.58%	78.48%

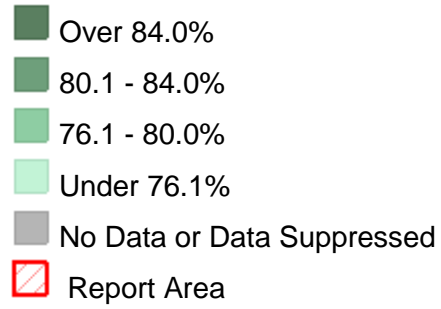
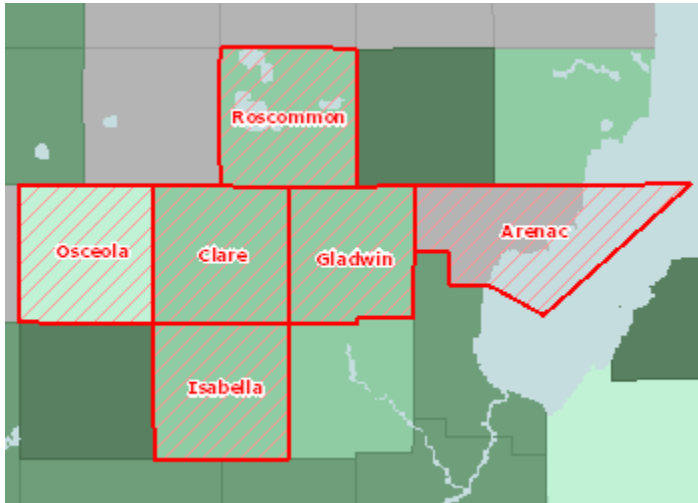
Percent Adults Females Age 18 with Regular Pap Test (Age-Adjusted)



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

**Cervical Cancer Screening (Past 3 Years), Percent of Women Age 18 by County, BRFSS 2006-12**

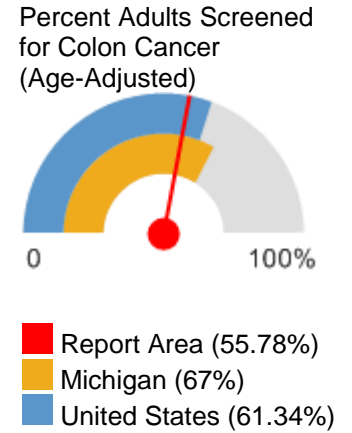


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Cancer Screening - Sigmoidoscopy or Colonoscopy

This indicator reports the percentage of adults 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

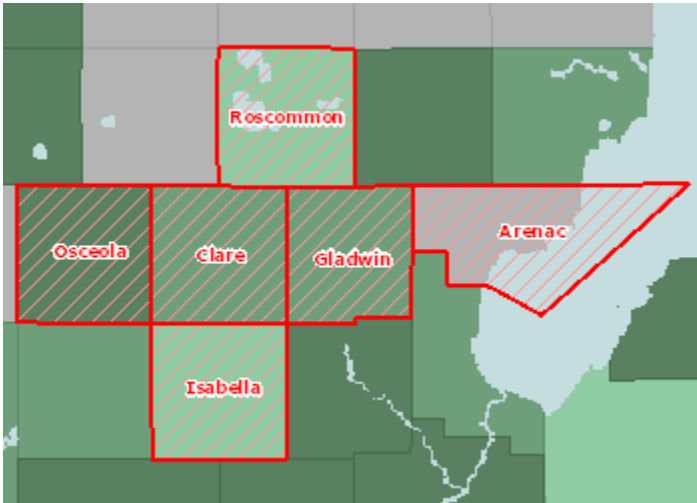
Report Area	Total Population Age 50	Estimated Population Ever Screened for Colon Cancer	Crude Percentage	Age-Adjusted Percentage
Report Area	57,876	32,596	62.5%	55.78%
Arenac County, MI	5,725	no data	suppressed	suppressed
Clare County, MI	10,865	6,910	63.6%	56.1%
Gladwin County, MI	9,909	6,104	61.6%	59.8%
Isabella County, MI	12,848	7,105	55.3%	51.3%
Osceola County, MI	7,153	5,071	70.9%	66.5%
Roscommon County, MI	11,376	7,406	65.1%	50.3%
Michigan	2,562,282	1,801,284	70.3%	67%
United States	75,116,406	48,549,269	64.63%	61.34%



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

**Colon Cancer Screening (Ever), Percent of Adults Age 50 by County, BRFSS 2006-12**



- Over 62.0%
- 55.1 - 62.0%
- 48.1 - 55.0%
- Under 48.1%
- No Data or Data Suppressed
- Report Area

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### HIV Screenings

This indicator reports the percentage of adults age 18-70 who self-report that they have never been screened for HIV. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Survey Population (Smokers Age 18 )	Total Adults Never Screened for HIV / AIDS	Percent Adults Never Screened for HIV / AIDS
Report Area	146,589	101,199	69.04%
Arenac County, MI	15,078	9,468	62.79%
Clare County, MI	23,804	17,168	72.12%
Gladwin County, MI	22,081	15,178	68.74%
Isabella County, MI	52,651	36,927	70.14%
Osceola County, MI	19,769	14,065	71.15%
Roscommon County, MI	13,206	8,393	63.56%
Michigan	6,451,470	4,031,670	62.49%
United States	214,984,421	134,999,025	62.79%

Percent Adults Never Screened for HIV / AIDS

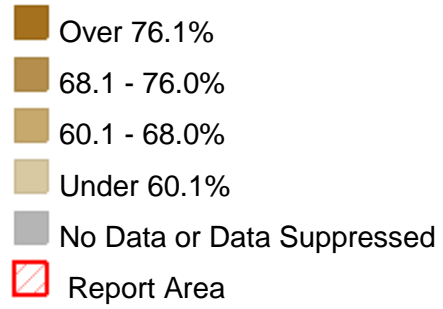
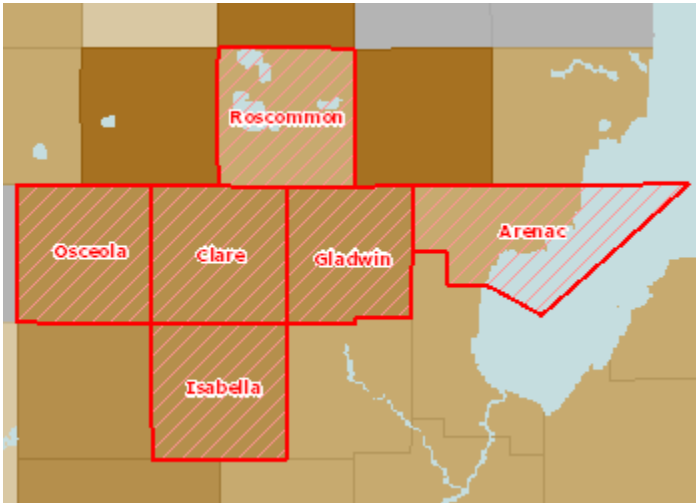


- Report Area (69.04%)
- Michigan (62.49%)
- United States (62.79%)

