Maternal and Infant Health Statistics Prosperity Region 8, Michigan

Infant Mortality Rate (IMR) Prosperity Region 8 2010-2020

Infant Mortality Rate, Prosperity Region 8, 2010-2020

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.
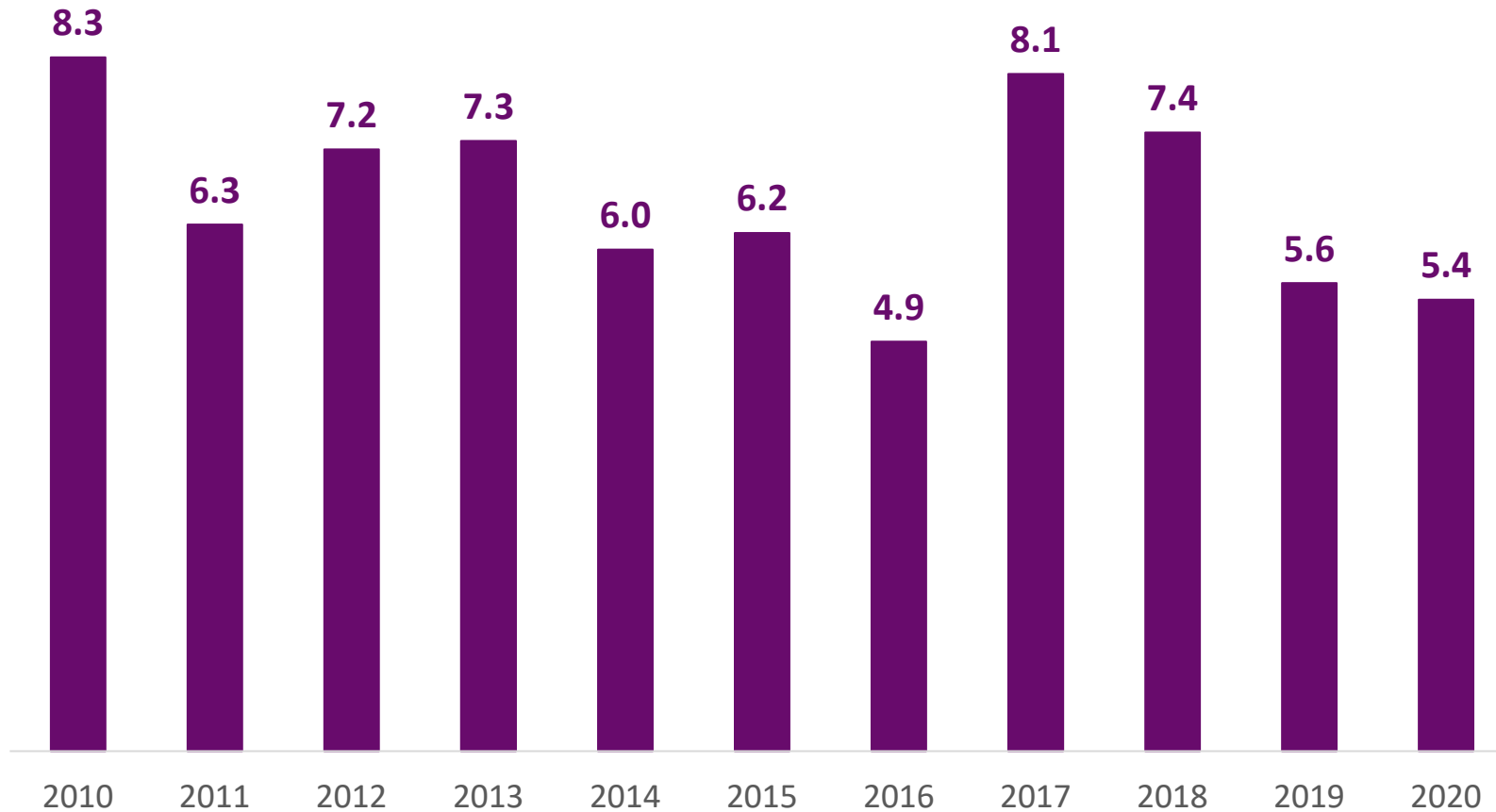
2020 Michigan Rate = 6.8

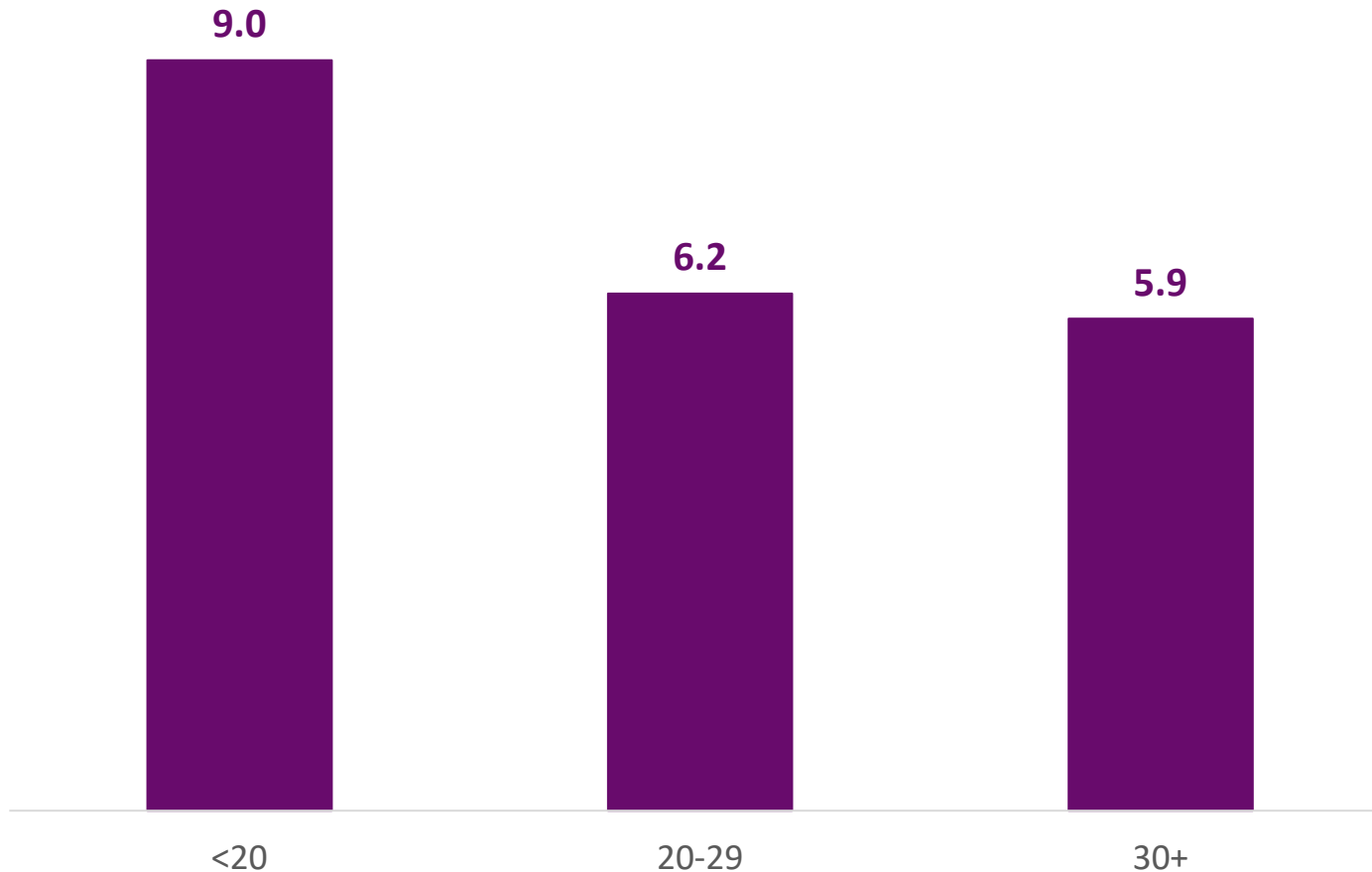| Year	# Infant Deaths	# Births	Rate
2010	79	9,565	8.3
2011	59	9,381	6.3
2012	66	9,147	7.2
2013	70	9,582	7.3
2014	57	9,470	6.0
2015	57	9,268	6.2
2016	45	9,131	4.9
2017	73	8,970	8.1
2018	66	8,915	7.4
2019	49	8,711	5.6
2020	45	8,298	5.4

Infant Mortality Rates by Maternal Race/Ethnicity, Prosperity Region 8, 2016-2020

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.

