

# WIC PNSS & PedNSS

## Table 1C

### 2022 Pregnancy Nutrition Surveillance (1)

### Michigan

### Summary of Demographic Indicators (2)

Total Records	Number	%
Complete Records	23,610	65.3
Prenatal Records	2,424	6.7
Postpartum Records	10,136	28.0
<b>Total</b>	<b>36,170</b>	

Source of Data	Number	%
WIC	36,170	100.0
Maternal Health	0	0.0
Other	0	0.0
<b>Total</b>	<b>36,170</b>	<b>100.0</b>
<i>Excluded Unknown</i>	<i>0</i>	<i>0.0 %</i>

Race/Ethnic Distribution	Number	%
White, Not Hispanic	18,631	51.7
Black, Not Hispanic	10,420	28.9
Hispanic	4,304	11.9
American Indian/Alaska Native	130	0.4
Asian/Pacific Islander	942	2.6
Multiple Races	1,635	4.5
All Other	0	0.0
<b>Total</b>	<b>36,062</b>	<b>100.0</b>
<i>Excluded Unknown</i>	<i>105</i>	<i>0.3 %</i>

Age Distribution	Number	%
< 15 Years	30	0.1
15 - 17 Years	586	1.6
18 - 19 Years	2,182	6.1
20 - 29 Years	21,172	59.0
30 - 39 Years	11,093	30.9
>= 40 Years	820	2.3
<b>Total</b>	<b>35,883</b>	<b>100.0</b>
<i>Excluded Unknown: 287</i>	<i>0.8 %</i>	

Education Distribution	Number	%
< High School	6,942	19.6
High School	17,183	48.6
> High School	11,253	31.8
<b>Total</b>	<b>35,378</b>	<b>100.0</b>
<i>Excluded Unknown</i>	<i>792</i>	<i>2.2 %</i>

% of Poverty Level	Number	%
0 - 50	9,313	35.9
51 - 100	5,525	21.3
101 - 130	3,074	11.9
131 - 150	2,017	7.8
151 - 185	2,507	9.7
186 - 200	790	3.0
> 200	2,612	10.1
Adjunctive Eligibility	92	0.4
<b>Total</b>	<b>25,930</b>	<b>100.0</b>
<i>Excluded Unknown</i>	<i>104</i>	<i>0.3 %</i>

Program Participation (3)	Number	%
WIC	26,034	100.0
SNAP	25,959	46.3
Medicaid	25,961	91.0
Tanf	26,007	3.4
Excluded Unknown:		
WIC:	0	0.0
SNAP:	75	0.2
Medicaid:	73	0.2
Tanf:	27	0.1

Migrant Status	Number	%
Yes	295	0.8
No	35,875	99.2
<b>Total</b>	<b>36,170</b>	<b>100.0</b>
<i>Excluded Unknown</i>	<i>0</i>	<i>0.0 %</i>

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data or errors.

(3) Prenatal program participation

# WIC PNSS & PedNSS

## Table 2C 2022 Pregnancy Nutrition Surveillance (1) Michigan Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (7) Prevalence (Prior Year)	
	Number	%	Number	%
Prepregnancy BMI (3)				
Underweight	27,827	4.2	43,658	3.8
Normal Weight	27,827	34.4	43,658	34.4
Overweight	27,827	24.6	43,658	25.3
Obese	27,827	36.7	43,658	36.5
Maternal Weight Gain (4)				
Less Than Ideal	17,076	18.2	28,976	18.3
Ideal	17,076	29.7	28,976	29.5
Greater Than Ideal	17,076	52.1	28,976	52.2
Anemia (Low Hb/Hct) (5)				
1st Trimester	1,751	8.0	579	0.2
2nd Trimester	1,707	11.2	752	0.4
3rd Trimester	1,217	31.5	1,922	25.7
Postpartum	1,825	26.2	2,038	23.0
Parity (6)				
0	35,898	35.5	54,779	35.7
1	35,898	28.0	54,779	28.4
2	35,898	18.2	54,779	18.1
>= 3	35,898	18.4	54,779	17.7
Interpregnancy Interval				
<= 6 Months	22,582	12.4	31,374	12.1
6 - <18 Months	22,582	25.9	31,374	26.0
>= 18 Months	22,582	61.8	31,374	61.9
Gestational Diabetes	33,353	8.9	46,346	9.7
Hypertension During Pregnancy	33,367	14.3	46,202	13.3

(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

## Table 2C 2022 Pregnancy Nutrition Surveillance (1) Michigan Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (7) Prevalence (Prior Year)	
	Number	%	Number	%
Medical Care				
1st Trimester	32,821	86.4	49,482	82.8
No Care	32,821	6.3	49,482	6.3
WIC Enrollment				
1st Trimester	34,198	28.7	46,872	27.8
2nd Trimester	34,198	28.9	46,872	27.7
3rd Trimester	34,198	18.0	46,872	17.7
Postpartum (3)	34,198	24.4	46,872	26.9
Prepregnancy Multivitamin Consumption (4)	32,308	23.0	44,153	22.9
Multivitamin Consumption During Pregnancy (5)	25,920	91.4	40,545	92.5
Smoking				
3 Months Prior to Pregnancy	35,790	16.2	54,510	23.4
During Pregnancy	25,903	9.2	41,999	14.6
Last 3 Months of Pregnancy	33,383	7.8	50,043	10.3
Postpartum	33,415	8.1	50,198	10.6
Smoking Changes (6)				
Quit Smoking by First Prenatal Visit	4,414	46.4	9,986	39.2
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes	3,964	41.7	9,132	32.0
Smoking in Household				
During Pregnancy	25,877	6.1	42,004	5.9
Postpartum	33,429	3.8	52,901	2.0
Drinking				
3 Months Prior to Pregnancy	35,736	17.1	51,405	17.5
Last 3 Months of Pregnancy	33,473	0.4	49,474	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