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

Adults Age 18 Never Screened for HIV / AIDS,  
Percent by County, BRFSS 2011-12



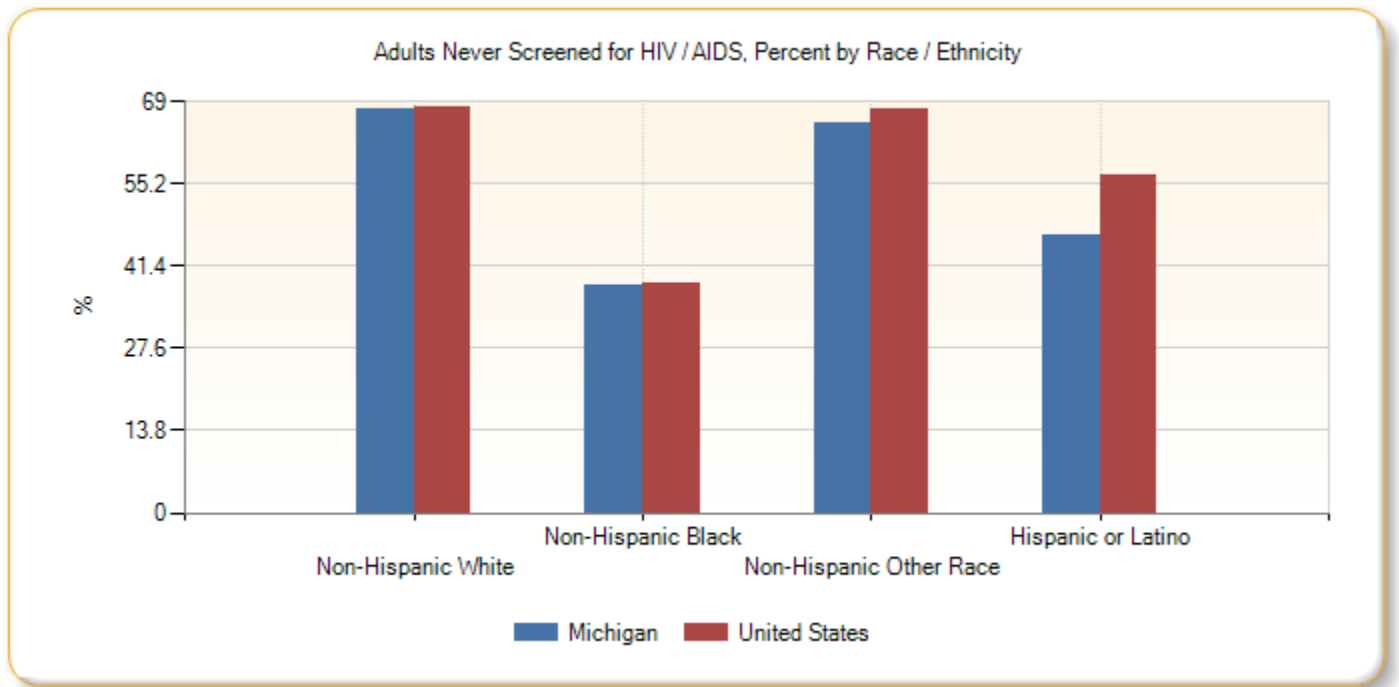


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Adults Never Screened for HIV / AIDS, Percent by Race / Ethnicity

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Michigan	67.68%	38.3%	65.2%	46.6%
United States	68.19%	38.56%	67.84%	56.71%

*Note: No county data available. See FOOTNOTES for more details.*



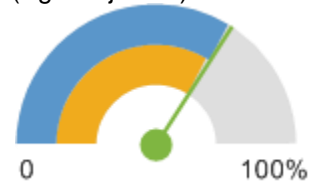
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Pneumonia Vaccination

This indicator reports the percentage of adults aged 65 and older who self-report that they have ever received a pneumonia vaccine. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population Age 65	Estimated Population with Annual Pneumonia Vaccination	Crude Percentage	Age-Adjusted Percentage
Report Area	32,503	19,446	68.11%	68.33%
Arenac County, MI	3,285	2,158	65.7%	65.9%
Clare County, MI	6,133	4,428	72.2%	72.9%
Gladwin County, MI	5,754	4,034	70.1%	70.9%
Isabella County, MI	6,623	4,576	69.1%	68.5%
Osceola County, MI	3,952	no data	suppressed	suppressed
Roscommon County, MI	6,756	4,250	62.9%	63%
Michigan	1,341,522	897,478	66.9%	67%
United States	39,608,820	26,680,462	67.36%	67.51%

Percent Population Age 65 with Pneumonia Vaccination (Age-Adjusted)

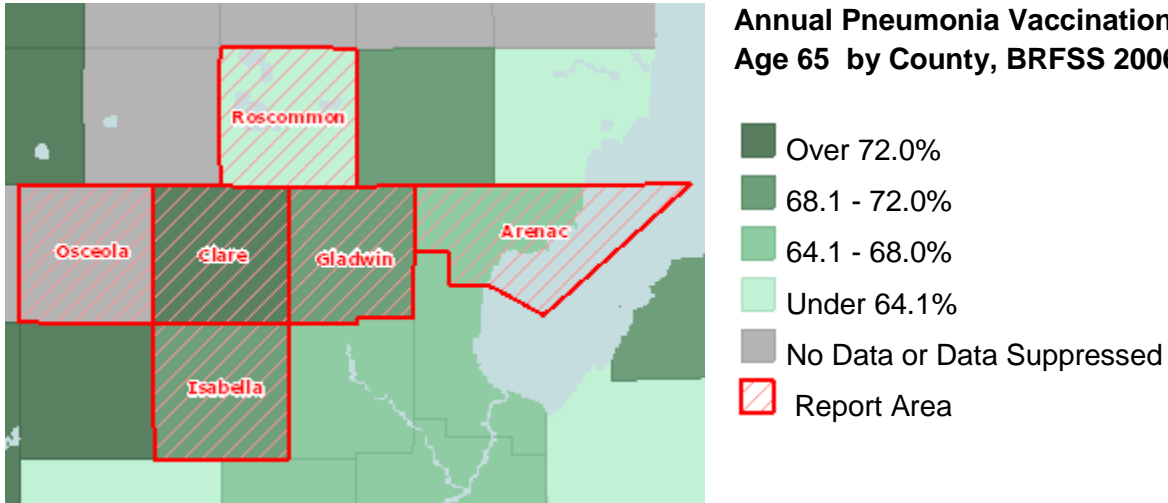


- Report Area (68.33%)
- Michigan (67%)
- United States (67.51%)

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

Annual Pneumonia Vaccination, Percent of Adults Age 65 by County, BRFSS 2006-12



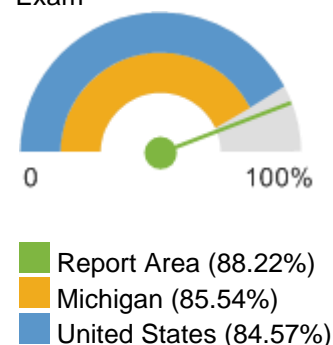
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Diabetes Management - Hemoglobin A1c Test

This indicator reports the percentage of diabetic Medicare patients who have had a hemoglobin A1c (hA1c) test, a blood test which measures blood sugar levels, administered by a health care professional in the past year. In the report area, 3,662 Medicare enrollees with diabetes have had an annual exam out of 4,151 Medicare enrollees in the report area with diabetes, or 88.22%. This indicator is relevant because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