Maternal Race	# Infant Deaths	# Live Births		Infant Mortality Rate (per 1,000 Live Births)	MI
White Non-Hispanic	184	31,737	5.8	5.8	4.9
Black Non-Hispanic	68	6,214	10.9	10.9	13.6
Hispanic	13	3,736	3.5	3.5	5.6
American Indian	0	95	0		5.0
Asian/Pacific Islander	DNS	931	DNS	Data Not Sufficient (DNS): 0<N<6	4.1

Infant Mortality Rates by Maternal Age, Prosperity Region 8, 2016-2020

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.

| Maternal Age	# Infant Deaths	# Births	Rate	MI Rate
		REGION 8		MI
<20 years	25	2,792	9.0	10.1
20-29 years	150	24,131	6.2	7.1
30+ years	101	17,098	5.9	5.6

Infant Mortality Rates by Intended Payment Source, Prosperity Region 8, 2016-2020

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.

| Payment	# Infant Deaths	# Live Births		Infant Mortality Rate (per 1,000 Live Births)	MI
Private Insurance	116	20,747	5.6	5.6	4.8
Medicaid	149	21,370	7.0	7.0	8.8

Infant Mortality Rates by Census Tract, Prosperity Region 8, 2015-2019

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.
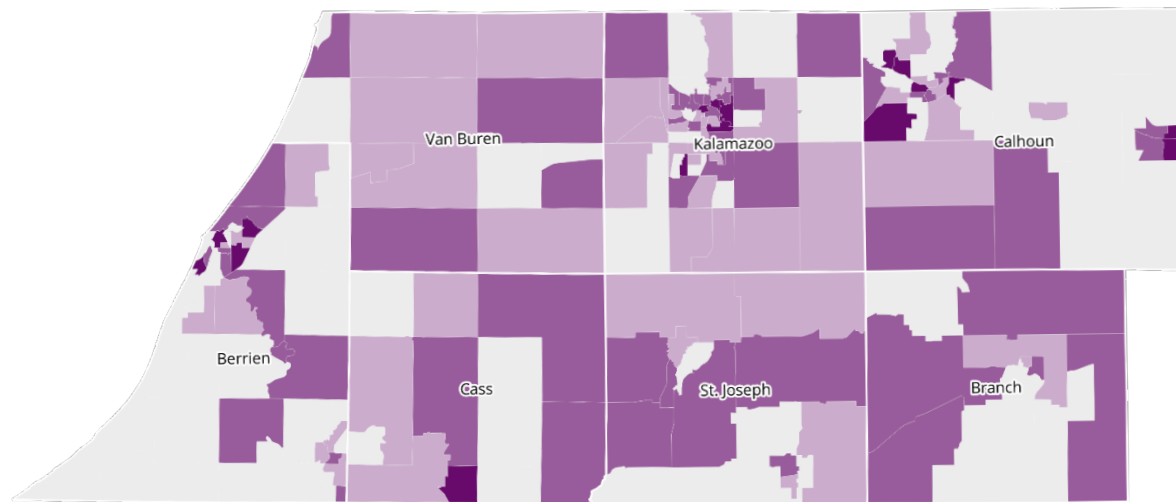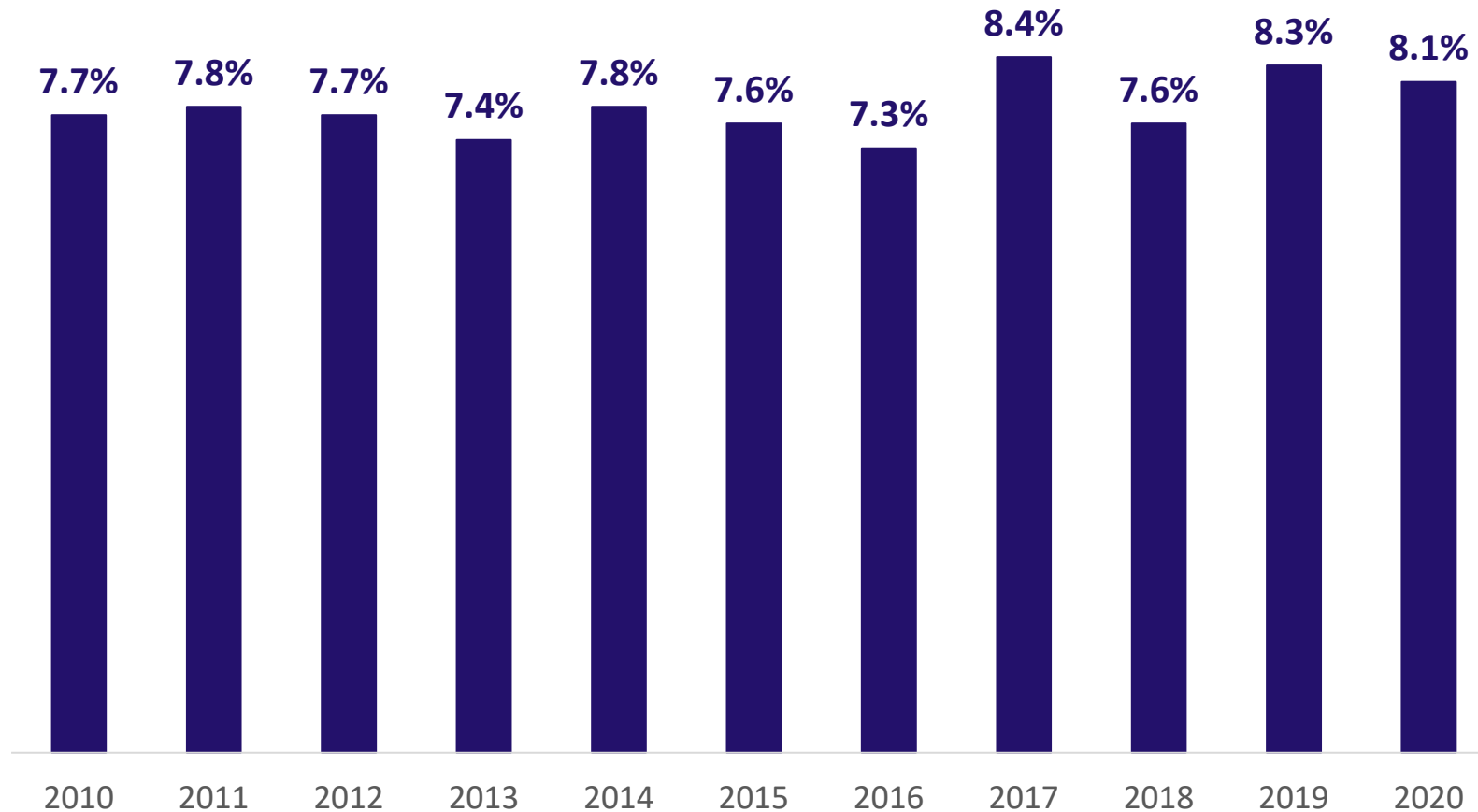

