Maternal and Infant Health Statistics
Prosperity Region 1
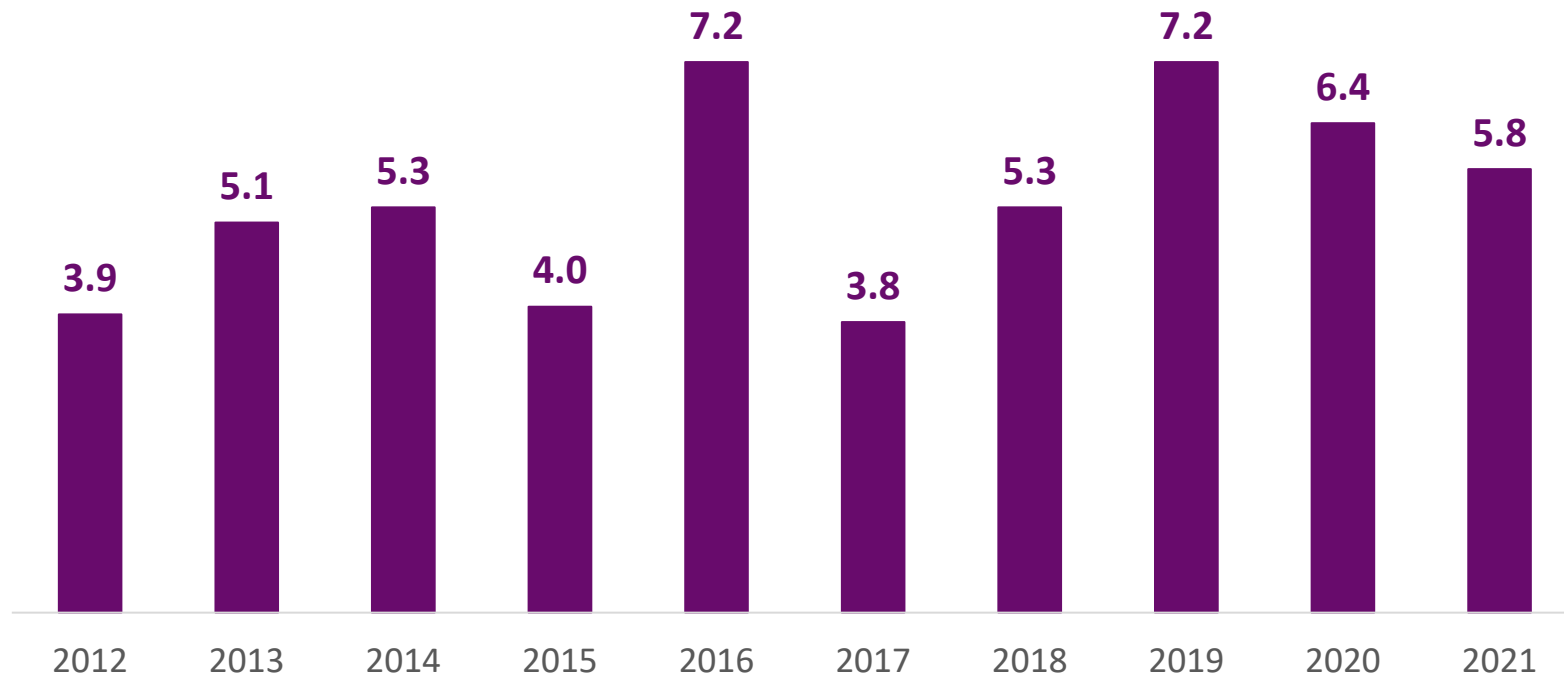## Michigan

Infant Mortality Rate (IMR) Prosperity Region 1 2012-2021

Infant Mortality Rate
Prosperity Region 1, 2012-2021

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.

2021 Michigan Rate = 6.2

Year	# Infant Deaths	# Births	Rate per 1,000 Live Births
2012	11	2,829	3.9
2013	14	2,763	5.1
2014	15	2,856	5.3
2015	11	2,723	4.0
2016	20	2,786	7.2
2017	10	2,665	3.8
2018	14	2,666	5.3
2019	18	2,499	7.2
2020	16	2,489	6.4
2021	15	2,585	5.8

Chart — Infant Mortality Rate by year:
- 2012: 3.9
- 2013: 5.1
- 2014: 5.3
- 2015: 4.0
- 2016: 7.2
- 2017: 3.8
- 2018: 5.3
- 2019: 7.2
- 2020: 6.4
- 2021: 5.8

Infant Mortality Rates by Maternal Race/Ethnicity Prosperity Region 1, 2017-2021

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.

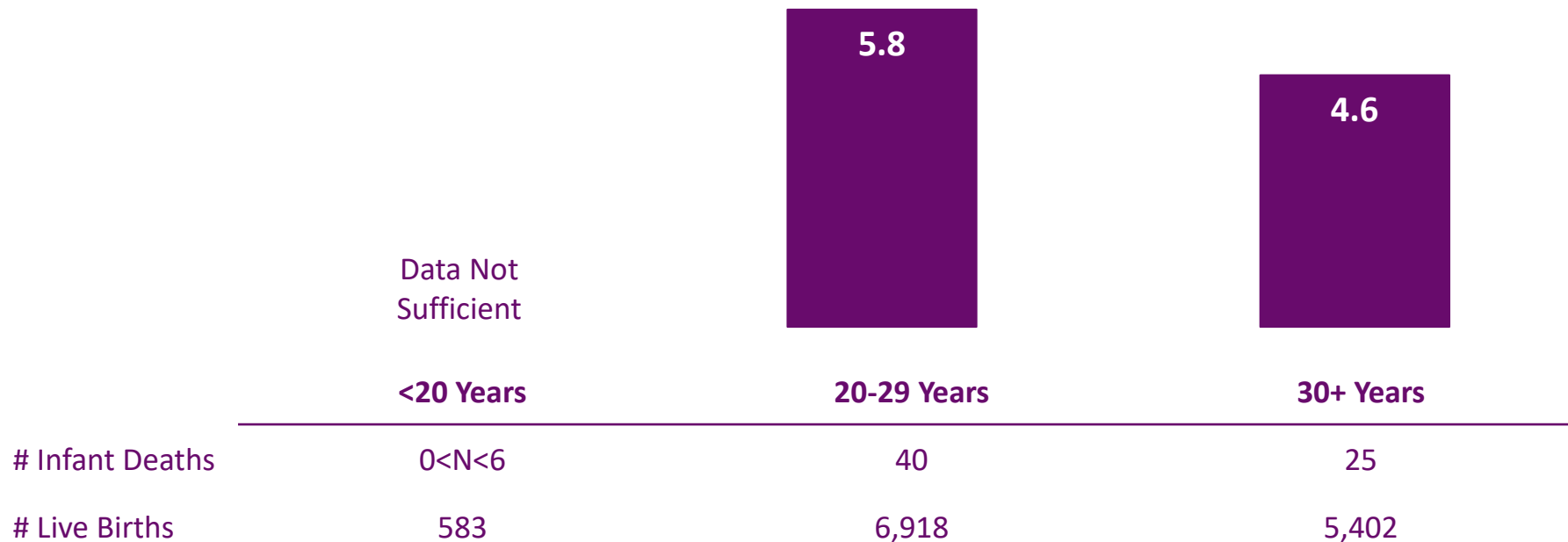| Maternal Race	# Infant Deaths	# Live Births	Infant Mortality Rate (per 1,000 Live Births)		MI
White Non-Hispanic	65	11,142	5.8	5.8	4.8
Black Non-Hispanic	0	80	0.0		13.6
Hispanic	0	264	0.0		5.6
American Indian	6	830	7.2	7.2	5.5
Asian/Pacific Islander	0<N<6	131	Data Not Sufficient		4.5

Birth Outcomes by Race/Ethnicity Prosperity Region 1, 2017-2021

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.
Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# Live Births	# Infant Deaths	# Low Birthweight	# Preterm	IMR per 1,000 Live Births	% Low Birthweight	% Preterm
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	830	6	56	56	7.2	6.7%	6.7%
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	1,010	6	73	77	5.9	7.2%	7.6%
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e. American Indian or Alaskan Native) OR the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	1,510	8	102	107	5.3	6.8%	7.1%

Infant Mortality Rate by Maternal Age Prosperity Region 1, 2017-2021

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.

|	<20 Years	20-29 Years	30+ Years
	Data Not Sufficient	5.8	4.6
# Infant Deaths	0<N<6	40	25
# Live Births	583	6,918	5,402

Infant Mortality Rates by Intended Payment Source Prosperity Region 1, 2017-2021

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	31	6,359	4.9	4.9	4.9
Medicaid	34	5,801	5.9	5.9	8.7

Infant Mortality Rates by Census Tract Prosperity Region 1, 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.


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   16.0   250.0

No Live Births/Infant Deaths
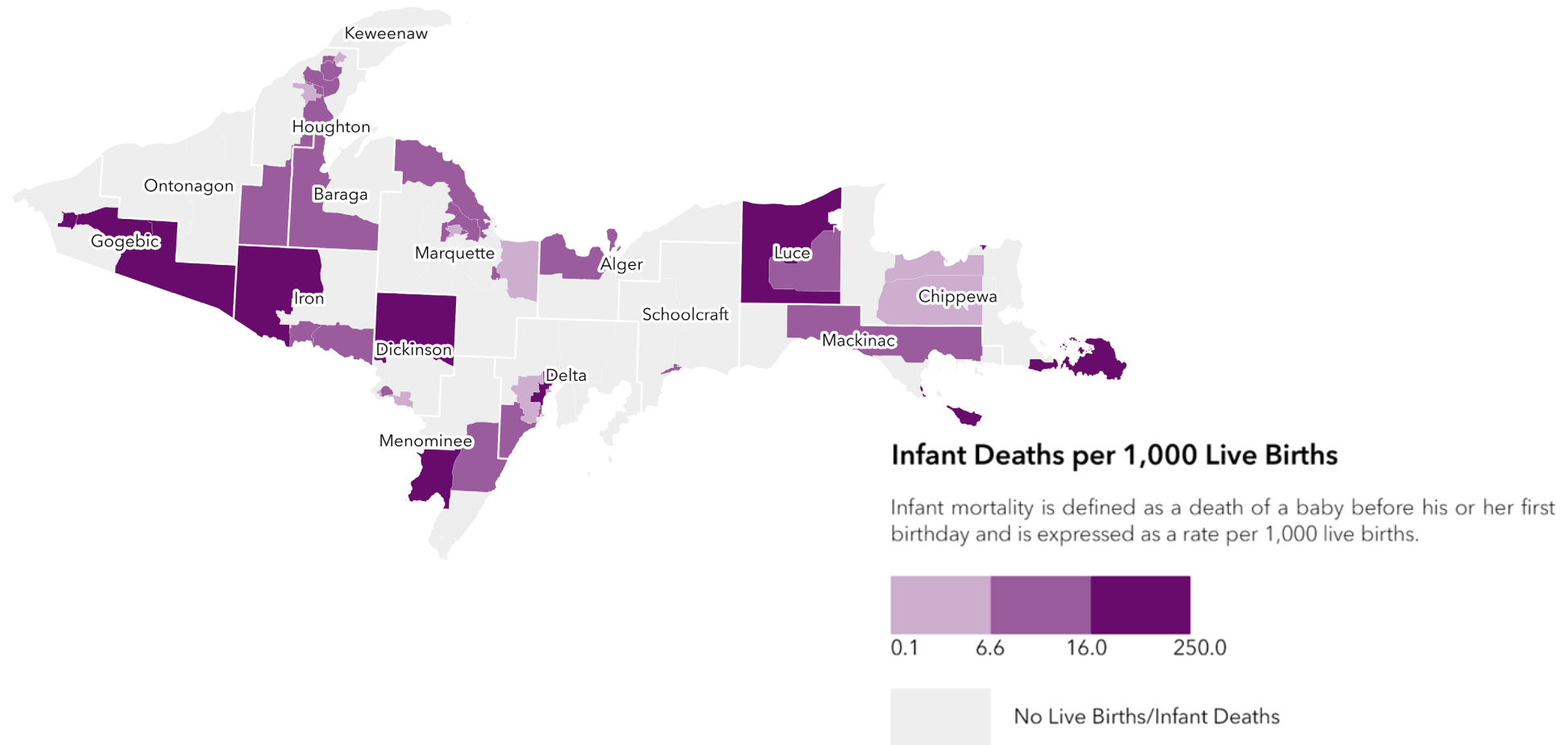
Low Birthweight (LBW) Prosperity Region 1 2012-2021

