Maternal and Child Health Annual Data Report 2023
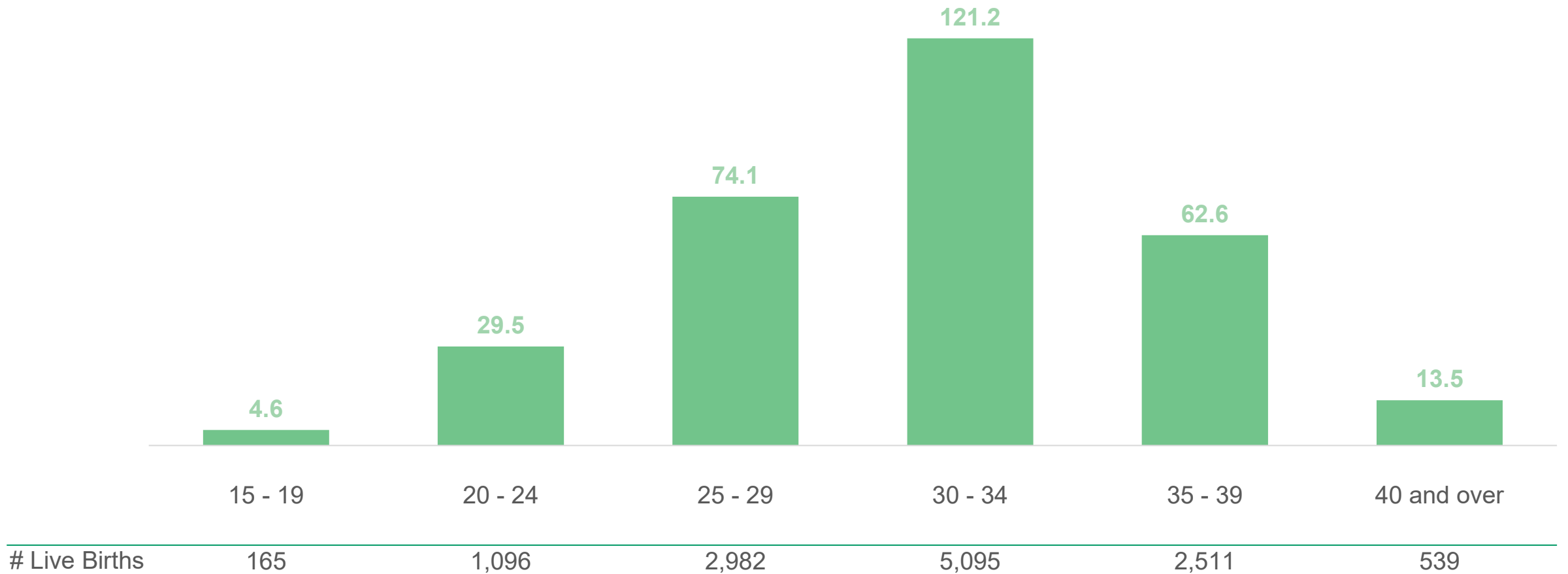
OAKLAND COUNTY
MICHIGAN

Birth Outcomes

Fertility Rates of Mother Oakland County, 2022

Overall fertility rate is the number of live births per 1,000 women between the ages of 15 and 44.
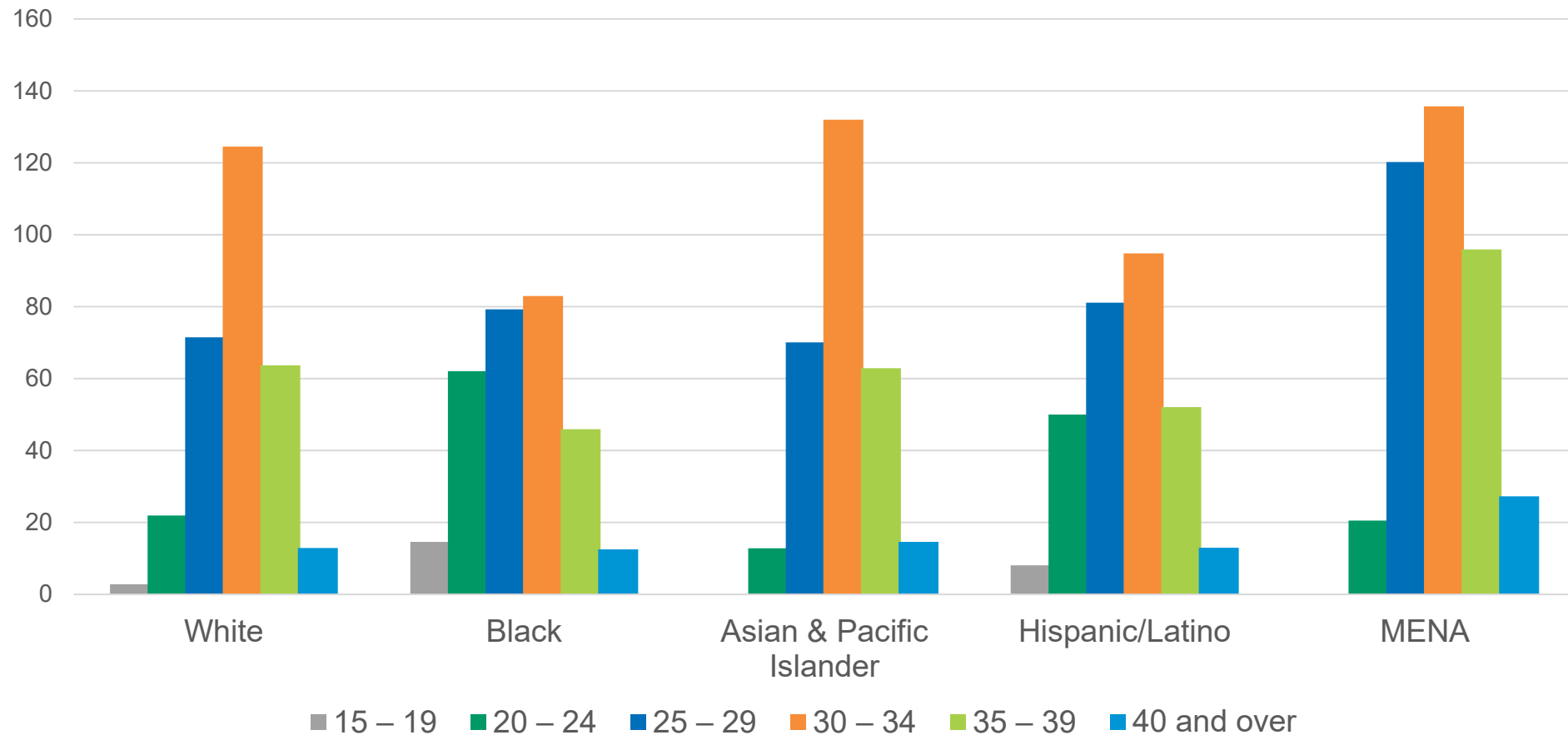
53.3

52.7

OAKLAND

MICHIGAN

Live Births	12,402	100,880
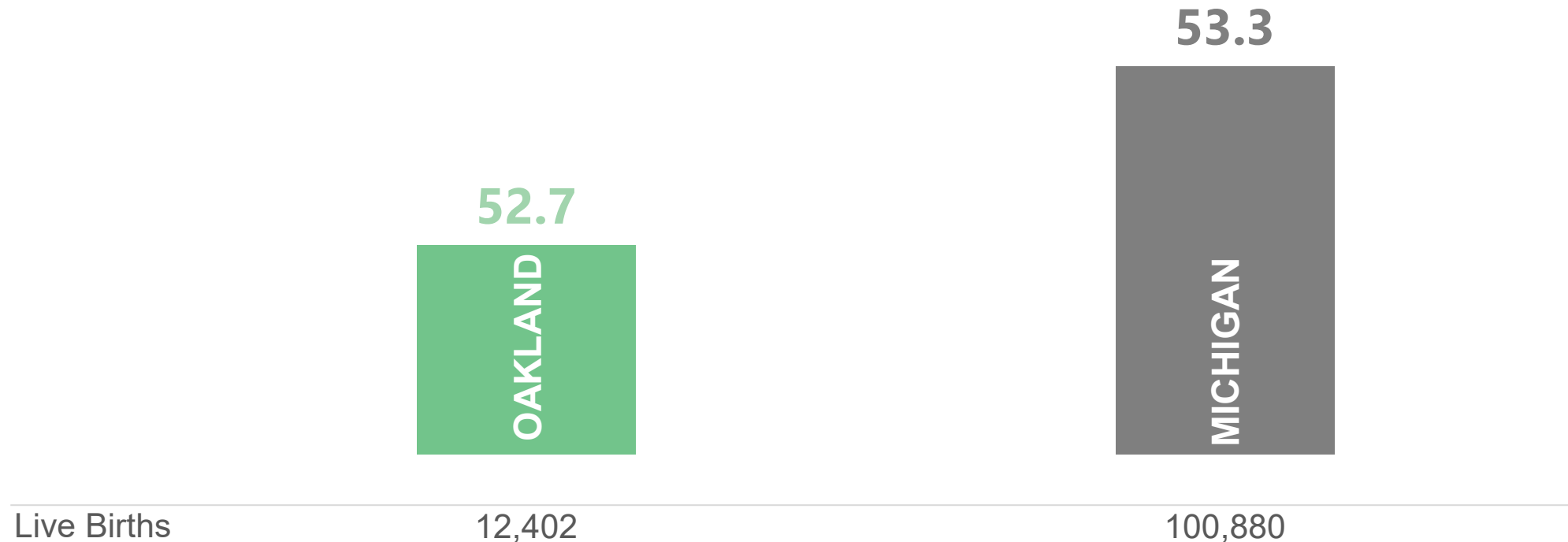
Fertility Rates by Age of Mother Oakland County, 2022

Fertility rate is the number of live births per 1,000 women in each age group.

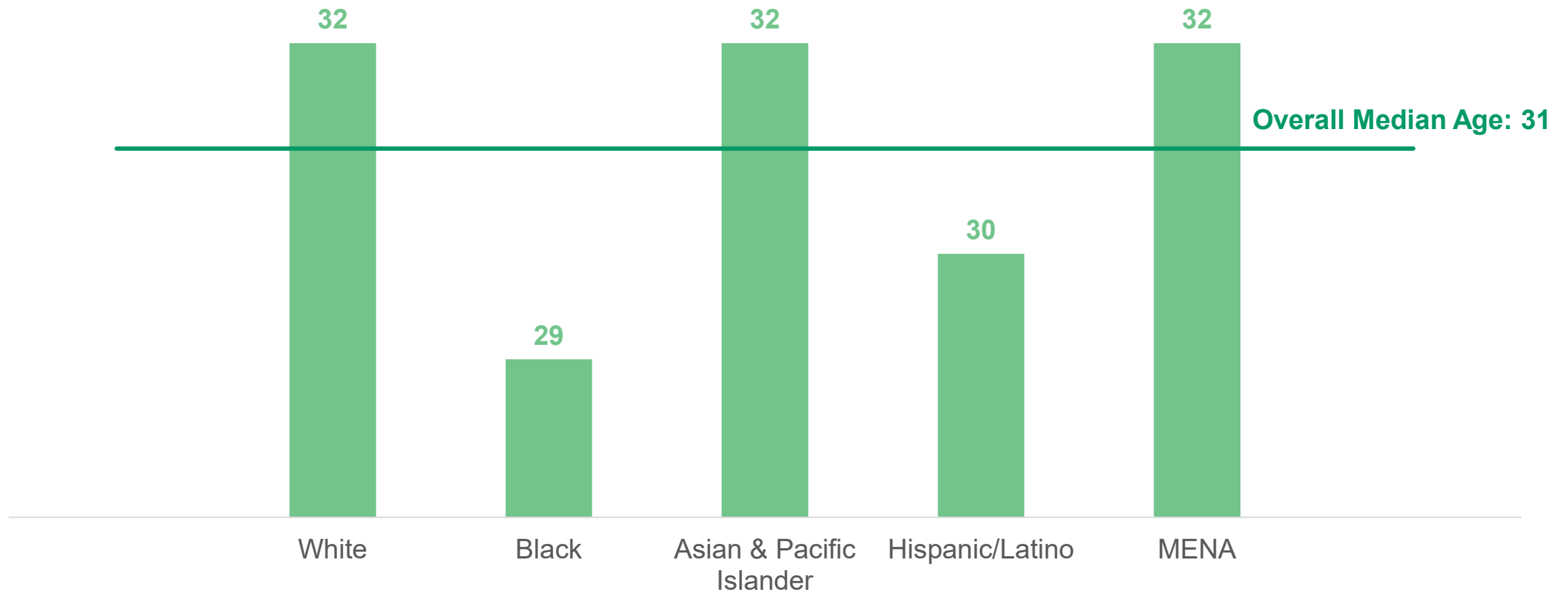|	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 and over
Fertility Rate	4.6	29.5	74.1	121.2	62.6	13.5
# Live Births	165	1,096	2,982	5,095	2,511	539