Infant Deaths per 1,000 Live Births

Infant mortality is defined as a death of a baby before his or her first birthday and is expressed as a rate per 1,000 live births.

| 0.1 | 6.6 | 14.4 | 55.0 |

No Live Births/Infant Deaths
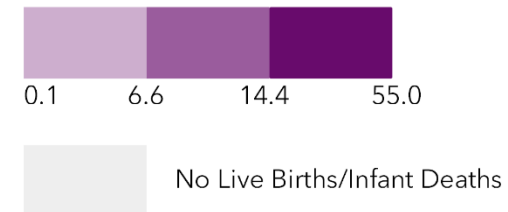
Low Birthweight (LBW) Prosperity Region 8 2010-2020

Low Birthweight, Prosperity Region 8, 2010-2020

Low birthweight rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.

Bar chart values by year:
- 2010: 7.7%
- 2011: 7.8%
- 2012: 7.7%
- 2013: 7.4%
- 2014: 7.8%
- 2015: 7.6%
- 2016: 7.3%
- 2017: 8.4%
- 2018: 7.6%
- 2019: 8.3%
- 2020: 8.1%

2020 Michigan = 9.0%

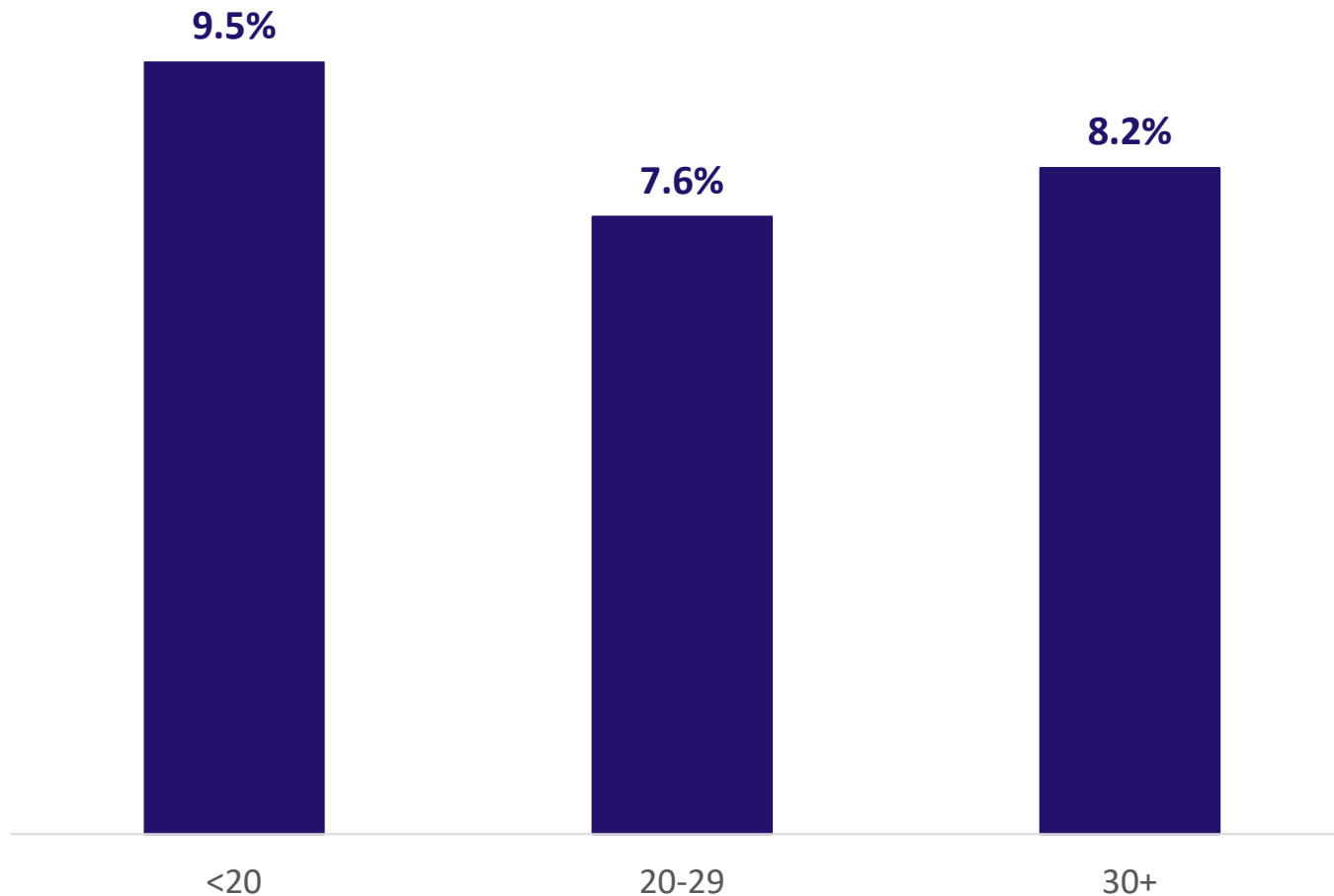| Year	# LBW	# Births	% LBW
2010	735	9,565	7.7
2011	736	9,381	7.8
2012	703	9,147	7.7
2013	710	9,582	7.4
2014	739	9,470	7.8
2015	700	9,268	7.6
2016	670	9,131	7.3
2017	749	8,970	8.4
2018	681	8,915	7.6
2019	726	8,711	8.3
2020	674	8,298	8.1

Low Birthweight by Maternal Race/Ethnicity, Prosperity Region 8, 2016-2020

Low birthweight rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.

Maternal Race	# LBW	# Live Births		Percent (%) Low Birthweight	MI
White non-Hispanic	2,198	31,737	6.9%	6.9%	7.1%
Black non-Hispanic	876	6,214	14.1%	14.1%	14.9%
Hispanic	258	3,736	6.9%	6.9%	7.5%
American Indian	8	95	8.4%	8.4%	8.4%
Asian/Pacific Islander	64	931	6.9%	6.9%	8.9%

Low Birthweight by Maternal Age, Prosperity Region 8, 2016-2020

Low birthweight rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.

| Maternal Age	# LBW	# Births	% LBW	% LBW
	REGION 8			**MI**
< 20 years	265	2,792	9.5	11.0
20-29 years	1,841	24,131	7.6	8.6
≥30 years	1,394	17,098	8.2	8.6

Low Birthweight by Intended Payment Source, Prosperity Region 8, 2016-2020

Low birthweight rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.

| Payment	# LBW	# Live Births		Percent (%) Low Birthweight	MI
Private Insurance	1,450	20,747	7.0%	7.0%	7.3%
Medicaid	1,936	21,370	9.1%	9.1%	10.7%