## Table 2C

### 2022 Pregnancy Nutrition Surveillance (1)

### Michigan

### Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (6) Prevalence (Prior Year)	
	Number	%	Number	%
Birthweight (3)				
Very Low	7,977	2.4	31,163	1.5
Low	7,977	11.3	31,163	9.2
Normal	7,977	80.4	31,163	82.6
High	7,977	5.9	31,163	6.7
Preterm (4)	32,416	13.4	51,612	13.1
Full term Low Birth Weight (5)	6,724	5.7	25,808	4.6
Multiple Births	33,294	2.0	54,166	1.7
Breastfeeding				
Ever Breastfed	8,057	98.4	31,353	72.3

(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

## Table 3C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Comparison of Racial and Ethnic Distribution (2)</b>								
<b>Contributor</b>	Number Included in Analysis	White, Not Hispanic  %	Black, Not Hispanic  %	Hispanic  %	American Indian/Alaska Native %	Asian/Pacific Islander  %	Multiple Races  %	All Other/Unknown  %
<b>Michigan</b>	<b>36,167</b>	<b>51.5</b>	<b>28.8</b>	<b>11.9</b>	<b>0.4</b>	<b>2.6</b>	<b>4.5</b>	<b>0.3</b>
<b>National (Prior Year)</b>	<b>59,334</b>	<b>48.7</b>	<b>29.4</b>	<b>13.0</b>	<b>1.9</b>	<b>2.5</b>	<b>4.1</b>	<b>0.3</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

## Table 4C

### 2022 Pregnancy Nutrition Surveillance (1)

### Michigan

### Comparison of Age Distribution by Contributor to National (3)

Comparison of Age Distribution (2)								
Contributor	Number Included in Analysis	< 15 Years %	15 - 17 Years %	18 - 19 Years %	20 - 29 Years %	30 - 39 Years %	>= 40 Years %	Unknown %
Michigan	36,170	0.1	1.6	6.0	58.5	30.7	2.3	0.8
National (Prior Year)	59,336	0.1	2.1	6.3	59.2	29.7	2.3	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 5C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Comparison of Maternal Health Indicators (2)</b>															
<b>Contributor</b>	Pregnancy 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	%	
<b>Michigan</b>	<b>27,827</b>	<b>4.2</b>	<b>61.3</b>	<b>17,076</b>	<b>18.2</b>	<b>52.1</b>	<b>1,217</b>	<b>31.5</b>	<b>1,825</b>	<b>26.2</b>	<b>33,353</b>	<b>8.9</b>	<b>33,367</b>	<b>14.3</b>	
<b>National (Prior Year)</b>	<b>43,658</b>	<b>3.8</b>	<b>61.8</b>	<b>28,976</b>	<b>18.3</b>	<b>52.2</b>	<b>1,922</b>	<b>25.7</b>	<b>2,038</b>	<b>23.0</b>	<b>46,346</b>	<b>9.7</b>	<b>46,202</b>	<b>13.3</b>	

(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 pregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese pregnancy (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

## Table 6C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Comparison of Maternal Behavioral Indicators (2)</b>									
<b>Contributor</b>	Medical Care			WIC Enrollment		Multivitamin Consumption			
	1st Trimester		No Care	1st Trimester		Pregnancy (3)		During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number	%
<b>Michigan</b>	<b>32,821</b>	<b>86.4</b>	<b>6.3</b>	<b>34,198</b>	<b>28.7</b>	<b>32,308</b>	<b>23.0</b>	<b>25,920</b>	<b>91.4</b>
<b>National (Prior Year)</b>	<b>49,482</b>	<b>82.8</b>	<b>6.3</b>	<b>46,872</b>	<b>27.8</b>	<b>44,153</b>	<b>22.9</b>	<b>40,545</b>	<b>92.5</b>

(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

## Table 7C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

#### Comparison of Smoking Indicators by Contributor to National (4)

<b>Comparison of Smoking Indicators (2)</b>										
<b>Contributor</b>	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>Michigan</b>	<b>35,790</b>	<b>16.2</b>	<b>33,383</b>	<b>7.8</b>	<b>3,964</b>	<b>41.7</b>	<b>25,877</b>	<b>6.1</b>	<b>33,429</b>	<b>3.8</b>
<b>National (Prior Year)</b>	<b>54,510</b>	<b>23.4</b>	<b>50,043</b>	<b>10.3</b>	<b>9,132</b>	<b>32.0</b>	<b>42,004</b>	<b>5.9</b>	<b>52,901</b>	<b>2.0</b>

