

# WIC PNSS & PedNSS

Run Date: 6/28/2024

Table 1C

2023 Pregnancy Nutrition Surveillance (1)

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Michigan

Summary of Demographic Indicators (2)

Total Records	Number	%
Complete Records	30,344	65.7
Prenatal Records	3,165	6.9
Postpartum Records	12,652	27.4
<b>Total</b>	<b>46,161</b>	

Source of Data	Number	%
WIC	46,161	100.0
Maternal Health	0	0.0
Other	0	0.0
<b>Total</b>	<b>46,161</b>	<b>100.0</b>
Excluded Unknown	0	0.0 %

Race/Ethnic Distribution	Number	%
White, Not Hispanic	23,375	50.8
Black, Not Hispanic	13,122	28.5
Hispanic	5,904	12.8
American Indian/Alaska Native	144	0.3
Asian/Pacific Islander	1,312	2.9
Multiple Races	2,117	4.6
All Other	0	0.0
<b>Total</b>	<b>45,974</b>	<b>100.0</b>
Excluded Unknown	186	0.4 %

Age Distribution	Number	%
< 15 Years	28	0.1
15 - 17 Years	684	1.5
18 - 19 Years	2,467	5.4
20 - 29 Years	26,269	57.7
30 - 39 Years	14,911	32.8
>= 40 Years	1,147	2.5
<b>Total</b>	<b>45,506</b>	<b>100.0</b>
Excluded Unknown:	655	1.4 %

Education Distribution	Number	%
< High School	8,596	19.2
High School	21,923	48.9
> High School	14,272	31.9
<b>Total</b>	<b>44,791</b>	<b>100.0</b>
Excluded Unknown	1,370	3.0 %

% of Poverty Level	Number	%
0 - 50	11,647	35.0
51 - 100	7,391	22.2
101 - 130	4,342	13.0
131 - 150	2,469	7.4
151 - 185	3,268	9.8
186 - 200	897	2.7
> 200	3,159	9.5
Adjunctive Eligibility	145	0.4
<b>Total</b>	<b>33,318</b>	<b>100.0</b>
Excluded Unknown	191	0.4 %

Program Participation (3)	Number	%
WIC	33,509	100.0
SNAP	33,422	45.0
Medicaid	33,379	89.4
Tanf	33,467	3.2
Excluded Unknown:		
WIC:	0	0.0
SNAP:	87	0.2
Medicaid:	130	0.3
Tanf:	42	0.1

Migrant Status	Number	%
Yes	447	1.0
No	45,714	99.0
<b>Total</b>	<b>46,161</b>	<b>100.0</b>
Excluded Unknown	0	0.0 %

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data or errors.

(3) Prenatal program participation

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 2C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

## Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (7) Prevalence (Prior Year)	
	Number	%	Number	%
Prepregnancy BMI (3)				
Underweight	35,984	4.3	43,167	4.0
Normal Weight	35,984	34.0	43,167	34.0
Overweight	35,984	24.1	43,167	25.1
Obese	35,984	37.5	43,167	36.8
Maternal Weight Gain (4)				
Less Than Ideal	21,505	17.5	28,282	19.8
Ideal	21,505	28.4	28,282	30.3
Greater Than Ideal	21,505	54.1	28,282	49.9
Anemia (Low Hb/Hct) (5)				
1st Trimester	4,121	7.5	2,708	1.0
2nd Trimester	4,548	11.3	2,998	1.1
3rd Trimester	3,531	34.3	3,540	26.3
Postpartum	9,106	23.2	4,123	24.5
Parity (6)				
0	45,702	35.7	53,945	34.5
1	45,702	27.8	53,945	28.2
2	45,702	18.0	53,945	18.4
>= 3	45,702	18.4	53,945	18.9
Interpregnancy Interval				
<= 6 Months	21,102	12.6	21,435	12.8
6 - <18 Months	21,102	26.3	21,435	26.4
>= 18 Months	21,102	61.1	21,435	60.8
Gestational Diabetes	42,426	9.3	45,204	10.0
Hypertension During Pregnancy	42,465	15.0	45,068	15.0

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

(6) Number of times a woman has given birth to an infant 20 or more weeks gestation

(7) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 2C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

## Summary of Health Indicators

Summary of Health Indicators (2)			
	Michigan Prevalence		National (7) Prevalence (Prior Year)
	Number	%	Number %
Medical Care			
1st Trimester	39,293	91.8	47,224 86.4
No Care	39,293	0.6	47,224 1.2
WIC Enrollment			
1st Trimester	45,366	28.9	51,965 24.2
2nd Trimester	45,366	28.7	51,965 25.0
3rd Trimester	45,366	16.0	51,965 24.3
Postpartum (3)	45,366	26.5	51,965 26.4
Prepregnancy Multivitamin Consumption (4)	40,573	23.3	46,223 23.1
Multivitamin Consumption During Pregnancy (5)	33,331	90.6	38,918 91.9
Smoking			
3 Months Prior to Pregnancy	33,089	15.8	40,927 23.4
During Pregnancy	33,196	7.8	39,916 14.0
Last 3 Months of Pregnancy	41,903	5.7	49,975 7.8
Postpartum	42,453	7.3	50,441 8.8
Smoking Changes (6)			
Quit Smoking by First Prenatal Visit	5,220	50.7	8,550 35.2
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes	4,925	45.2	7,918 31.5
Smoking in Household			
During Pregnancy	33,292	10.2	39,948 6.0
Postpartum	42,493	6.0	53,241 3.4
Drinking			
3 Months Prior to Pregnancy	45,501	17.3	52,442 16.3
Last 3 Months of Pregnancy	42,545	0.4	49,989 0.4

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Women who initially enrolled in WIC during the postpartum period.

(4) Women who reported taking a multivitamin four times a weeks or more in the month before pregnancy, proxy for folic acid consumption.

(5) Pregnant women who reported taking a multivitamin in the past month; proxy for prenatal iron consumption.

(6) Among women who smoked 3 months prior to pregnancy.

(7) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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## Table 2C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

## Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (6) Prevalence (Prior Year)	
	Number	%	Number	%
Birthweight (3)				
Very Low	39,736	1.6	50,081	1.6
Low	39,736	9.8	50,081	9.5
Normal	39,736	82.7	50,081	83.0
High	39,736	5.8	50,081	6.0
Preterm (4)	41,121	13.2	51,393	13.2
Full term Low Birth Weight (5)	34,238	5.2	42,775	5.0
Multiple Births	42,320	2.0	53,187	1.8
Breastfeeding				
Ever Breastfed	40,322	74.6	50,583	76.7

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Very low birth weight (<1500 g), low birth weight (1500 - <2500 g), normal birth weight (2500 - <4000 g), high birth weight (>4000 g).