Low Birthweight
Prosperity Region 1, 2012-2021

Low birthweight (LBW) rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.
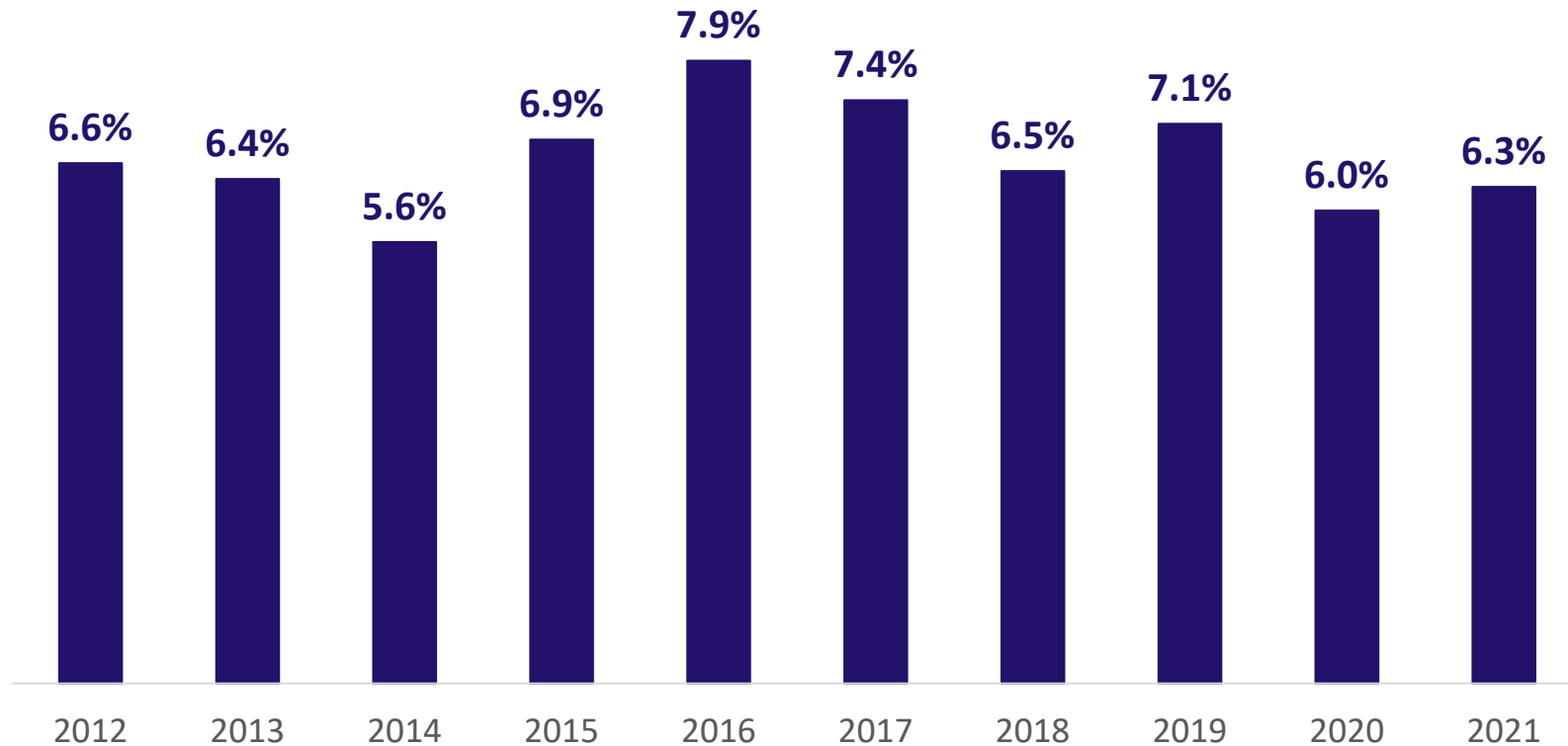
2021 Michigan = 9.2%

Year	# LBW	# Births	% LBW
2012	186	2,829	6.6%
2013	176	2,763	6.4%
2014	161	2,856	5.6%
2015	189	2,723	6.9%
2016	219	2,786	7.9%
2017	196	2,665	7.4%
2018	173	2,666	6.5%
2019	178	2,499	7.1%
2020	149	2,489	6.0%
2021	163	2,585	6.3%

Low Birthweight by Maternal Race/Ethnicity Prosperity Region 1, 2017-2021

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

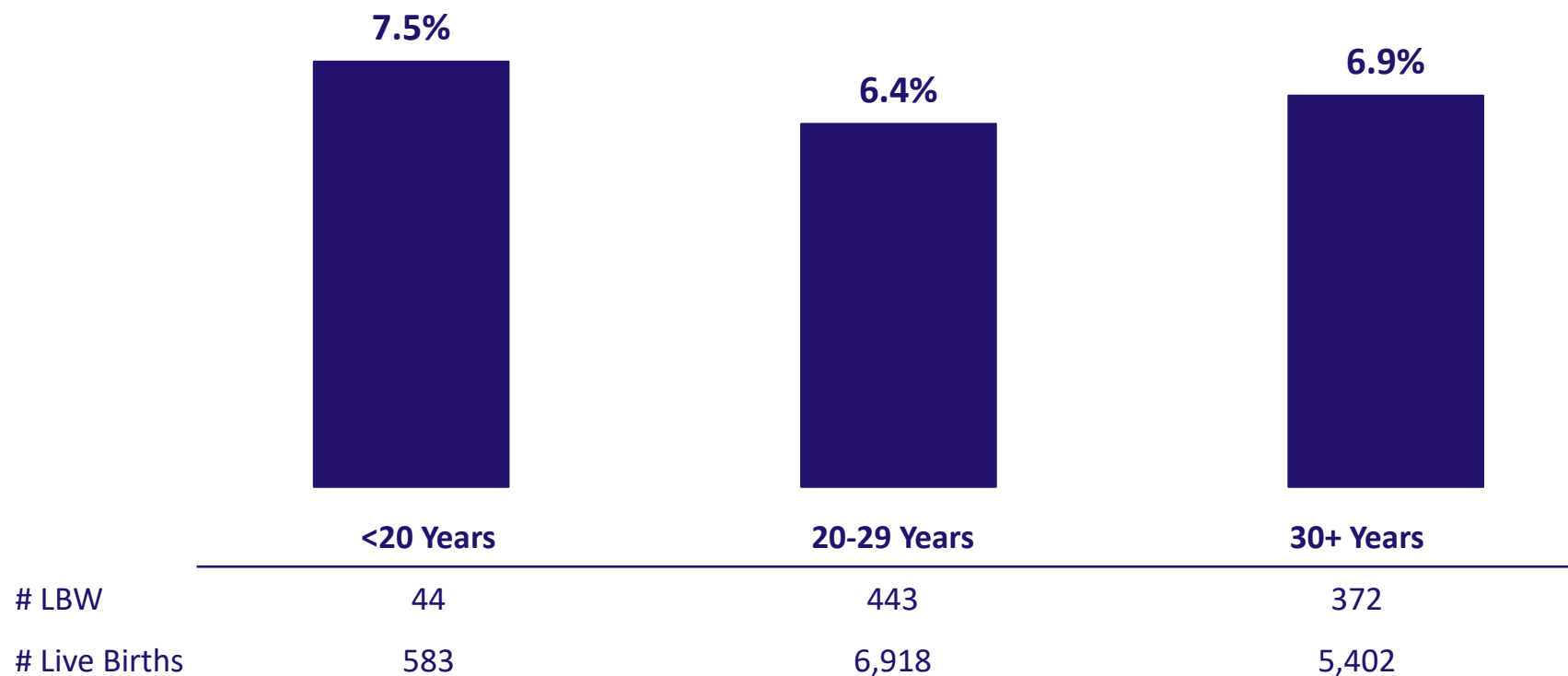| Maternal Race	# LBW	# Live Births		Percent (%) Low Birthweight	MI
White non-Hispanic	712	11,142	6.4%	6.4%	7.2%
Black non-Hispanic	10	80	12.5%	12.5%	15.2%
Hispanic	21	264	8.0%	8.0%	7.7%
American Indian	56	830	6.7%	6.7%	8.4%
Asian/Pacific Islander	11	131	8.4%	8.4%	9.0%

Birth Outcomes by Race/Ethnicity Prosperity Region 1, 2017-2021

Low birthweight (LBW) rate is defined as number of births with baby birthweight <2,500 grams per 100 live births.
Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# Live Births	# Infant Deaths	# Low Birthweight	# Preterm	IMR per 1,000 Live Births	% Low Birthweight	% Preterm
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	830	6	**56**	56	7.2	**6.7%**	6.7%
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	1,010	6	**73**	77	5.9	**7.2%**	7.6%
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	1,510	8	**102**	107	5.3	**6.8%**	7.1%

Low Birthweight by Maternal Age Prosperity Region 1, 2017-2021

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

	<20 Years	20-29 Years	30+ Years
LBW Rate	7.5%	6.4%	6.9%
# LBW	44	443	372
# Live Births	583	6,918	5,402

Low Birthweight by Intended Payment Source Prosperity Region 1, 2017-2021

Low birthweight (LBW) 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	333	6,359	5.2%	5.2%	7.5%
Medicaid	466	5,801	8.0%	8.0%	10.9%

Low Birthweight by Census Tract Prosperity Region 1, 2016-2020

Low birthweight (LBW) 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%   8.8%   13.2%   50.0%