Fertility Rates by Race and Age of Mother Oakland County, 2022

Fertility rate is the number of live births per 1,000 women in each demographic group.
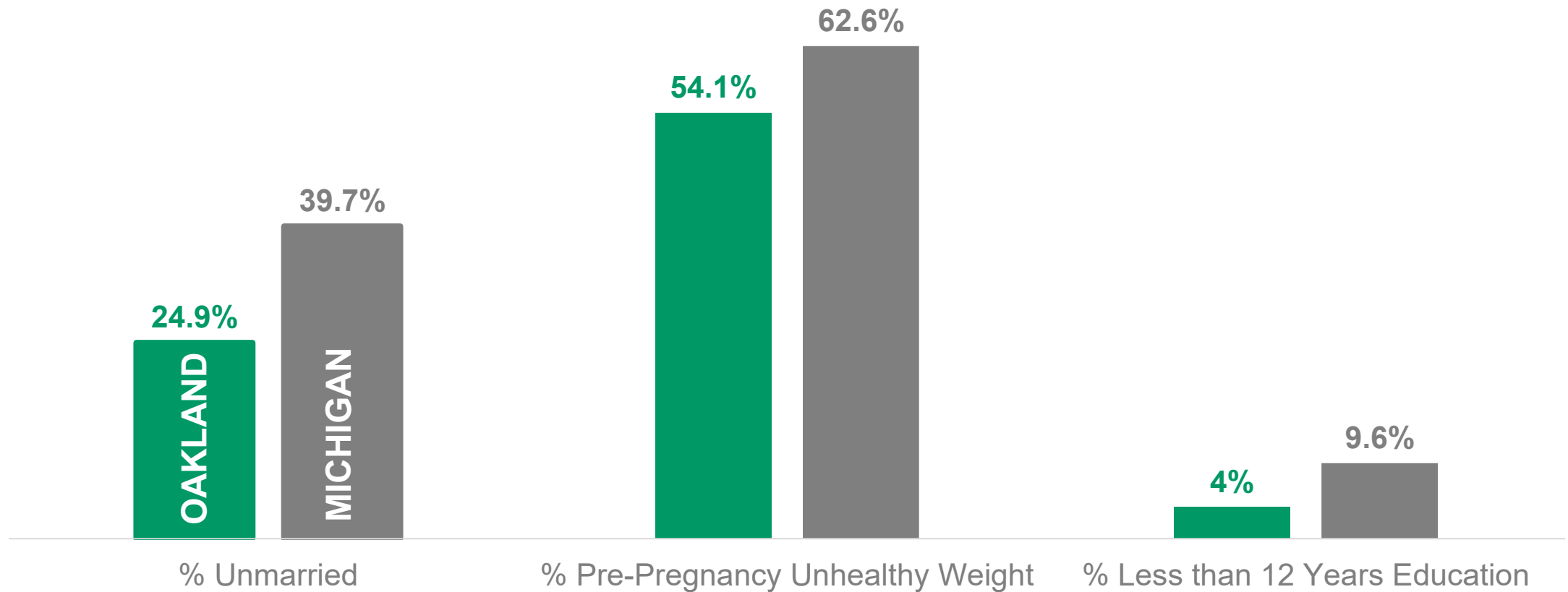
Legend: ■ 15 – 19 ■ 20 – 24 ■ 25 – 29 ■ 30 – 34 ■ 35 – 39 ■ 40 and over

Categories: White, Black, Asian & Pacific Islander, Hispanic/Latino, MENA

Median Maternal Age by Race of Mother Oakland County, 2022

Maternal age is defined as the age of the mother at the time of childbirth.

Overall Median Age: 31

White	Black	Asian & Pacific Islander	Hispanic/Latino	MENA
32	29	32	30	32

Preconception and Environmental Factors

Characteristics of Mother Prior to Conception Oakland County, 2022

24.9% — OAKLAND — % Unmarried
39.7% — MICHIGAN — % Unmarried

54.1% — % Pre-Pregnancy Unhealthy Weight (Oakland)
62.6% — % Pre-Pregnancy Unhealthy Weight (Michigan)

4% — % Less than 12 Years Education (Oakland)
9.6% — % Less than 12 Years Education (Michigan)

Deliveries Paid Using Medicaid Oakland County, 2022

Maternal Race	# of Deliveries Paid	Percent (%) of Deliveries Paid	Oakland County	Michigan
Total	2,753	22.2%	**22.2%**	38.8%
White	1,497	17.0%	**17.0%**	31.4%
Black	1,045	54.0%	**54.0%**	66.3%
American Indian	19	41.3%	**41.3%**	53.3%
Asian Pacific Islander	90	6.9%	**6.9%**	25.8%
All Other Races	85	34.6%	**34.6%**	61.9%
Hispanic/Latino	331	46.0%	**46.0%**	59.2%
MENA	121	15.7%	**15.7%**	54.1%

Inter-Pregnancy Interval <18 Months Oakland County, 2022

Inter-pregnancy Interval (IPI) is the time in months between the date of last menstrual period of current pregnancy and the date of previous live birth among multiparous mothers.

Maternal Race	# women with IPI <18 months	Percent (%) of women with IPI <18 months	Oakland County	Michigan
Total	2,205	33.3%	**33.3%**	32.8%
White	1,753	36.6%	**36.6%**	34.3%
Black	282	27.4%	**27.4%**	29.5%
American Indian	5	20.0%	**20.0%**	34.4%
Asian Pacific Islander	121	20.3%	**20.3%**	24.5%
All Other Races	33	24.4%	**24.4%**	26.5%
Hispanic/Latino	105	25.5%	**25.5%**	28.4%
MENA	177	43.6%	**43.6%**	32.6%

During Pregnancy

Pregnancy Risk Assessment Monitoring System (PRAMS)

What is PRAMS?	Measures Included in this Report
PRAMS, the **Pregnancy Risk Assessment Monitoring System**, is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. Survey data is collected as a statewide representative sample.	Data is currently unavailable at the county level, so statewide data has been provided. Data were collected in 2022 and include alcohol and substance abuse during or prior to pregnancy.

Reported Tobacco Usage
Before and During Pregnancy
Michigan, 2022

All data on this page is from Pregnancy Risk Assessment Monitoring System (PRAMS).

| Measure	# Sample Size	Percent (%) reporting use during pregnancy
Any cigarette smoking during the 3 months before pregnancy	160	12.0%
Any cigarette smoking during the last 3 months of pregnancy	83	5.7%
Any e-cigarette use during the 3 months before pregnancy	140	9.5%
Any e-cigarette use during the last 3 months of pregnancy	55	3.9%

Reported Alcohol and Tobacco Usage Before and After Pregnancy Michigan, 2022

All data on this page is from Pregnancy Risk Assessment Monitoring System (PRAMS).

Substance	Measure	# of people		Percent (%) Reporting Use
Cigarette	Any cigarette smoking postpartum	99	7.0%	7.0%
Hookah	Hookah use in the last 2 years	77	3.9%	3.9%
Alcohol	Heavy drinking (≥8 drinks a week) during the 3 months before pregnancy	36	2.6%	2.6%

Characteristics of Mother During Pregnancy
Oakland County, 2022

Prenatal Care
OAKLAND 84.3%
MICHIGAN 76.3%

WIC
14.7%
30.6%

Maternal Smoking
3.3%
8.5%
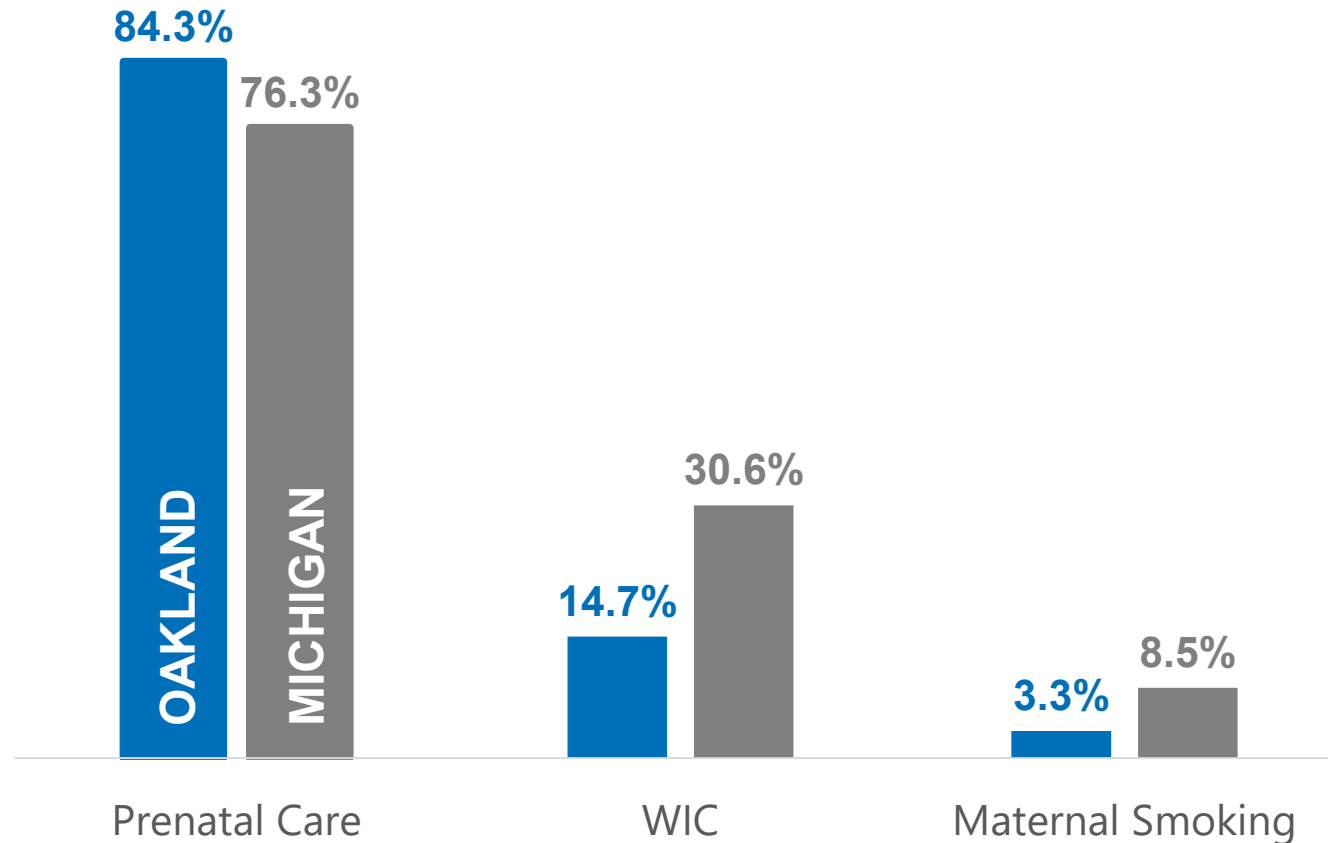
Indicator Definitions