(4) <37 weeks gestation.

(5) 37 or more weeks gestation <2500 g.

(6) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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## Table 3C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

Comparison of Racial and Ethnic Distribution by Contributor to National (3)

Comparison of Racial and Ethnic Distribution (2)								
Contributor	Number Included in Analysis	White, Not Hispanic  %	Black, Not Hispanic  %	Hispanic  %	American Indian/Alaska Native %	Asian/Pacific Islander  %	Multiple Races  %	All Other/Unknown  %
Michigan	46,160	50.6	28.4	12.8	0.3	2.8	4.6	0.4
National (Prior Year)	56,992	49.9	25.9	14.8	1.9	2.9	4.3	0.3

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors

(3) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

**WIC PNSS & PedNSS**  
**Table 4C**  
**2023 Pregnancy Nutrition Surveillance** <sup>(1)</sup>  
**Michigan**  
**Comparison of Age Distribution by Contributor to National** <sup>(3)</sup>

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<b>Comparison of Age Distribution</b> <sup>(2)</sup>								
<b>Contributor</b>	<b>Number Included in Analysis</b>	<b>&lt; 15 Years %</b>	<b>15 - 17 Years %</b>	<b>18 - 19 Years %</b>	<b>20 - 29 Years %</b>	<b>30 - 39 Years %</b>	<b>&gt;= 40 Years %</b>	<b>Unknown %</b>
<b>Michigan</b>	<b>46,161</b>	<b>0.1</b>	<b>1.5</b>	<b>5.3</b>	<b>56.9</b>	<b>32.3</b>	<b>2.5</b>	<b>1.4</b>
<b>National (Prior Year)</b>	<b>57,001</b>	<b>0.1</b>	<b>1.8</b>	<b>6.0</b>	<b>58.2</b>	<b>30.9</b>	<b>2.3</b>	<b>0.6</b>

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors

(3) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

# WIC PNSS & PedNSS

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## Table 5C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

Comparison of Maternal Health Indicators by Contributor to National (6)

Comparison of Maternal Health Indicators (2)														
Contributor	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct)				Gestational Diabetes During Pregnancy		Hypertension During Pregnancy	
	(3)			(4)			(5)							
	Under-weight	Over-weight		< Ideal	> Ideal		3rd Trimester		Postpartum					
	Number	%	%	Number	%	%	Number	%	Number	%	Number	%	Number	%
Michigan	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2	42,426	9.3	42,465	15.0
National (Prior Year)	43,167	4.0	61.9	28,282	19.8	49.9	3,540	26.3	4,123	24.5	45,204	10.0	45,068	15.0

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

(6) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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## Table 6C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

Comparison of Maternal Behavioral Indicators by Contributor to National (5)

Comparison of Maternal Behavioral Indicators (2)								
Contributor	Medical Care			WIC Enrollment		Multivitamin Consumption		
	1st Trimester		No Care	1st Trimester		Prepregnancy (3)	During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number
Michigan	39,293	91.8	0.6	45,366	28.9	40,573	23.3	33,331
National (Prior Year)	47,224	86.4	1.2	51,965	24.2	46,223	23.1	38,918

(1) Reporting period is January 1 through December 31.

(2) Excludes records with unknown data or errors.

(3) Woman who reported taking a multivitamin four times a weeks or more in the month before pregnancy; proxy for folic acid consumption.

(4) Pregnant women who reported tkaing a multivitamin in the past month; proxy for prenatal iron consumption.

(5) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.



# WIC PNSS & PedNSS

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## Table 7C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

Comparison of Smoking Indicators by Contributor to National (4)

Comparison of Smoking Indicators <sup>(2)</sup>										
Contributor	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes <sup>(3)</sup>		Smoking in Household			
	3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
	Number	%	Number	%	Number	%	Number	%	Number	%
Michigan	33,089	15.8	41,903	5.7	4,925	45.2	33,292	10.2	42,493	6.0
National (Prior Year)	40,927	23.4	49,975	7.8	7,918	31.5	39,948	6.0	53,241	3.4

(1) Reporting period is January 1 through December 31.

(2) Excludes records with unknown data or errors.

(3) Among women who smoked 3 months prior to pregnancy.

(4) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

# WIC PNSS & PedNSS

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## Table 8C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

Comparison of Infant Health Indicators by Contributor to National (7)

Comparison of Infant Health Indicators (2)									
Contributor	Birthweight			Preterm		Full Term LBW		Ever Breastfed	
	Low (3)		High (4)	(5)		(6)			
	Number	%	%	Number	%	Number	%	Number	%
Michigan	39,736	11.4	5.8	41,121	13.2	34,238	5.2	40,322	74.6
National (Prior Year)	50,081	11.0	6.0	51,393	13.2	42,775	5.0	50,583	46.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

(7) National includes previous year's data for all participating States and ITOs.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

# WIC PNSS & PedNSS

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Table 9C

2023 Pregnancy Nutrition Surveillance (1)

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Michigan

Maternal Health Indicators by Race/Ethnicity, Age, or Education

Maternal Health Indicators by Race/Ethnicity, Age, or Education (2)