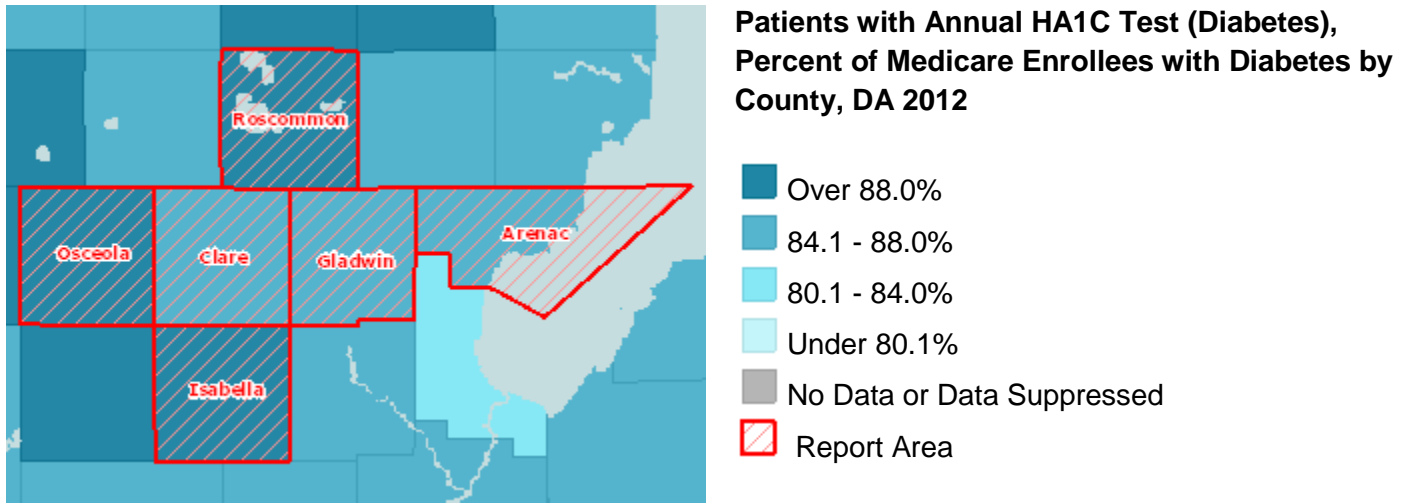
Report Area	Total Medicare Enrollees	Medicare Enrollees with Diabetes	Medicare Enrollees with Diabetes with Annual Exam	Percent Medicare Enrollees with Diabetes with Annual Exam
Report Area	26,674	4,151	3,662	88.22%
Arenac County, MI	2,182	325	286	88%
Clare County, MI	5,264	873	768	87.97%
Gladwin County, MI	5,442	817	700	85.68%
Isabella County, MI	4,543	708	623	88.14%
Osceola County, MI	3,384	517	455	88.01%
Roscommon County, MI	5,859	911	828	91%
Michigan	940,574	126,208	107,952	85.54%
United States	53,131,712	6,517,150	5,511,632	84.57%

Percent Medicare Enrollees with Diabetes with Annual Exam



Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

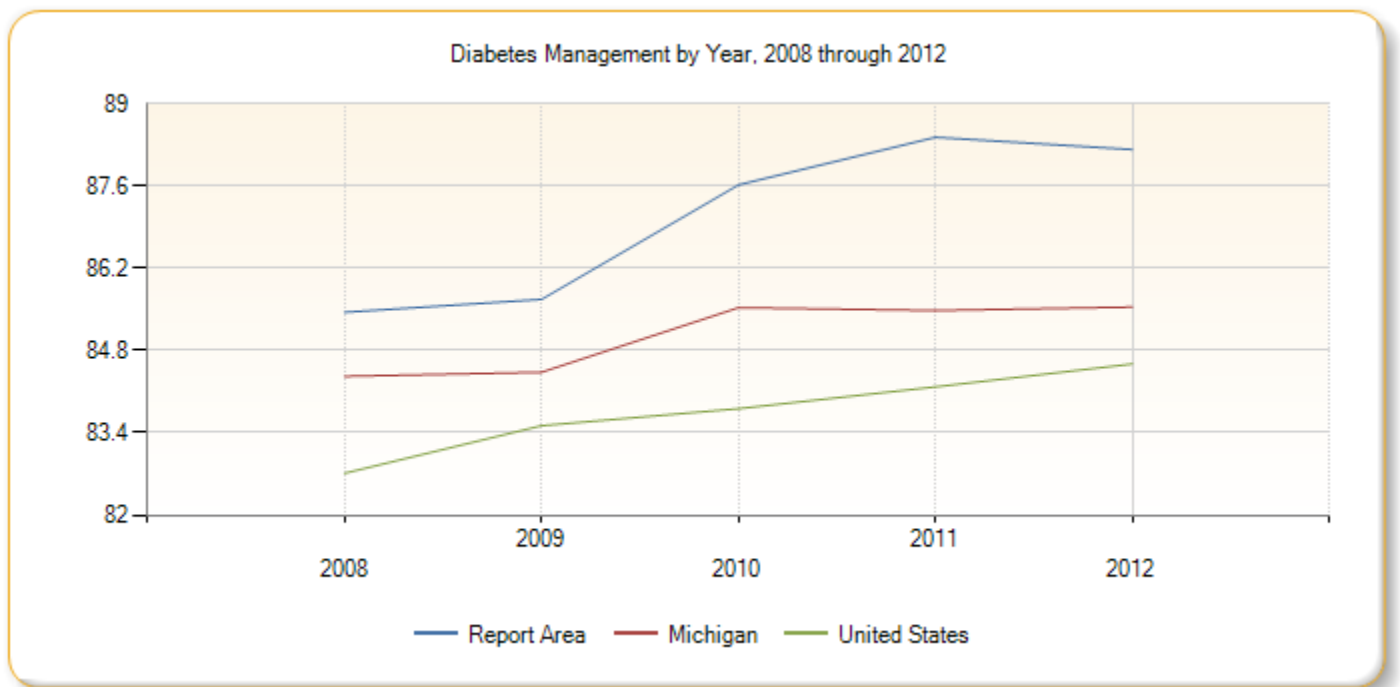


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Diabetes Management by Year, 2008 through 2012

Percent of Medicare Beneficiaries with Diabetes with Annual Hemoglobin A1c Test

Report Area	2008	2009	2010	2011	2012
Report Area	85.45	85.67	87.62	88.43	88.22
Arenac County, MI	85.12	84.79	85.44	86.27	88
Clare County, MI	86.23	85.08	86.92	87.8	87.97
Gladwin County, MI	82.92	83.26	86.74	87.32	85.68
Isabella County, MI	86.09	84.65	88.19	88.54	88.14
Osceola County, MI	84.5	87.53	87.36	90.02	88.01
Roscommon County, MI	87.06	88.14	89.67	89.97	91
Michigan	84.36	84.43	85.53	85.48	85.54
United States	82.71	83.52	83.81	84.18	84.57



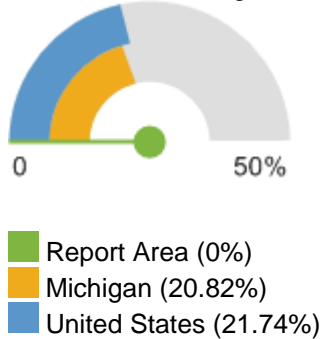
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### High Blood Pressure Management