% Received prenatal care during first trimester

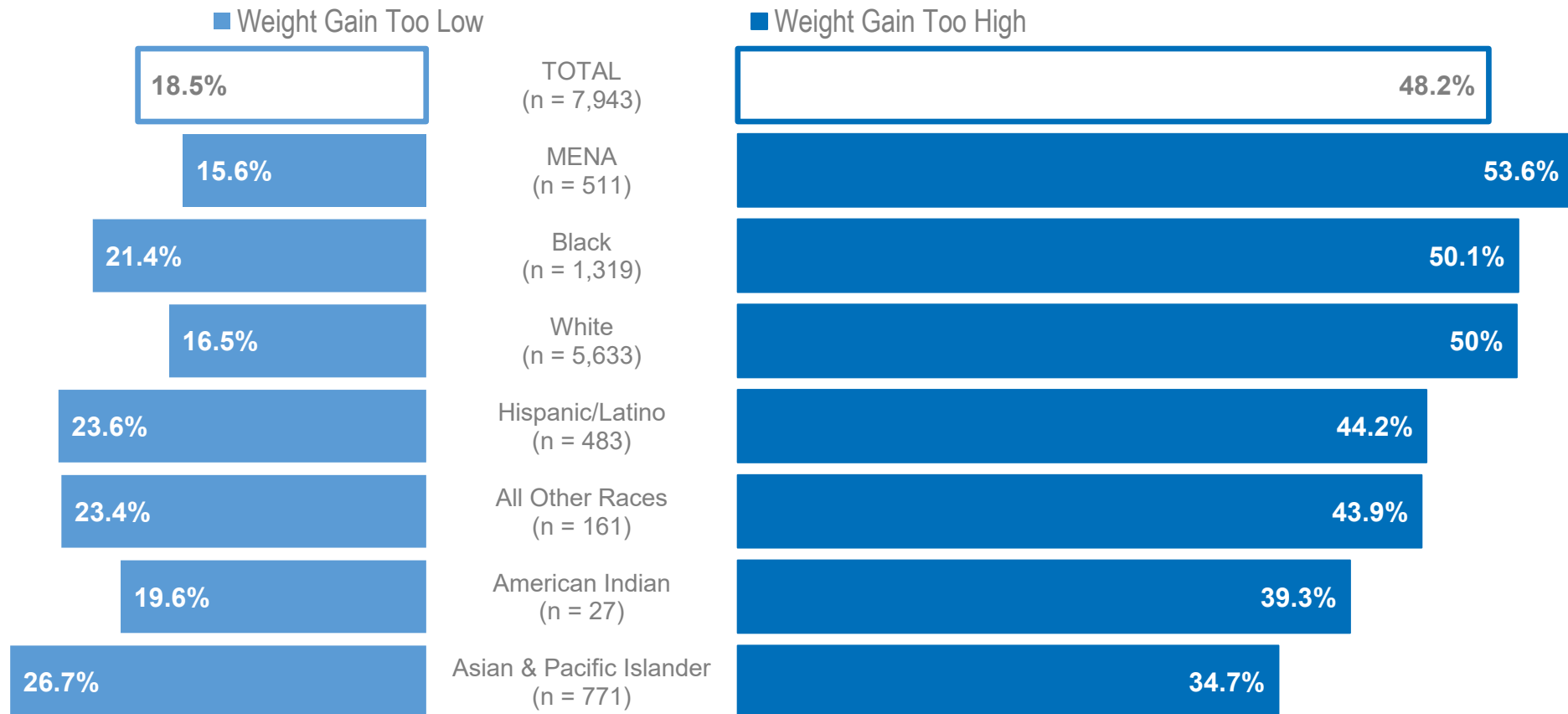% WIC food during pregnancy

% Smoked while pregnant

Reported Household Smoking During Pregnancy by Race
Oakland County, 2022

Household smoking is defined as the mother or someone else in the household smoking during the mother's pregnancy, as reported on birth certificate records.

	Total	White	Black
	4.8%	5.2%	5.8%
# Live Births	599	456	112
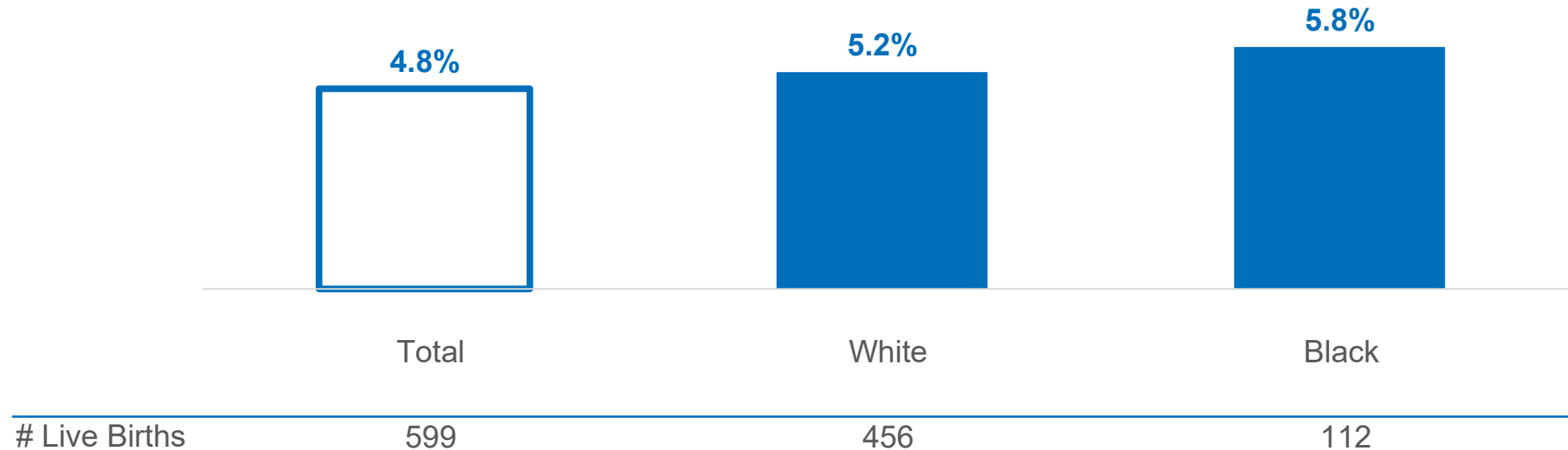
High or Low Weight Gain During Pregnancy Oakland County, 2022

Weight gain is considered high if it is above the Institute of Medicine (IOM) recommended range of weight gain.
Rates are expressed as per 1,000 singleton (singleton birth is a single birth delivery).

■ Weight Gain Too Low   ■ Weight Gain Too High

	Group	Weight Gain Too High
18.5%	TOTAL (n = 7,943)	48.2%
15.6%	MENA (n = 511)	53.6%
21.4%	Black (n = 1,319)	50.1%
16.5%	White (n = 5,633)	50%
23.6%	Hispanic/Latino (n = 483)	44.2%
23.4%	All Other Races (n = 161)	43.9%
19.6%	American Indian (n = 27)	39.3%
26.7%	Asian & Pacific Islander (n = 771)	34.7%

Gestational Diabetes During Pregnancy Oakland County, 2022

Gestational Diabetes is characterized by the onset of Diabetes Mellitus during the current pregnancy.

Maternal Race	# Live Births to Mothers w/ Gestational Diabetes	Percent (%) Gestational Diabetes	Oakland County	Michigan
Total	893	7.2%	7.2%	7.3%
White	554	6.3%	6.3%	7.4%
Black	116	6.0%	6.0%	5.4%
American Indian	7	15.2%	15.2%	9.6%
Asian Pacific Islander	195	14.9%	14.9%	14.9%
All Other Races	17	6.9%	6.9%	6.4%
Hispanic/Latino	47	6.5%	6.5%	7.7%
MENA	64	8.3%	8.3%	10.7%

Pregnancy-Induced Hypertension (PIH) Oakland County, 2022

Gestational Hypertension is diagnosed when the mother experiences pregnancy-induced hypertension (PIH), pre-eclampsia, or eclampsia.

Maternal Race	# Live Births to mothers who had PIH	Percent (%) Pregnancy-Induced Hypertension	Oakland County	Michigan
Total	1,268	10.2%	**10.2%**	9.6%
White	933	10.6%	**10.6%**	9.8%
Black	232	12.0%	**12.0%**	10.1%
American Indian	5	10.9%	**10.9%**	9.6%
Asian Pacific Islander	78	6.0%	**6.0%**	5.8%
All Other Races	19	7.7%	**7.7%**	6.5%
Hispanic/Latino	47	6.5%	**6.5%**	7.9%
MENA	46	6.0%	**6.0%**	5.1%

Postpartum & Newborn Period

Infant Characteristics - APGAR Oakland County, 2022

2.4%

1.3%

OAKLAND

MICHIGAN

% APGAR <7 in first 5 minutes of life
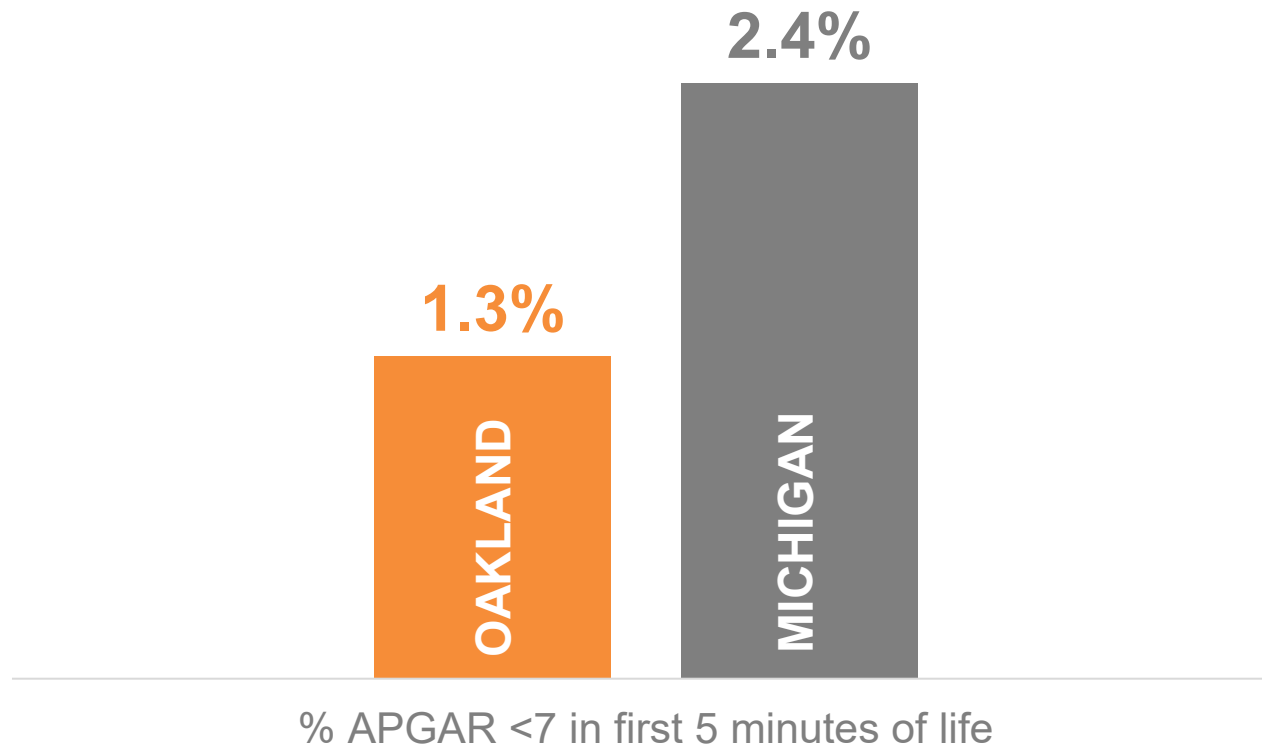
What is APGAR?