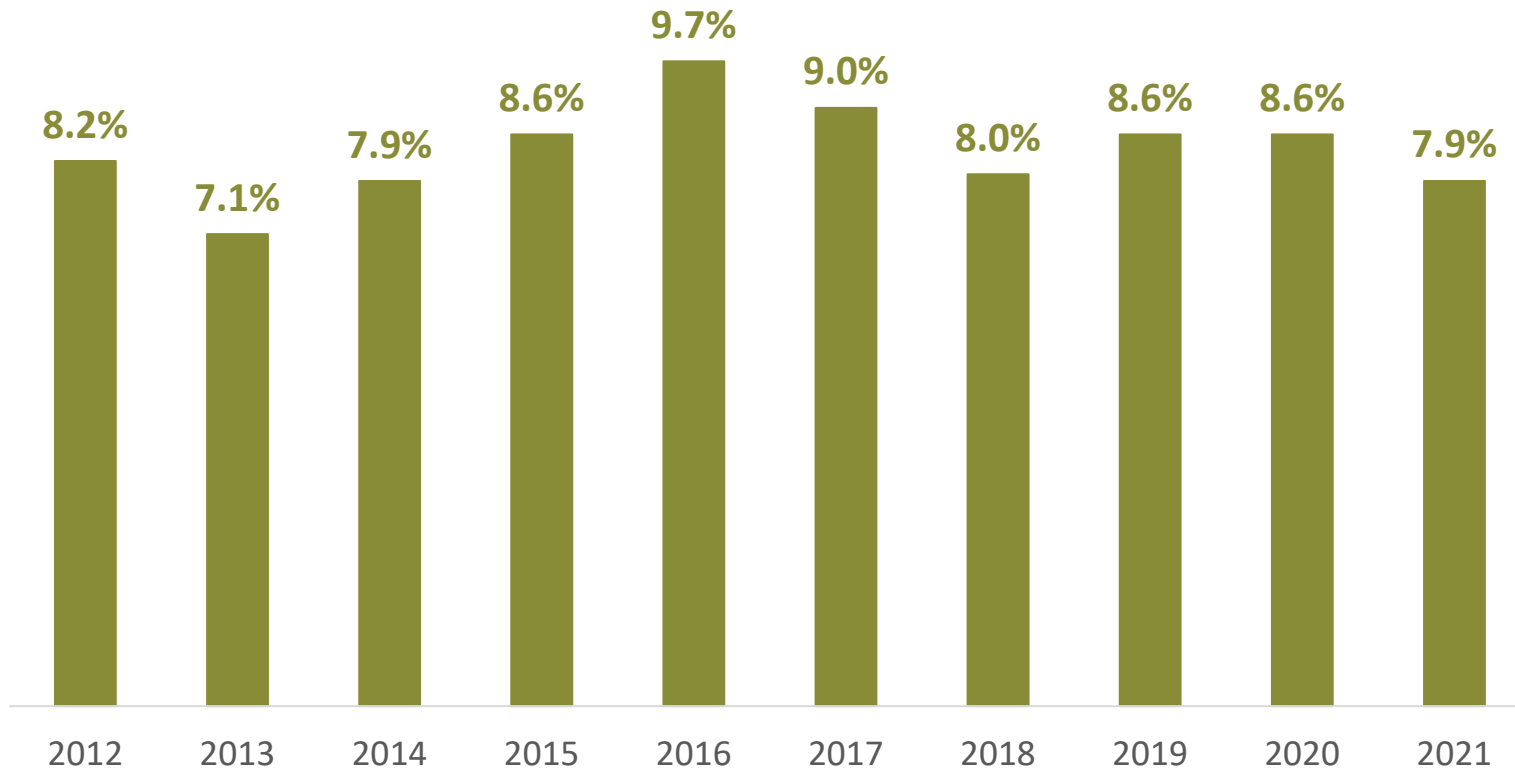No Live Births/Low Birthweight Births

15 as plain
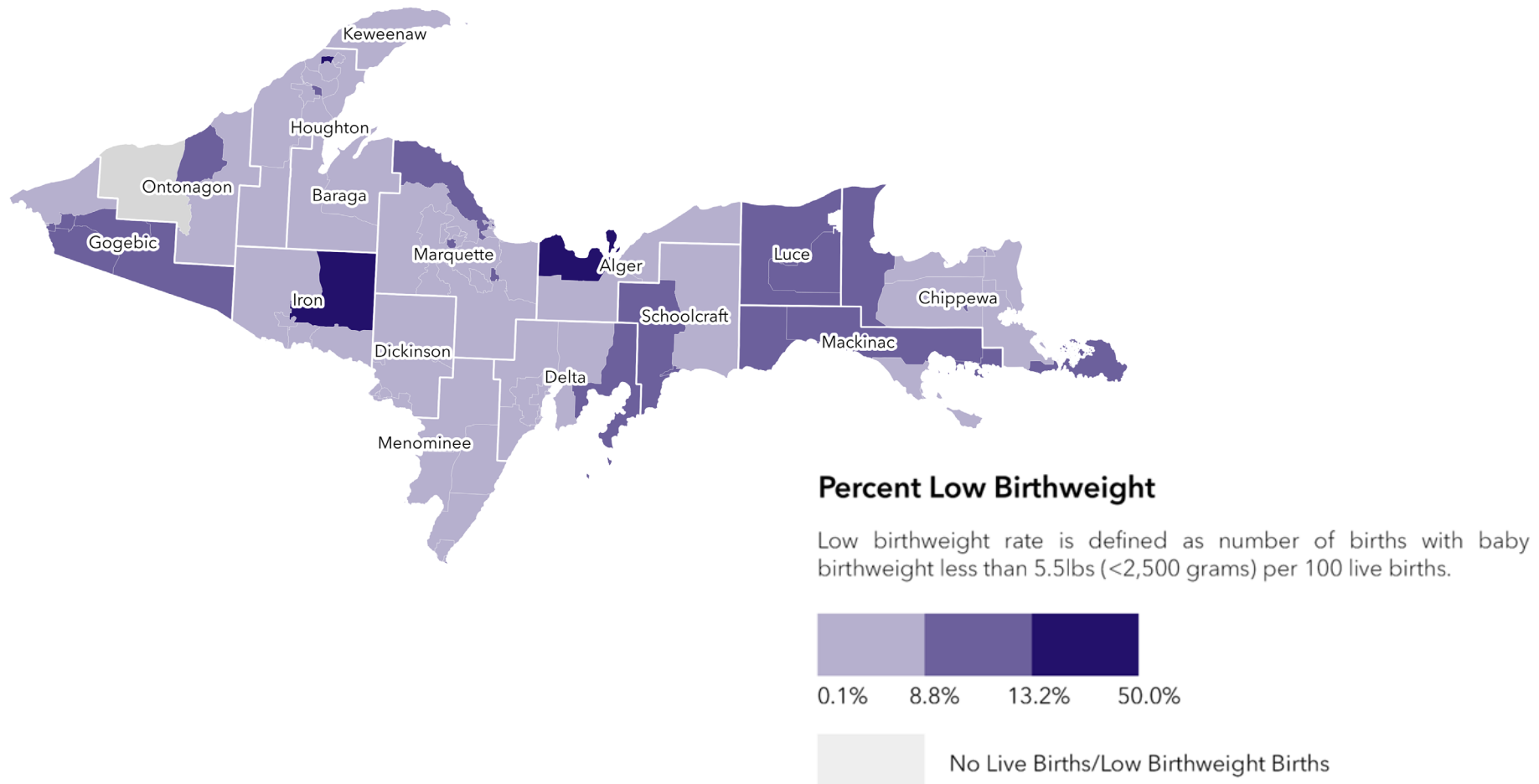
Preterm Birth Prosperity Region 1 2012-2021

Preterm Birth
Prosperity Region 1, 2012-2021

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.

2021 Michigan = 10.6%

Year	# Preterm	# Births	% Preterm
2012	233	2,829	8.2%
2013	195	2,763	7.1%
2014	227	2,856	7.9%
2015	234	2,723	8.6%
2016	271	2,786	9.7%
2017	240	2,665	9.0%
2018	212	2,666	8.0%
2019	216	2,499	8.6%
2020	214	2,489	8.6%
2021	204	2,585	7.9%

Preterm Birth by Maternal Race/Ethnicity Prosperity Region 1, 2017-2021

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	923	11,142	8.3%	8.3%	9.2%
Black non-Hispanic	7	80	8.8%	8.8%	14.9%
Hispanic	26	264	9.8%	9.8%	9.8%
American Indian	56	830	6.7%	6.7%	10.1%
Asian/Pacific Islander	12	131	9.2%	9.2%	8.2%

Birth Outcomes by Race/Ethnicity Prosperity Region 1, 2017-2021

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. Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# Live Births	# Infant Deaths	# Low Birthweight	# Preterm	IMR per 1,000 Live Births	% Low Birthweight	% Preterm
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	830	6	56	**56**	7.2	6.7%	**6.7%**
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	1,010	6	73	**77**	5.9	7.2%	**7.6%**
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	1,510	8	102	**107**	5.3	6.8%	**7.1%**

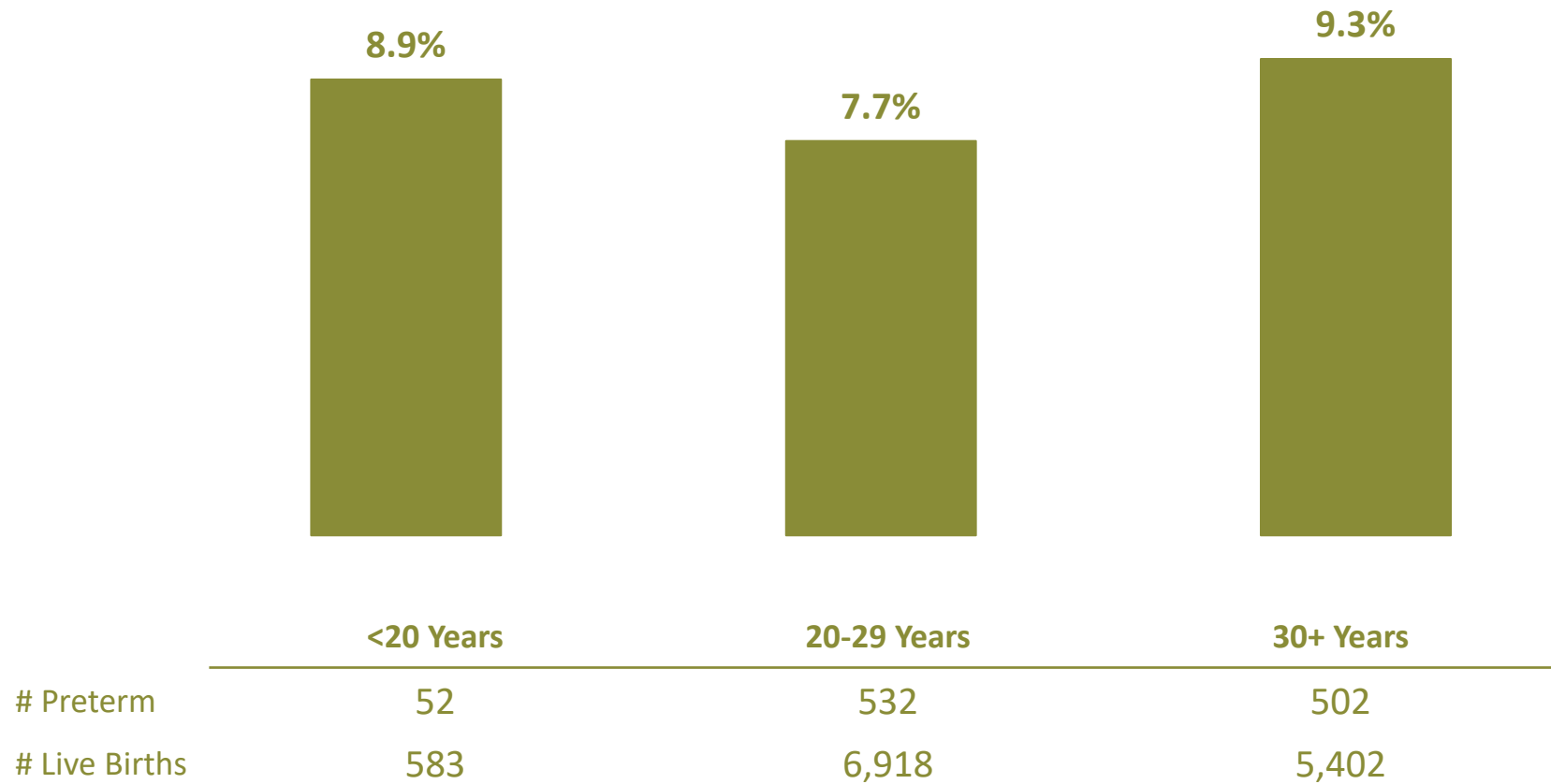# Preterm Birth by Maternal Age Prosperity Region 1, 2017-2021