In the report area, 0% of adults, or 0, self-reported that they are not taking medication for their high blood pressure according to the CDC's Behavioral Risk Factor Surveillance System (2006-2010). This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. When considered with other indicators of poor health, this indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Age 18 )	Total Adults Not Taking Blood Pressure Medication (When Needed)	Percent Adults Not Taking Medication
Report Area	153,672	0	0%
Arenac County, MI	13,190	no data	no data
Clare County, MI	24,496	no data	no data
Gladwin County, MI	20,683	no data	no data
Isabella County, MI	56,790	no data	no data
Osceola County, MI	17,795	no data	no data
Roscommon County, MI	20,718	no data	no data
Michigan	7,542,469	1,570,191	20.82%
United States	235,375,690	51,175,402	21.74%

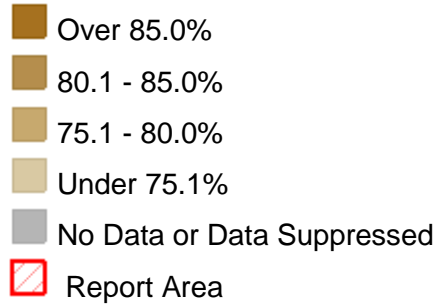
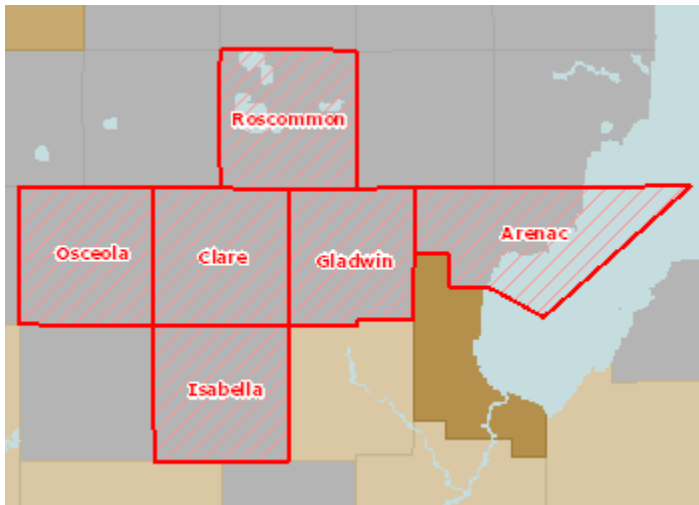
Percent Adults with High Blood Pressure Not Taking Medication



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-10. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

**Adults Age 18 with High Blood Pressure, Not Taking Medication, Percent by County, BRFSS 2006-10**



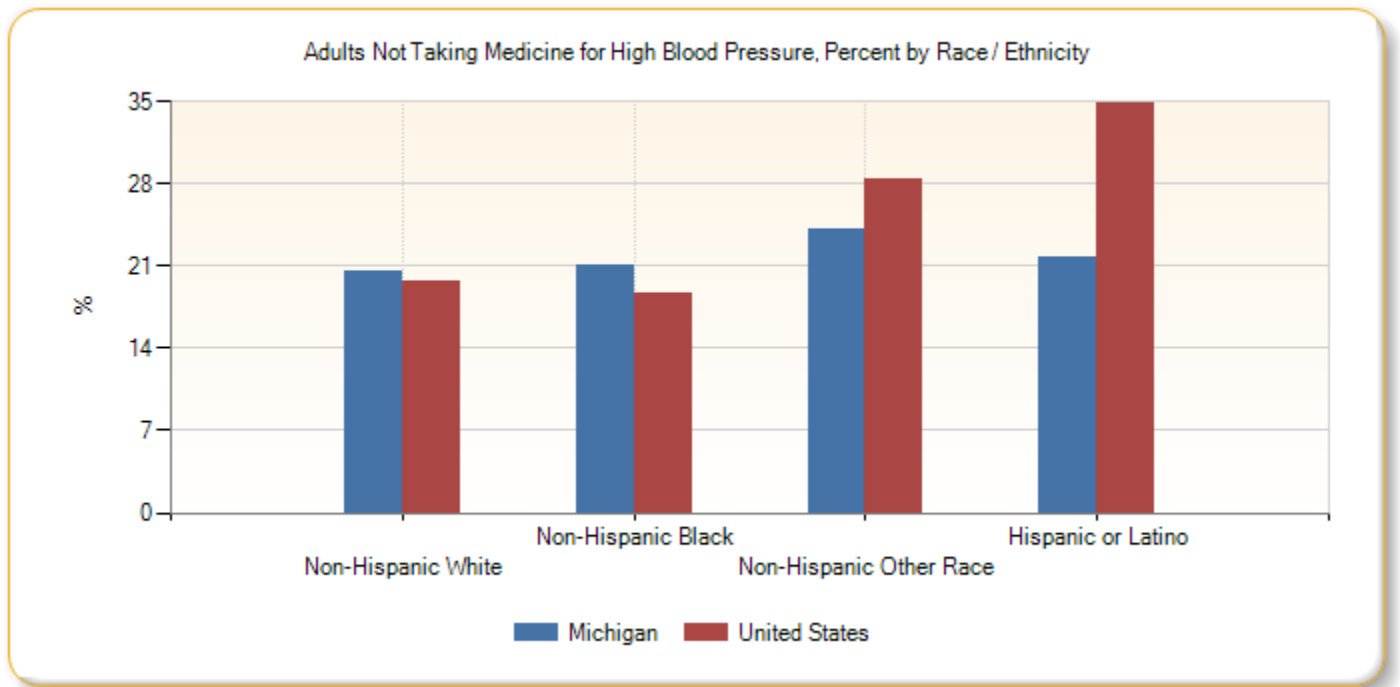


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Adults Not Taking Medicine for High Blood Pressure, Percent by Race / Ethnicity

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Michigan	20.53%	21.11%	24.17%	21.78%
United States	19.66%	18.65%	28.31%	34.86%

*Note: No county data available. See FOOTNOTES for more details.*



## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Dental Care Utilization

This indicator reports the percentage of adults aged 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year. This indicator is relevant because engaging in preventive behaviors decreases the likelihood of developing future health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

Report Area	Total Population (Age 18 )	Total Adults Without Recent Dental Exam	Percent Adults with No Dental Exam
Report Area	153,672	51,900	33.77%
Arenac County, MI	13,190	6,779	51.39%
Clare County, MI	24,496	11,170	45.6%
Gladwin County, MI	20,683	8,134	39.33%
Isabella County, MI	56,790	12,453	21.93%
Osceola County, MI	17,795	7,223	40.59%
Roscommon County, MI	20,718	6,141	29.64%
Michigan	7,542,469	1,920,252	25.46%
United States	235,375,690	70,965,788	30.15%

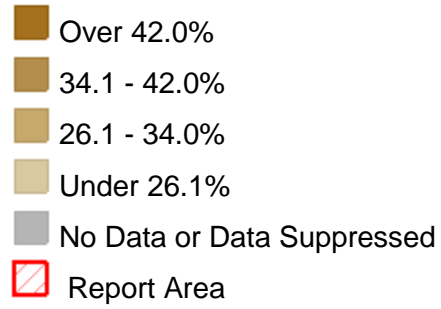
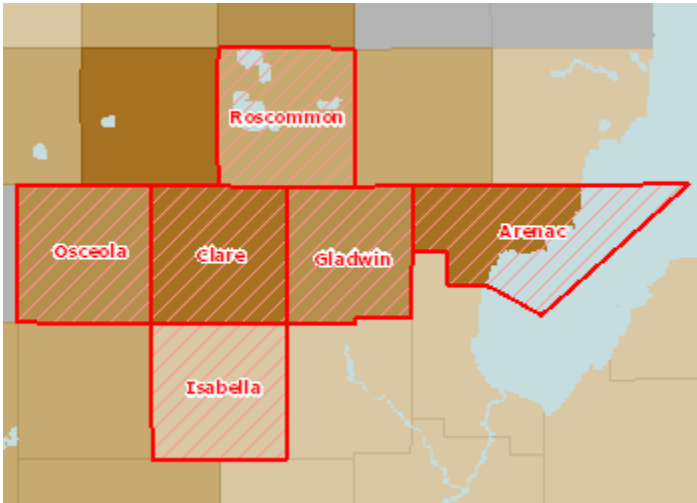
Percent Adults Without Recent Dental Exam