The APGAR (appearance, pulse, grimace, activity, respiration) score is used to evaluate the health of all newborns at 1 and 5 minutes after birth and in response to resuscitation.

APGAR scores range from 0 – 10. **7 -10** indicates normal; **4 – 6** indicates moderately abnormal

Cesarean Low-Risk Deliveries Oakland County, 2022

Low-risk births are defined as live births that are singleton, full-term (37 weeks gestation or older), with vertex present.

Maternal Race	# Low risk CS deliveries		Oakland County	Michigan
Total	3,139	29.5%	**29.5%**	28.9%
White	2,127	28.0%	**28.0%**	27.9%
Black	522	32.7%	**32.7%**	31.5%
American Indian	10	22.7%	**22.7%**	29.1%
Asian & Pacific Islander	412	36.2%	**36.2%**	35.2%
All Other Races	56	25.7%	**25.7%**	28.2%
Hispanic/Latino	167	26.4%	**26.4%**	28.3%
MENA	205	30.1%	**30.1%**	29.7%

Birth weight by Census Tract Oakland County, 2022

Low birth weight is defined as babies weighing less than 2,500 grams expressed as per 1,000 births.
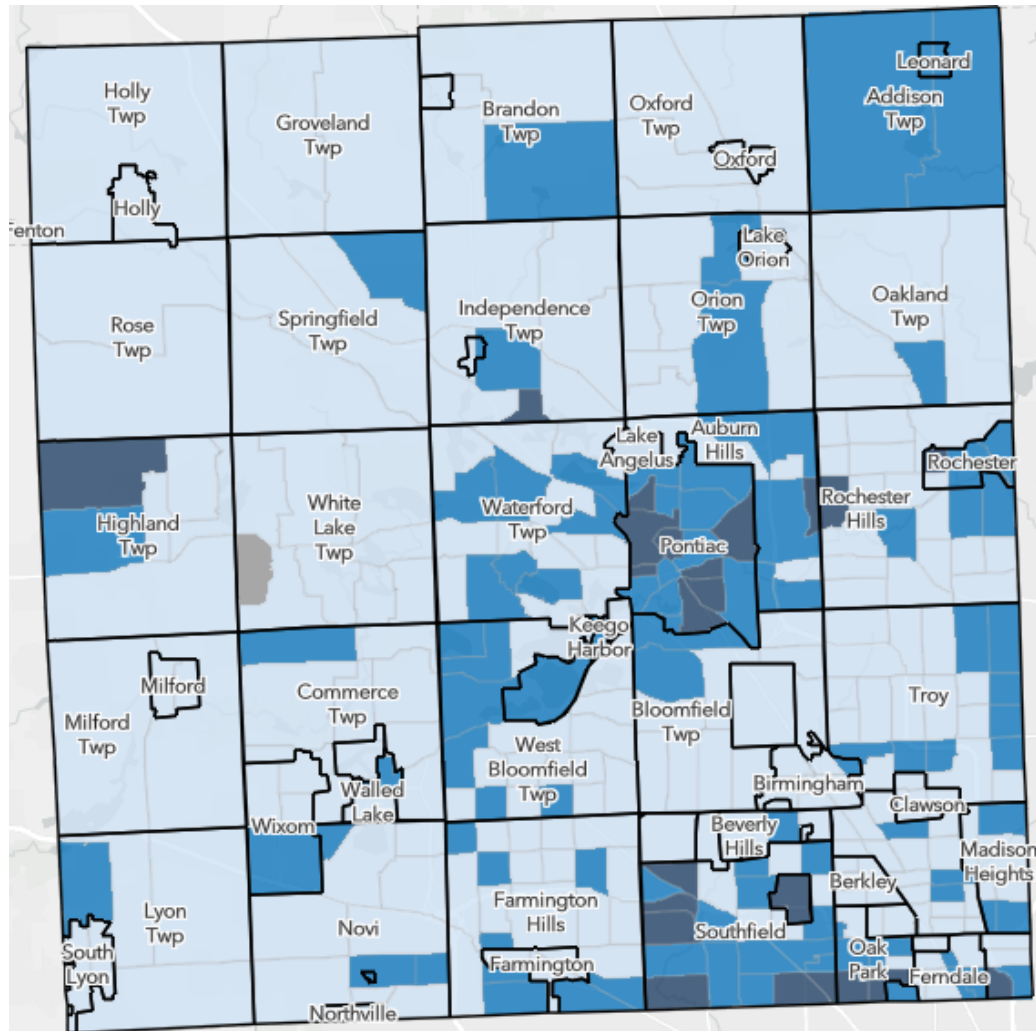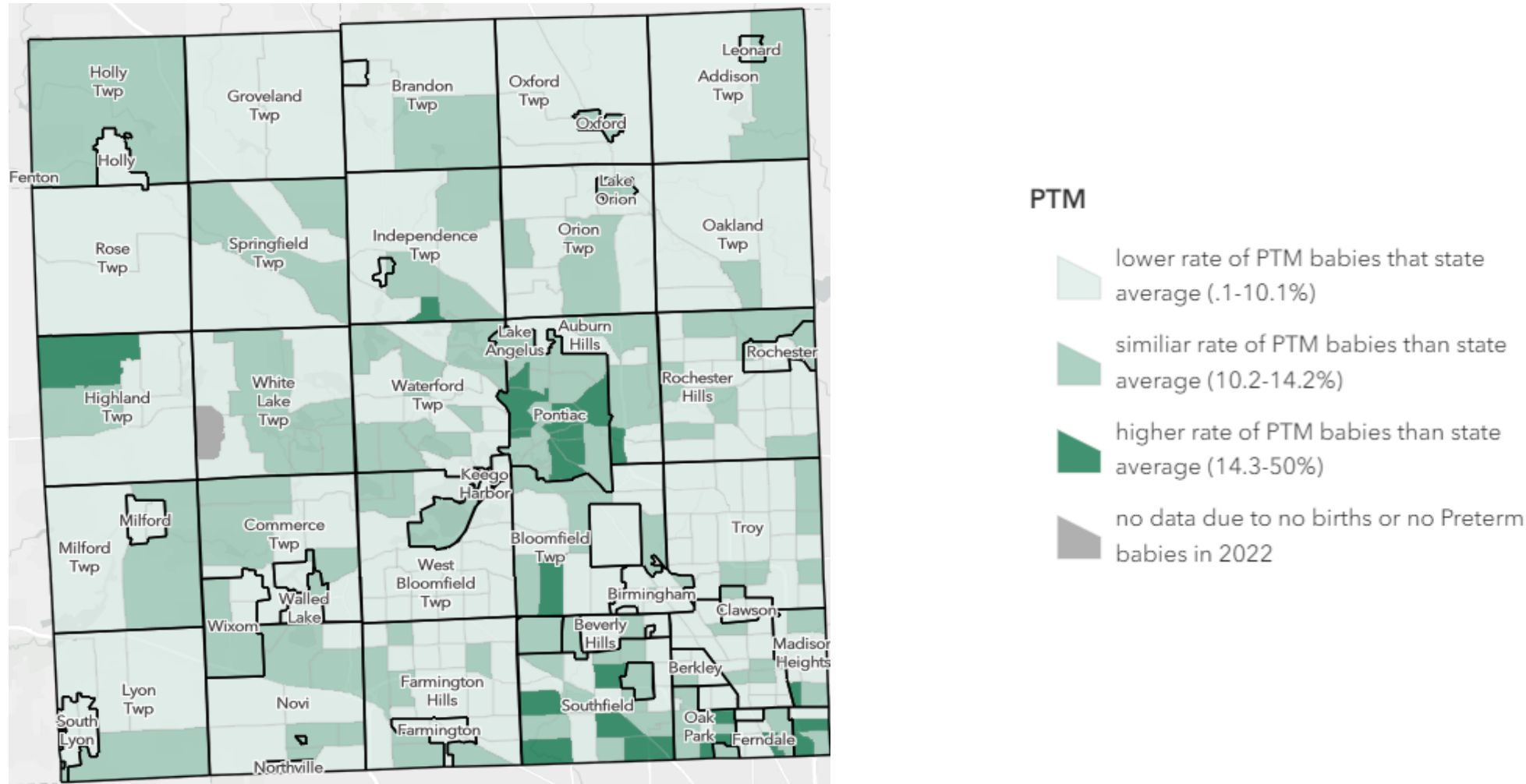

LBW

- lower rate of LBW babies than state average (.1-8.7%)
- similiar rate of LBW babies than state average (8.8-13.1%)
- higher rate of LBW babies than state average (13.2-50%)
- no data due to no births or no low birthweight babies in 2022

Pre-Term Birth by Census Tract Oakland County, 2022

Preterm birth is defined as babies born prior to 37 completed weeks of gestation.
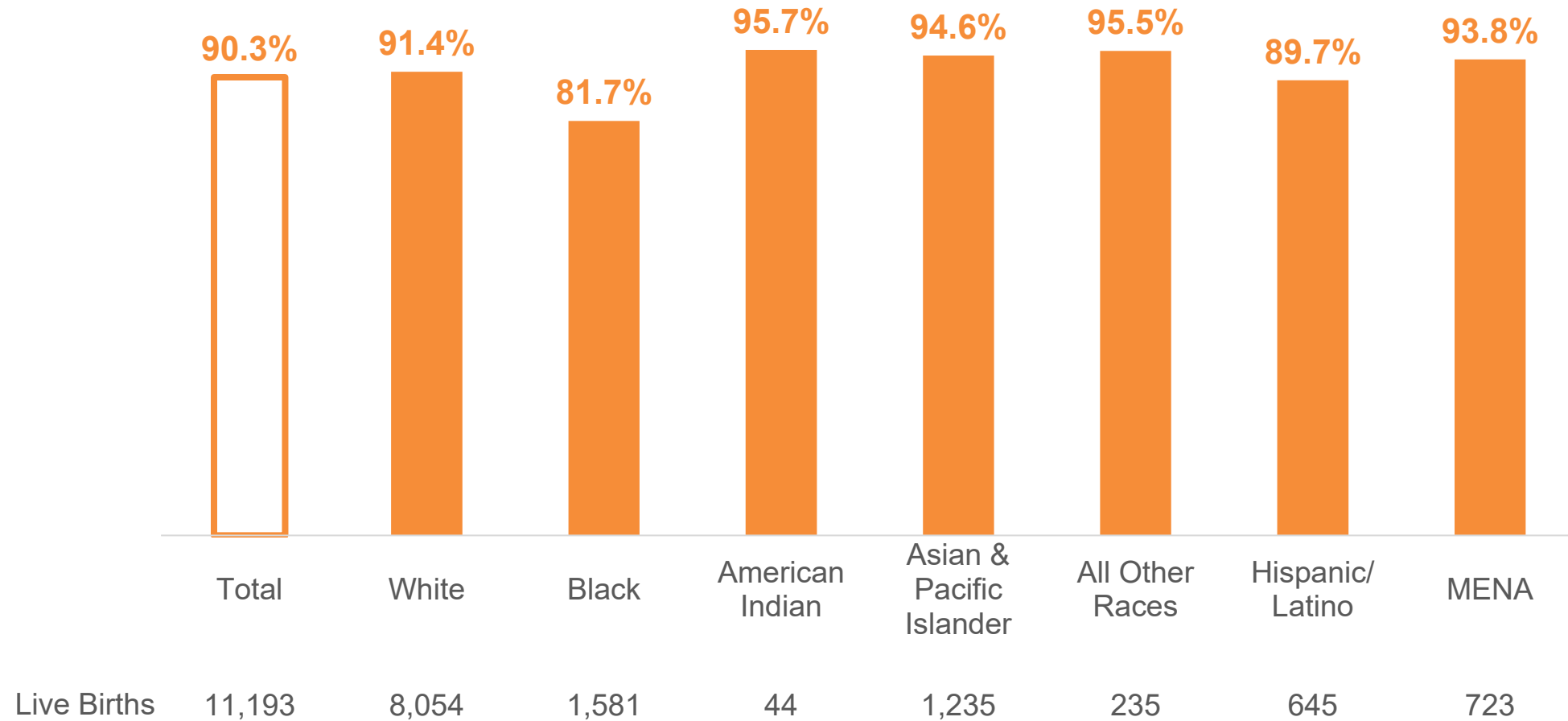