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.

	<20 Years	20-29 Years	30+ Years
# Preterm	52	532	502
# Live Births	583	6,918	5,402

Bar values: <20 Years: 8.9%, 20-29 Years: 7.7%, 30+ Years: 9.3%

Preterm Birth by Intended Payment Source Prosperity Region 1, 2017-2021

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	488	6,359	7.7%	7.7%	9.4%
Medicaid	519	5,801	8.9%	8.9%	11.6%

Preterm Birth by Census Tract Prosperity Region 1, 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.

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%   10.2%   14.3%   50.0%

No Live Births/Preterm Births
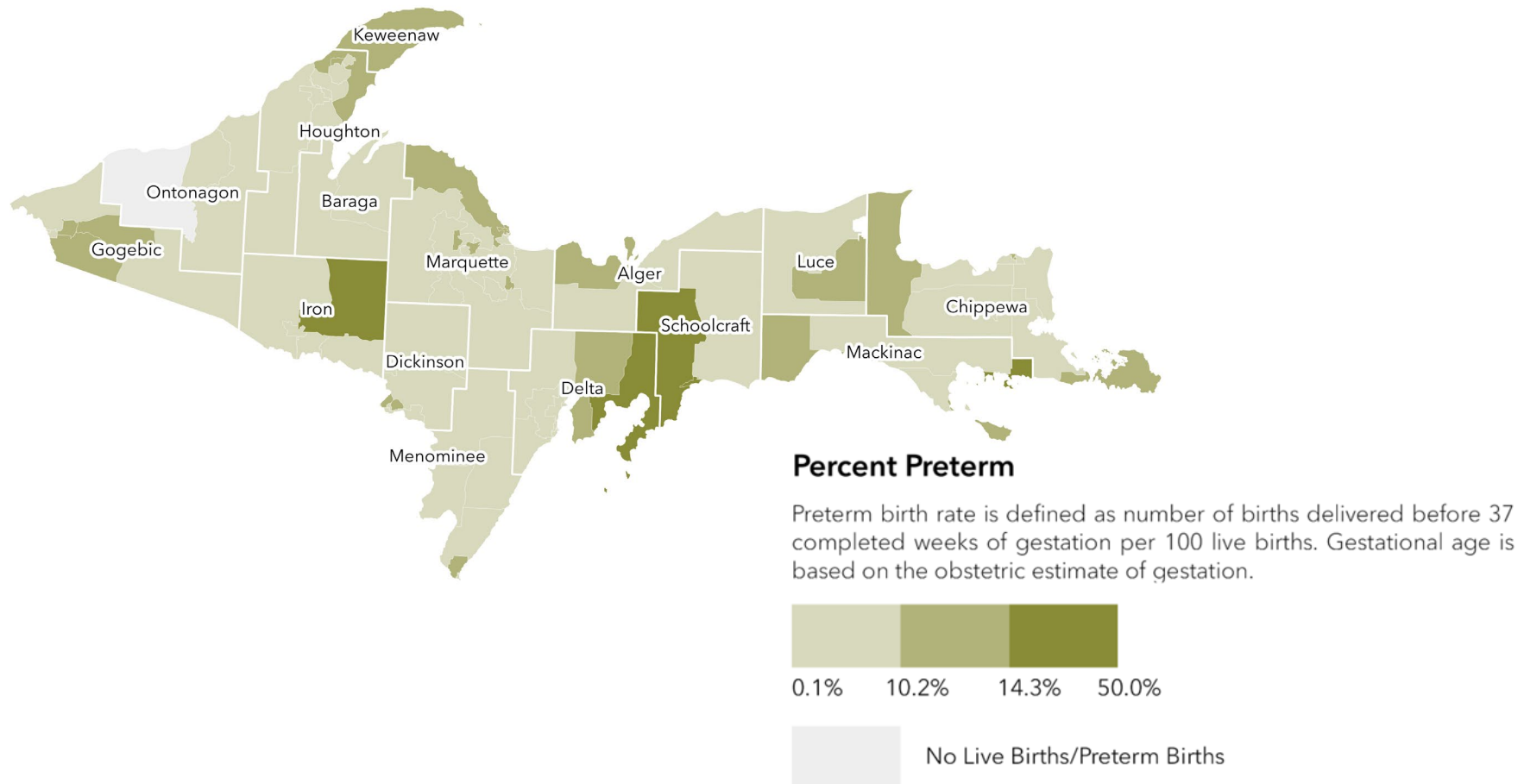
Smoking During Pregnancy Prosperity Region 1 2017-2021

Smoking During Pregnancy by Maternal Race/Ethnicity, 2017-2021

Data source: Michigan resident live birth files, Division for Vital Records and Health Statistics, MDHHS
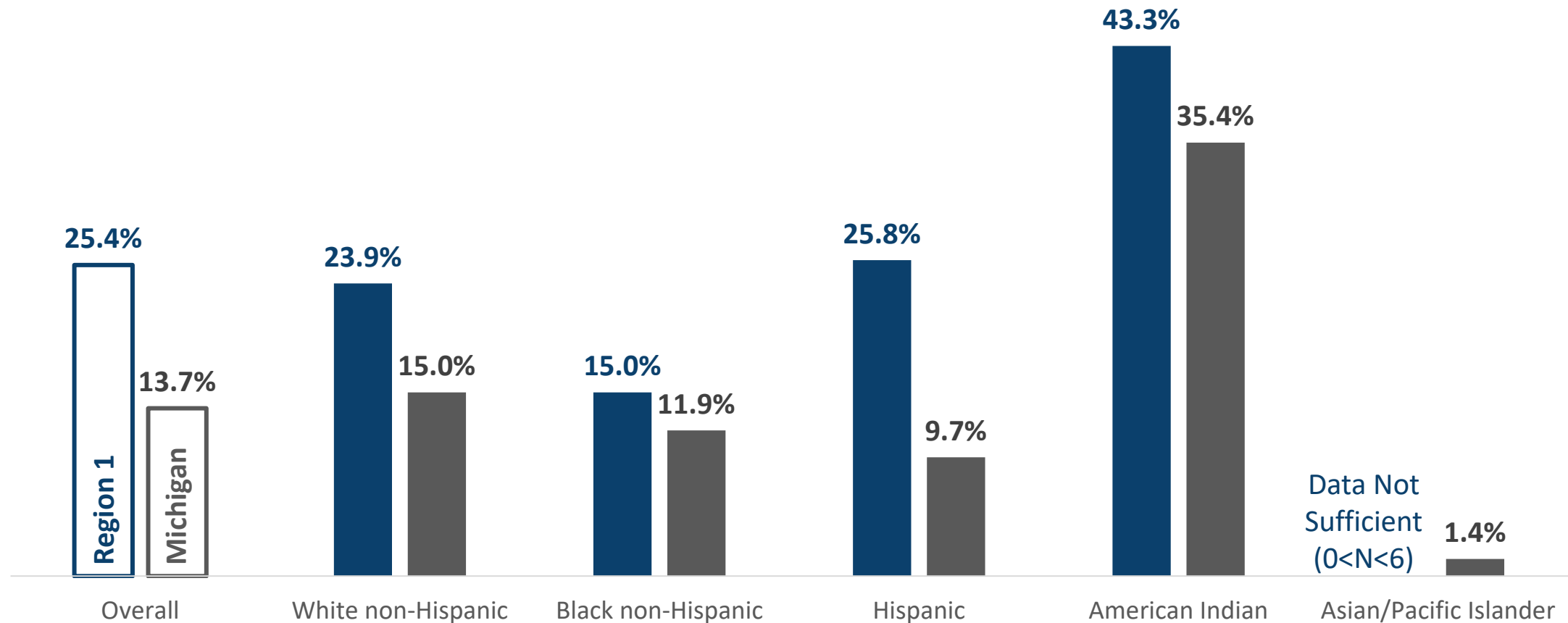
Smoking During Pregnancy by Race/Ethnicity Prosperity Region 1, 2017-2021

Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# Smoke during Pregnancy	# Live Births	Percent (%) Smoking during Pregnancy
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	359	830	43.3%
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	432	1,010	42.8%
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	586	1,510	38.8%

Breastfeeding Initiation and Duration Michigan
2007-2021

Breastfeeding Initiation + Duration Michigan, 2007-2021

Significance test for all linear trends: p < 0.0001

Ever — **1 Month** — **2 Months** — **3 Months**

Weighted Proportion (%) of Mothers

Ever: 72.4%, 80.0%, 87.6%, 88.4%
1 Month: 56.9%, 66.0%, 74.2%, 76.3%
2 Months: 44.7%, 55.0%, 64.6%, 67.0%
3 Months: 40.2%, 46.2%, 56.8%, 56.9%