Low Birthweight by Census Tract, Prosperity Region 8, 2015-2019

Low birthweight rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.
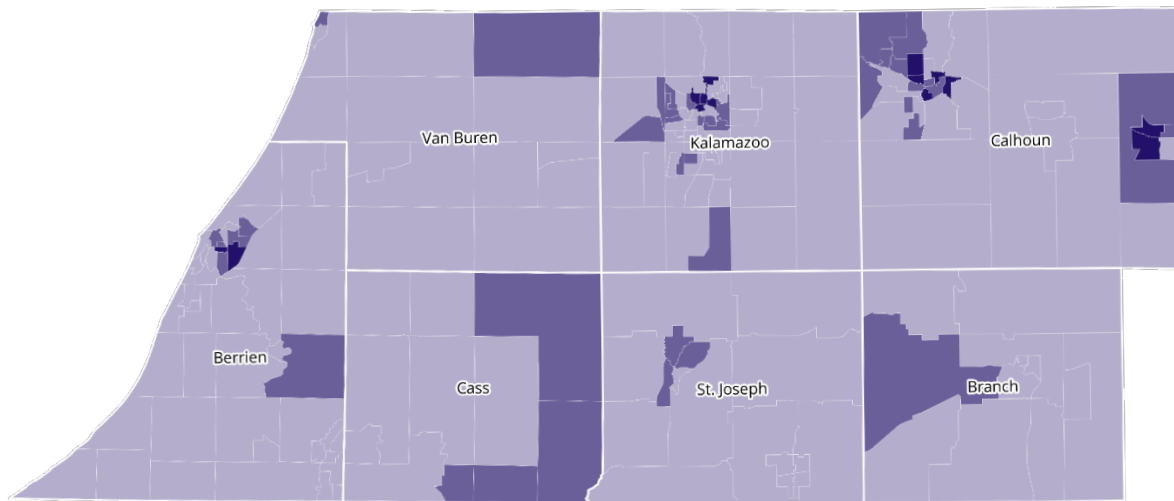

Percent Low Birthweight

Low birthweight rate is defined as number of births with baby birthweight less than 5.5lbs (<2,500 grams) per 100 live births.

0.1%   8.6%   12.9%   60.0%

No Live Births/Low Birthweight Births
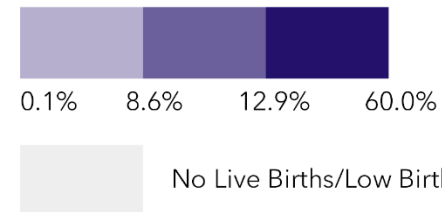
Preterm Birth
Prosperity Region 8
2010-2020

Preterm Birth, Prosperity Region 8, 2010-2020

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births.
Gestational age is based on the obstetric estimate of gestation.
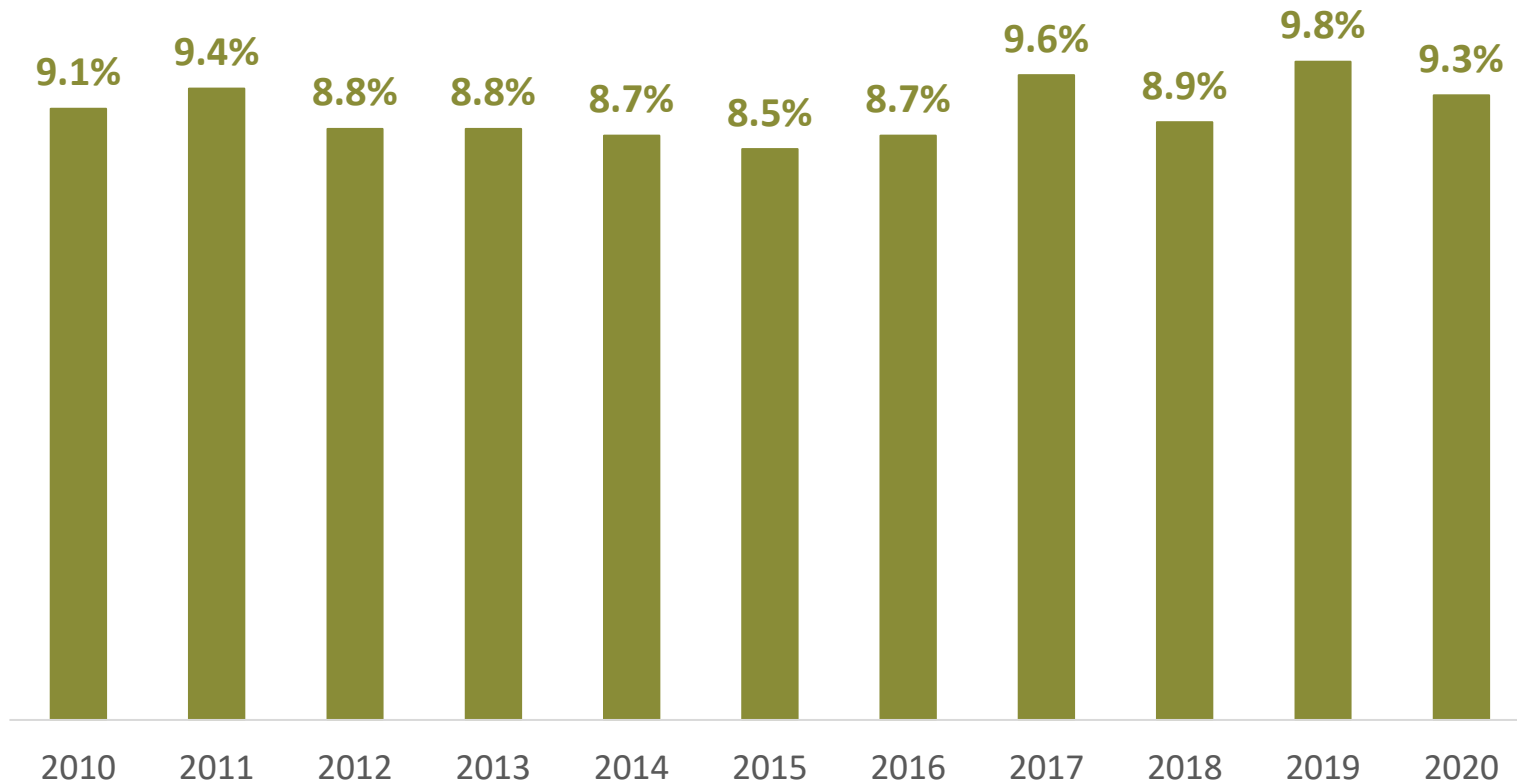
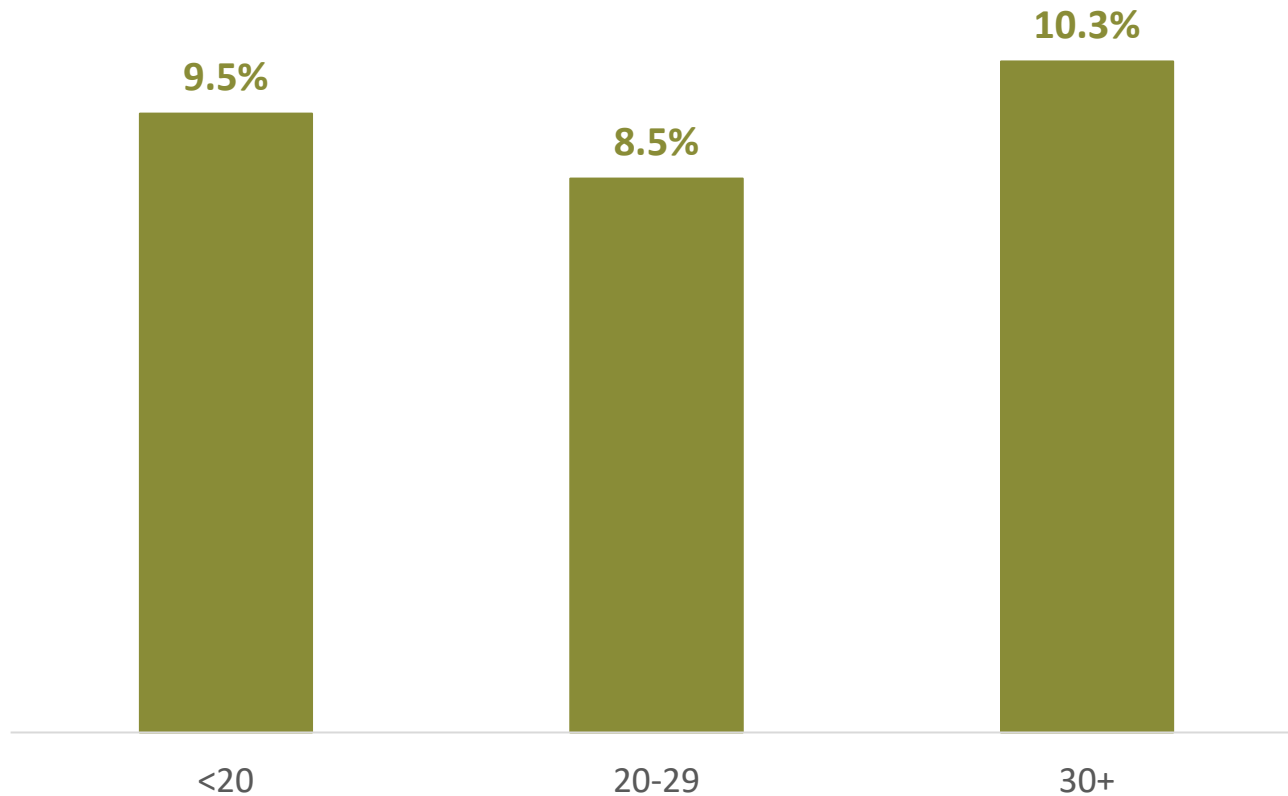| Year	# Preterm	# Births	% Preterm
2010	869	9,565	9.1
2011	878	9,381	9.4
2012	805	9,147	8.8
2013	842	9,582	8.8
2014	828	9,470	8.7
2015	790	9,268	8.5
2016	797	9,131	8.7
2017	860	8,970	9.6
2018	792	8,915	8.9
2019	851	8,711	9.8
2020	772	8,298	9.3