(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**

**Table 8C**

**2022 Pregnancy Nutrition Surveillance (1)**

**Michigan**

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

<b>Comparison of Infant Health Indicators (2)</b>									
<b>Contributor</b>	<b>Birthweight</b>			<b>Preterm</b>		<b>Full Term LBW</b>		<b>Ever Breastfed</b>	
	<b>Low</b>	<b>High</b>		<b>(5)</b>		<b>(6)</b>			
	<b>(3)</b>	<b>(4)</b>		<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>
<b>Michigan</b>	<b>7,977</b>	<b>13.7</b>	<b>5.9</b>	<b>32,416</b>	<b>13.4</b>	<b>6,724</b>	<b>5.7</b>	<b>8,057</b>	<b>98.4</b>
<b>National (Prior Year)</b>	<b>31,163</b>	<b>10.7</b>	<b>6.7</b>	<b>51,612</b>	<b>13.1</b>	<b>25,808</b>	<b>4.6</b>	<b>31,353</b>	<b>49.7</b>

(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

## Table 9C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

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

	Prepregnancy BMI (3)			Weight Gain (4)			Anemia (Low Hb/Hct) (5)				Gestational Diabetes		Hypertension During Pregnancy		
	Number	Under-Weight	Over-Weight	Number	< Ideal	>Ideal	3rd Trimester		Postpartum		Number	%	Number	%	
		%	%		%	%	%	Number	%	Number					%
<b>Race/Ethnicity</b>															
White, Not Hispanic	14,627	4.8	59.9	8,964	17.4	54.1	685	24.7	1,119	22.3	17,173	9.4	17,178	13.8	
Black, Not Hispanic	8,120	4.0	63.4	5,150	17.7	51.7	205	49.3	314	37.3	9,692	6.8	9,693	16.9	
Hispanic	3,016	2.3	65.5	1,689	20.7	47.4	221	32.1	270	28.1	3,990	10.7	3,997	12.3	
American Indian/Alaska Native	110	3.6	55.5	76	23.7	53.9	7	28.6	9	44.4	116	12.1	116	8.6	
Asian/Pacific Islander	667	5.5	46.6	434	29.0	31.3	27	29.6	33	33.3	891	18.7	891	5.8	
Multiple Races	1,283	3.9	62.5	761	18.0	53.4	72	44.4	80	27.5	1,488	7.2	1,489	14.3	
All Other/Unknown	2	0.0	50.0	1	0.0	100.0	0	*	0	*	0	*	0	*	
<b>Total</b>	<b>27,827</b>	<b>4.2</b>	<b>61.3</b>	<b>17,076</b>	<b>18.2</b>	<b>52.1</b>	<b>1,217</b>	<b>31.5</b>	<b>1,825</b>	<b>26.2</b>	<b>33,353</b>	<b>8.9</b>	<b>33,367</b>	<b>14.3</b>	
<b>Age</b>															
< 15 Years	20	15.0	40.0	9	33.3	55.6	1	0.0	0	*	25	4.0	25	8.0	
15 - 17 Years	483	12.6	34.6	271	18.5	48.0	29	44.8	27	29.6	537	2.2	538	11.7	
18 - 19 Years	1,772	9.9	45.1	982	16.9	53.3	91	41.8	124	34.7	1,980	2.8	1,978	13.4	
20 - 29 Years	16,502	4.4	59.8	10,112	18.2	52.5	753	30.0	1,080	27.2	19,535	6.8	19,542	12.9	
30 - 39 Years	8,267	2.2	69.3	5,232	18.4	51.4	308	30.8	531	23.7	10,280	13.9	10,287	16.8	
>= 40 Years	574	0.9	73.5	348	18.7	51.4	22	27.3	42	16.7	743	19.5	743	20.9	
Unknown	209	14.4	32.5	122	18.0	52.5	13	38.5	21	4.8	253	3.2	254	13.8	
<b>Total</b>	<b>27,827</b>	<b>4.2</b>	<b>61.3</b>	<b>17,076</b>	<b>18.2</b>	<b>52.1</b>	<b>1,217</b>	<b>31.5</b>	<b>1,825</b>	<b>26.2</b>	<b>33,353</b>	<b>8.9</b>	<b>33,367</b>	<b>14.3</b>	
<b>Education</b>															
< High School	4,912	5.5	56.7	2,897	20.4	49.4	240	35.8	315	32.1	6,413	8.4	6,418	12.4	
High School	13,400	4.6	61.4	8,115	17.9	52.6	601	30.6	820	27.7	15,893	8.3	15,896	14.2	
> High School	9,046	2.8	64.6	5,774	17.5	53.1	349	29.8	651	21.7	10,428	10.3	10,432	15.8	
Excluded Unknown	469	8.5	47.5	290	18.3	47.6	27	33.3	39	25.6	619	7.8	621	12.1	
<b>Total</b>	<b>27,827</b>	<b>4.2</b>	<b>61.3</b>	<b>17,076</b>	<b>18.2</b>	<b>52.1</b>	<b>1,217</b>	<b>31.5</b>	<b>1,825</b>	<b>26.2</b>	<b>33,353</b>	<b>8.9</b>	<b>33,367</b>	<b>14.3</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) 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 10C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Maternal Behavioral Indicators by Race/Ethnicity, Age, or Education (2)</b>									
	Medical Care			WIC Enrollment		Multivitamin Consumption			
	1st Trimester		No Care	1st Trimester		Prepregnancy (3)		During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number	%
<b>Race/Ethnicity</b>									
White, Not Hispanic	16,989	87.3	7.6	17,597	32.8	17,127	26.3	13,640	92.2
Black, Not Hispanic	9,469	84.9	3.9	9,844	21.1	9,061	19.5	7,038	90.2
Hispanic	3,927	85.8	6.6	4,095	29.1	3,715	17.6	3,237	91.5
American Indian/Alaska Native	114	88.6	4.4	118	32.2	127	34.6	92	98.9
Asian/Pacific Islander	858	88.7	5.1	896	29.1	781	16.6	684	87.7
Multiple Races	1,461	85.9	6.7	1,566	29.9	1,494	22.8	1,226	91.0
All Other/Unknown	0	*	*	79	2.5	0	*	0	*
<b>Total</b>	<b>32,821</b>	<b>86.4</b>	<b>6.3</b>	<b>34,198</b>	<b>28.7</b>	<b>32,308</b>	<b>23.0</b>	<b>25,920</b>	<b>91.4</b>
<b>Age</b>									
< 15 Years	25	76.0	12.0	29	37.9	26	15.4	26	88.5
15 - 17 Years	526	73.4	7.8	569	29.7	525	10.5	475	89.9
18 - 19 Years	1,963	83.9	7.3	2,114	30.3	1,978	13.5	1,747	90.0
20 - 29 Years	19,193	87.2	6.0	20,010	28.0	18,924	21.9	15,226	91.2
30 - 39 Years	10,125	86.5	6.5	10,450	29.6	9,875	27.4	7,691	92.6
>= 40 Years	739	86.3	5.7	752	30.1	723	29.9	558	91.9
Unknown	250	72.8	10.0	274	27.0	257	14.8	197	82.7
<b>Total</b>	<b>32,821</b>	<b>86.4</b>	<b>6.3</b>	<b>34,198</b>	<b>28.7</b>	<b>32,308</b>	<b>23.0</b>	<b>25,920</b>	<b>91.4</b>
<b>Education</b>									
< High School	6,255	82.3	6.9	6,626	28.2	6,068	16.2	5,112	88.8
High School	15,661	86.1	6.3	16,260	29.0	15,388	21.1	12,481	91.1
> High School	10,303	89.9	5.8	10,581	29.1	10,229	30.0	7,886	93.9
Excluded Unknown	602	78.4	8.6	731	20.8	623	21.0	441	86.8
<b>Total</b>	<b>32,821</b>	<b>86.4</b>	<b>6.3</b>	<b>34,198</b>	<b>28.7</b>	<b>32,308</b>	<b>23.0</b>	<b>25,920</b>	<b>91.4</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