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2006-10. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

Adults Age 18 Without Dental Exam in Past 12 Months, Percent by County, BRFSS 2006-10

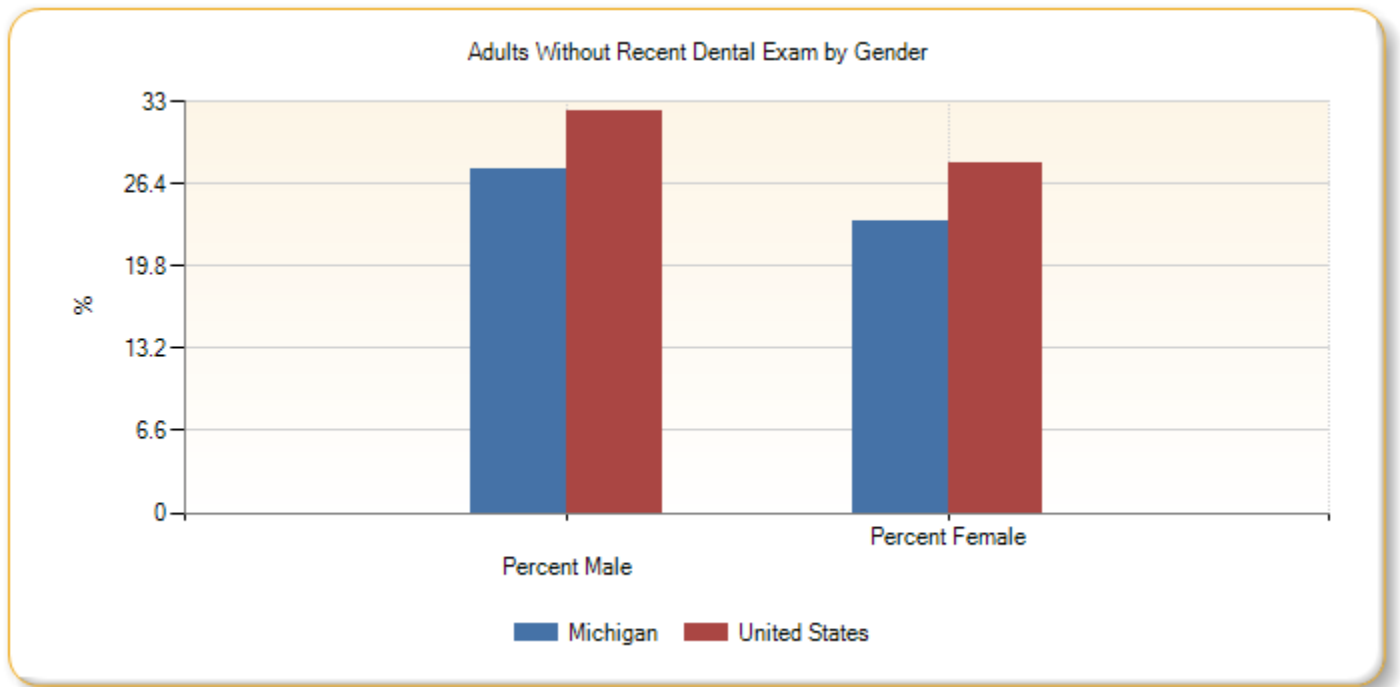


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Adults Without Recent Dental Exam by Gender

Report Area	Total Male	Total Female	Percent Male	Percent Female
Michigan	990,481	913,258	27.58%	23.46%
United States	36,311,042	34,083,921	32.3%	28.12%

*Note: No county data available. See FOOTNOTES for more details.*

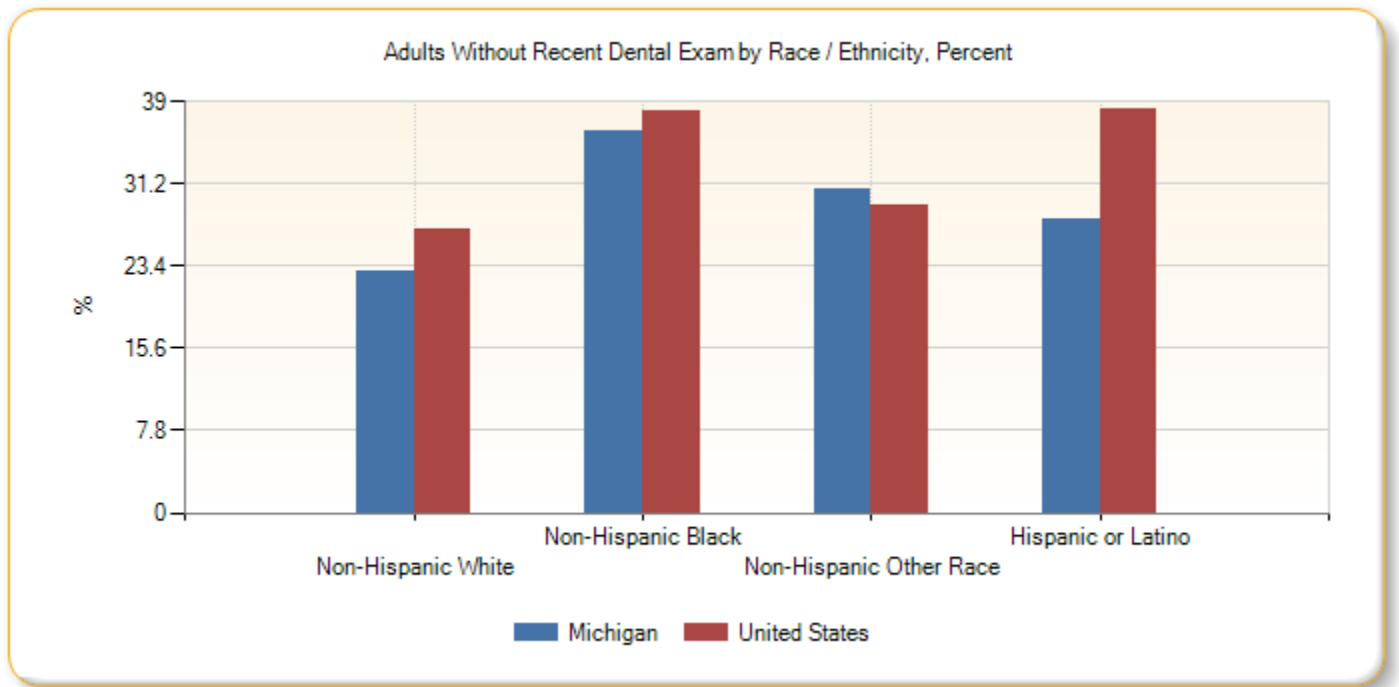


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Adults Without Recent Dental Exam by Race / Ethnicity, Percent