Maternal Health Indicators by Race/Ethnicity, Age, or Education <sup>(2)</sup>														
	Prepregnancy BMI <sup>(3)</sup>			Weight Gain <sup>(4)</sup>			Anemia (Low Hb/Hct) <sup>(5)</sup>				Gestational Diabetes		Hypertension During Pregnancy	
	Under-Weight	Over-Weight		< Ideal	>Ideal	3rd Trimester		Postpartum						
						Number	%	%	Number	%	%	Number	%	Number
Race/Ethnicity														
White, Not Hispanic	18,414	4.9	59.7	10,945	16.3	55.8	1,833	29.1	5,151	18.9	21,591	9.6	21,623	14.3
Black, Not Hispanic	10,538	3.6	64.4	6,547	17.4	54.7	875	48.6	2,074	35.6	12,110	7.3	12,111	17.6
Hispanic	4,178	3.3	66.2	2,293	21.6	48.4	534	31.1	1,134	21.3	5,445	10.4	5,445	12.7
American Indian/Alaska Native	122	3.3	63.1	71	*	*	12	*	32	*	124	12.9	123	14.6
Asian/Pacific Islander	1,010	5.1	46.9	671	28.0	33.5	110	24.5	304	17.8	1,232	19.5	1,235	9.6
Multiple Races	1,714	4.4	62.4	973	13.8	59.0	166	34.3	409	24.2	1,918	8.3	1,922	16.6
All Other/Unknown	7	*	*	5	*	*	0	*	2	*	5	*	5	*
Total	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2	42,426	9.3	42,465	15.0
Age														
< 15 Years	21	*	*	15	*	*	4	*	2	*	27	*	27	*
15 - 17 Years	537	13.0	33.9	287	19.2	51.9	72	*	110	27.3	620	1.5	620	11.8
18 - 19 Years	2,003	9.8	42.6	1,114	19.3	52.6	230	34.3	422	31.0	2,202	3.4	2,203	13.3
20 - 29 Years	20,762	4.8	59.4	12,469	17.2	54.8	2,057	33.4	5,223	23.2	24,146	7.1	24,165	13.8
30 - 39 Years	11,309	2.0	70.4	6,858	17.5	53.5	1,024	33.8	3,009	21.8	13,825	13.8	13,845	17.1
>= 40 Years	827	1.2	73.6	478	17.8	50.2	82	*	234	24.8	1,020	20.5	1,021	23.3
Unknown	525	10.7	44.4	284	16.9	56.0	62	*	106	27.4	586	3.9	584	14.7
Total	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2	42,426	9.3	42,465	15.0
Education														
< High School	6,176	5.7	58.2	3,635	20.5	50.2	684	38.9	1,368	25.5	7,903	8.7	7,910	13.8
High School	17,282	4.5	60.9	10,301	17.1	55.2	1,727	35.4	4,180	24.7	20,277	8.7	20,289	14.9
> High School	11,654	3.0	65.4	7,108	16.4	54.5	1,028	28.4	3,340	20.4	13,180	10.7	13,202	16.0
Excluded Unknown	872	8.3	50.2	461	17.4	55.5	92	*	218	24.8	1,066	6.2	1,064	13.5
Total	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2	42,426	9.3	42,465	15.0

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data for health indicators, and data with errors for health and demographic indicators.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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## Table 10C

### 2023 Pregnancy Nutrition Surveillance (1)

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#### Michigan

#### Maternal Behavioral Indicators by Race/Ethnicity, Age, or Education

Maternal Behavioral Indicators by Race/Ethnicity, Age, or Education (2)									
	Medical Care			WIC Enrollment		Multivitamin Consumption			
	1st Trimester		No Care	1st Trimester		Pregnancy (3)		During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number	%
<b>Race/Ethnicity</b>									
White, Not Hispanic	19,953	94.2	0.5	22,957	32.3	21,255	26.9	17,178	92.1
Black, Not Hispanic	11,405	87.7	0.7	12,939	22.6	11,225	18.5	9,011	88.8
Hispanic	4,922	91.2	0.6	5,805	30.0	4,908	20.0	4,518	89.9
American Indian/Alaska Native	116	95.7	0.9	140	31.4	134	26.1	104	89.4
Asian/Pacific Islander	1,142	95.0	0.6	1,283	26.2	1,092	17.5	935	88.2
Multiple Races	1,750	91.1	0.5	2,080	30.9	1,954	22.7	1,584	88.4
All Other/Unknown	4	*	*	161	1.9	4	*	0	*
<b>Total</b>	<b>39,293</b>	<b>91.8</b>	<b>0.6</b>	<b>45,366</b>	<b>28.9</b>	<b>40,573</b>	<b>23.3</b>	<b>33,331</b>	<b>90.6</b>
<b>Age</b>									
< 15 Years	24	*	*	27	*	26	*	20	*
15 - 17 Years	566	75.8	1.6	677	27.8	589	9.7	555	89.7
18 - 19 Years	2,016	89.3	0.6	2,443	31.6	2,148	14.5	1,997	88.2
20 - 29 Years	22,421	92.4	0.5	25,828	28.1	23,173	21.2	18,984	90.5
30 - 39 Years	12,791	92.6	0.5	14,619	29.6	13,044	29.0	10,477	91.5
>= 40 Years	941	89.8	1.2	1,122	30.7	996	31.2	806	89.6
Unknown	534	81.6	2.4	650	29.1	597	12.4	492	89.2
<b>Total</b>	<b>39,293</b>	<b>91.8</b>	<b>0.6</b>	<b>45,366</b>	<b>28.9</b>	<b>40,573</b>	<b>23.3</b>	<b>33,331</b>	<b>90.6</b>
<b>Education</b>									
< High School	7,239	88.2	0.8	8,463	28.4	7,366	16.2	6,386	86.8
High School	18,810	91.7	0.5	21,588	29.4	19,410	21.7	16,122	90.7
> High School	12,277	94.6	0.4	13,987	28.8	12,770	30.4	10,022	93.1
Excluded Unknown	967	86.1	1.7	1,328	23.9	1,027	16.3	801	88.4
<b>Total</b>	<b>39,293</b>	<b>91.8</b>	<b>0.6</b>	<b>45,366</b>	<b>28.9</b>	<b>40,573</b>	<b>23.3</b>	<b>33,331</b>	<b>90.6</b>

(1) Reporting period is January 1 through December 31.

(2) Excludes records with unknown data for behavioral indicators, and data with errors for behavioral and demographic indicators.

(3) Woman who reported taking a multivitamin four a weeks or more in the month before pregnancy. proxy for folic acid consumption.