## Table 11C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Smoking Indicators by Race/Ethnicity, Age, or Education (2)</b>										
	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	18,490	21.7	17,170	11.5	2,770	36.8	13,629	7.0	17,209	4.9
Black, Not Hispanic	10,351	9.8	9,718	3.4	675	55.4	7,022	5.8	9,720	2.7
Hispanic	4,256	8.9	3,989	3.2	261	57.1	3,218	3.3	3,998	2.4
American Indian/Alaska Native	130	36.2	117	18.8	24	37.5	91	13.2	117	5.1
Asian/Pacific Islander	936	1.1	895	0.3	6	50.0	686	1.3	894	1.1
Multiple Races	1,624	20.5	1,491	9.7	227	43.2	1,228	7.7	1,488	4.8
All Other/Unknown	0	*	0	*	0	*	0	*	0	*
<b>Total</b>	<b>35,790</b>	<b>16.2</b>	<b>33,383</b>	<b>7.8</b>	<b>3,964</b>	<b>41.7</b>	<b>25,877</b>	<b>6.1</b>	<b>33,429</b>	<b>3.8</b>
<b>Age</b>										
< 15 Years	29	10.3	26	0.0	3	100.0	26	19.2	26	11.5
15 - 17 Years	576	7.6	539	1.9	42	78.6	474	13.3	540	5.7
18 - 19 Years	2,148	12.7	1,974	4.4	223	61.0	1,743	12.4	1,979	5.4
20 - 29 Years	20,942	15.4	19,551	7.0	2,234	44.4	15,205	5.6	19,576	3.8
30 - 39 Years	10,998	18.9	10,296	10.5	1,369	32.7	7,677	5.0	10,307	3.6
>= 40 Years	813	15.5	743	8.1	72	38.9	558	5.2	744	2.7
Unknown	284	11.3	254	3.1	21	57.1	194	18.0	257	5.8
<b>Total</b>	<b>35,790</b>	<b>16.2</b>	<b>33,383</b>	<b>7.8</b>	<b>3,964</b>	<b>41.7</b>	<b>25,877</b>	<b>6.1</b>	<b>33,429</b>	<b>3.8</b>
<b>Education</b>										
< High School	6,885	21.8	6,407	12.3	1,031	32.8	5,090	8.6	6,426	5.4
High School	17,047	17.2	15,916	8.0	2,028	43.4	12,467	6.3	15,943	4.1
> High School	11,183	11.4	10,439	5.0	852	47.3	7,882	4.0	10,436	2.4
Excluded Unknown	675	11.1	621	3.9	53	58.5	438	10.0	624	4.8
<b>Total</b>	<b>35,790</b>	<b>16.2</b>	<b>33,383</b>	<b>7.8</b>	<b>3,964</b>	<b>41.7</b>	<b>25,877</b>	<b>6.1</b>	<b>33,429</b>	<b>3.8</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