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Michigan	22.9%	36.25%	30.63%	27.9%
United States	26.96%	38.11%	29.23%	38.33%

*Note: No county data available. See FOOTNOTES for more details.*



## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

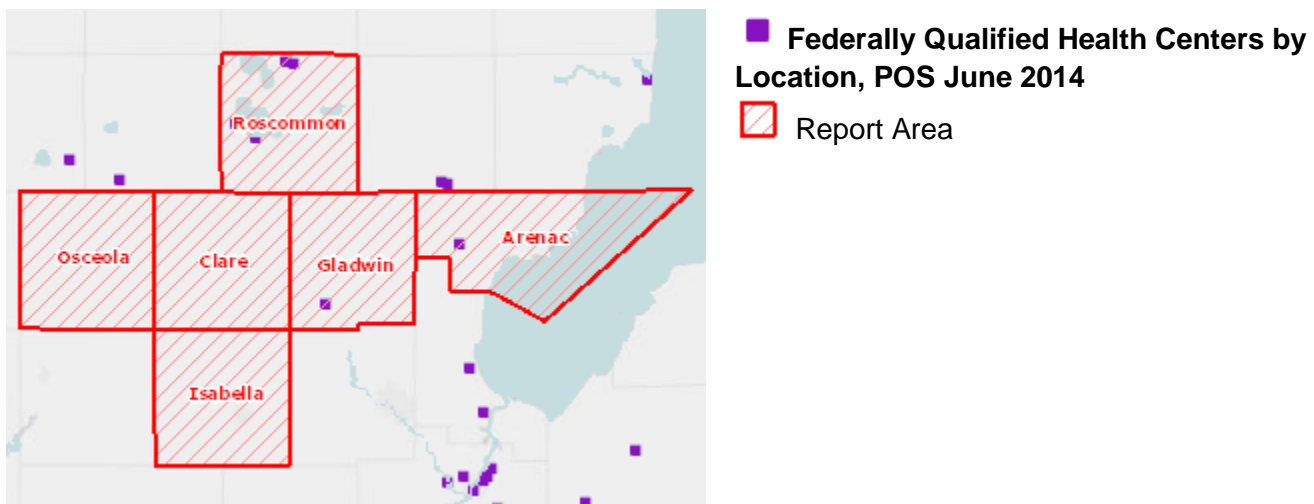
### Federally Qualified Health Centers

This indicator reports the number of Federally Qualified Health Centers (FQHCs) in the community. This indicator is relevant because FQHCs are community assets that provide health care to vulnerable populations; they receive extra funding from the federal government to promote access to ambulatory care in areas designated as medically underserved.

Report Area	Total Population	Number of Federally Qualified Health Centers	Rate of Federally Qualified Health Centers per 100,000 Population
Report Area	190,805	6	3.14
Arenac County, MI	15,899	1	6.29
Clare County, MI	30,926	0	0
Gladwin County, MI	25,692	1	3.89
Isabella County, MI	70,311	0	0
Osceola County, MI	23,528	0	0
Roscommon County, MI	24,449	4	16.36
Michigan	9,883,640	184	1.86
United States	312,471,327	6,011	1.92

*Note: This indicator is compared with the state average.*

*Data Source: US Department of Health Human Services, Center for Medicare Medicaid Services, Provider of Services File. June 2014. Source geography: Address*



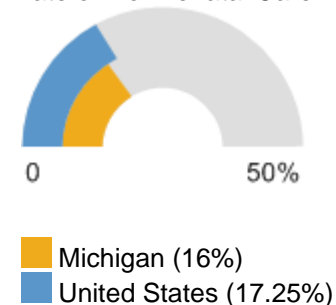
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Lack of Prenatal Care

This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.

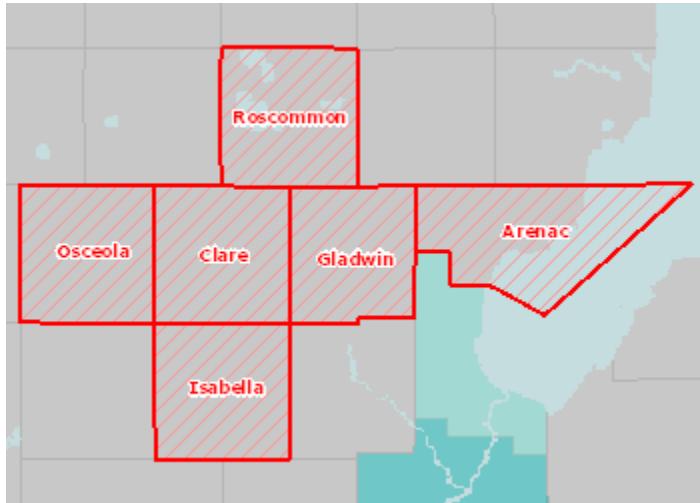
Report Area	Total Births	Mothers Starting Prenatal Care in First Semester	Mothers with Late or No Prenatal Care	Prenatal Care Not Reported	Percentage Mothers with Late or No Prenatal Care
Report Area	no data	no data	no data	no data	no data
Arenac County, MI	no data	no data	no data	no data	suppressed
Clare County, MI	no data	no data	no data	no data	suppressed
Gladwin County, MI	no data	no data	no data	no data	suppressed
Isabella County, MI	no data	no data	no data	no data	suppressed
Osceola County, MI	no data	no data	no data	no data	suppressed
Roscommon County, MI	no data	no data	no data	no data	suppressed
Michigan	478,213	264,280	76,532	137,401	16%
United States	16,693,978	7,349,554	2,880,098	6,464,326	17.25%

Percentage Mothers with Late or No Prenatal Care

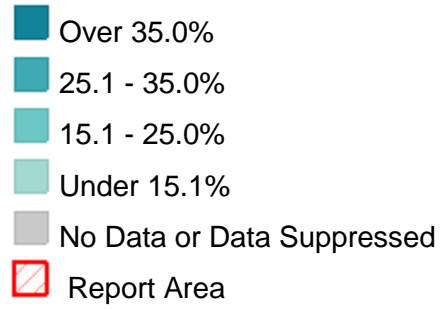


Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research. 2007-10. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data



**Mothers with Late or No Pre-Natal Care, Percent by County, NVSS 2007-10**





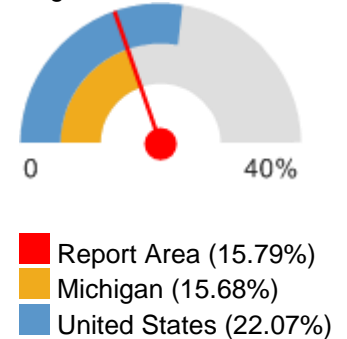
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Lack of a Consistent Source of Primary Care

This indicator reports the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as their personal doctor or health care provider. This indicator is relevant because access to regular primary care is important to preventing major health issues and emergency department visits.