(4) Pregnant women who reported taking a multivitamin in the past month; proxy for prenatal iron consumption.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 11C

2023 Pregnancy Nutrition Surveillance (1)

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### Michigan

#### Smoking Indicators by Race/Ethnicity, Age, or Education

Smoking Indicators by Race/Ethnicity, Age, or Education (2)										
	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes (3)		Smoking in Household			
	3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
	Number	%	Number	%	Number	%	Number	%	Number	%
<b>Race/Ethnicity</b>										
White, Not Hispanic	17,031	20.3	21,124	8.4	3,257	37.8	17,149	12.4	21,600	8.0
Black, Not Hispanic	8,948	11.6	12,093	2.8	981	65.9	8,998	8.6	12,137	3.9
Hispanic	4,503	7.8	5,431	2.1	330	58.5	4,521	5.5	5,452	3.1
American Indian/Alaska Native	102	30.4	119	19.3	27	*	104	12.5	125	8.0
Asian/Pacific Islander	933	1.8	1,243	0.7	19	*	937	2.3	1,232	1.4
Multiple Races	1,571	21.8	1,887	7.3	310	42.9	1,582	13.0	1,918	7.1
All Other/Unknown	0	*	5	*	0	*	0	*	28	*
<b>Total</b>	<b>33,089</b>	<b>15.8</b>	<b>41,903</b>	<b>5.7</b>	<b>4,925</b>	<b>45.2</b>	<b>33,292</b>	<b>10.2</b>	<b>42,493</b>	<b>6.0</b>
<b>Age</b>										
< 15 Years	20	*	26	*	3	*	20	*	26	*
15 - 17 Years	545	9.7	607	0.8	54	*	553	18.6	622	9.0
18 - 19 Years	1,962	14.6	2,153	2.7	287	51.9	1,995	16.9	2,209	7.6
20 - 29 Years	18,851	15.4	23,787	4.8	2,757	50.2	18,968	9.7	24,171	5.8
30 - 39 Years	10,419	17.5	13,737	8.1	1,678	35.1	10,459	9.0	13,854	5.9
>= 40 Years	803	14.2	1,019	6.7	95	*	806	7.2	1,026	4.4
Unknown	489	11.0	574	1.9	51	*	491	18.9	585	8.9
<b>Total</b>	<b>33,089</b>	<b>15.8</b>	<b>41,903</b>	<b>5.7</b>	<b>4,925</b>	<b>45.2</b>	<b>33,292</b>	<b>10.2</b>	<b>42,493</b>	<b>6.0</b>
<b>Education</b>										
< High School	6,339	21.0	7,752	9.4	1,227	35.1	6,382	13.5	7,906	8.3
High School	15,990	17.0	19,973	5.8	2,570	46.9	16,100	10.6	20,300	6.3
> High School	9,963	11.1	13,130	3.6	1,041	52.0	10,009	6.8	13,196	4.0
Excluded Unknown	797	12.2	1,048	3.1	87	*	801	15.9	1,091	7.0
<b>Total</b>	<b>33,089</b>	<b>15.8</b>	<b>41,903</b>	<b>5.7</b>	<b>4,925</b>	<b>45.2</b>	<b>33,292</b>	<b>10.2</b>	<b>42,493</b>	<b>6.0</b>

(1) Reporting period is January 1 through December 31.

(2) Excludes records with unknown data for smoking indicators, and data with errors for smoking and demographic indicators.

(3) Among women who smoked 3 months prior to pregnancy.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 12C

2023 Pregnancy Nutrition Surveillance (1)

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### Michigan

#### Infant Health Indicators by Race/Ethnicity, Age, or Education

Infant Health Indicators by Race/Ethnicity, Age, or Education (2)									
	Birthweight			Preterm		Full Term LBW		Ever Breastfed	
	Low	High		(5)		(6)			
	Number	%	%	Number	%	Number	%	Number	%
<b>Race/Ethnicity</b>									
White, Not Hispanic	20,213	9.2	7.6	20,865	11.5	17,778	4.0	20,480	79.0
Black, Not Hispanic	11,360	16.3	2.9	11,821	16.8	9,373	7.9	11,527	64.5
Hispanic	5,105	8.7	5.8	5,265	12.1	4,455	3.9	5,212	78.7
American Indian/Alaska Native	114	7.0	11.4	119	8.4	104	1.9	115	83.5
Asian/Pacific Islander	1,153	14.4	3.2	1,198	12.6	998	8.8	1,181	79.8
Multiple Races	1,786	11.4	5.7	1,847	13.8	1,526	5.0	1,802	74.2
All Other/Unknown	4	*	*	5	*	4	*	4	*
<b>Total</b>	<b>39,736</b>	<b>11.4</b>	<b>5.8</b>	<b>41,121</b>	<b>13.2</b>	<b>34,238</b>	<b>5.2</b>	<b>40,322</b>	<b>74.6</b>
<b>Age</b>									
< 15 Years	26	*	*	26	*	19	*	26	*
15 - 17 Years	580	9.7	4.3	604	13.4	499	4.6	588	64.5
18 - 19 Years	2,088	10.9	4.2	2,161	12.6	1,813	6.5	2,118	71.8
20 - 29 Years	22,759	9.0	5.8	23,494	11.7	19,945	5.0	23,056	75.7
30 - 39 Years	12,844	10.5	6.5	13,312	15.3	10,804	5.2	13,057	74.2
>= 40 Years	891	16.7	3.9	950	22.3	689	7.7	921	73.2
Unknown	548	10.4	4.0	574	14.1	469	6.2	556	67.4
<b>Total</b>	<b>39,736</b>	<b>11.4</b>	<b>5.8</b>	<b>41,121</b>	<b>13.2</b>	<b>34,238</b>	<b>5.2</b>	<b>40,322</b>	<b>74.6</b>
<b>Education</b>									
< High School	7,314	10.6	4.6	7,668	13.9	6,241	6.0	7,464	64.0
High School	19,028	10.0	5.7	19,676	12.9	16,458	5.5	19,306	73.0
> High School	12,414	9.1	6.8	12,739	13.3	10,694	4.3	12,543	83.6
Excluded Unknown	980	10.0	5.0	1,038	13.1	845	5.8	1,009	74.3
<b>Total</b>	<b>39,736</b>	<b>11.4</b>	<b>5.8</b>	<b>41,121</b>	<b>13.2</b>	<b>34,238</b>	<b>5.2</b>	<b>40,322</b>	<b>74.6</b>

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data for health indicators, and data with errors for health and demographic indicators.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 13C