## Table 12C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Infant Health Indicators by Race/Ethnicity, Age, or Education (2)</b>									
	Birthweight			Preterm		Full Term LBW		Ever Breastfed	
	Low (3)		High (4)	(5)		(6)			
	Number	%	%	Number	%	Number	%	Number	%
<b>Race/Ethnicity</b>									
White, Not Hispanic	4,288	11.3	6.9	16,630	12.0	3,692	4.2	4,330	99.1
Black, Not Hispanic	2,081	19.4	3.8	9,480	16.6	1,663	8.6	2,102	96.8
Hispanic	970	11.2	6.5	3,877	11.9	833	5.0	982	98.6
American Indian/Alaska Native	26	7.7	11.5	112	11.6	23	0.0	26	100.0
Asian/Pacific Islander	213	18.3	2.8	862	11.8	175	10.9	216	97.2
Multiple Races	398	13.3	5.0	1,452	12.2	338	5.9	400	99.3
All Other/Unknown	0	*	*	0	*	0	*	0	*
<b>Total</b>	<b>7,977</b>	<b>13.7</b>	<b>5.9</b>	<b>32,416</b>	<b>13.4</b>	<b>6,724</b>	<b>5.7</b>	<b>8,057</b>	<b>98.4</b>
<b>Age</b>									
< 15 Years	7	0.0	0.0	25	16.0	5	0.0	7	100.0
15 - 17 Years	136	15.4	2.9	525	13.9	113	8.0	137	95.6
18 - 19 Years	557	9.3	4.3	1,948	12.1	479	5.2	561	98.2
20 - 29 Years	4,853	10.6	6.0	19,089	12.0	4,155	5.3	4,898	99.0
30 - 39 Years	2,202	13.0	6.5	9,906	15.5	1,788	6.3	2,229	98.5
>= 40 Years	117	9.4	4.3	678	21.2	96	5.2	118	96.6
Unknown	105	15.2	1.9	245	16.3	88	6.8	107	77.6
<b>Total</b>	<b>7,977</b>	<b>13.7</b>	<b>5.9</b>	<b>32,416</b>	<b>13.4</b>	<b>6,724</b>	<b>5.7</b>	<b>8,057</b>	<b>98.4</b>
<b>Education</b>									
< High School	1,369	11.8	5.3	6,228	14.1	1,157	6.4	1,395	97.6
High School	3,865	10.9	6.3	15,456	13.1	3,270	5.7	3,902	98.7
> High School	2,545	11.4	5.8	10,129	13.2	2,130	5.1	2,558	99.4
Excluded Unknown	198	14.1	1.5	603	14.4	167	7.8	202	86.6
<b>Total</b>	<b>7,977</b>	<b>13.7</b>	<b>5.9</b>	<b>32,416</b>	<b>13.4</b>	<b>6,724</b>	<b>5.7</b>	<b>8,057</b>	<b>98.4</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

## Table 13C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Maternal Weight Gain and Birth Outcomes by Select Health Indicators (2)</b>										
	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	741	25.0	33.9	252	19.8	1.2	1,067	14.0	214	13.1
Normal Weight	6,085	23.9	42.7	2,033	14.6	3.8	8,615	12.7	1,725	6.3
Overweight	4,264	12.0	59.7	1,501	10.9	6.2	6,232	12.4	1,293	4.1
Obese	5,986	16.0	58.6	2,478	13.9	7.7	9,283	14.2	2,054	5.3
<b>Weight Gain</b>										
< Ideal	-	-	-	723	18.4	3.0	2,989	16.3	590	7.8
Ideal	-	-	-	1,180	16.9	3.6	4,994	13.6	977	7.4
> Ideal	-	-	-	2,088	9.7	8.2	8,786	11.3	1,814	3.0
<b>Smoking During Pregnancy</b>										
Smokers	992	18.9	51.3	559	14.3	2.9	2,025	14.8	482	7.1
Non-Smokers	9,934	17.2	53.1	5,565	12.3	6.4	20,728	12.6	4,745	5.3

(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 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).

(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

## Table 14C

### 2022 Pregnancy Nutrition Surveillance (1)

### 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 %
2022	36,167	51.5	28.8	11.9	0.4	2.6	4.5	0.3
2021	47,523	51.1	30.3	11.2	0.3	2.4	4.4	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

## Table 15C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

#### Summary of Trends in Age Distribution

<b>Summary of Trends in Age Distribution (2)</b>								
Year	Number Included in Analysis	< 15 Years %	15 - 17 Years %	18 - 19 Years %	20 - 29 Years %	30 - 39 Years %	>= 40 Years %	Unknown %
2022	36,170	0.1	1.6	6.0	58.5	30.7	2.3	0.8
2021	47,523	0.1	2.0	6.5	59.8	29.1	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