Preterm Birth by Maternal Race/Ethnicity, Prosperity Region 8, 2016-2020

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births. Gestational age is based on the obstetric estimate of gestation.

Maternal Race	# Preterm	# Live Births		Percent (%) Preterm	MI
White non-Hispanic	2,770	31,737	8.7%	8.7%	9.0%
Black non-Hispanic	828	6,214	13.3%	13.3%	14.8%
Hispanic	305	3,736	8.2%	8.2%	9.6%
American Indian	6	95	6.3%	6.3%	9.8%
Asian/Pacific Islander	52	931	5.6%	5.6%	8.2%

Preterm Birth by Maternal Age, Prosperity Region 8, 2016-2020

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births. Gestational age is based on the obstetric estimate of gestation.

| Maternal Age	# Preterm	# Births	REGION 8 % Preterm	MI % Preterm
< 20 years	265	2,792	9.5	10.9
20-29 years	2,042	24,131	8.5	9.7
≥30 years	1,764	17,098	10.3	10.7

Preterm Birth by Intended Payment Source, Prosperity Region 8, 2016-2020

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births. Gestational age is based on the obstetric estimate of gestation.

| Payment	# Preterm	# Live Births		Percent (%) Preterm	MI
Private Insurance	1,812	20,747	8.7	8.7%	9.3%
Medicaid	2,128	21,370	10.0	10.0%	11.5%

Preterm Birth by Census Tract, Prosperity Region 8, 2015-2019

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births. Gestational age is based on the obstetric estimate of gestation.
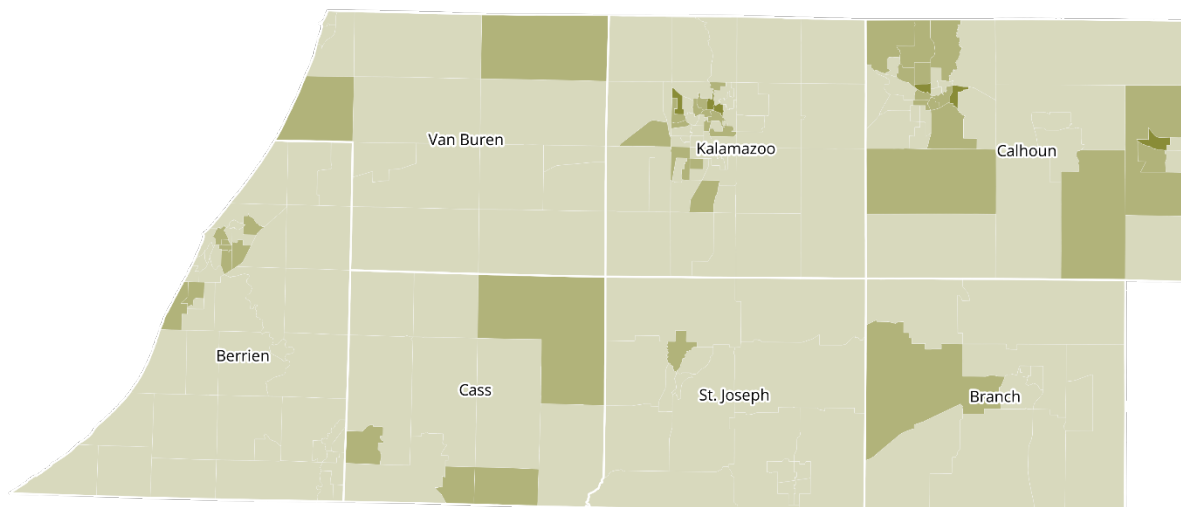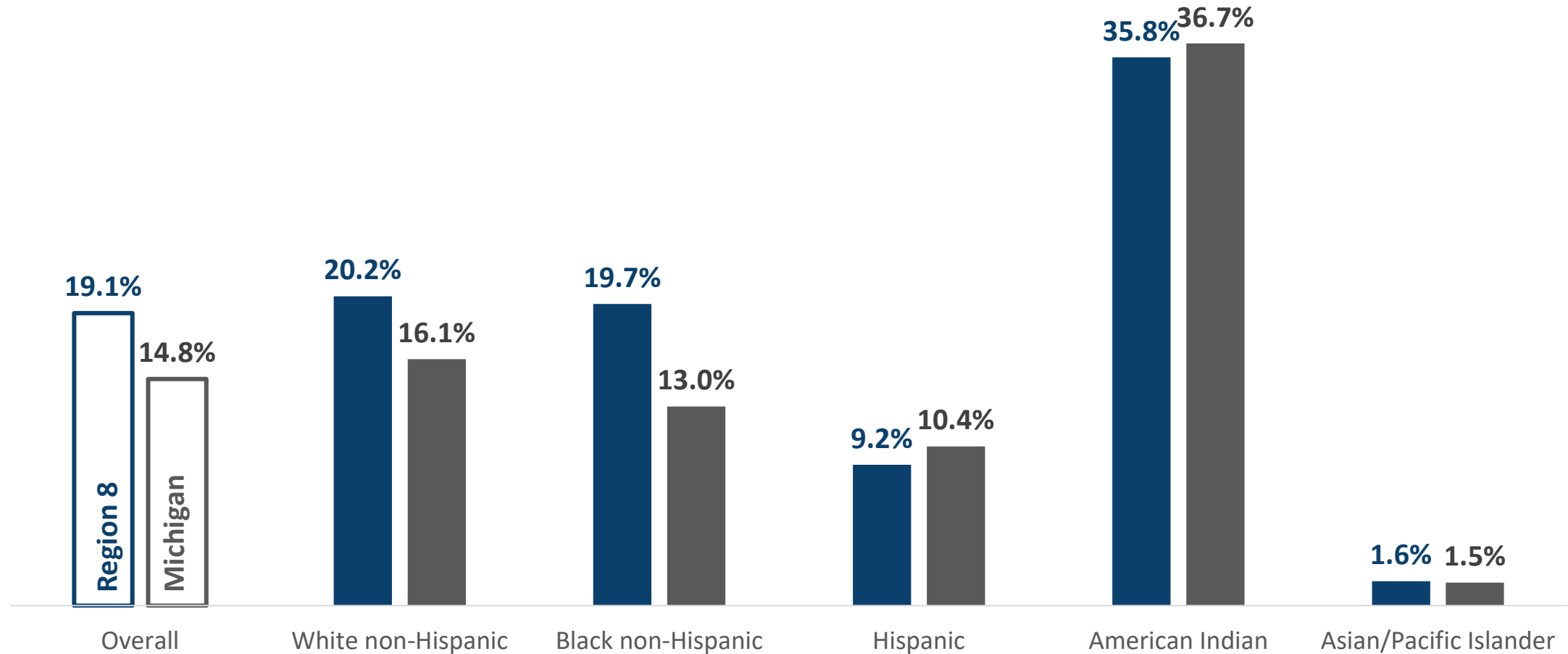