Report Area	Survey Population (Adults Age 18 )	Total Adults Without Any Regular Doctor	Percent Adults Without Any Regular Doctor
Report Area	178,626	28,213	15.79%
Arenac County, MI	18,215	3,683	20.22%
Clare County, MI	28,587	4,412	15.43%
Gladwin County, MI	28,543	2,909	10.19%
Isabella County, MI	58,652	10,629	18.12%
Osceola County, MI	23,841	3,532	14.82%
Roscommon County, MI	20,788	3,048	14.67%
Michigan	7,439,962	1,166,949	15.68%
United States	236,884,668	52,290,932	22.07%

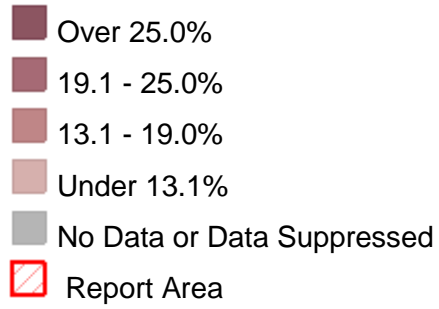
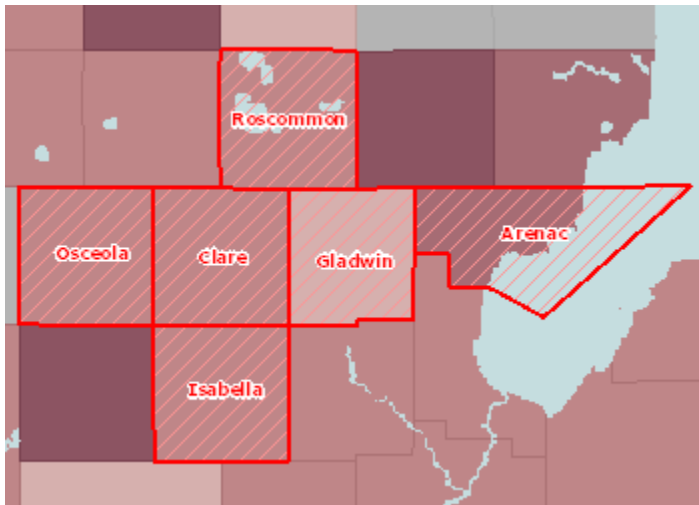
Percent Adults Without Any Regular Doctor



Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

**No Consistent Source of Primary Care, Percent of Adults Age 18 by County, BRFSS 2011-12**

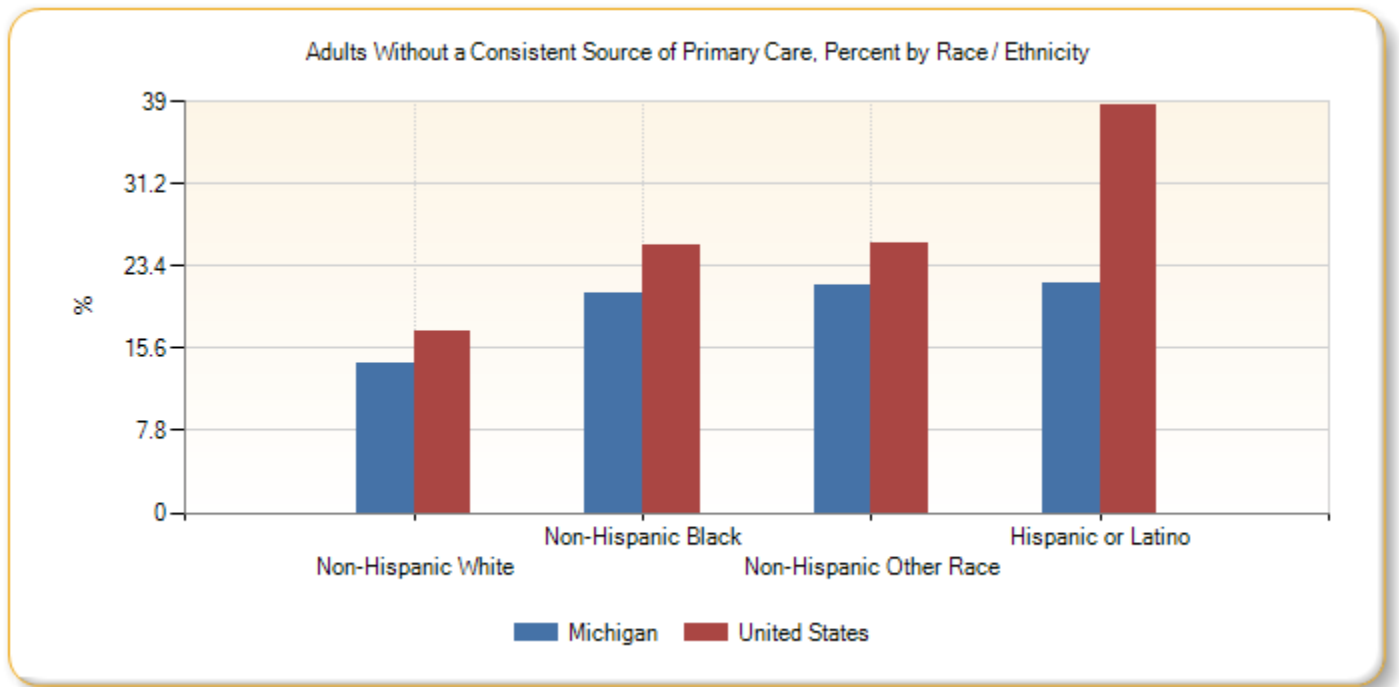


## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Adults Without a Consistent Source of Primary Care, Percent by Race / Ethnicity

Report Area	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic Other Race	Hispanic or Latino
Michigan	14.23%	20.79%	21.64%	21.84%
United States	17.15%	25.28%	25.47%	38.58%

*Note: No county data available. See FOOTNOTES for more details.*



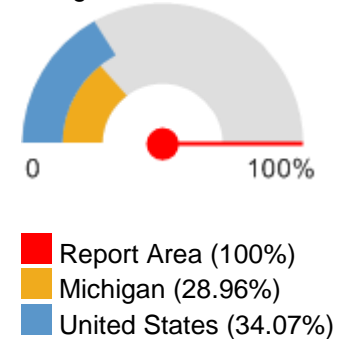
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Population Living in a Health Professional Shortage Area

This indicator reports the percentage of the population that is living in a geographic area designated as a "Health Professional Shortage Area" (HPSA), defined as having a shortage of primary medical care, dental or mental health professionals. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

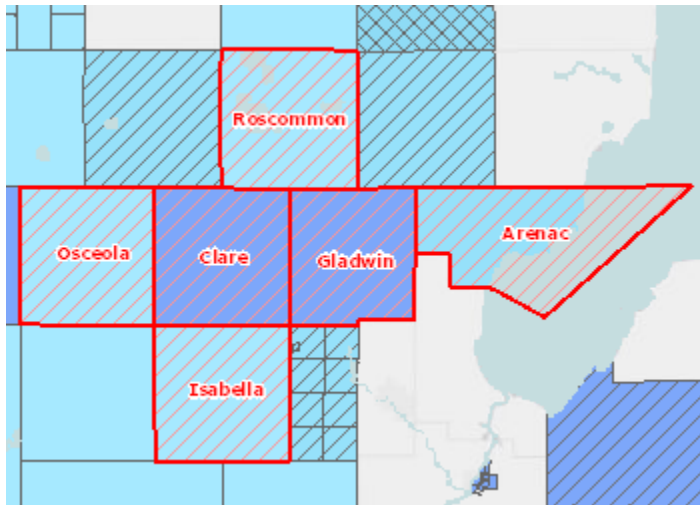
Report Area	Total Area Population	Population Living in a HPSA	Percentage of Population Living in a HPSA
Report Area	190,805	190,805	100%
Arenac County, MI	15,899	15,899	100%
Clare County, MI	30,926	30,926	100%
Gladwin County, MI	25,692	25,692	100%
Isabella County, MI	70,311	70,311	100%
Osceola County, MI	23,528	23,528	100%
Roscommon County, MI	24,449	24,449	100%
Michigan	9,883,640	2,861,865	28.96%
United States	308,745,538	105,203,742	34.07%