## Table 16C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

#### Summary of Trends in Maternal Health Indicators

<b>Summary of Trends in Maternal Health Indicators (2)</b>											
Year	Prepregnancy BMI			Weight Gain			Anemia (Low Hb/Hct)				
	(3)			(4)			(5)				
	Under-weight	Over-weight		< Ideal	> Ideal		3rd Trimester		Postpartum		
	Number	%	%	Number	%	%	Number	%	Number	%	
2022	27,827	4.2	61.3	17,076	18.2	52.1	1,217	31.5	1,825	26.2	
2021	35,370	3.9	61.5	21,570	17.1	53.8	613	31.8	1,172	24.7	
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

### 2022 Pregnancy Nutrition Surveillance (1)

### Michigan

### Summary of Maternal Behavioral Indicators

<b>Summary of Maternal Behavioral Indicators (2)</b>					
<b>Year</b>	Medical Care			WIC Enrollment	
	1st Trimester		No Care	1st Trimester	
	Number	%	%	Number	%
2022	32,821	86.4	6.3	34,198	28.7
2021	42,619	86.5	6.3	46,872	27.8
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

## Table 18C

### 2022 Pregnancy Nutrition Surveillance (1)

### Michigan

### Summary of Trends in Smoking Indicators

Summary of Trends in Smoking Indicators (2)										
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	%
2022	35,790	16.2	33,383	7.8	3,964	41.7	25,877	6.1	33,429	3.8
2021	45,084	19.1	43,243	9.7	6,108	42.3	34,212	6.2	43,188	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

## Table 19C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

#### Summary of Trends in Infant Health Indicators

<b>Summary of Trends in Infant Health Indicators (2)</b>									
Year	Birthweight			Preterm		Full Term LBW		Ever Breastfed	
	Low (3)	High (4)		(5)		(6)			
	Number	%	%	Number	%	Number	%	Number	%
2022	7,977	13.7	5.9	32,416	13.4	6,724	5.7	8,057	98.4
2021	20,634	11.6	6.4	42,035	13.2	17,699	5.3	20,853	71.6
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

## Table 20C

### 2022 Pregnancy Nutrition Surveillance (1)

#### 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)			
		(3)			(4)			(5)			
		Under- weight	Over- weight		< Ideal	> Ideal		3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
<b>White, Not Hispanic</b>	2022	14,627	4.8	59.9	8,964	17.4	54.1	685	24.7	1,119	22.3
	2021	18,442	4.3	59.7	11,449	15.9	54.8	299	24.4	652	21.6
	2020	19,218	4.5	58.7	11,561	16.5	53.4	1,363	31.9	533	23.1
	2019	22,546	4.6	58.7	14,128	17.5	52.7	4,351	35.0	6,717	23.2
<b>Black, Not Hispanic</b>	2022	8,120	4.0	63.4	5,150	17.7	51.7	205	49.3	314	37.3
	2021	10,856	3.7	64.2	6,504	17.5	54.6	126	49.2	208	38.9
	2020	11,268	3.4	63.5	6,440	19.3	52.3	1,005	52.1	226	50.9
	2019	13,399	3.7	63.1	8,438	19.9	52.9	3,126	60.9	3,274	45.9

(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

## Table 20C

### 2022 Pregnancy Nutrition Surveillance (1)

#### 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 (3)			Weight Gain (4)			Anemia (Low Hb/Hct) (5)			
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
<b>Hispanic</b>	2022	3,016	2.3	65.5	1,689	20.7	47.4	221	32.1	270	28.1
	2021	3,652	2.6	66.1	2,120	20.8	49.6	132	31.8	206	19.4
	2020	3,814	2.5	66.8	2,051	21.6	47.9	284	34.9	128	28.9
	2019	4,605	2.6	67.1	2,862	22.8	45.5	981	38.2	1,282	30.9
<b>American Indian/Alaska Native</b>	2022	110	3.6	55.5	76	23.7	53.9	7	28.6	9	44.4
	2021	130	3.1	60.8	73	*	*	1	*	3	*
	2020	143	2.1	63.6	77	*	*	8	*	2	*
	2019	160	6.9	61.9	89	*	*	24	*	43	*

(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

## Table 20C

### 2022 Pregnancy Nutrition Surveillance (1)

#### 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 (3)			Weight Gain (4)			Anemia (Low Hb/Hct) (5)			
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
<b>Asian/Pacific Islander</b>	2022	667	5.5	46.6	434	29.0	31.3	27	29.6	33	33.3
	2021	677	5.3	42.5	428	27.8	32.2	19	*	41	*
	2020	696	7.0	42.8	397	29.0	31.0	56	*	18	*
	2019	881	7.4	39.4	568	26.6	29.6	170	38.2	287	28.9
<b>Multiple Races</b>	2022	1,283	3.9	62.5	761	18.0	53.4	72	44.4	80	27.5
	2021	1,611	4.1	61.2	996	16.1	56.0	36	*	62	*
	2020	1,784	4.0	61.7	1,048	18.8	54.3	118	39.8	49	*
	2019	2,136	4.4	60.9	1,284	18.8	52.9	446	48.4	598	31.6

(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 (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