Percent Preterm

Preterm birth rate is defined as number of births delivered before 37 completed weeks of gestation per 100 live births. Gestational age is based on the obstetric estimate of gestation.

0.1%   10.1%   14.0%   60.0%
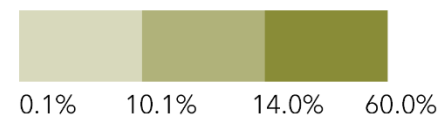
No Live Births/Preterm Births

Smoking During Pregnancy Prosperity Region 8 2016-2020

Smoking During Pregnancy by Maternal Race/Ethnicity, 2016-2020

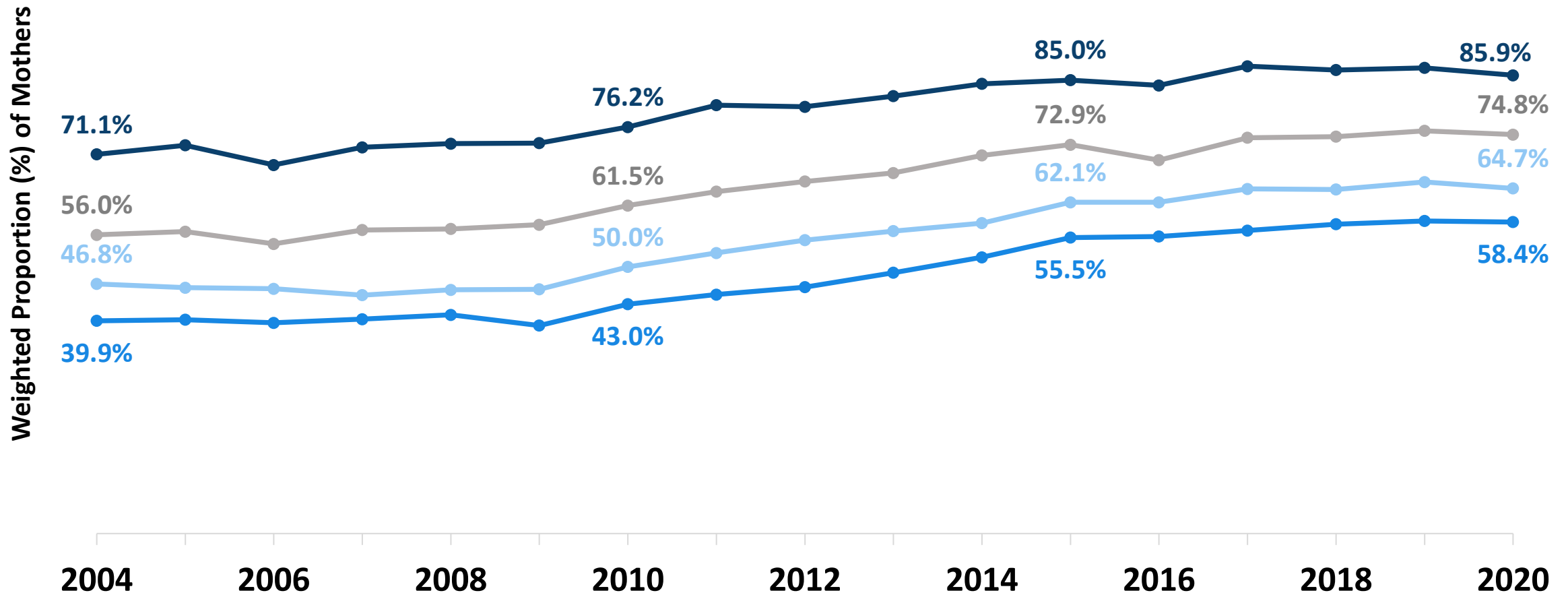|	Region 8	Michigan
Overall	19.1%	14.8%
White non-Hispanic	20.2%	16.1%
Black non-Hispanic	19.7%	13.0%
Hispanic	9.2%	10.4%
American Indian	35.8%	36.7%
Asian/Pacific Islander	1.6%	1.5%

Breastfeeding Initiation and Duration Michigan, 2010-2020

Breastfeeding Initiation + Duration, Michigan 2004-2020
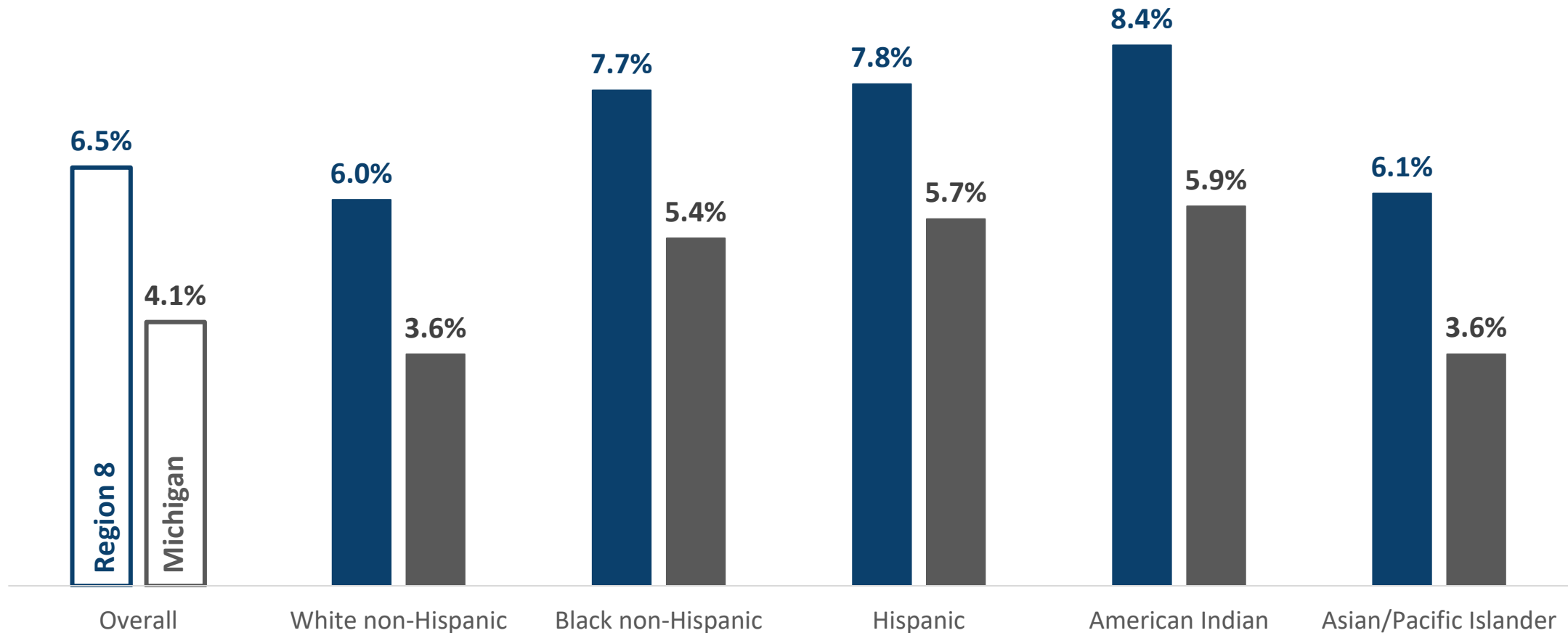
Significance test for all linear trends: p < 0.0001

