

WIC PNSS & PedNSS

Run Date: 5/29/2024

Table 1C

2021 Pregnancy Nutrition Surveillance (1)

Page : 1

Michigan

Summary of Demographic Indicators (2)

Total Records	Number	%
Complete Records	31,060	64.3
Prenatal Records	2,962	6.1
Postpartum Records	14,315	29.6
Total	48,337	

Source of Data	Number	%
WIC	48,337	100.0
Maternal Health	0	0.0
Other	0	0.0
Total	48,337	100.0
Excluded Unknown	0	0.0 %

Race/Ethnic Distribution	Number	%
White, Not Hispanic	24,780	51.4
Black, Not Hispanic	14,494	30.1
Hispanic	5,437	11.3
American Indian/Alaska Native	161	0.3
Asian/Pacific Islander	1,154	2.4
Multiple Races	2,151	4.5
All Other	0	0.0
Total	48,177	100.0
Excluded Unknown	160	0.3 %

Age Distribution	Number	%
< 15 Years	33	0.1
15 - 17 Years	952	2.0
18 - 19 Years	3,058	6.3
20 - 29 Years	28,859	59.9
30 - 39 Years	14,205	29.5
>= 40 Years	1,054	2.2
Total	48,161	100.0
Excluded Unknown:	176	0.4 %

Education Distribution	Number	%
< High School	9,424	19.9
High School	22,593	47.7
> High School	15,371	32.4
Total	47,388	100.0
Excluded Unknown	949	2.0 %

% of Poverty Level	Number	%
0 - 50	11,938	35.2
51 - 100	8,000	23.6
101 - 130	4,094	12.1
131 - 150	2,674	7.9
151 - 185	3,043	9.0
186 - 200	955	2.8
> 200	3,100	9.1
Adjunctive Eligibility	108	0.3
Total	33,912	100.0
Excluded Unknown	110	0.2 %

Program Participation (3)	Number	%
WIC	34,022	100.0
SNAP	33,963	45.0
Medicaid	33,869	87.8
Tanf	33,993	2.5
Excluded Unknown:		
WIC:	0	0.0
SNAP:	59	0.1
Medicaid:	153	0.3
Tanf:	29	0.1

Migrant Status	Number	%
Yes	319	0.7
No	48,018	99.3
Total	48,337	100.0
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: 5/29/2024

Table 2C

2021 Pregnancy Nutrition Surveillance (1)

Page : 2

Michigan

Summary of Health Indicators

Summary of Health Indicators (2)				
	Michigan Prevalence		National (7) Prevalence (Prior Year)	
	Number	%	Number	%
Prepregnancy BMI (3)				
Underweight	35,616	3.8	76,624	4.0
Normal Weight	35,616	34.1	76,624	35.2
Overweight	35,616	24.8	76,624	25.2
Obese	35,616	37.3	76,624	35.5
Maternal Weight Gain (4)				
Less Than Ideal	21,801	17.6	54,177	21.0
Ideal	21,801	29.0	54,177	31.1
Greater Than Ideal	21,801	53.3	54,177	48.0
Anemia (Low Hb/Hct) (5)				
1st Trimester	334	6.3	20,110	3.9
2nd Trimester	502	14.7	17,411	3.9
3rd Trimester	608	32.1	13,936	20.1
Postpartum	1,368	23.8	4,844	20.1
Parity (6)				
0	47,904	35.4	72,004	28.6
1	47,904	28.9	72,004	32.0
2	47,904	18.2	72,004	20.9
>= 3	47,904	17.5	72,004	18.6
Interpregnancy Interval				
<= 6 Months	23,448	12.2	38,502	12.6
6 - <18 Months	23,448	26.4	38,502	25.0
>= 18 Months	23,448	61.3	38,502	62.4
Gestational Diabetes	44,841	9.1	52,072	11.4
Hypertension During Pregnancy	44,895	13.5	51,357	13.8

(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: 5/29/2024

Table 2C 2021 Pregnancy Nutrition Surveillance (1) Michigan Summary of Health Indicators

Page : 3

Summary of Health Indicators (2)			
	Michigan Prevalence		National (7) Prevalence (Prior Year)
	Number	%	Number %
Medical Care			
1st Trimester	42,342	90.6	77,410 69.2
No Care	42,342	2.0	77,410 7.1
WIC Enrollment			
1st Trimester	47,286	27.0	83,553 19.4
2nd Trimester	47,286	27.2	83,553 18.6
3rd Trimester	47,286	17.4	83,553 39.6
Postpartum (3)	47,286	28.4	83,553 22.4
Prepregnancy Multivitamin Consumption (4)	40,570	22.9	60,693 22.5
Multivitamin Consumption During Pregnancy (5)	33,883	91.8	61,433 89.2
Smoking			
3 Months Prior to Pregnancy	35,714	19.7	83,471 24.3
During Pregnancy	33,881	10.7	74,498 14.3
Last 3 Months of Pregnancy	44,742	9.2	86,947 11.2
Postpartum	44,924	9.8	87,271 11.6
Smoking Changes (6)			
Quit Smoking by First Prenatal Visit	6,796	47.1	17,040 45.4
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes	6,188	42.4	14,888 35.8
Smoking in Household			
During Pregnancy	33,791	6.1	70,642 7.8
Postpartum	44,858	1.9	84,906 3.2
Drinking			
3 Months Prior to Pregnancy	45,741	18.6	82,865 14.8
Last 3 Months of Pregnancy	44,963	0.4	80,181 0.5