PTM

- lower rate of PTM babies that state average (.1-10.1%)
- similiar rate of PTM babies than state average (10.2-14.2%)
- higher rate of PTM babies than state average (14.3-50%)
- no data due to no births or no Preterm babies in 2022

Average Number of Birth Defects Oakland County, 1992 - 2019

Birth defects are reportable if identified within the first two years of a child's life. The frequencies at one year and at two years serve to indicate the time from the birth of the child to the diagnosis of the condition.
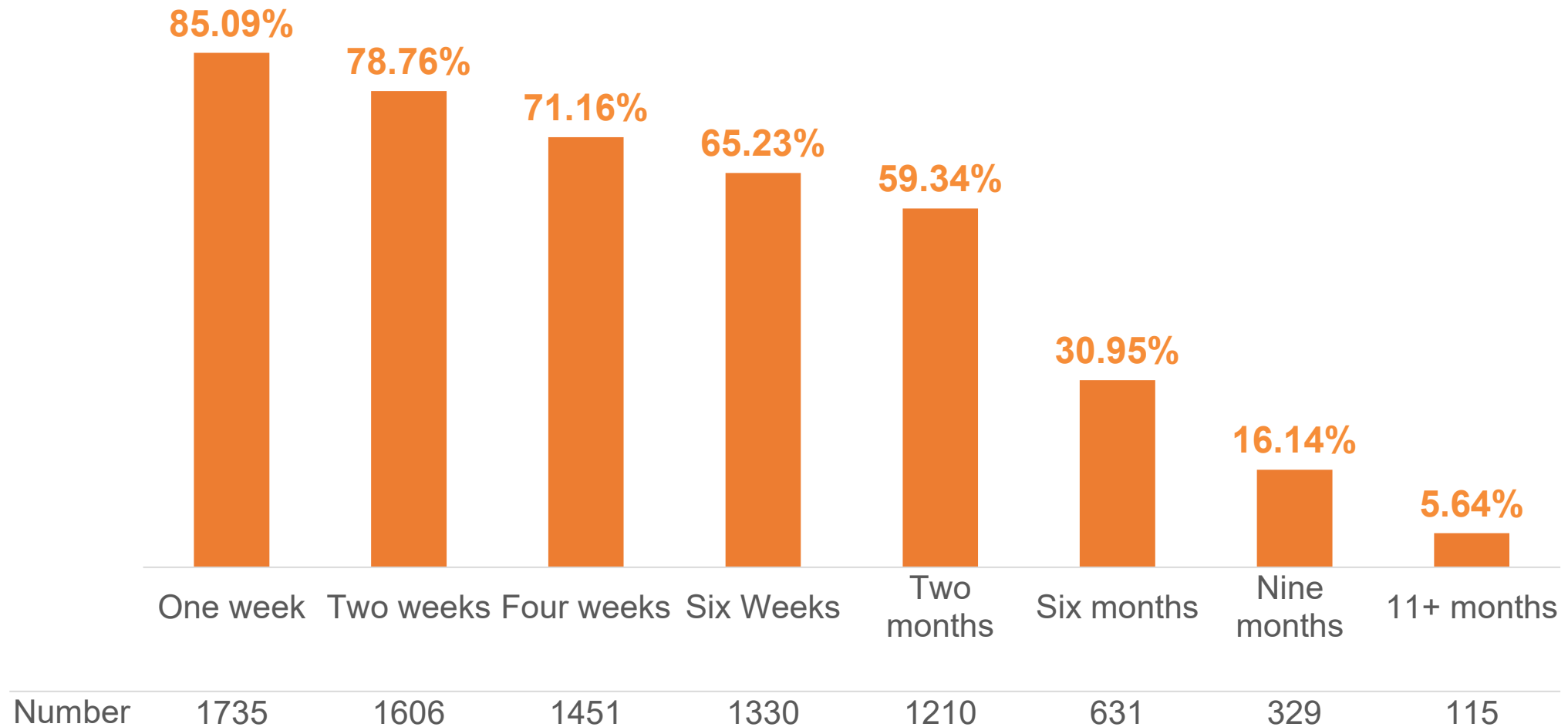

	All cases	Under 1 year	Between 1 & 2 Years
	1,880	1741.7	138.3
Total	18,800	17,417	1,383
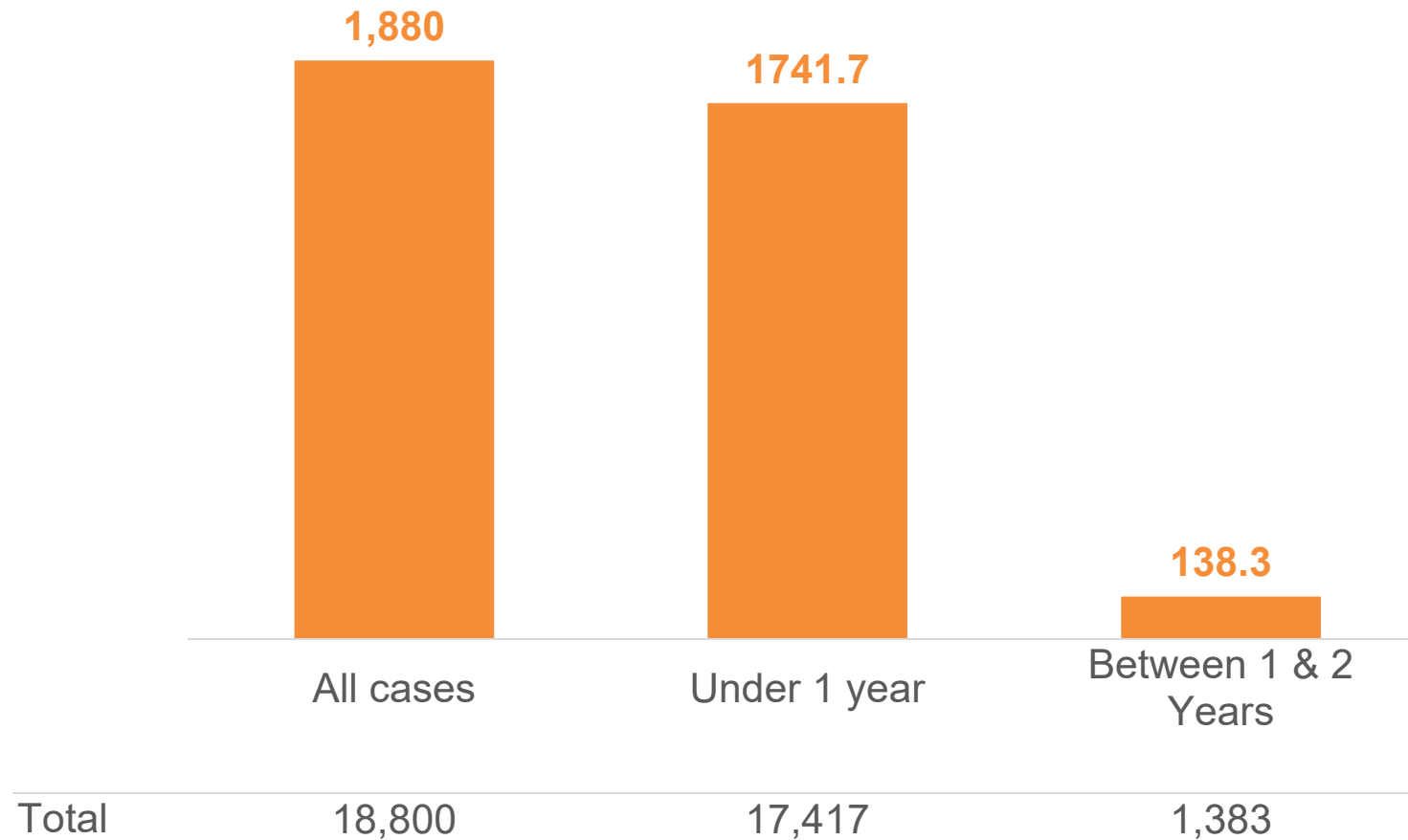
Breastfeeding Initiation by Race Oakland County, 2022

Breastfeeding Initiated is shown here as the percent of the sum of two questions from the Michigan birth certificate:
The mother breastfed at discharge, or breastfeeding was planned after discharge.

	Total	White	Black	American Indian	Asian & Pacific Islander	All Other Races	Hispanic/ Latino	MENA
Percent	90.3%	91.4%	81.7%	95.7%	94.6%	95.5%	89.7%	93.8%
Live Births	11,193	8,054	1,581	44	1,235	235	645	723

Breastfeeding among WIC clients Oakland County, 2022

Breastfeeding for WIC is shown here as the percent of infants enrolled in WIC who initiated breastfeeding and are still breastfed at the end of the time period indicated.


	One week	Two weeks	Four weeks	Six Weeks	Two months	Six months	Nine months	11+ months
Percent	85.09%	78.76%	71.16%	65.23%	59.34%	30.95%	16.14%	5.64%
Number	1735	1606	1451	1330	1210	631	329	115