### 2023 Pregnancy Nutrition Surveillance (1)

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#### Michigan

#### Maternal Weight Gain and Birth Outcomes by Select Health Indicators

Maternal Weight Gain and Birth Outcomes by Select Health Indicators (2)										
	Weight Gain (3)			Birthweight			Preterm (6)		Full Term LBW (7)	
	< Ideal		> Ideal	Low (4)		High (5)				
	Number	%	%	Number	%	%	Number	%	Number	%
<b>Prepregnancy BMI</b>										
Underweight	920	26.6	37.1	1,343	17.4	2.2	1,390	14.7	1,144	10.2
Normal Weight	7,482	23.4	44.0	10,626	12.4	4.2	10,991	12.2	9,274	6.4
Overweight	5,331	10.1	61.8	7,606	10.8	5.6	7,796	12.8	6,568	4.7
Obese	7,772	15.8	60.6	11,956	10.5	7.8	12,220	14.2	10,183	4.2
<b>Weight Gain</b>										
< Ideal	-	-	-	3,511	18.3	2.5	3,615	16.5	2,928	8.8
Ideal	-	-	-	5,873	12.3	4.1	6,017	13.6	5,042	5.7
> Ideal	-	-	-	11,209	8.8	7.6	11,400	11.5	9,817	3.8
<b>Smoking During Pregnancy</b>										
Smokers	1,057	16.7	55.9	2,125	15.2	4.2	2,231	15.5	1,796	8.5
Non-Smokers	12,753	17.0	54.7	25,950	9.8	6.1	26,850	12.4	22,702	4.6

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(4) <2500 g.

(5) >4000 g.

(6) <37 weeks gestation.

(7) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 14C

2023 Pregnancy Nutrition Surveillance (1)

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### Michigan

#### Summary of Trends in Racial and Ethnic Distribution

#### Summary of Trends in Racial and Ethnic Distribution (2)

Year	Number Included in Analysis	White, Not Hispanic %	Black, Not Hispanic %	Hispanic %	American Indian/Alaska Native %	Asian/Pacific Islander %	Multiple Races %	All Other/Unknown %
2023	46,160	50.6	28.4	12.8	0.3	2.8	4.6	0.4
2022	47,919	51.7	28.7	11.8	0.4	2.6	4.6	0.3
2021	48,337	51.3	30.0	11.3	0.3	2.4	4.5	0.3
2020	50,034	50.8	30.8	10.9	0.4	2.3	4.6	0.3
2019	54,099	51.1	30.6	10.6	0.4	2.1	4.8	0.4
2018	55,407	51.7	29.9	10.5	0.4	2.1	4.9	0.5
2017	57,669	52.1	30.4	10.4	0.3	2.3	4.0	0.5
2016	60,139	53.6	28.9	10.6	0.3	2.1	4.0	0.5
2015	63,103	54.0	29.0	10.2	0.4	2.1	3.6	0.8
2014	65,941	55.7	28.0	9.7	0.4	2.0	3.6	0.6
2013	67,256	55.5	28.3	9.9	0.4	2.0	3.5	0.6
2012	67,977	56.2	27.5	10.0	0.4	1.9	3.4	0.6
2011	68,267	57.0	27.3	10.0	0.4	1.7	2.9	0.6

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions



# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 15C

2023 Pregnancy Nutrition Surveillance (1)

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### Michigan

#### Summary of Trends in Age Distribution

Summary of Trends in Age Distribution (2)								
Year	Number Included in Analysis	< 15 Years %	15 - 17 Years %	18 - 19 Years %	20 - 29 Years %	30 - 39 Years %	>= 40 Years %	Unknown %
2023	46,161	0.1	1.5	5.3	56.9	32.3	2.5	1.4
2022	47,924	0.1	1.6	5.9	58.5	30.8	2.3	0.7
2021	48,337	0.1	2.0	6.3	59.7	29.4	2.2	0.4
2020	50,036	0.1	2.2	6.8	60.6	27.9	2.1	0.3
2019	54,102	0.1	2.4	7.4	61.8	26.1	2.0	0.2
2018	55,413	0.1	2.6	7.7	62.5	25.1	2.0	0.1
2017	57,676	0.1	2.8	7.7	63.1	24.3	1.8	0.1
2016	60,143	0.1	3.0	7.9	63.4	23.7	1.8	0.1
2015	63,108	0.1	3.2	8.4	63.8	22.8	1.6	0.2
2014	65,945	0.2	3.4	9.1	63.5	22.1	1.7	0.2
2013	67,261	0.2	3.9	9.8	63.1	21.2	1.6	0.2
2012	67,977	0.2	4.5	10.7	62.2	20.5	1.5	0.3
2011	68,267	0.2	4.9	11.5	61.7	19.9	1.5	0.3

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 16C

### 2023 Pregnancy Nutrition Surveillance (1)

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#### Michigan

#### Summary of Trends in Maternal Health Indicators

Summary of Trends in Maternal Health Indicators (2)										
Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
	(3)			(4)						
	Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
	Number	%	%	Number	%	%	Number	%	Number	%
2023	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2
2022	36,308	4.0	62.2	22,132	18.5	51.9	1,472	31.5	2,621	25.6
2021	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8
2020	36,925	4.0	60.9	21,575	18.2	52.2	2,834	39.8	956	30.9
2019	43,733	4.2	60.6	27,372	19.1	51.5	9,098	45.0	12,203	30.7
2018	45,296	4.3	59.5	29,118	19.1	51.0	9,090	49.4	12,050	37.9
2017	47,111	4.3	58.8	31,292	19.1	51.9	9,416	49.2	11,325	36.6
2016	51,019	4.4	58.1	33,141	19.4	51.2	9,642	45.1	12,082	34.6
2015	53,616	4.4	56.8	44,468	19.6	50.7	9,750	41.4	12,310	31.6
2014	56,540	4.3	56.3	45,714	17.2	52.3	9,959	39.6	12,485	28.7
2013	58,063	4.3	56.0	46,728	16.9	52.4	9,903	38.9	11,995	28.7
2012	61,321	4.4	54.9	48,759	17.4	51.3	9,736	38.4	12,636	27.9
2011	62,450	4.4	54.4	50,780	17.6	51.0	10,073	35.7	13,689	27.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

**WIC PNSS & PedNSS**  
**Table 17C**  
**2023 Pregnancy Nutrition Surveillance (1)**  
**Michigan**  
**Summary of Maternal Behavioral Indicators**