Years: 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021
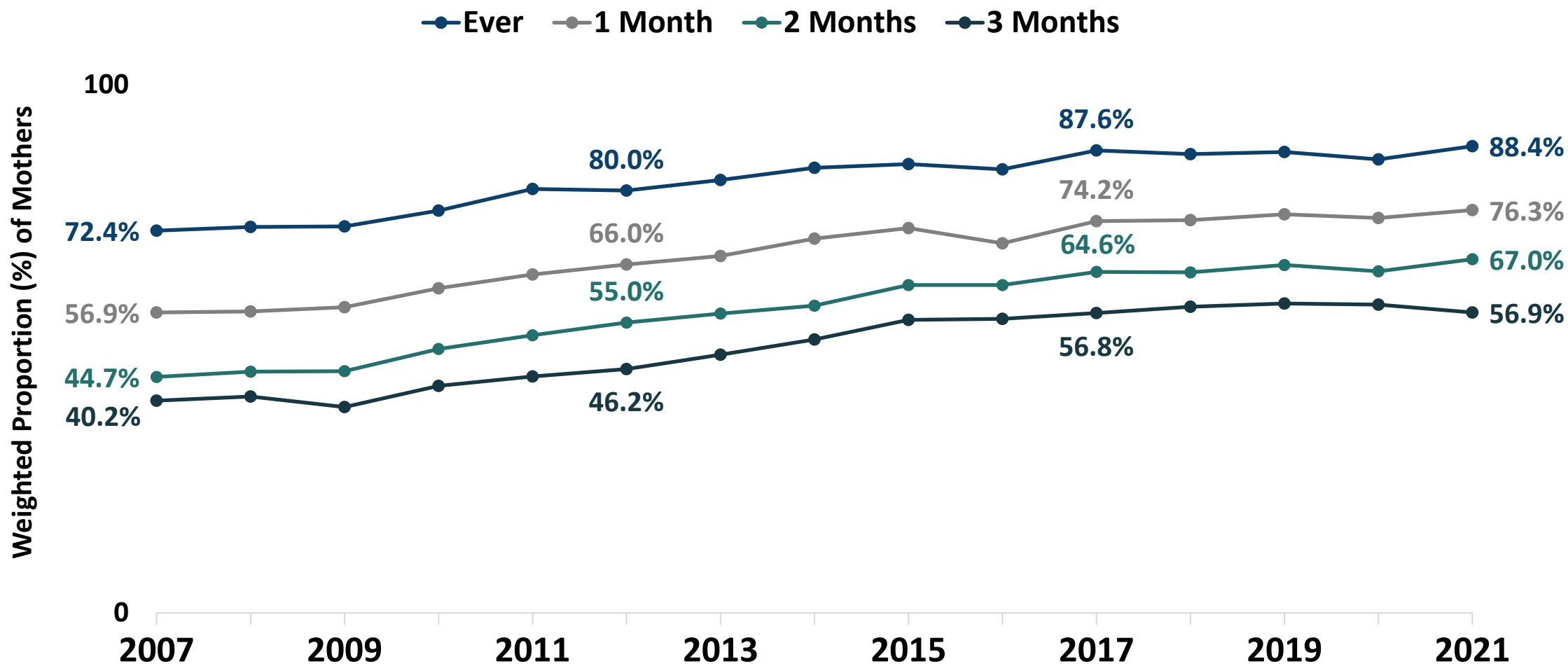
Late Entry into Prenatal Care Prosperity Region 1 2017-2021

Late Entry Into Prenatal Care
by Maternal Race/Ethnicity, 2017-2021

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

	Region 1	Michigan
Overall	4.6%	4.1%
White non-Hispanic	4.3%	3.7%
Black non-Hispanic	10.0%	5.2%
Hispanic	10.2%	5.7%
American Indian	5.2%	6.0%
Asian/Pacific Islander	6.1%	3.6%
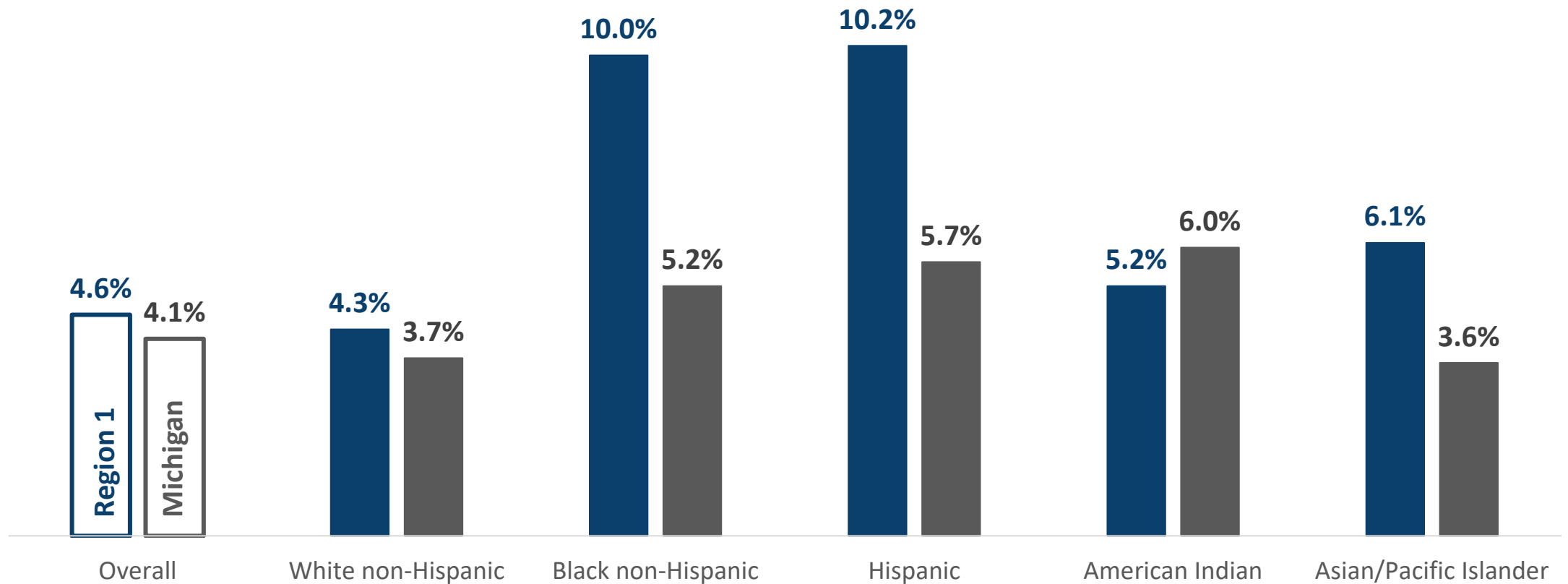
Late Entry into Prenatal Care by Race/Ethnicity Prosperity Region 1, 2017-2021

Late entry into prenatal care refers to begin prenatal care in the 7th – 9th month of gestation
Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# Late Prenatal Care	# Live Births	Percent (%) Late Prenatal Care
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	43	830	5.2%
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	49	1,010	4.9%
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	66	1,510	4.4%

Barriers to Prenatal Care
Michigan
2016-2021

Barriers to Prenatal Care among Michigan Mothers who started PNC *after* 1st trimester and wanted to start sooner, 2016-2021

Around <u>half</u> (51.7%) of mothers who started PNC after the first trimester were okay with that timing.
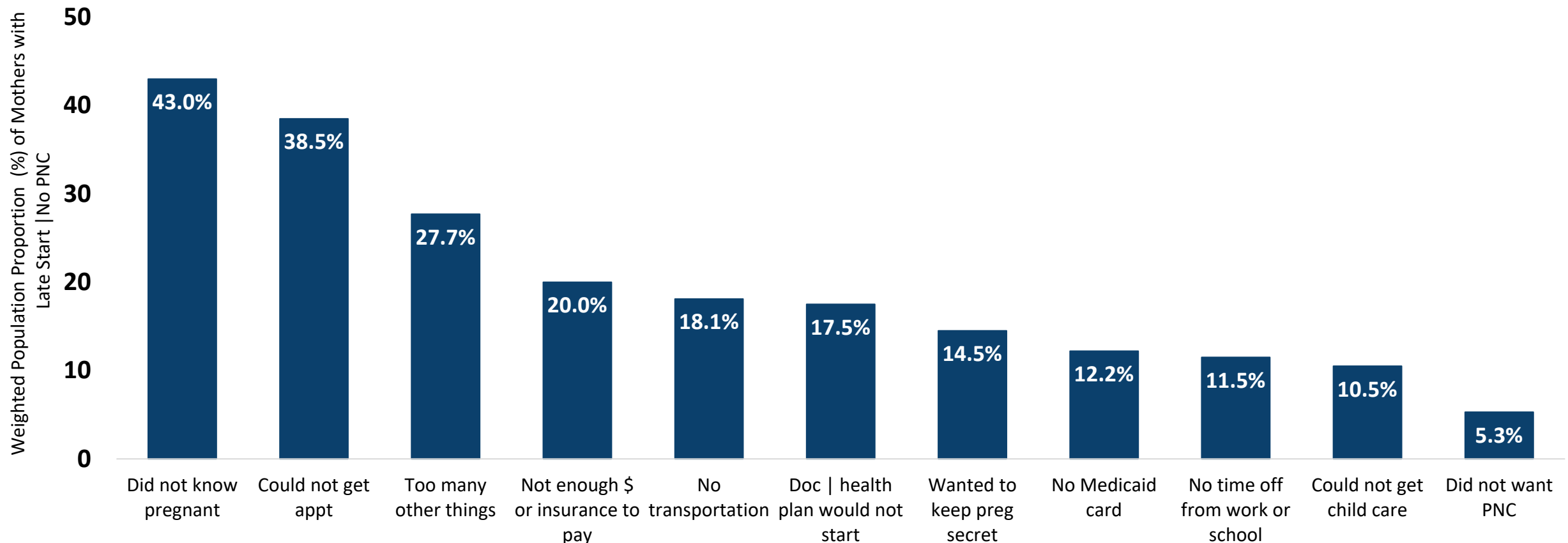
Y-axis: Weighted Population Proportion (%) of Mothers with Late Start | No PNC

Barrier	Percentage
Did not know pregnant	43.0%
Could not get appt	38.5%
Too many other things	27.7%
Not enough $ or insurance to pay	20.0%
No transportation	18.1%
Doc | health plan would not start	17.5%
Wanted to keep preg secret	14.5%
No Medicaid card	12.2%
No time off from work or school	11.5%
Could not get child care	10.5%
Did not want PNC	5.3%

Barriers to Prenatal Care among Michigan Mothers who started PNC *after* 1st trimester and wanted to start sooner, 2016-2021