Late Entry into Prenatal Care Prosperity Region 8 2016-2020

Late Entry Into Prenatal Care by Maternal Race/Ethnicity, 2016-2020

Late entry into prenatal care refers to begin prenatal care in the 7th – 9th month of gestation

Overall
Region 8: 6.5%
Michigan: 4.1%

White non-Hispanic
6.0% / 3.6%

Black non-Hispanic
7.7% / 5.4%

Hispanic
7.8% / 5.7%

American Indian
8.4% / 5.9%

Asian/Pacific Islander
6.1% / 3.6%

# Neonatal Abstinence Syndrome Prosperity Region 8 2010-2020

About the Data

1. NAS cases are identified by diagnosis code (ICD-9 779.5 or ICD-10 P96.1) from the Michigan Inpatient Database. The transition from ICD-9 to ICD-10 started in Fall 2015. This may contribute to some fluctuation in the data.

2. NAS cases may be underreported with the increasing popularity of non-pharmacological interventions, which may not be consistently captured in the data.

Neonatal Abstinence Syndrome, Prosperity Region 8, 2010-2020

Note: 2010-2015: 779.5 (drug withdrawal syndrome in newborn) and
2016-current: P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction)

NAS Incidence Rate per 100,000 Live Births
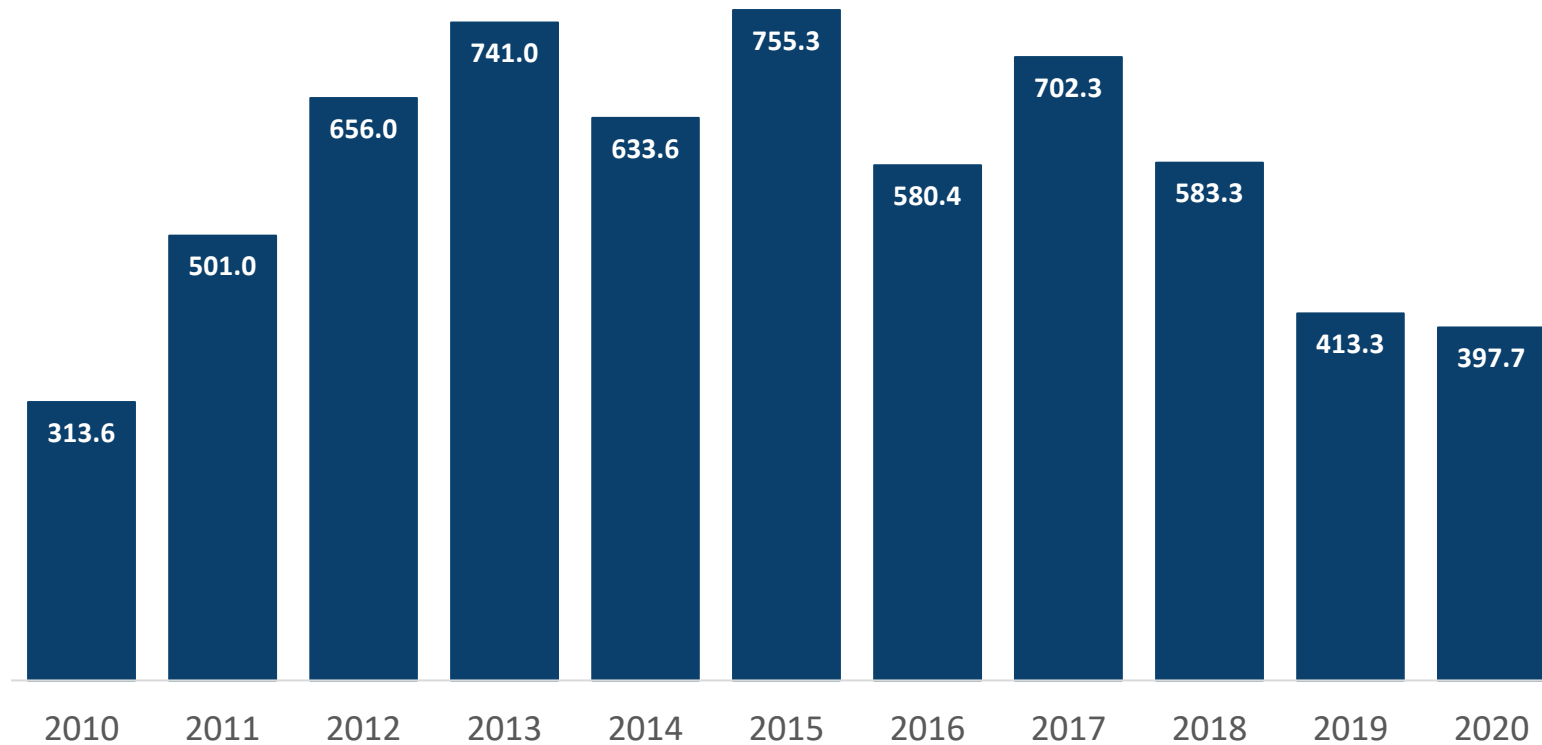
2020 Michigan Rate = 624.1

Year	# Cases	# Births	Rate
2010	30	9,565	313.6
2011	47	9,381	501.0
2012	60	9,147	656.0
2013	71	9,582	741.0
2014	60	9,470	633.6
2015	70	9,268	755.3
2016	53	9,131	580.4
2017	63	8,970	702.3
2018	52	8,915	583.3
2019	36	8,711	413.3
2020	33	8,298	397.7

NAS by Maternal Race/Ethnicity, Prosperity Region 8, 2016-2020

Note: 2010-2015: 779.5 (drug withdrawal syndrome in newborn) and
2016-current: P96.1 (neonatal withdrawal symptoms from maternal use of drugs of addiction)

Maternal Race	# Cases	# Live Births	NAS Rate per 100,000 Live Births		MI
White non-Hispanic	194	31,737	611.3	611.3	851.5
Black non-Hispanic	23	6,214	370.1	370.1	376.6
Hispanic	9	3,736	240.9	240.9	519.5
American Indian	0	95	0		4,582.1
Asian/Pacific Islander	0	931	0		27.6