## Table 20C

### 2022 Pregnancy Nutrition Surveillance (1)

#### 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 (3)			Weight Gain (4)			Anemia (Low Hb/Hct) (5)			
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
<b>All Other/Unknown</b>	2022	2	0.0	50.0	1	0.0	100.0	0	*	0	*
	2021	2	*	*	0	*	*	0	*	0	*
	2020	0	*	*	0	*	*	0	*	0	*
	2019	3	*	*	1	*	*	0	*	2	*
<b>Total All Race/Ethnic Groups</b>	2022	27,827	4.2	61.3	17,076	18.2	52.1	1,217	31.5	1,825	26.2
	2021	35,370	3.9	61.5	21,570	17.1	53.8	613	31.8	1,172	24.7
	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

(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

## Table 21C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)</b>						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
<b>White, Not Hispanic</b>	2022	16,989	87.3	7.6	17,597	32.8
	2021	21,878	87.2	7.5	23,949	31.1
	2020	22,936	86.6	7.7	25,115	32.8
	2019	25,289	86.5	7.7	27,266	31.7
<b>Black, Not Hispanic</b>	2022	9,469	84.9	3.9	9,844	21.1
	2021	12,924	85.9	4.2	14,206	21.7
	2020	14,068	84.2	4.0	15,206	22.4
	2019	15,338	82.8	4.2	16,325	21.3

(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

# WIC PNSS & PedNSS

## Table 21C

### 2022 Pregnancy Nutrition Surveillance (1)

### 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>Hispanic</b>	2022	3,927	85.8	6.6	4,095	29.1
	2021	4,825	83.8	7.0	5,254	28.7
	2020	4,915	84.0	7.5	5,354	32.7
	2019	5,240	83.3	8.1	5,672	32.9
<b>American Indian/Alaska Native</b>	2022	114	88.6	4.4	118	32.2
	2021	133	87.2	5.3	153	35.3
	2020	158	87.3	5.1	182	30.8
	2019	170	85.3	8.2	189	34.4

(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

## Table 21C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)</b>						
Race/Ethnicity	Year	Medical Care			WIC Enrollment	
		1st Trimester		No Care	1st Trimester	
		Number	%	%	Number	%
<b>Asian/Pacific Islander</b>	2022	858	88.7	5.1	896	29.1
	2021	1,005	92.7	4.0	1,100	26.6
	2020	1,042	90.7	5.0	1,133	27.8
	2019	1,064	91.0	5.4	1,136	32.0
<b>Multiple Races</b>	2022	1,461	85.9	6.7	1,566	29.9
	2021	1,852	86.0	7.5	2,075	30.7
	2020	2,046	85.1	7.0	2,266	31.0
	2019	2,309	83.3	6.6	2,533	31.3

(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

# WIC PNSS & PedNSS

## Table 21C

### 2022 Pregnancy Nutrition Surveillance (1)

#### 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>All Other/Unknown</b>	2022	0	*	*	79	2.5
	2021	2	*	*	135	0.7
	2020	0	*	*	127	3.9
	2019	2	*	*	200	1.0
<b>Total All Race/Ethnic Groups</b>	2022	32,821	86.4	6.3	34,198	28.7
	2021	42,619	86.5	6.3	46,872	27.8
	2020	45,167	85.6	6.4	49,385	29.3
	2019	49,415	84.9	6.6	53,324	28.5

(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

## Table 22C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Smoking Indicators by Race/Ethnicity (2)</b>											
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	%
<b>White, Not Hispanic</b>											
	2022	18,490	21.7	17,170	11.5	2,770	36.8	13,629	7.0	17,209	4.9
	2021	23,304	25.4	22,115	14.1	4,175	36.3	17,762	7.0	22,094	2.1
	2020	22,877	29.2	23,142	16.7	5,158	34.1	18,886	9.2	23,138	2.0
	2019	24,850	31.9	25,511	19.2	6,274	32.6	20,589	10.5	25,500	2.8
<b>Black, Not Hispanic</b>											
	2022	10,351	9.8	9,718	3.4	675	55.4	7,022	5.8	9,720	2.7
	2021	13,495	11.9	13,159	4.5	1,126	59.1	9,976	6.4	13,144	1.9
	2020	12,753	15.0	14,222	5.6	1,534	53.6	10,548	9.3	14,219	2.5
	2019	13,854	16.4	15,488	6.7	1,892	54.2	11,523	11.7	15,469	3.4

(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

## Table 22C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Smoking Indicators by Race/Ethnicity (2)</b>											
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	%
<b>Hispanic</b>	2022	4,256	8.9	3,989	3.2	261	57.1	3,218	3.3	3,998	2.4
	2021	5,074	10.2	4,912	3.9	391	58.8	3,977	3.1	4,896	1.1
	2020	4,799	12.2	4,984	4.5	470	55.5	4,116	4.5	4,976	1.0
	2019	5,158	13.0	5,299	5.6	553	52.4	4,540	4.7	5,278	1.6
<b>American Indian/Alaska Native</b>	2022	130	36.2	117	18.8	24	37.5	91	13.2	117	5.1
	2021	151	43.0	134	26.9	45	*	123	5.7	133	4.5
	2020	168	44.0	159	22.6	54	*	138	18.1	159	3.1
	2019	174	44.8	170	30.0	62	*	148	10.8	171	6.4