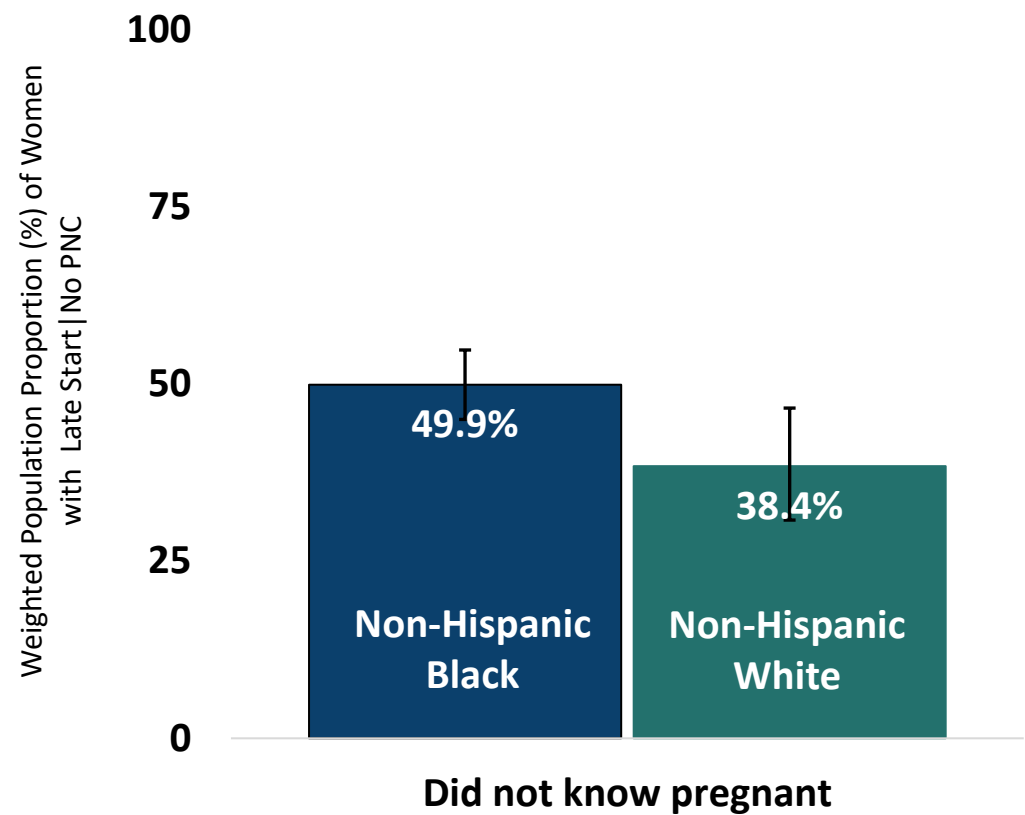## Selected Barriers with Significant Differences by Maternal Race/Ethnicity

Weighted Population Proportion (%) of Women with Late Start|No PNC

- Non-Hispanic Black: 49.9%
- Non-Hispanic White: 38.4%

Did not know pregnant

Number of Barriers among Mothers with Late|No PNC

Weighted Population Proportion (%) of Women with Late Start|No PNC

- 1: 46.4%
- 2: 26.1%
- 3+: 27.6%
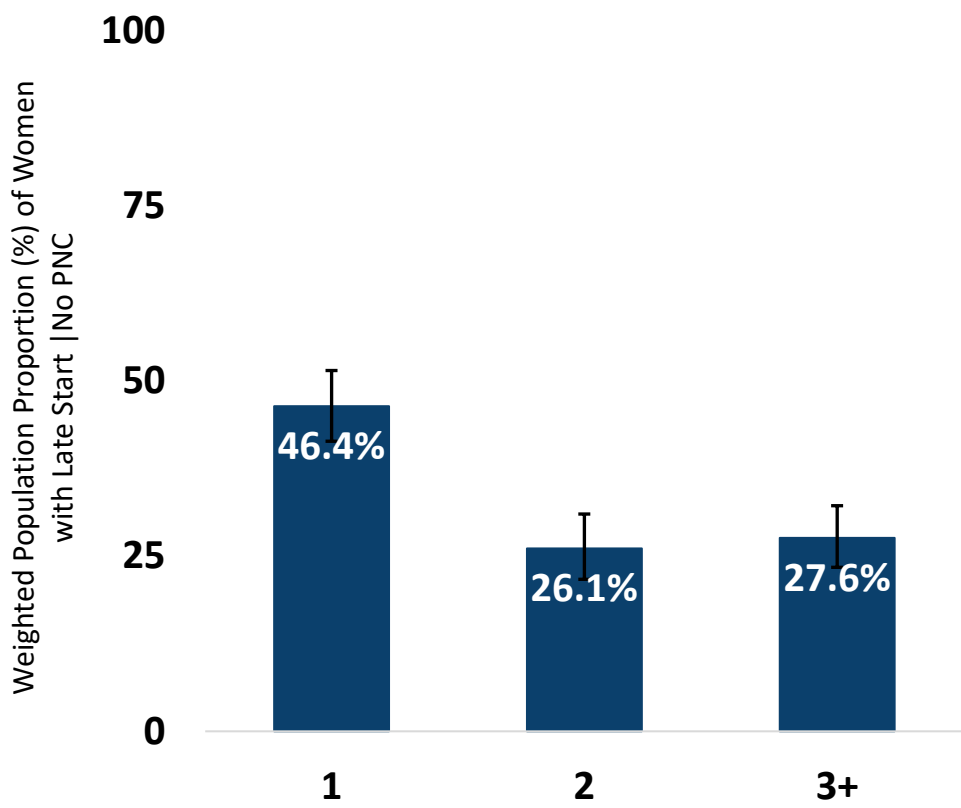
Neonatal Abstinence Syndrome Prosperity Region 1 2012-2021

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.

3. The goal of NAS surveillance is *not* to reduce the number of cases to zero. This is due to limitations with current surveillance practices. They do not allow us to distinguish between a) women with untreated opioid use or other substance use disorder or b) women with opioid use disorder on medicated assisted therapy, or c) women on long term opioid, benzodiazepine or barbiturate therapy for a chronic disease condition.

4. NAS rates are calculated per 1,000 live births in order to be consistent with the CSTE case definition. Previous reports published by MDHHS include NAS rates per 100,000 live births.

Neonatal Abstinence Syndrome Prosperity Region 1, 2012-2021

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)
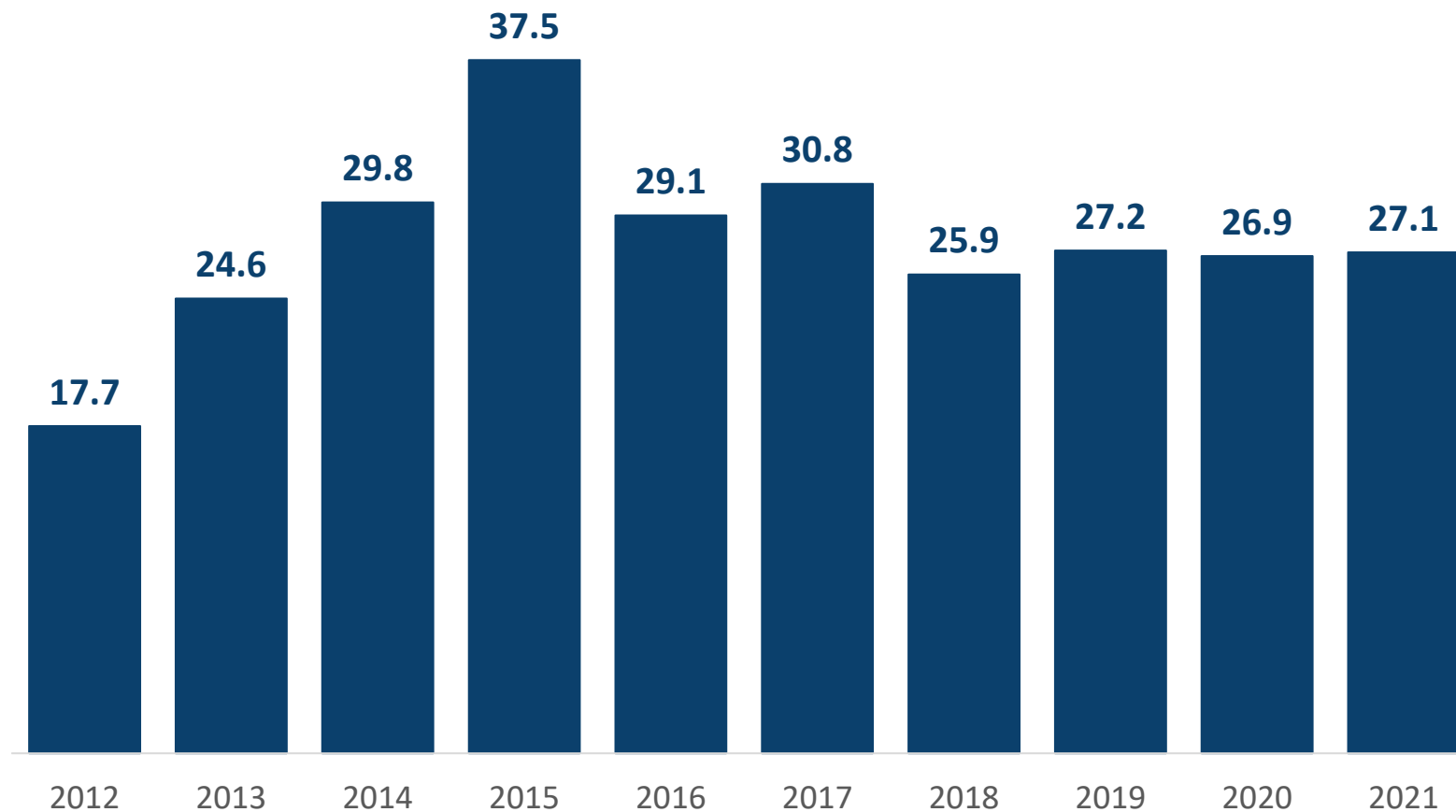
2021 Michigan Rate = 6.5			
Year	# Cases	# Births	Rate per 1,000 Live Births
2012	50	2,829	17.7
2013	68	2,763	24.6
2014	85	2,856	29.8
2015	102	2,723	37.5
2016	81	2,786	29.1
2017	82	2,665	30.8
2018	69	2,666	25.9
2019	68	2,499	27.2
2020	67	2,489	26.9
2021	70	2,585	27.1

Data source: Michigan Resident Live Birth Files Linked with Michigan Hospital Discharge Data, Division for Vital Records and Health Statistics, MDHHS

Neonatal Abstinence Syndrome by Maternal Race/Ethnicity Prosperity Region 1, 2017-2021

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	# NAS Cases	# Live Births	Neonatal Abstinence Syndrome (Rate per 1,000 Live Births)		MI
White non-Hispanic	264	11,142	23.7	23.7	8.1
Black non-Hispanic	0<N<6	80	Data Not Sufficient		3.6
Hispanic	6	264	22.7	22.7	5.2
American Indian	66	830	79.5	79.5	46.9
Asian/Pacific Islander	0	131	0		0.3