Severe Maternal Morbidity Rate Prosperity Region 8 2020

Rate of Severe Maternal Morbidity (SMM) + SMM Excluding Transfusions, 2020

Region 8

Maternal Morbidity Rate per 10,000 Delivery Hospitalizations

■ SMM   ■ SMM excluding Transfusions

Total Population
- SMM: 259.6
- SMM excluding Transfusions: 79.7

White, non Hispanic
- SMM: 217.9
- SMM excluding Transfusions: 68.5

Black, non-Hispanic
- SMM: 70.2
- SMM excluding Transfusions: 153.7

Hispanic
- SMM: 308.0
- SMM excluding Transfusions: 54.3
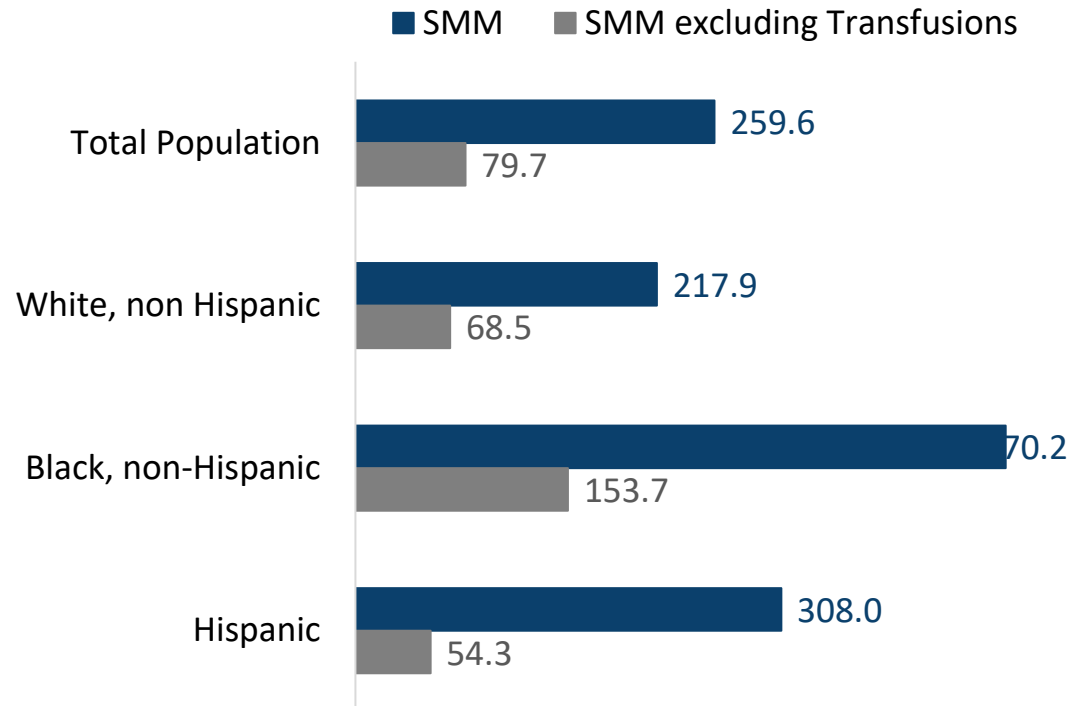
Michigan

SMM Rate per 10,000 inpatient delivery hospitalizations:
- Total Population: 211.3
- White, NH: 170.9
- Black, NH: 346.7
- Asian/ Pacific Islander, NH: 240.1
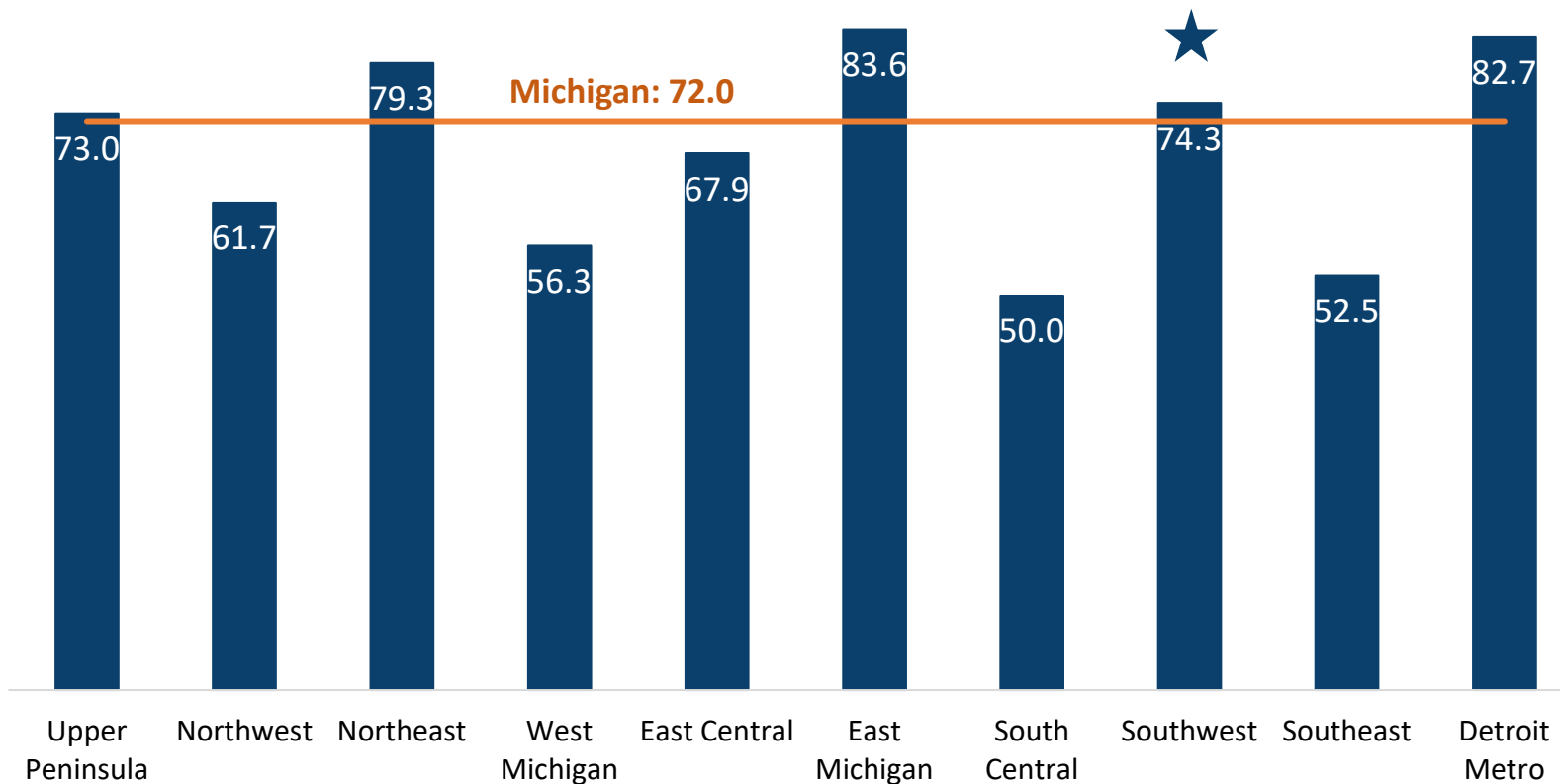- American Indian/ Alaska Native: 286.5
- Hispanic: 188.7

SMM Rate excluding transfusion per 10,000 inpatient delivery hospitalizations:
- Total Population: 89.2
- White, NH: 71.5
- Black, NH: 151.9
- Asian/ Pacific Islander, NH: 85.2
- American Indian/ Alaska Native: 143.2
- Hispanic: 86.3

Maternal Mortality Ratio Prosperity Region 8 2014-2018