Mortality

Infant Mortality Rate by Race and Ethnicity Oakland County, 2022

Infant mortality rate is defined as the number of deaths of infants under one year of age per 1,000 live births in a given population. Race is determined based on the mother's recorded race on the birth certificate, and data are averaged over 3 years to ensure stability due to small numbers.
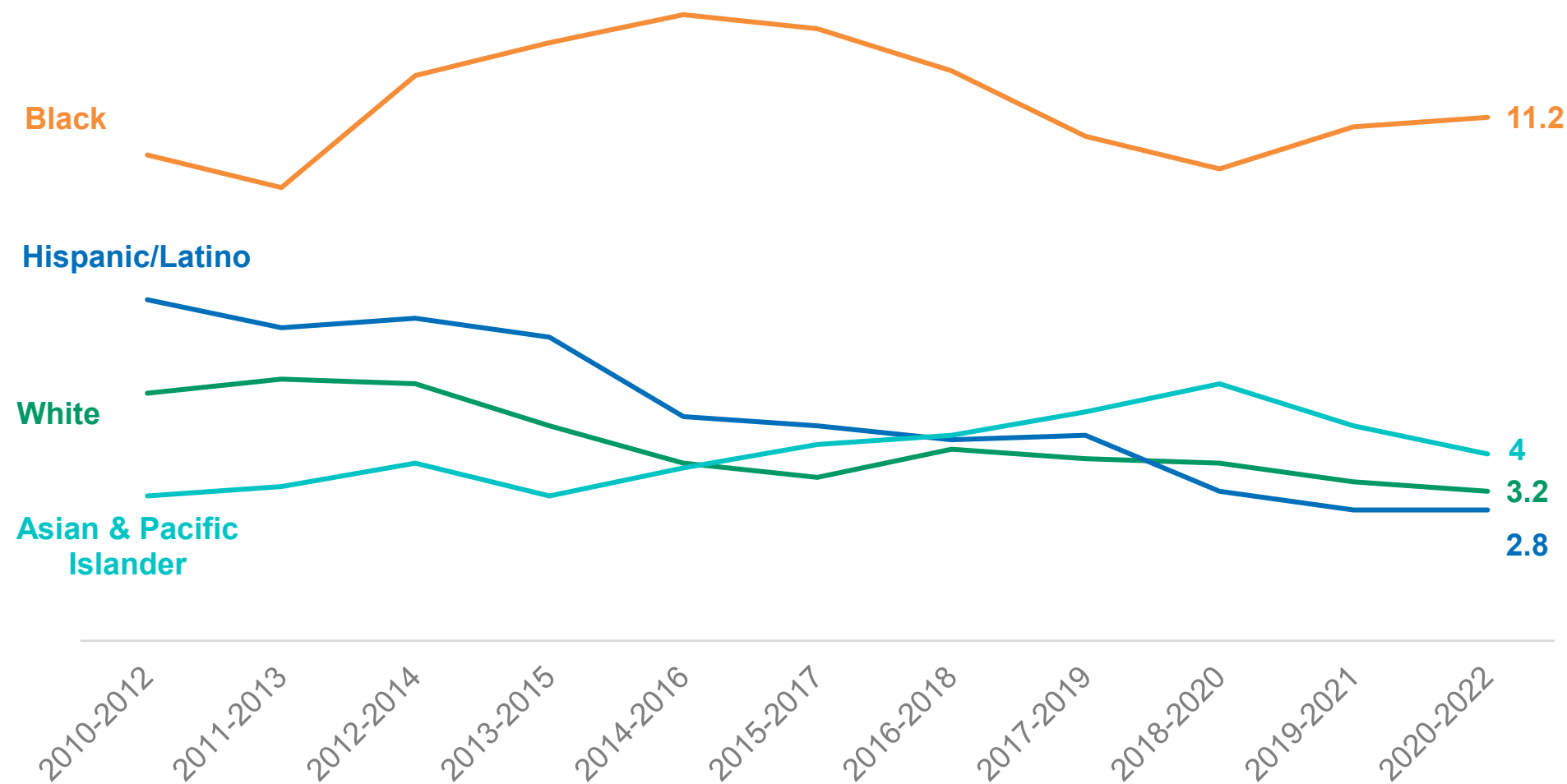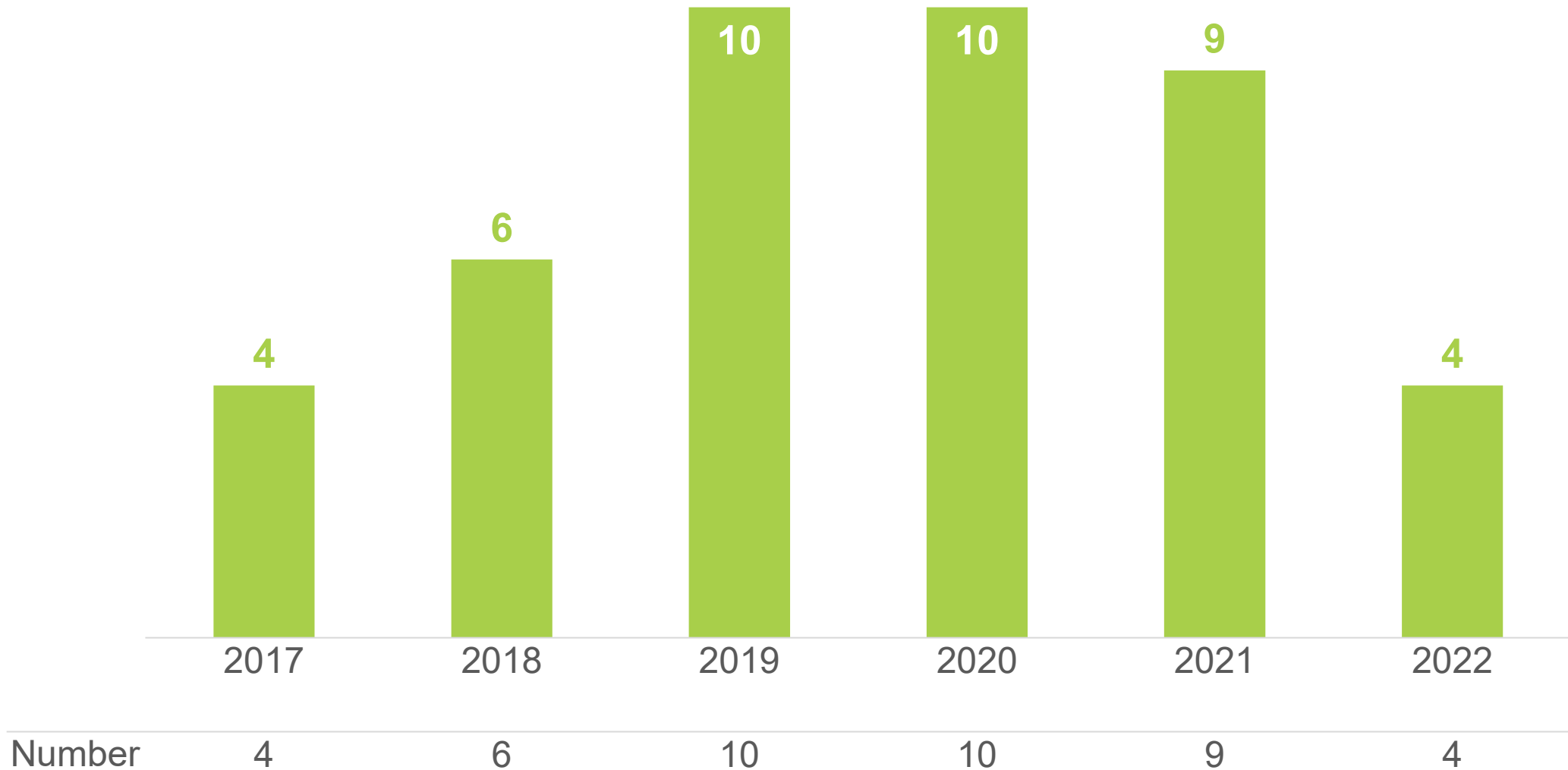
Leading Causes of Infant Death Oakland County, 2017 - 2022
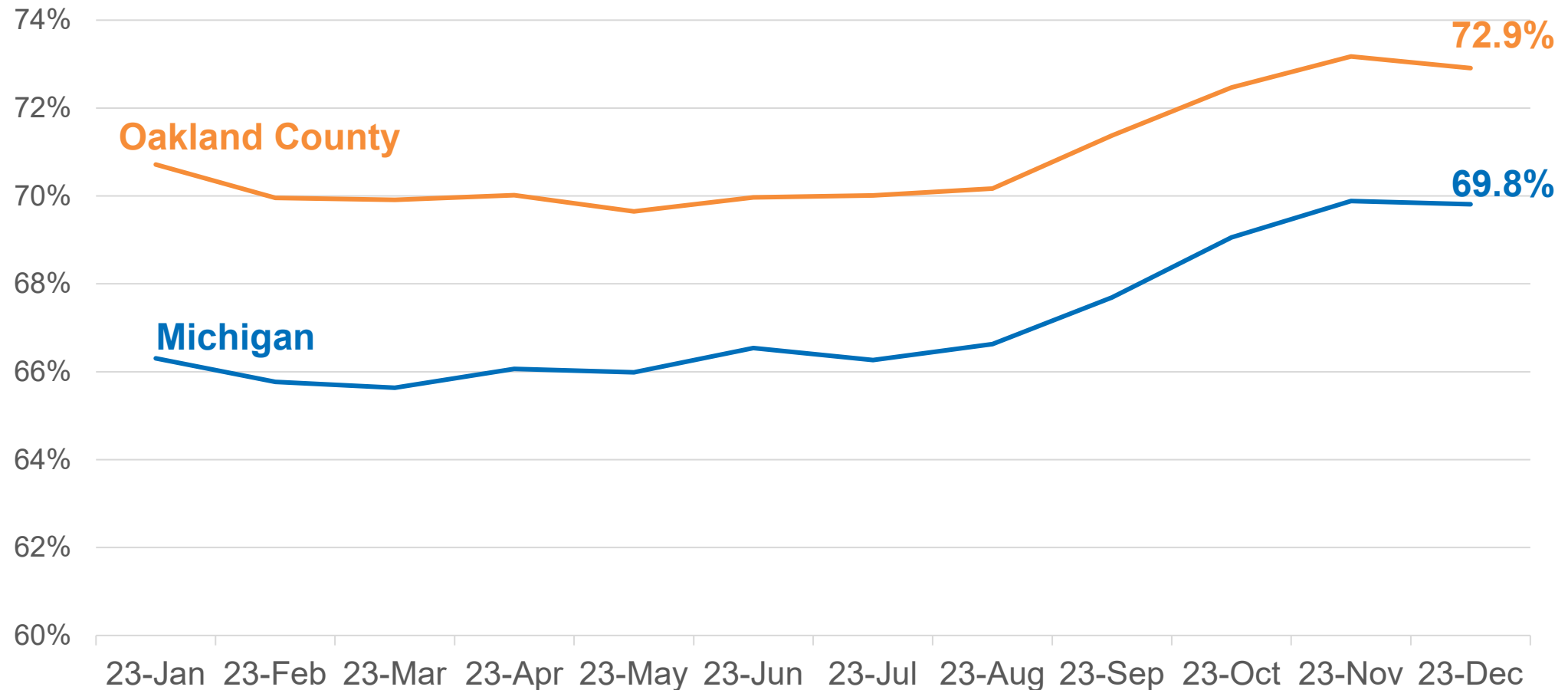
Leading causes of death are based on all infant deaths that occurred in the county.

Causes of Death	
Prematurity	42%
Asphyxia	32%
Congenital anomaly	9%
Other medical condition	9%
Other perinatal condition	5%
Poisoning/homicide	2%
Undetermined	1%
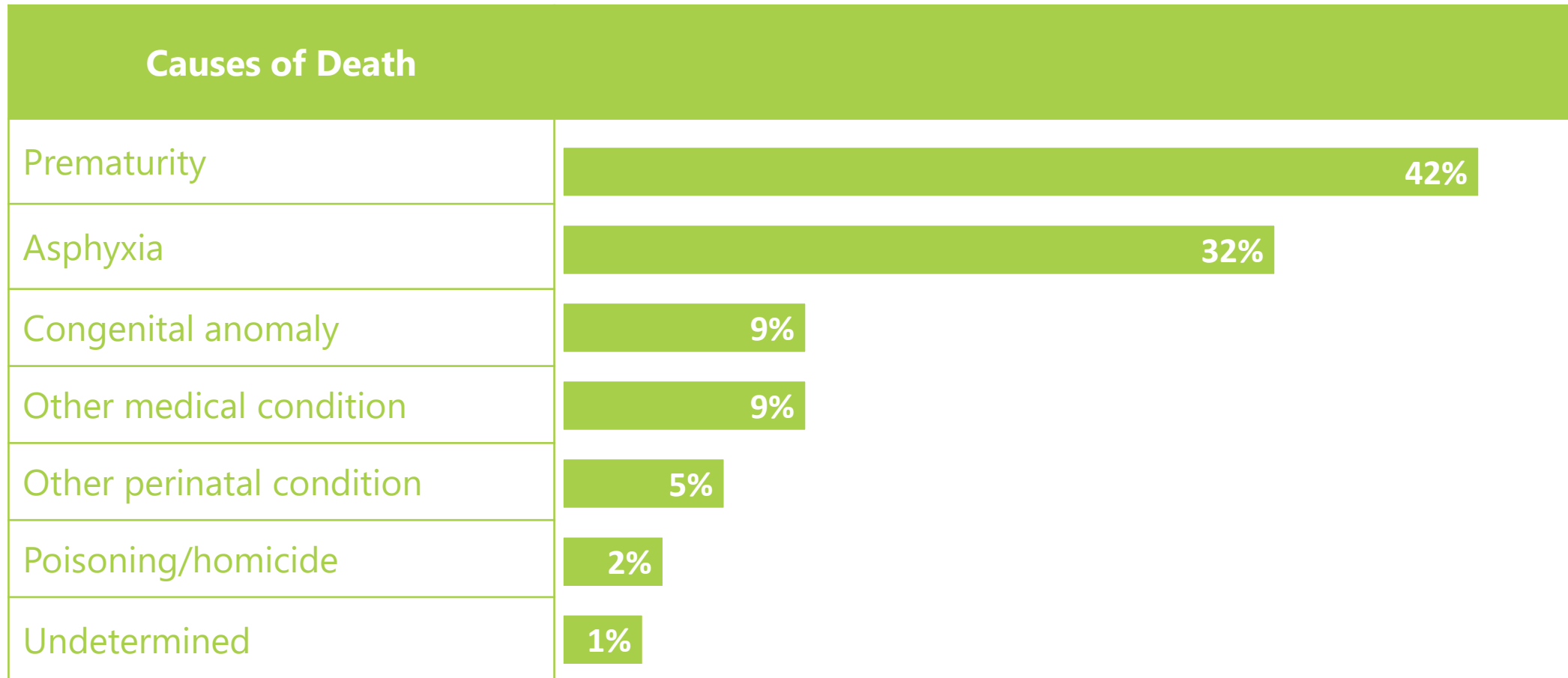
Infancy & Childhood