Neonatal Abstinence Syndrome by Race/Ethnicity Prosperity Region 1, 2017-2021

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)
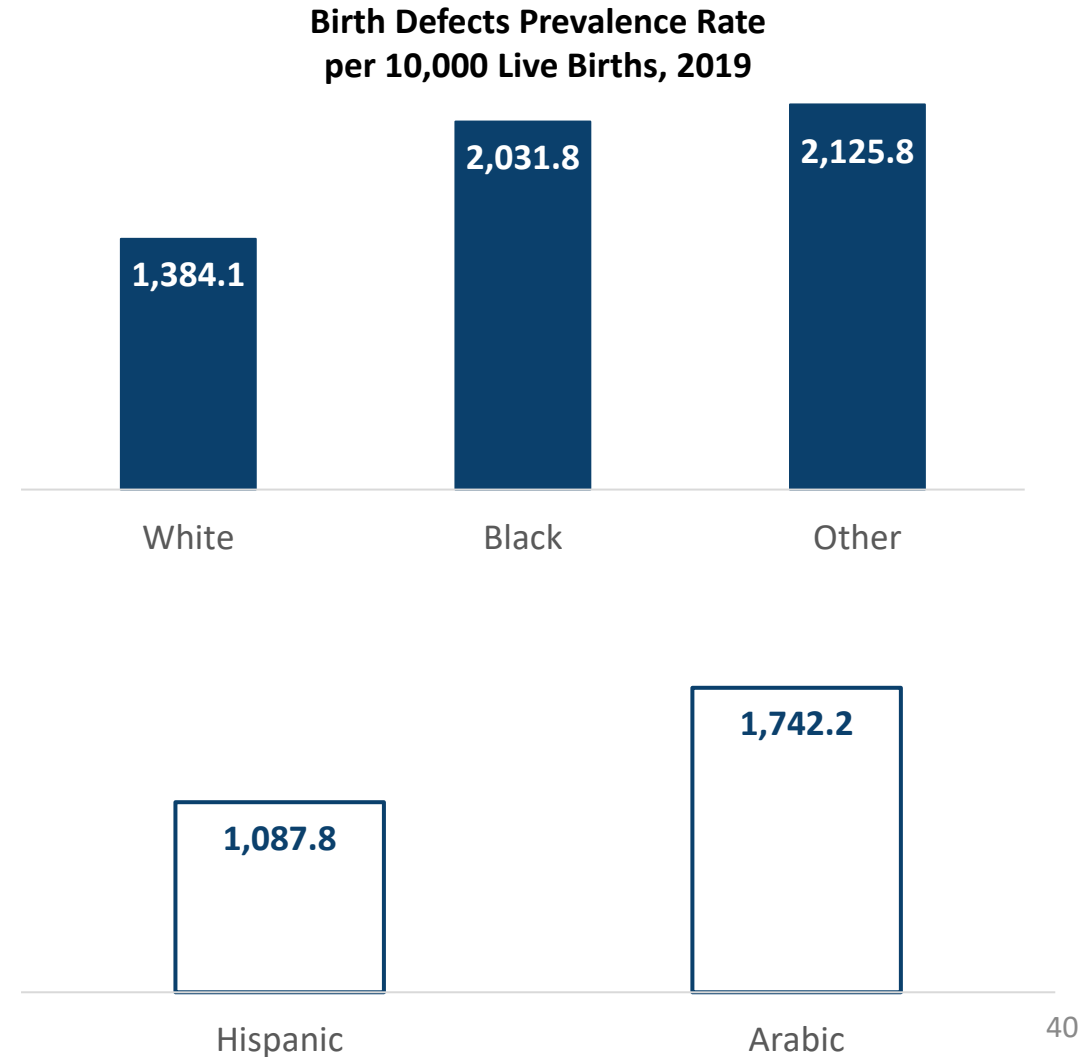
Data on this slide is aggregated over 5 years

Comparison of methods used to measure cases among Native Americans	# NAS Cases	# Live Births	NAS Rate (per 1,000 Live Births)
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	66	830	79.5
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	74	1,010	73.3
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	96	1,510	63.6

Birth Defects
by Maternal Race/Ethnicity & Prosperity Region
2019

Birth Defect Prevalence by Maternal Race/ethnicity, 2019

- Throughout birth years 2013-2019, the birth defect prevalence rate for Michigan remained fairly steady at an average rate of 1,444.1 cases per 10,000 live births.

- In 2019, the race-specific birth defect prevalence rate for cases born to mothers of "other" races (2125.8 per 10,000 live births) exceeded that of cases born to black mothers (2031.8 cases per 10,000 live births) and cases born to white mothers (1,384.1 cases per 10,000 live births).

- In 2019, the ethnicity-specific birth defect prevalence rate for cases born to a mother reporting Arabic ethnicity (1,630.2 cases per 10,000 live births) was greater than that of cases born to a mother reporting Hispanic ethnicity (1,406.5 cases per 10,000 live births).

Birth Defects Prevalence Rate per 10,000 Live Births, 2019

1,384.1	2,031.8	2,125.8
White	Black	Other

|	
1,087.8	1,742.2
Hispanic	Arabic

Birth Defect Prevalence Rates by Prosperity Region, 2019

Prevalence rates are based on births to mothers living in Michigan at the time of delivery. Regions approximate prosperity region boundaries

- The State of Michigan is broken up into 10 prosperity regions based on shared geographic, demographic, and economic interests.

- In 2019, Michigan prosperity regions 7 and 10 reported the highest birth defect prevalence rates of 1,980.5 and 2,044.2.5 cases per 10,000 live births respectively.

- The prosperity region that reported the lowest birth defect prevalence was region 8 with a prevalence rate of 551.0 cases per 10,000 live births.

Region	# Cases	Prevalence Rate (per 10,000 live births)
1	184	736.3
2	235	870.4
3	135	798.4
4	2,400	1,304.1
5	480	849.1
6	1,145	1,299.7
7	976	1,980.5
8	480	551.0
9	1,707	1,716.1
10	9,112	2,044.2
Total	16,854	1,561.8
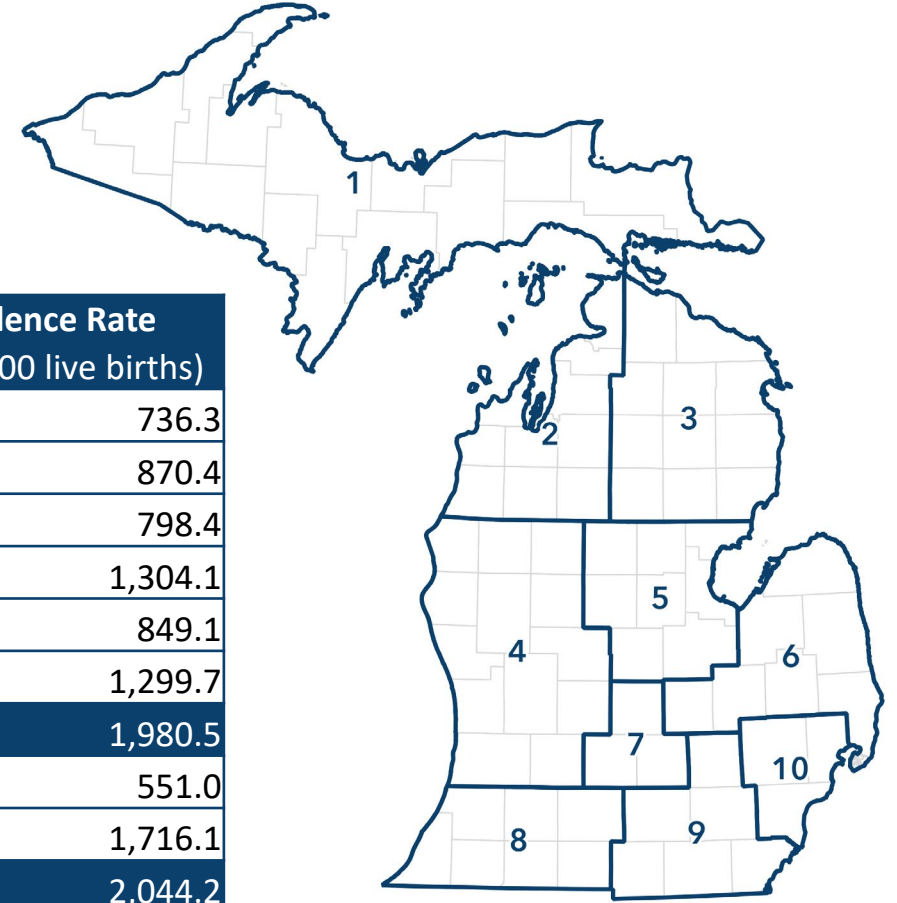
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Low Risk Cesarean by Maternal Race/Ethnicity Region 1, 2017-2021

Low risk cesarean is a ratio of the number of first births delivered by cesarean section to low risk females (full-term, singleton births, vertex presentation) to the number of first births to low-risk females (full-term, singleton births, vertex presentation)

Maternal Race	# Low Risk Cesarean	# Low Risk Live Birth		Percent (%) cesarean among low-risk females with no prior birth
Overall	1,045	3,572	29.3%	29.3%
White non-Hispanic	881	3,066	28.7%	28.7%
Black non-Hispanic	12	25	48.0%	48.0%
Hispanic	13	63	20.6%	20.6%
American Indian	85	243	35.0%	35.0%
Asian/Pacific Islander	11	41	26.8%	26.8%

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Low Risk Cesarean by Maternal Race/Ethnicity Region 1, 2017-2021

Low risk cesarean is a ratio of the number of first births delivered by cesarean section to low risk females (full-term, singleton births, vertex presentation) to the number of first births to low-risk females (full-term, singleton births, vertex presentation).

Comparison of methods used to measure cases among Native Americans	# Low Risk Cesarean	# Low Risk Live Births	Percent (%) cesarean among low-risk females without a prior birth
#1: Birthing mother is identified on the birth certificate as American Indian and Non-Hispanic	85	243	35.0%
#2: Birthing mother is identified on the birth certificate as American Indian or Mixed Race (i.e., American Indian or Alaskan Native).	107	301	35.5%
#3: Birthing mother is identified on the birth certificate as American Indian or Mixed race (i.e., American Indian or Alaskan Native) **OR** the father is listed as American Indian or Mixed Race (i.e., American Indian or Alaskan Native)	147	458	32.1%

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Sleep-Related Infant Death Rate Prosperity Region 1 2010-2020

Overview of Sleep-Related Infant Deaths Michigan, 2010-2020

- Between 2010 and 2020 there were **1,597** sleep-related infant deaths in Michigan.

- The rate of sleep-related infant deaths has fluctuated slightly but has not statistically significantly differed between years (Figure 1).

- Between 2010 and 2020 Black Infants were **3.8** times more likely to die of sleep-related causes as compared to white Infants. American Indian infants were **2.5** times more likely to die of sleep-related causes as compared to white infants (Figure 2).