Run Date: 6/28/2024

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<b>Summary of Maternal Behavioral Indicators (2)</b>					
<b>Year</b>	<b>Medical Care</b>			<b>WIC Enrollment</b>	
	<b>1st Trimester</b>		<b>No Care</b>	<b>1st Trimester</b>	
	<b>Number</b>	<b>%</b>	<b>%</b>	<b>Number</b>	<b>%</b>
2023	39,293	91.8	0.6	45,366	28.9
2022	41,530	91.7	0.5	46,804	26.8
2021	42,342	90.6	2.0	47,286	27.0
2020	45,167	85.6	6.4	49,385	29.3
2019	49,415	84.9	6.6	53,324	28.5
2018	50,875	84.3	6.8	54,591	29.4
2017	53,045	83.1	7.7	56,717	30.6
2016	54,902	82.2	8.4	59,189	32.4
2015	57,579	81.1	9.4	62,203	34.1
2014	60,317	79.7	10.8	64,954	35.7
2013	61,039	79.9	10.5	66,266	36.9
2012	61,308	79.8	10.6	67,036	38.0
2011	60,703	81.1	9.2	67,132	36.7

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 18C

2023 Pregnancy Nutrition Surveillance (1)

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## Michigan

## Summary of Trends in Smoking Indicators

Summary of Trends in Smoking Indicators <sup>(2)</sup>										
Year	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes <sup>(3)</sup>		Smoking in Household			
	3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
	Number	%	Number	%	Number	%	Number	%	Number	%
2023	33,089	15.8	41,903	5.7	4,925	45.2	33,292	10.2	42,493	6.0
2022	33,554	17.5	44,427	7.2	5,392	42.2	33,562	6.0	44,801	3.5
2021	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9
2020	43,650	22.6	45,656	11.5	7,693	39.4	36,252	8.6	45,631	2.0
2019	47,367	24.7	49,881	13.5	9,363	38.4	39,647	10.1	49,826	2.9
2018	48,601	26.1	51,441	13.9	10,331	38.9	40,995	10.4	51,462	3.0
2017	51,028	27.1	53,711	14.1	11,398	39.3	43,712	11.3	53,738	3.2
2016	53,738	28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4
2015	56,882	30.6	58,245	15.8	14,580	39.6	49,656	13.4	58,264	4.2
2014	60,217	32.0	61,120	16.4	16,301	39.4	52,726	14.6	61,124	4.5
2013	62,025	32.3	61,793	16.8	18,044	36.4	54,649	15.1	61,835	5.0
2012	63,072	32.4	61,988	16.9	16,769	38.6	55,380	16.0	61,994	4.9
2011	64,049	32.8	61,427	16.9	16,751	39.5	55,787	16.8	61,403	5.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Prenatal program participation

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 19C 2023 Pregnancy Nutrition Surveillance (1) Michigan Summary of Trends in Infant Health Indicators

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Summary of Trends in Infant Health Indicators (2)									
Year	Birthweight			Preterm		Full Term LBW		Ever Breastfed	
	Low (3)		High (4)	(5)		(6)			
	Number	%	%	Number	%	Number	%	Number	%
2023	39,736	11.4	5.8	41,121	13.2	34,238	5.2	40,322	74.6
2022	41,947	11.5	5.9	43,460	13.2	36,146	5.3	42,370	75.5
2021	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0
2020	42,825	10.8	6.1	44,372	12.6	37,125	4.8	43,607	64.8
2019	47,135	10.4	6.4	48,449	12.5	40,866	4.5	47,531	67.8
2018	48,594	10.2	6.7	49,968	12.5	42,176	4.5	48,971	67.7
2017	50,526	10.2	6.7	52,025	12.4	43,785	4.3	51,003	66.7
2016	52,145	9.8	6.9	53,729	12.3	45,193	4.2	52,506	66.2
2015	54,702	9.7	6.9	56,532	11.9	47,832	4.2	54,837	65.1
2014	57,572	9.0	7.0	59,292	11.8	50,471	3.8	57,574	63.6
2013	58,028	8.7	7.2	59,882	11.5	50,981	3.7	58,101	63.1
2012	58,368	8.8	7.3	60,111	12.1	50,877	3.7	58,753	61.2
2011	58,040	8.6	7.1	59,523	11.7	50,780	3.6	58,401	60.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

Run Date: 6/28/2024

## Table 20C

2023 Pregnancy Nutrition Surveillance (1)

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### Michigan

#### Summary of Trends in Maternal Health Indicators by Race/Ethnicity

Summary of Trends in Maternal Health Indicators by Race/Ethnicity (2)											
Race/Ethnicity	Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
		(3)			(4)						
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
White, Not Hispanic	2023	18,414	4.9	59.7	10,945	16.3	55.8	1,833	29.1	5,151	18.9
	2022	19,024	4.5	60.9	11,540	17.6	53.9	806	24.6	1,589	21.8
	2021	18,598	4.2	60.3	11,546	16.7	53.9	296	24.7	768	20.6
	2020	19,218	4.5	58.7	11,561	16.5	53.4	1,363	31.9	533	23.1
Black, Not Hispanic	2023	10,538	3.6	64.4	6,547	17.4	54.7	875	48.6	2,074	35.6
	2022	10,698	3.7	64.2	6,778	18.1	51.1	254	50.4	442	37.1
	2021	10,914	3.4	64.7	6,648	17.8	54.4	125	49.6	236	38.6
	2020	11,268	3.4	63.5	6,440	19.3	52.3	1,005	52.1	226	50.9

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds, obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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### Michigan

#### Summary of Trends in Maternal Health Indicators by Race/Ethnicity

Summary of Trends in Maternal Health Indicators by Race/Ethnicity (2)											
Race/Ethnicity	Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
		(3)			(4)						
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
Hispanic	2023	4,178	3.3	66.2	2,293	21.6	48.4	534	31.1	1,134	21.3
	2022	3,863	2.3	66.2	2,108	22.2	47.2	290	31.4	401	27.2
	2021	3,636	2.6	67.0	2,104	21.5	49.3	131	32.1	236	19.5
	2020	3,814	2.5	66.8	2,051	21.6	47.9	284	34.9	128	28.9
American Indian/Alaska Native	2023	122	3.3	63.1	71	*	*	12	*	32	*
	2022	148	3.4	60.8	101	22.8	54.5	9	*	16	*
	2021	133	3.0	60.9	77	*	*	1	*	4	*
	2020	143	2.1	63.6	77	*	*	8	*	2	*

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Maternal Health Indicators by Race/Ethnicity