Percent of Children 19-36 Months Up-to-Date On Primary Childhood Vaccine Series, Oakland County, 2022 - 2023

Recommended doses for the primary childhood vaccine series include (4)DTaP, (3)Polio, (1)MMR, (3)Hib, (3)HepB, (1)Varicella, (4)PCV.

Children under 6 tested for lead Oakland County, 2010 - 2022

Michigan

Oakland County

17.0%

15.8%

24%
22%
20%
18%
16%
14%
12%
10%

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
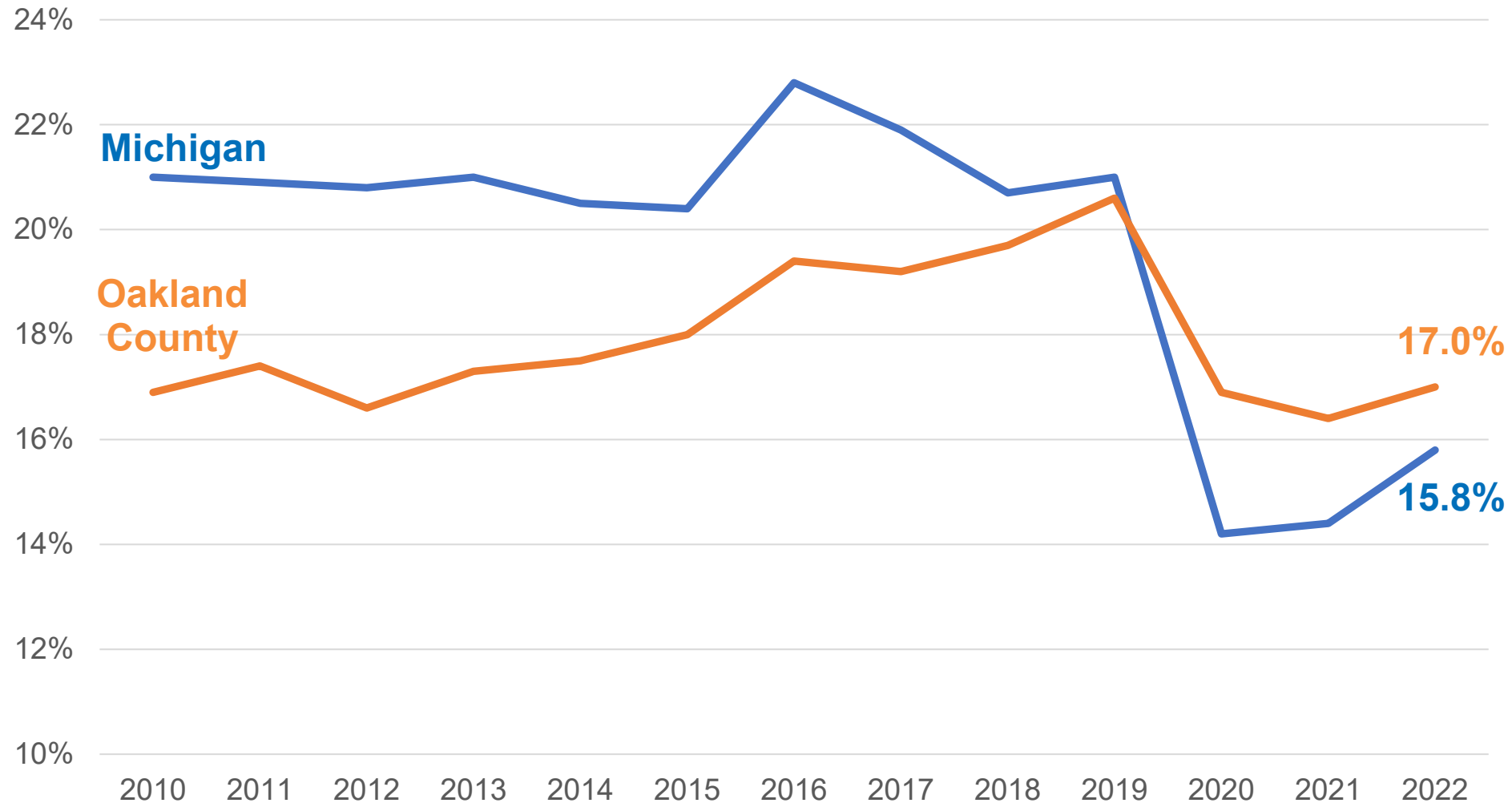
Children under 6 tested with EBLL Oakland County, 2010 - 2022

In 2021, the CDC updated the blood lead reference value (BLRV) to 3.5µg/dL. This chart uses the updated BLRV to identify elevated blood lead level (EBLL) cases across all years shown. Data reflects EBLL as identified by confirmatory (venous) test where available. If venous test data is not available, screening (capillary) test data is used.

Michigan

Oakland County

3.7%

1.9%

Source: MiTracking Data Portal
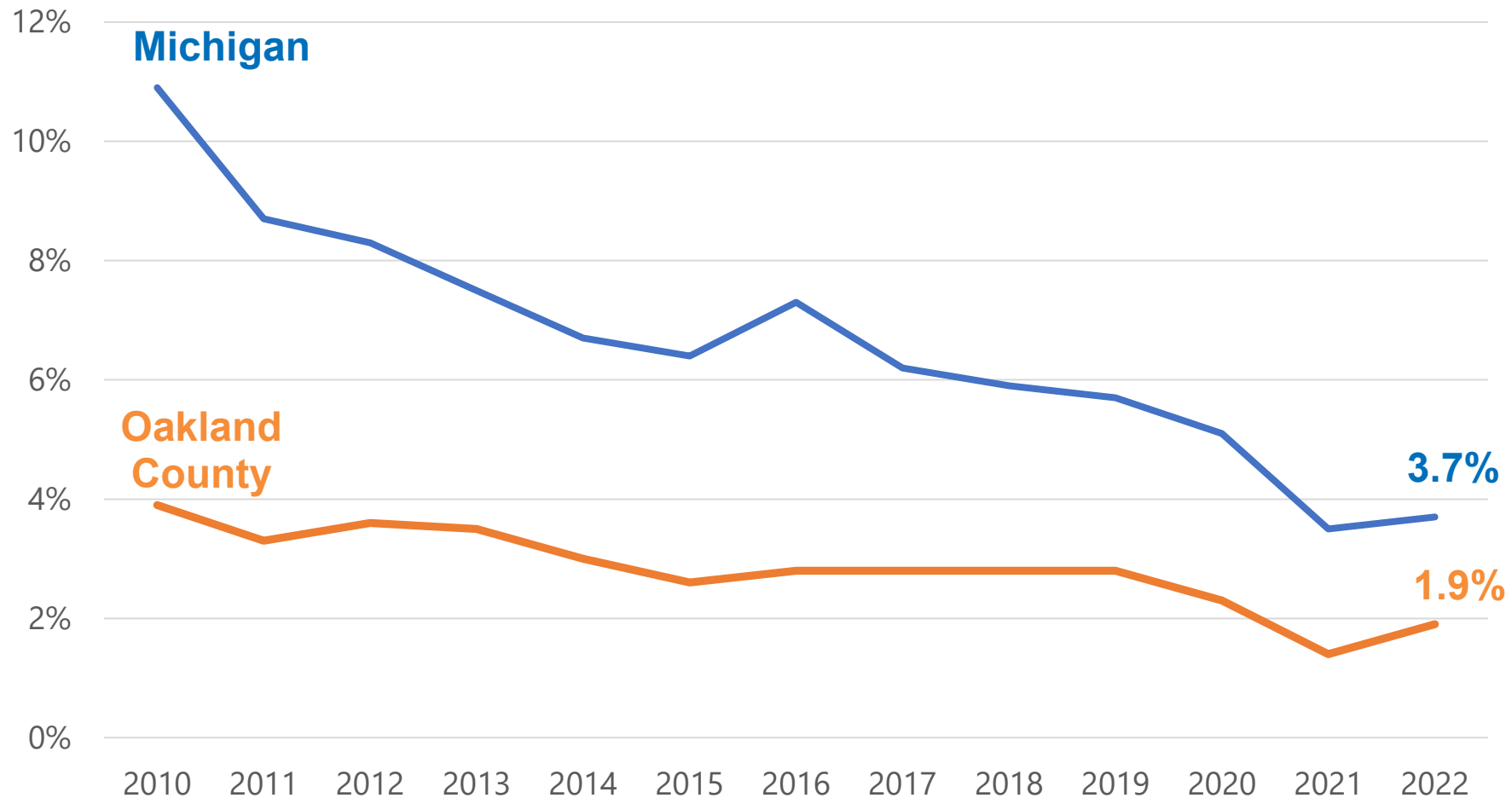
Children <6 with EBLL By Medicaid Status Oakland County, 2015 - 2022

In 2021, the CDC updated the blood lead reference value (BLRV) to 3.5µg/dL. This chart uses the updated BLRV to identify elevated blood lead level (EBLL) cases across all years shown. Data reflects EBLL as identified by confirmatory (venous) test where available. If venous test data is not available, screening (capillary) test data is used.