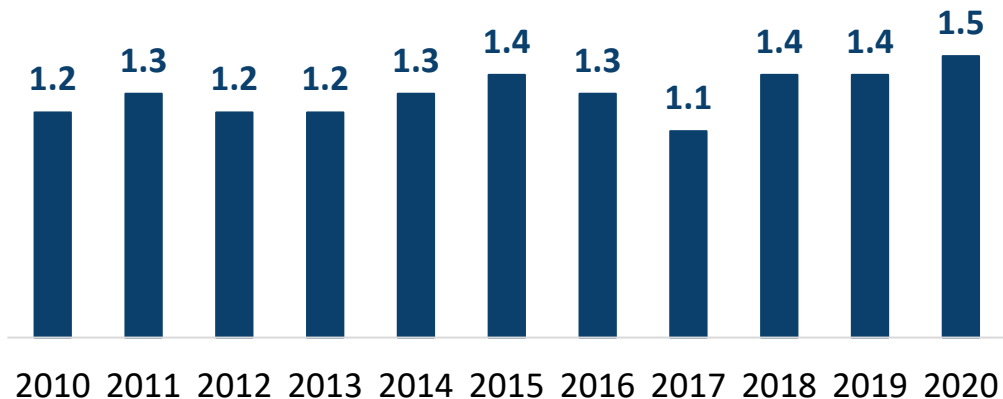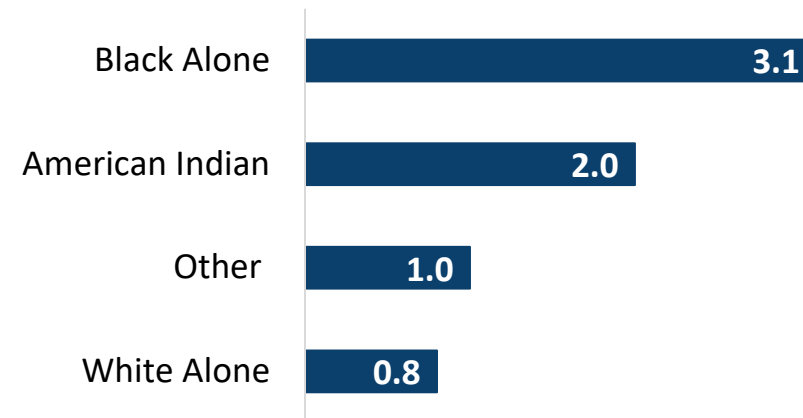Figure 1. Rate of Sleep-Related Infant Deaths per 1,000 Live Births

Year	Rate
2010	1.2
2011	1.3
2012	1.2
2013	1.2
2014	1.3
2015	1.4
2016	1.3
2017	1.1
2018	1.4
2019	1.4
2020	1.5

Figure 2. Rate of Sleep-Related Infant Deaths per 1,000 Live Births

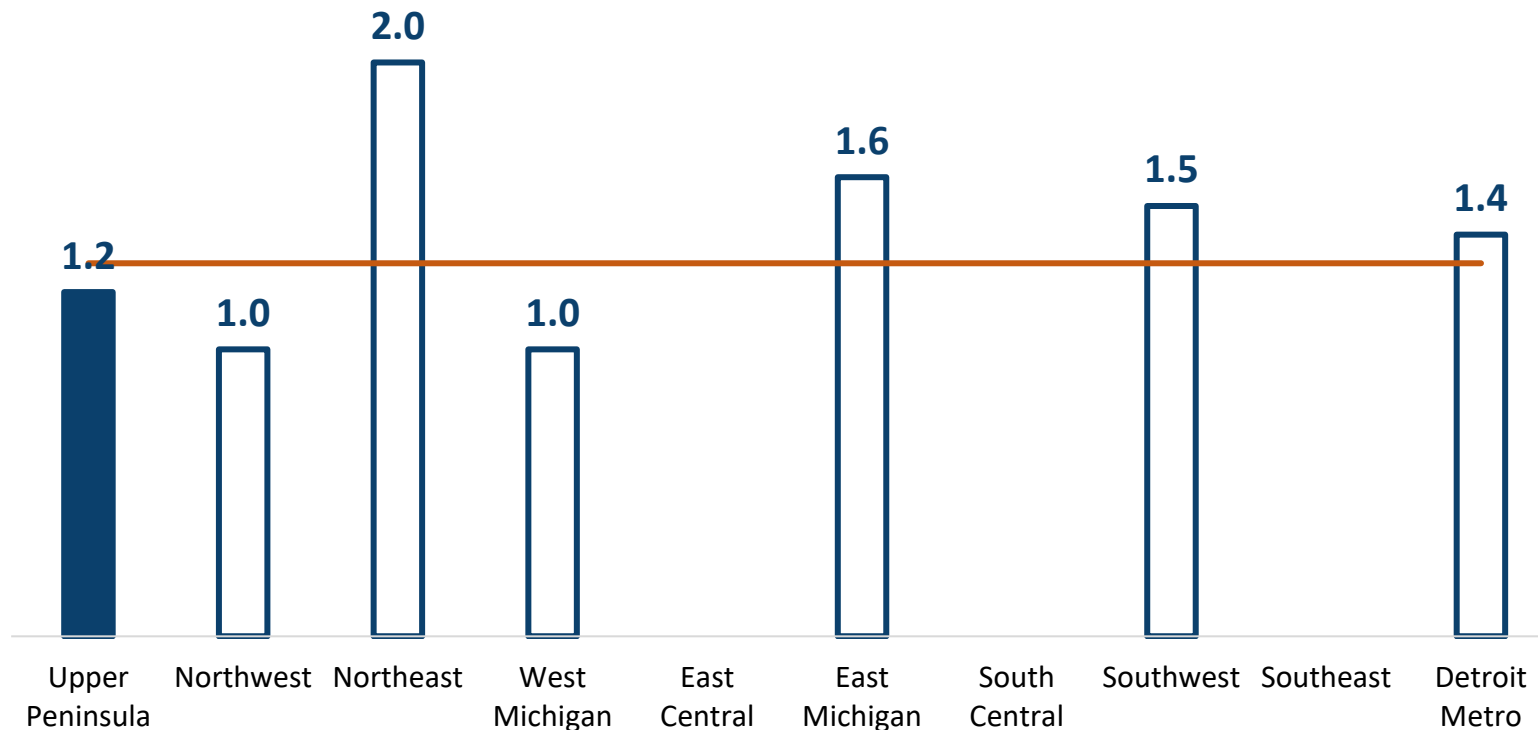| Race	Rate
Black Alone	3.1
American Indian	2.0
Other	1.0
White Alone	0.8

Sleep-Related Infant Death Rate by Prosperity Region, 2010-2020

Data for regions 5, 7, and 9 suppressed as to not inadvertently identify suppressed county level statistics.

Sleep-Related Infant Death Rate per 1,000 Live Births

Michigan: 1.3

Upper Peninsula	Northwest	Northeast	West Michigan	East Central	East Michigan	South Central	Southwest	Southeast	Detroit Metro
1.2	1.0	2.0	1.0		1.6		1.5		1.4

- Between 2010 and 2020 there were **35** sleep-related infant deaths in Region 1.

- The Region 1 sleep-related infant death rate (1.2 per 1,000 live births) was comparable to the Michigan sleep-related infant death rate (1.3 per 1,000 live births)
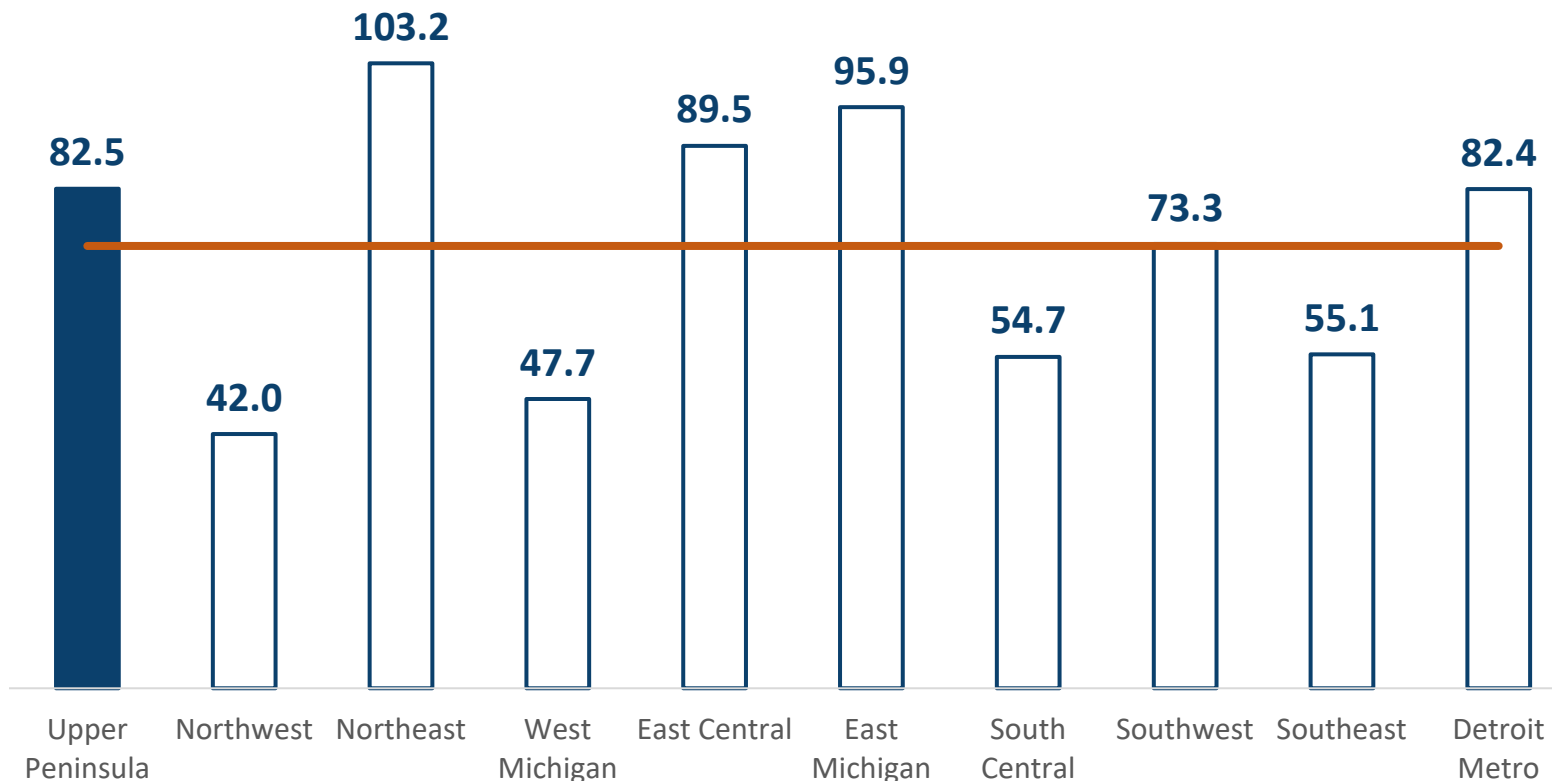
Maternal Mortality Ratio by Prosperity Region, 2015-2019

Total (Pregnancy Associated) Maternal Mortality Ratio per 100,000 Live Births

Michigan Ratio: 73.0

Region	Ratio
Upper Peninsula	82.5
Northwest	42.0
Northeast	103.2
West Michigan	47.7
East Central	89.5
East Michigan	95.9
South Central	54.7
Southwest	73.3
Southeast	55.1
Detroit Metro	82.4

- Maternal deaths include deaths that occur during pregnancy, at delivery or within one year of pregnancy.

- Pregnancy associated (total) maternal mortality includes:
  1- pregnancy associated, not related mortality *(unrelated to the pregnancy)*,
  2- pregnancy-related mortality *(related to or aggravated by the pregnancy)*,
  3- deaths where pregnancy-relatedness is unable to be determined.

- In Region One there were **11 maternal deaths** between 2015 and 2019.