Summary of Trends in Maternal Health Indicators by Race/Ethnicity <sup>(2)</sup>											
Race/Ethnicity	Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
		(3)			(4)						
		Under- weight	Over- weight		< Ideal	> Ideal		3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
Asian/Pacific Islander	2023	1,010	5.1	46.9	671	28.0	33.5	110	24.5	304	17.8
	2022	857	4.8	47.5	564	28.4	32.3	33	*	53	*
	2021	695	5.2	44.7	430	29.3	31.9	20	*	49	*
	2020	696	7.0	42.8	397	29.0	31.0	56	*	18	*
	Multiple Races	2023	1,714	4.4	62.4	973	13.8	59.0	166	34.3	409
	2022	1,710	3.9	61.9	1,036	16.9	54.3	80	*	120	25.0
	2021	1,639	4.1	61.2	996	14.7	57.4	35	*	75	*
	2020	1,784	4.0	61.7	1,048	18.8	54.3	118	39.8	49	*

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions



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### Michigan

#### Summary of Trends in Maternal Health Indicators by Race/Ethnicity

Summary of Trends in Maternal Health Indicators by Race/Ethnicity (2)											
Race/Ethnicity	Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
		(3)			(4)						
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
All Other/Unknown	2023	7	*	*	5	*	*	0	*	2	*
	2022	4	*	*	3	*	*	0	*	0	*
	2021	1	*	*	0	*	*	0	*	0	*
	2020	0	*	*	0	*	*	0	*	0	*
Total All Race/Ethnic Groups	2023	35,984	4.3	61.6	21,505	17.5	54.1	3,531	34.3	9,106	23.2
	2022	36,308	4.0	62.2	22,132	18.5	51.9	1,472	31.5	2,621	25.6
	2021	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8
	2020	36,925	4.0	60.9	21,575	18.2	52.2	2,834	39.8	956	30.9

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
<b>White, Not Hispanic</b>	2023	19,953	94.2	0.5	22,957	32.3
	2022	21,292	94.0	0.4	24,162	30.4
	2021	21,617	92.2	2.2	24,224	30.1
	2020	22,936	86.6	7.7	25,115	32.8
<b>Black, Not Hispanic</b>	2023	11,405	87.7	0.7	12,939	22.6
	2022	12,268	88.1	0.7	13,504	19.8
	2021	12,957	88.4	1.4	14,217	21.0
	2020	14,068	84.2	4.0	15,206	22.4

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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### Michigan

#### Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
Hispanic	2023	4,922	91.2	0.6	5,805	30.0
	2022	4,861	91.3	0.3	5,514	27.7
	2021	4,758	88.3	2.3	5,319	28.0
	2020	4,915	84.0	7.5	5,354	32.7
American Indian/Alaska Native	2023	116	95.7	0.9	140	31.4
	2022	148	91.2	0.7	170	30.0
	2021	135	89.6	2.2	154	34.4
	2020	158	87.3	5.1	182	30.8

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
Asian/Pacific Islander	2023	1,142	95.0	0.6	1,283	26.2
	2022	1,091	93.1	0.4	1,201	26.3
	2021	1,023	95.6	1.2	1,119	26.0
	2020	1,042	90.7	5.0	1,133	27.8
Multiple Races	2023	1,750	91.1	0.5	2,080	30.9
	2022	1,864	90.9	0.6	2,133	28.3
	2021	1,848	90.7	2.4	2,114	30.1
	2020	2,046	85.1	7.0	2,266	31.0

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
All Other/Unknown	2023	4	*	*	161	1.9
	2022	2	*	*	115	1.7
	2021	4	*	*	139	0.7
	2020	0	*	*	127	3.9
Total All Race/Ethnic Groups	2023	39,293	91.8	0.6	45,366	28.9
	2022	41,530	91.7	0.5	46,804	26.8
	2021	42,342	90.6	2.0	47,286	27.0
	2020	45,167	85.6	6.4	49,385	29.3

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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## Table 22C

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### Michigan

#### Summary of Trends in Smoking Indicators by Race/Ethnicity

Summary of Trends in Smoking Indicators by Race/Ethnicity <sup>(2)</sup>											
Race/Ethnicity	Year	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes <sup>(3)</sup>		Smoking in Household			
		3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
		Number	%	Number	%	Number	%	Number	%	Number	%
White, Not Hispanic	2023	17,031	20.3	21,124	8.4	3,257	37.8	17,149	12.4	21,600	8.0
	2022	17,656	23.0	22,820	10.5	3,722	36.8	17,676	6.8	23,151	4.3
	2021	18,560	26.0	22,898	13.3	4,224	36.4	17,526	6.9	23,028	2.1
	2020	22,877	29.2	23,142	16.7	5,158	34.1	18,886	9.2	23,138	2.0
	Black, Not Hispanic	2023	8,948	11.6	12,093	2.8	981	65.9	8,998	8.6	12,137
	2022	9,137	11.1	12,994	3.4	941	57.0	9,140	5.8	13,002	2.6
	2021	10,392	12.4	13,552	4.3	1,139	58.9	9,833	6.4	13,547	1.9
	2020	12,753	15.0	14,222	5.6	1,534	53.6	10,548	9.3	14,219	2.5

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

(3) Among women who smoked 3 months prior to pregnancy

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Smoking Indicators by Race/Ethnicity

Summary of Trends in Smoking Indicators by Race/Ethnicity (2)											
Race/Ethnicity	Year	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes (3)		Smoking in Household			
		3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
		Number	%	Number	%	Number	%	Number	%	Number	%
Hispanic	2023	4,503	7.8	5,431	2.1	330	58.5	4,521	5.5	5,452	3.1
	2022	4,175	9.3	5,247	3.0	356	55.6	4,157	3.2	5,263	2.1
	2021	4,151	10.5	5,091	3.8	400	58.0	3,945	3.1	5,074	1.1
	2020	4,799	12.2	4,984	4.5	470	55.5	4,116	4.5	4,976	1.0
American Indian/Alaska Native	2023	102	30.4	119	19.3	27	*	104	12.5	125	8.0
	2022	119	36.1	157	17.2	37	*	118	11.0	159	4.4
	2021	127	43.3	139	25.2	45	*	121	5.8	139	4.3
	2020	168	44.0	159	22.6	54	*	138	18.1	159	3.1

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

(3) Among women who smoked 3 months prior to pregnancy

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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### Michigan