(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

Run Date: 5/29/2024

Table 2C

2021 Pregnancy Nutrition Surveillance (1)

Page : 4

Michigan

Summary of Health Indicators

Summary of Health Indicators (2)			
	Michigan Prevalence		National (6) Prevalence (Prior Year)
	Number	%	Number %
Birthweight (3)			
Very Low	41,563	1.7	80,061 1.3
Low	41,563	9.7	80,061 8.8
Normal	41,563	82.2	80,061 83.8
High	41,563	6.3	80,061 6.0
Preterm (4)	43,647	13.2	77,312 11.9
Full term Low Birth Weight (5)	35,837	5.2	65,997 4.4
Multiple Births	44,758	1.9	88,299 1.6
Breastfeeding			
Ever Breastfed	41,966	69.0	80,887 71.0

(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

Run Date: 5/29/2024

Table 3C

2021 Pregnancy Nutrition Surveillance (1)

Page : 5

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	48,337	51.3	30.0	11.3	0.3	2.4	4.5	0.3
National (Prior Year)	99,423	47.9	24.1	19.8	1.6	2.8	3.6	0.2

(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

Run Date: 5/29/2024

Table 4C**2021 Pregnancy Nutrition Surveillance (1)**

Page : 6

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	48,337	0.1	2.0	6.3	59.7	29.4	2.2	0.4
National (Prior Year)	99,433	0.1	2.4	7.1	59.5	28.4	2.3	0.2

(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

Run Date: 5/29/2024

Table 5C

2021 Pregnancy Nutrition Surveillance (1)

Page : 7

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	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8	44,841	9.1	44,895	13.5
National (Prior Year)	76,624	4.0	60.8	54,177	21.0	48.0	13,936	20.1	4,844	20.1	52,072	11.4	51,357	13.8

(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

Run Date: 5/29/2024

Table 6C

2021 Pregnancy Nutrition Surveillance (1)

Page : 8

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		Pregnancy (3)		During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number	%
Michigan	42,342	90.6	2.0	47,286	27.0	40,570	22.9	33,883	91.8
National (Prior Year)	77,410	69.2	7.1	83,553	19.4	60,693	22.5	61,433	89.2

(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

Run Date: 5/29/2024

Table 7C

2021 Pregnancy Nutrition Surveillance (1)

Page : 9

Michigan

Comparison of Smoking Indicators by Contributor to National (4)

Comparison of Smoking Indicators ⁽²⁾										
Contributor	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	%
Michigan	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9
National (Prior Year)	83,471	24.3	86,947	11.2	14,888	35.8	70,642	7.8	84,906	3.2

(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

Run Date: 5/29/2024

Table 8C

2021 Pregnancy Nutrition Surveillance (1)

Page : 10

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	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0
National (Prior Year)	80,061	10.1	6.0	77,312	11.9	65,997	4.4	80,887	57.7

(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.

(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: 5/29/2024

Table 9C

2021 Pregnancy Nutrition Surveillance (1)

Page : 11

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 ⁽²⁾														
	Prepregnancy BMI (3)			Weight Gain (4)			Anemia (Low Hb/Hct) (5)				Gestational Diabetes		Hypertension During Pregnancy	
	Under-Weight		Over-Weight	< Ideal		>Ideal	3rd Trimester		Postpartum					
	Number	%	%	Number	%	%	Number	%	Number	%	Number	%	Number	%
Race/Ethnicity														
White, Not Hispanic	18,598	4.2	60.3	11,546	16.7	53.9	296	24.7	768	20.6	23,012	9.4	23,042	13.3
Black, Not Hispanic	10,914	3.4	64.7	6,648	17.8	54.4	125	49.6	236	38.6	13,532	7.6	13,549	15.6
Hispanic	3,636	2.6	67.0	2,104	21.5	49.3	131	32.1	236	19.5	5,089	10.7	5,094	10.8
American Indian/Alaska Native	133	3.0	60.9	77	*	*	1	*	4	*	140	10.7	140	7.1
Asian/Pacific Islander	695	5.2	44.7	430	29.3	31.9	20	*	49	*	1,085	17.4	1,083	5.8
Multiple Races	1,639	4.1	61.2	996	14.7	57.4	35	*	75	*	1,979	8.4	1,983	12.1
All Other/Unknown	1	*	*	0	*	*	0	*	0	*	4	*	4	*
Total	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8	44,841	9.1	44,895	13.5
Age														
< 15 Years	24	*	*	10	*	*	2	*	0	*	32	*	32	*
15 - 17 Years	692	10.0	36.1	398	22.1	53.3	15	*	23	*	892	2.0	894	11.4
18 - 19 Years	2,334	7.0	46.9	1,338	17.5	54.3	45	*	82	*	2,797	3.6	2,798	12.5
20 - 29 Years	21,503	4.1	60.9	13,164	17.4	53.8	369	31.4	786	24.2	26,796	7.2	26,819	12.6
30 - 39 Years	10,235	2.0	69.2	6,439	17.6	52.6	159	28.9	443	21.2	13,208	14.1	13,234	15.2
>= 40 Years	717	1.3	73.9	394	20.3	46.2	14	*	27	*	954	20.4	956	19.0
Unknown	111	11.7	48.6	58	*	*	4	*	7	*	162	2.5	162	11.1
Total	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8	44,841	9.1	44,895	13.5
Education														
< High School	6,486	5.2	57.2	3,828	21.2	49.5	119	35.3	231	29.4	8,808	8.0	8,822	11.8
High School	16,737	4.1	62.0	10,136	17.2	53.8	283	34.3	638	23.7	21,076	8.7	21,102	13.4
> High School	11,929	2.5	65.2	7,563	16.2	54.8	198	26.8	476	20.4	14,241	10.6	14,255	14.6
Excluded Unknown	464	6.3	55.6	274	22.6	51.1	8	*	23	*	716	7.0	716	10.9
Total	35,616	3.8	62.1	21,801	17.6	53.3	608	32.1	1,368	23.8	44,841	9.1	44,895	13.5