Medicaid Only

All Children

3.0%

1.9%
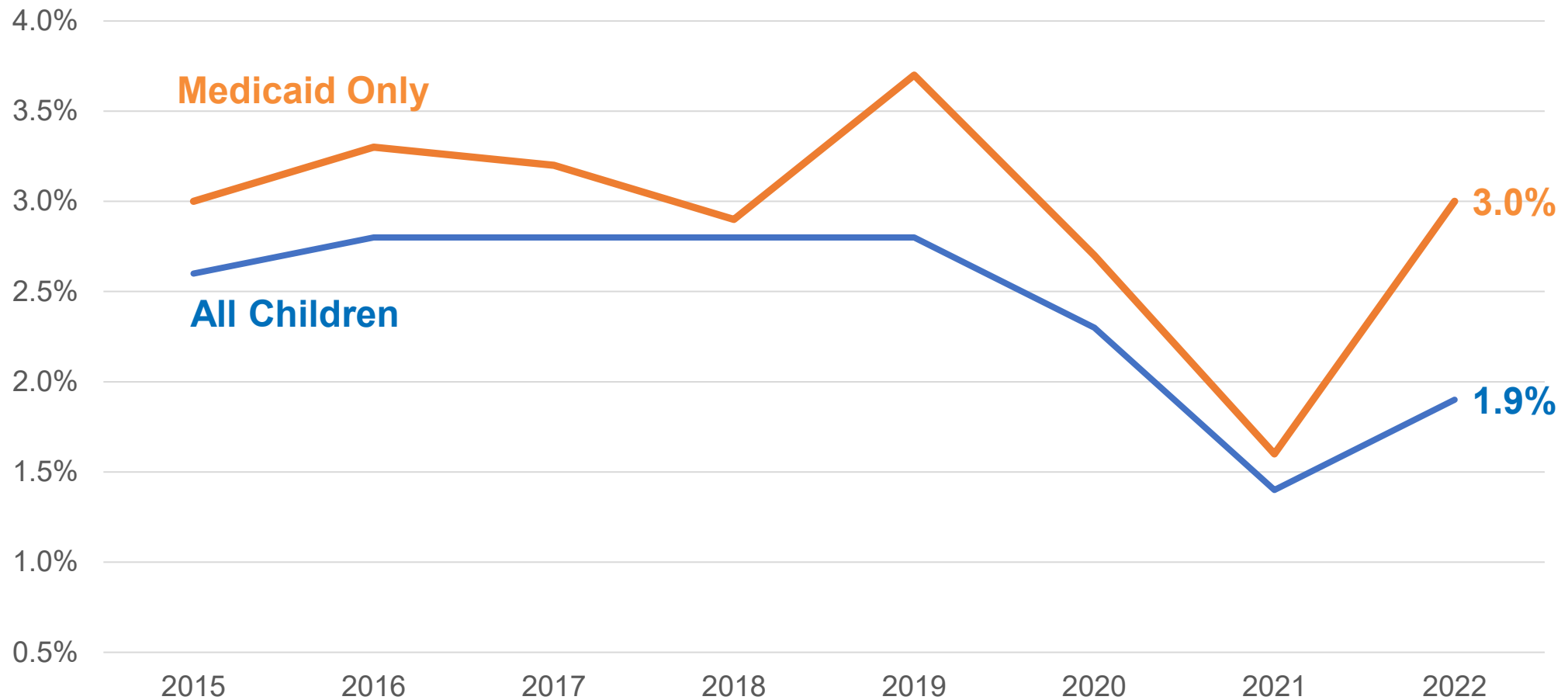
Early Childhood Development

Early-On Referrals
Oakland County, 2022

What is Early On?

Oakland County partners with **Early On** Oakland to assist children in the community that may need resources and support for developmental needs. This service is provided by skilled nurses that provide home visiting services to families that have children under age three. The nurses screen children and provide an evaluation of their skills, language and behavior for delays. A developmental delay is seen when a child's rate of growth and learning is different from that of most children the same age. If the child is identified as having a delay the child is enrolled in a free program called Early On to assist with their individual needs.
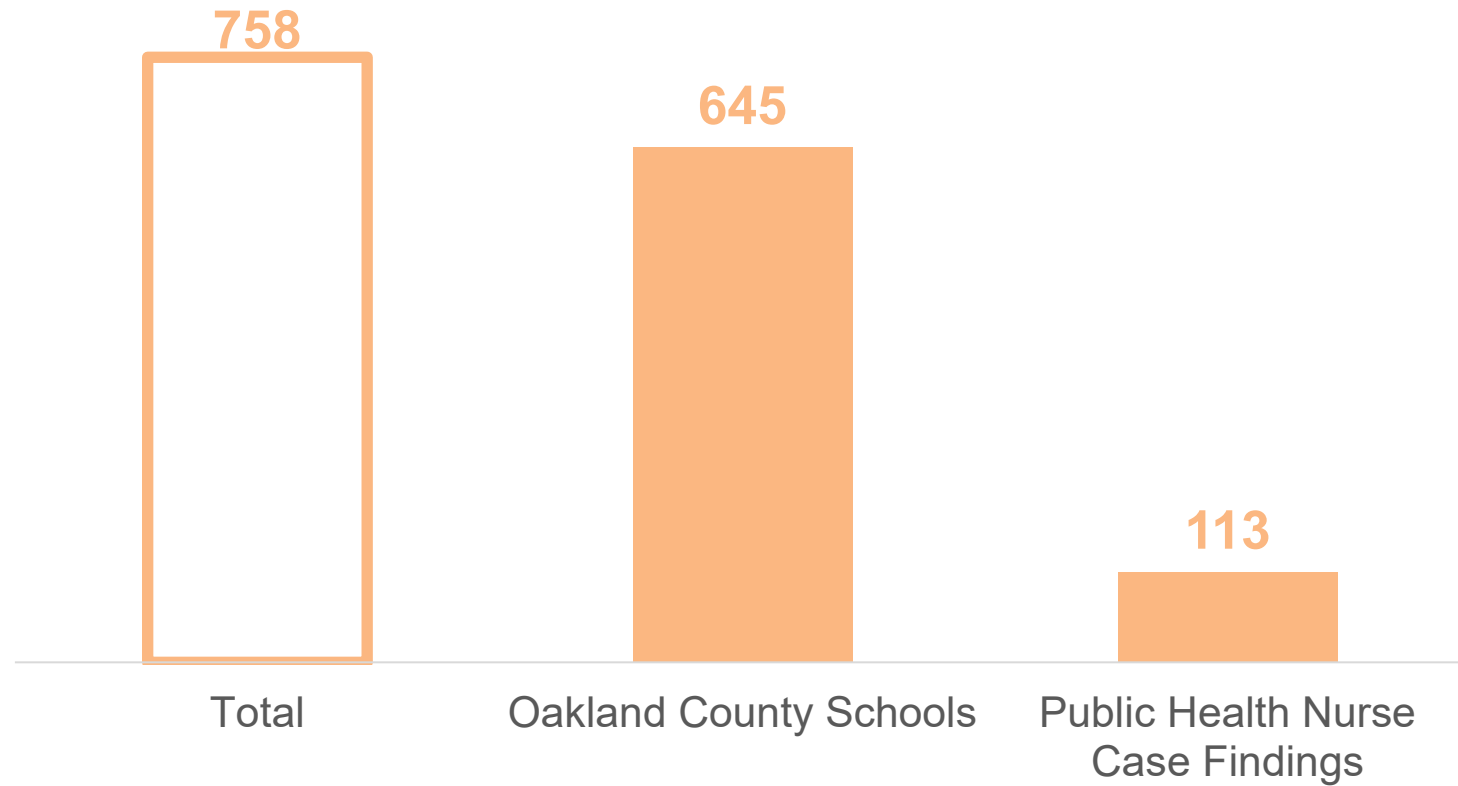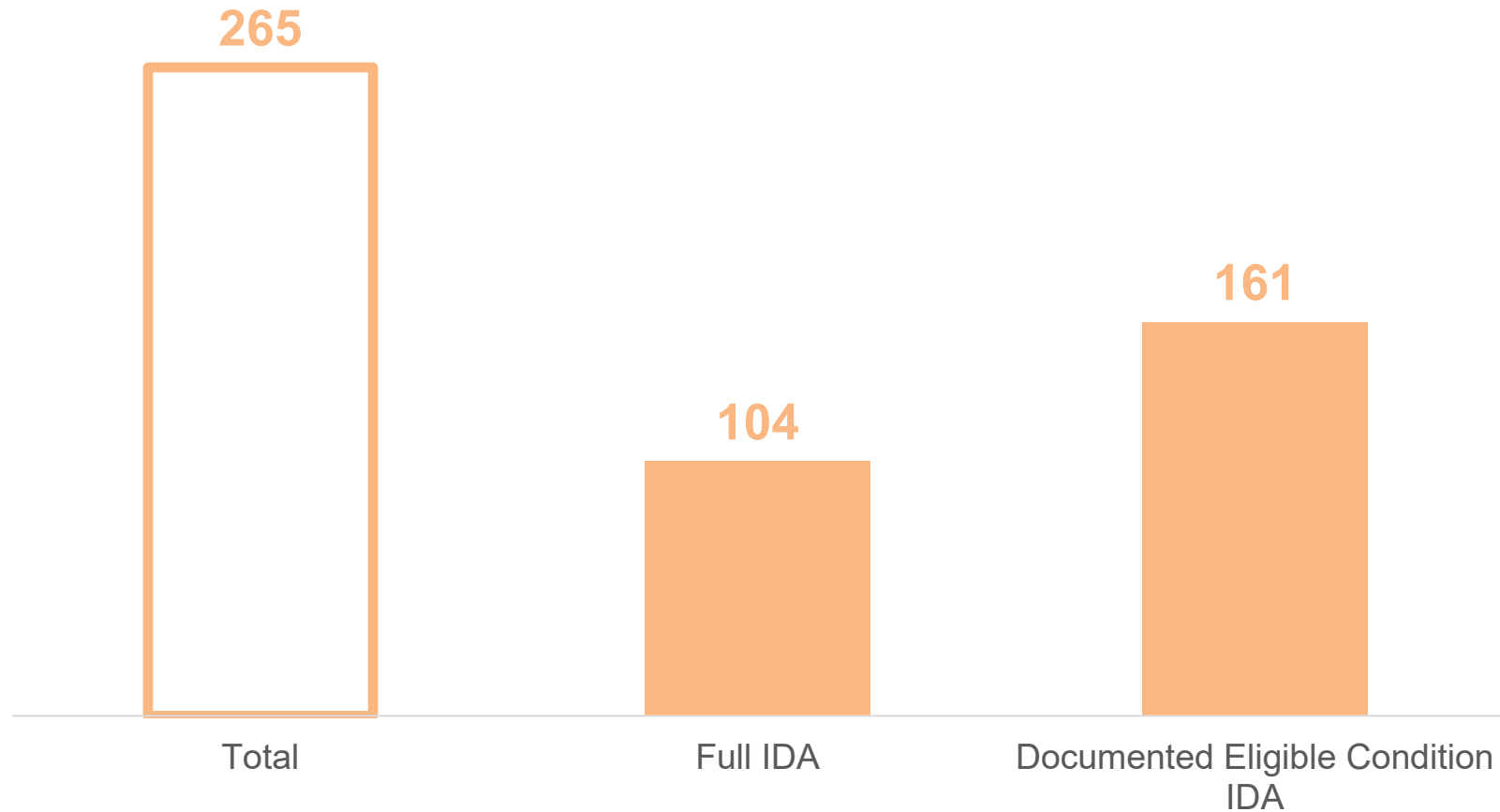
Infant–Toddler Developmental Assessments Completed July 2022 to June 2023

The Infant-Toddler Developmental Assessment (IDA) is a tool that measures all domains of child development and behavioral health. Chart shows assessments completed by Oakland County Health Division, July 2022-June 2023.

265	**104**	**161**
Total	Full IDA	Documented Eligible Condition IDA

About the Data

This report includes data from:
- Division for Vital Records & Health Statistics, MDHHS
  - Michigan resident live birth files and infant mortality files
  - Michigan Birth Certificate Registry
  - Michigan Birth Defects Registry
  - Michigan Resident Birth File
- Pregnancy Risk Assessment Monitoring System
- MDHHS Breastfeeding Rate and Duration Report
- Fetal Infant Mortality Report, 6-Year Report
- Michigan Care Improvement Registry
- MiTracking Data Portal
- MDHHS CLPPP Data Warehouse
- Oakland County Health Division Early On program data

Population Data Notes:
- The Arab population estimates includes estimates of Arab, Chaldean, Assyrian and Syriac ancestry. The Arab population is based on interpolation between the 2000 census and adjusted American Community Survey estimates, birth estimates or other sources. Estimates for smaller regions or age groups are subject to the same error as the ACS, and these errors may propagate into the interpolation. Care should be taken when using estimates for smaller regions or age groups.

- **If you have questions about the data, please follow up with:**
  - **Kaylia Johnson, MPH; Informatics Fellow; Oakland County Health Division**
  - **Contact information: Johnsonkm@oakgov.com**