(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**

**Table 22C**

**2022 Pregnancy Nutrition Surveillance (1)**

**Michigan**

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

<b>Summary of Trends in Smoking Indicators by Race/Ethnicity (2)</b>											
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	%
<b>Asian/Pacific Islander</b>	2022	936	1.1	895	0.3	6	50.0	686	1.3	894	1.1
	2021	1,078	1.6	1,039	1.1	9	*	795	1.4	1,038	0.9
	2020	1,062	2.7	1,073	0.7	24	*	847	1.8	1,069	0.7
	2019	1,058	3.2	1,077	1.1	18	*	851	3.1	1,076	2.3
<b>Multiple Races</b>	2022	1,624	20.5	1,491	9.7	227	43.2	1,228	7.7	1,488	4.8
	2021	1,980	25.0	1,882	13.0	362	43.4	1,579	6.0	1,881	2.2
	2020	1,989	29.1	2,074	16.1	453	35.1	1,716	11.1	2,068	2.2
	2019	2,266	30.7	2,331	17.6	562	35.2	1,992	12.9	2,327	3.6

(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

## Table 22C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Smoking Indicators by Race/Ethnicity (2)</b>											
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	%
<b>All Other/Unknown</b>	2022	0	*	0	*	0	*	0	*	0	*
	2021	2	*	2	*	0	*	0	*	2	*
	2020	0	*	0	*	0	*	0	*	0	*
	2019	4	*	2	*	0	*	2	*	2	*
<b>Total All Race/Ethnic Groups</b>	2022	35,790	16.2	33,383	7.8	3,964	41.7	25,877	6.1	33,429	3.8
	2021	45,084	19.1	43,243	9.7	6,108	42.3	34,212	6.2	43,188	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

(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

## Table 23C

### 2022 Pregnancy Nutrition Surveillance (1)

### 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	%	%						
<b>White, Not Hispanic</b>	2022	4,288	11.3	6.9	16,630	12.0	3,692	4.2	4,330	99.1
	2021	10,643	9.5	8.2	21,471	11.7	9,296	4.0	10,766	76.0
	2020	21,714	8.7	7.6	22,434	10.9	19,212	3.6	22,058	69.8
	2019	24,085	8.4	8.1	24,733	11.0	21,257	3.4	24,266	72.3
<b>Black, Not Hispanic</b>	2022	2,081	19.4	3.8	9,480	16.6	1,663	8.6	2,102	96.8
	2021	6,214	16.2	3.1	12,800	16.0	5,150	8.1	6,258	62.8
	2020	13,398	15.0	3.4	13,902	15.6	11,200	6.9	13,622	54.7
	2019	14,676	14.6	3.4	15,109	15.5	12,281	6.6	14,849	58.1

(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

## Table 23C

### 2022 Pregnancy Nutrition Surveillance (1)

### 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	%
<b>Hispanic</b>	2022	970	11.2	6.5	3,877	11.9	833	5.0	982	98.6
	2021	2,331	9.1	7.8	4,791	12.5	2,005	3.3	2,360	73.3
	2020	4,620	7.8	7.3	4,818	11.7	4,040	3.3	4,758	68.7
	2019	5,004	7.7	7.2	5,117	11.6	4,380	3.2	5,029	71.2
<b>American Indian/Alaska Native</b>	2022	26	7.7	11.5	112	11.6	23	0.0	26	100.0
	2021	61	*	*	127	11.8	50	*	62	*
	2020	150	8.7	8.7	154	11.7	128	4.7	151	69.5
	2019	157	7.6	14.0	162	13.6	131	3.8	158	69.6

(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

## Table 23C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)</b>										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)						
		Number	%	%	Number	%	Number	%	Number	%
<b>Asian/Pacific Islander</b>	2022	213	18.3	2.8	862	11.8	175	10.9	216	97.2
	2021	498	14.1	4.0	1,013	11.6	441	8.8	512	76.2
	2020	976	12.9	3.6	1,037	10.6	861	7.7	1,023	71.1
	2019	1,017	10.7	4.2	1,051	10.9	899	6.0	1,022	79.4
<b>Multiple Races</b>	2022	398	13.3	5.0	1,452	12.2	338	5.9	400	99.3
	2021	887	10.0	6.8	1,831	12.7	757	4.2	893	73.8
	2020	1,965	11.6	6.1	2,025	13.3	1,683	5.0	1,993	66.5
	2019	2,193	10.6	6.1	2,272	12.1	1,916	5.1	2,202	70.0

(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

## Table 23C

### 2022 Pregnancy Nutrition Surveillance (1)

#### Michigan

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

<b>Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)</b>										
Race/Ethnicity	Year	Birthweight			Preterm (5)		Full Term LBW (6)		Ever Breastfed	
		Low (3)		High (4)	Number	%	Number	%	Number	%
		Number	%	%						
<b>All Other/Unknown</b>	2022	0	*	*	0	*	0	*	0	*
	2021	0	*	*	2	*	0	*	2	*
	2020	0	*	*	0	*	0	*	0	*
	2019	0	*	*	2	*	0	*	2	*
<b>Total All Race/Ethnic Groups</b>	2022	7,977	13.7	5.9	32,416	13.4	6,724	5.7	8,057	98.4
	2021	20,634	11.6	6.4	42,035	13.2	17,699	5.3	20,853	71.6
	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

(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