Percentage of Population Living in a HPSA










Data Source: US Department of Health Human Services, Health Resources and Services Administration, Health Professional Shortage Areas. March 2015. Source geography: HPSA

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data



**Primary Care HPSA Components, Type and Degree of Shortage by Tract / County, HRSA HPSA Database March 2015**

-  Population Group; Over 20.0 FTE Needed
-  Population Group; 1.1 - 20.0 FTE Needed
-  Population Group; Under 1.1 FTE Needed
-  Geographic Area; Over 20.0 FTE Needed
-  Geographic Area; 1.1 - 20.0 FTE Needed
-  Geographic Area; Under 1.1 FTE Needed
-  Report Area

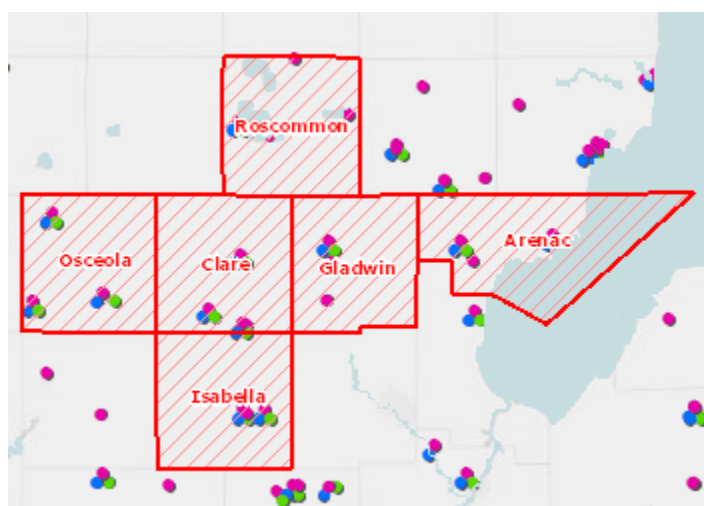
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Facilities Designated as Health Professional Shortage Areas

This indicator reports the number and location of health care facilities designated as "Health Professional Shortage Areas" (HPSAs), defined as having shortages of primary medical care, dental or mental health providers. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

Report Area	Primary Care Facilities	Mental Health Care Facilities	Dental Health Care Facilities	Total HPSA Facility Designations
Report Area	20	12	12	44
Arenac County, MI	3	2	2	7
Clare County, MI	4	3	3	10
Gladwin County, MI	3	1	1	5
Isabella County, MI	3	2	2	7
Osceola County, MI	3	3	3	9
Roscommon County, MI	4	1	1	6
Michigan	240	149	150	539
United States	3,427	3,060	2,915	8,810

*Data Source: US Department of Health Human Services, Health Resources and Services Administration, Health Professional Shortage Areas. March 2015. Source geography: Address*



**Facilities Designated as HPSAs by Location, HRSA HPSA Database March 2015**

- Primary Care
- Mental Health
- Dental Care
- Report Area

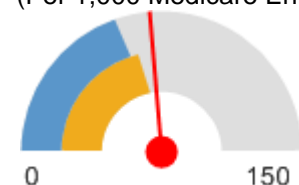
## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Preventable Hospital Events

This indicator reports the discharge rate (per 1,000 Medicare enrollees) for conditions that are ambulatory care sensitive (ACS). ACS conditions include pneumonia, dehydration, asthma, diabetes, and other conditions which could have been prevented if adequate primary care resources were available and accessed by those patients. This indicator is relevant because analysis of ACS discharges allows demonstrating a possible “return on investment” from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.

Report Area	Total Medicare Part A Enrollees	Ambulatory Care Sensitive Condition Hospital Discharges	Ambulatory Care Sensitive Condition Discharge Rate
Report Area	27,448	1,947	70.95
Arenac County, MI	2,231	201	90.46
Clare County, MI	5,395	410	76.03
Gladwin County, MI	5,542	438	79.15
Isabella County, MI	4,839	386	79.91
Osceola County, MI	3,480	170	48.99
Roscommon County, MI	5,961	339	56.98
Michigan	990,373	63,899	64.52
United States	58,209,898	3,448,111	59.24

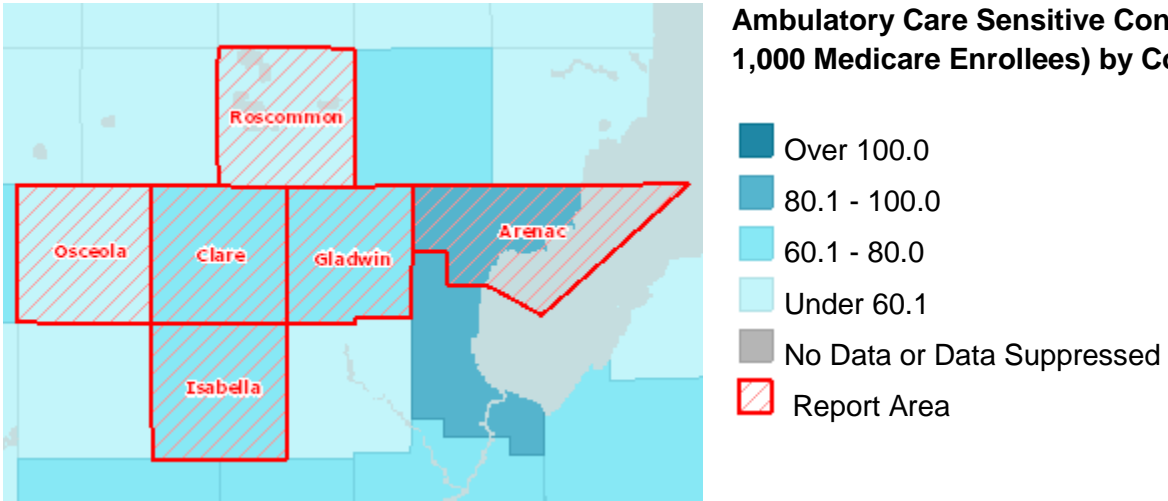
Preventable Hospital Events, Age-Adjusted Discharge Rate (Per 1,000 Medicare Enrollees)



Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2012. Source geography: County

## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

Ambulatory Care Sensitive Conditions, Rate (Per 1,000 Medicare Enrollees) by County, DA 2012





## Central Michigan Region Health Indicators Report - Part Four: Clinical Care Data

### Preventable Hospital Events by Year, 2008 through 2012

Rate of Ambulatory Care Sensitive Condition Discharges (per 1,000 Medicare Part A Beneficiaries)

Report Area	2008	2009	2010	2011	2012
Report Area	93.91	91.33	82.11	81.96	70.97
Arenac County, MI	112.7	117.44	90.6	93.25	90.54
Clare County, MI	114.47	104.24	90.06	91.83	76
Gladwin County, MI	99.34	101.23	95.66	92.67	79.21
Isabella County, MI	91.99	94.4	80.07	81.01	79.98
Osceola County, MI	62.46	58.66	63.01	59.67	48.85
Roscommon County, MI	80.99	75.82	73.19	72.74	57.04
Michigan	74.65	74.24	69.75	70.26	64.52
United States	70.5	68.16	66.58	64.92	59.29