#### Summary of Trends in Smoking Indicators by Race/Ethnicity

Summary of Trends in Smoking Indicators by Race/Ethnicity <sup>(2)</sup>											
Race/Ethnicity	Year	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes <sup>(3)</sup>		Smoking in Household			
		3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
		Number	%	Number	%	Number	%	Number	%	Number	%
Asian/Pacific Islander	2023	933	1.8	1,243	0.7	19	*	937	2.3	1,232	1.4
	2022	867	1.2	1,187	0.1	11	*	867	1.4	1,185	1.2
	2021	852	1.1	1,086	0.9	8	*	789	1.4	1,085	0.8
	2020	1,062	2.7	1,073	0.7	24	*	847	1.8	1,069	0.7
Multiple Races	2023	1,571	21.8	1,887	7.3	310	42.9	1,582	13.0	1,918	7.1
	2022	1,597	22.1	2,015	9.1	324	44.8	1,601	7.6	2,033	4.6
	2021	1,632	25.6	1,972	12.0	372	44.6	1,577	6.0	1,981	2.1
	2020	1,989	29.1	2,074	16.1	453	35.1	1,716	11.1	2,068	2.2

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

(3) Among women who smoked 3 months prior to pregnancy

\* Percentages are not calculated if <100 records are available for analysis after exclusions



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### Michigan

#### Summary of Trends in Smoking Indicators by Race/Ethnicity

Summary of Trends in Smoking Indicators by Race/Ethnicity <sup>(2)</sup>											
Race/Ethnicity	Year	Smoking				Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes <sup>(3)</sup>		Smoking in Household			
		3 Months Prior to Pregnancy		Last 3 Months of Pregnancy				Prenatal		Postpartum	
		Number	%	Number	%	Number	%	Number	%	Number	%
All Other/Unknown	2023	0	*	5	*	0	*	0	*	28	*
	2022	0	*	2	*	0	*	0	*	3	*
	2021	0	*	4	*	0	*	0	*	4	*
	2020	0	*	0	*	0	*	0	*	0	*
	Total All Race/Ethnic Groups	2023	33,089	15.8	41,903	5.7	4,925	45.2	33,292	10.2	42,493
	2022	33,554	17.5	44,427	7.2	5,392	42.2	33,562	6.0	44,801	3.5
	2021	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9
	2020	43,650	22.6	45,656	11.5	7,693	39.4	36,252	8.6	45,631	2.0

(1) Reporting period is January 1 through December 31

(2) Excludes data with errors.

(3) Among women who smoked 3 months prior to pregnancy

\* Percentages are not calculated if <100 records are available for analysis after exclusions

# WIC PNSS & PedNSS

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#### Michigan

#### Summary of Trends in Infant Health Indicators by Race/Ethnicity

Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)						
		Number	%	%	Number	%	Number	%	Number	%
White, Not Hispanic	2023	20,213	9.2	7.6	20,865	11.5	17,778	4.0	20,480	79.0
	2022	21,645	9.5	7.1	22,392	11.9	18,918	4.1	21,864	80.1
	2021	21,281	9.5	7.9	22,377	11.8	18,642	4.0	21,510	73.5
	2020	21,714	8.7	7.6	22,434	10.9	19,212	3.6	22,058	69.8
Black, Not Hispanic	2023	11,360	16.3	2.9	11,821	16.8	9,373	7.9	11,527	64.5
	2022	12,242	16.2	3.7	12,674	16.1	10,190	8.0	12,325	66.1
	2021	12,585	16.0	3.4	13,183	16.0	10,491	7.8	12,653	59.5
	2020	13,398	15.0	3.4	13,902	15.6	11,200	6.9	13,622	54.7

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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#### Michigan

#### Summary of Trends in Infant Health Indicators by Race/Ethnicity

Summary of Trends in Infant Health Indicators by Race/Ethnicity <sup>(2)</sup>										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)						
		Number	%	%	Number	%	Number	%	Number	%
Hispanic	2023	5,105	8.7	5.8	5,265	12.1	4,455	3.9	5,212	78.7
	2022	4,938	8.3	6.8	5,102	12.0	4,316	3.9	5,002	76.8
	2021	4,775	8.6	7.7	4,961	12.6	4,149	3.6	4,832	70.6
	2020	4,620	7.8	7.3	4,818	11.7	4,040	3.3	4,758	68.7
American Indian/Alaska Native	2023	114	7.0	11.4	119	8.4	104	1.9	115	83.5
	2022	141	7.8	10.6	152	11.2	123	2.4	142	80.3
	2021	113	6.2	11.5	132	11.4	99	*	114	71.1
	2020	150	8.7	8.7	154	11.7	128	4.7	151	69.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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#### Michigan

#### Summary of Trends in Infant Health Indicators by Race/Ethnicity

Summary of Trends in Infant Health Indicators by Race/Ethnicity <sup>(2)</sup>										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)						
		Number	%	%	Number	%	Number	%	Number	%
Asian/Pacific Islander	2023	1,153	14.4	3.2	1,198	12.6	998	8.8	1,181	79.8
	2022	1,102	13.9	4.0	1,151	12.0	960	9.6	1,128	80.4
	2021	983	13.5	3.2	1,060	11.5	865	8.1	1,014	76.9
	2020	976	12.9	3.6	1,037	10.6	861	7.7	1,023	71.1
	Multiple Races	2023	1,786	11.4	5.7	1,847	13.8	1,526	5.0	1,802
2022		1,874	10.9	5.2	1,983	12.6	1,635	4.8	1,904	78.6
2021		1,823	9.9	7.0	1,930	12.7	1,589	4.6	1,839	72.8
2020		1,965	11.6	6.1	2,025	13.3	1,683	5.0	1,993	66.5

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

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#### Michigan

#### Summary of Trends in Infant Health Indicators by Race/Ethnicity

Summary of Trends in Infant Health Indicators by Race/Ethnicity <sup>(2)</sup>										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)						
		Number	%	%	Number	%	Number	%	Number	%
All Other/Unknown	2023	4	*	*	5	*	4	*	4	*
	2022	1	*	*	2	*	1	*	1	*
	2021	3	*	*	4	*	2	*	4	*
	2020	0	*	*	0	*	0	*	0	*
Total All Race/Ethnic Groups	2023	39,736	11.4	5.8	41,121	13.2	34,238	5.2	40,322	74.6
	2022	41,947	11.5	5.9	43,460	13.2	36,146	5.3	42,370	75.5
	2021	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0
	2020	42,825	10.8	6.1	44,372	12.6	37,125	4.8	43,607	64.8

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) <2500 g.

(4) >4000 g.

(5) <37 weeks gestation.

(6) 37 or more weeks gestation and <2500 g.

\* Percentages are not calculated if <100 records are available for analysis after exclusions