(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

Run Date: 5/29/2024

Table 10C

2021 Pregnancy Nutrition Surveillance (1)

Page : 12

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	%
Race/Ethnicity									
White, Not Hispanic	21,617	92.2	2.2	24,224	30.1	21,378	26.4	17,559	92.7
Black, Not Hispanic	12,957	88.4	1.4	14,217	21.0	11,720	18.3	9,850	90.7
Hispanic	4,758	88.3	2.3	5,319	28.0	4,554	19.5	3,987	91.3
American Indian/Alaska Native	135	89.6	2.2	154	34.4	149	29.5	122	94.3
Asian/Pacific Islander	1,023	95.6	1.2	1,119	26.0	916	17.0	788	88.8
Multiple Races	1,848	90.7	2.4	2,114	30.1	1,849	21.3	1,577	91.5
All Other/Unknown	4	*	*	139	0.7	4	*	0	*
Total	42,342	90.6	2.0	47,286	27.0	40,570	22.9	33,883	91.8
Age									
< 15 Years	30	*	*	32	*	29	*	25	*
15 - 17 Years	823	77.3	2.6	941	27.1	825	9.1	752	90.2
18 - 19 Years	2,604	87.9	2.2	3,012	29.0	2,680	12.0	2,372	90.9
20 - 29 Years	25,318	91.2	1.9	28,278	26.4	24,227	21.4	20,297	91.6
30 - 39 Years	12,513	91.2	1.9	13,839	27.6	11,759	29.0	9,611	92.6
>= 40 Years	902	87.5	3.7	1,016	30.4	898	29.3	716	92.9
Unknown	152	73.0	3.9	168	22.0	152	9.9	110	90.9
Total	42,342	90.6	2.0	47,286	27.0	40,570	22.9	33,883	91.8
Education									
< High School	8,247	86.0	2.3	9,243	26.2	7,584	15.7	6,694	89.0
High School	19,952	90.8	1.9	22,183	26.8	19,068	20.8	16,123	91.9
> High School	13,483	93.3	1.9	14,959	28.3	13,273	30.2	10,618	93.7
Excluded Unknown	660	85.0	2.7	901	17.3	645	17.1	448	88.6
Total	42,342	90.6	2.0	47,286	27.0	40,570	22.9	33,883	91.8

(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: 5/29/2024

Table 11C

2021 Pregnancy Nutrition Surveillance (1)

Page : 13

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	%
Race/Ethnicity										
White, Not Hispanic	18,560	26.0	22,898	13.3	4,224	36.4	17,526	6.9	23,028	2.1
Black, Not Hispanic	10,392	12.4	13,552	4.3	1,139	58.9	9,833	6.4	13,547	1.9
Hispanic	4,151	10.5	5,091	3.8	400	58.0	3,945	3.1	5,074	1.1
American Indian/Alaska Native	127	43.3	139	25.2	45	*	121	5.8	139	4.3
Asian/Pacific Islander	852	1.1	1,086	0.9	8	*	789	1.4	1,085	0.8
Multiple Races	1,632	25.6	1,972	12.0	372	44.6	1,577	6.0	1,981	2.1
All Other/Unknown	0	*	4	*	0	*	0	*	4	*
Total	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9
Age										
< 15 Years	27	*	32	*	0	*	25	*	31	*
15 - 17 Years	792	12.5	891	2.9	89	*	751	14.9	893	4.1
18 - 19 Years	2,475	17.1	2,780	5.1	364	55.2	2,360	13.1	2,793	3.4
20 - 29 Years	21,382	19.6	26,737	8.4	3,719	45.7	20,252	5.9	26,810	1.9
30 - 39 Years	10,148	21.6	13,190	12.3	1,910	33.0	9,575	4.3	13,218	1.5
>= 40 Years	767	15.8	950	9.2	98	*	718	4.0	953	1.6
Unknown	123	8.9	162	0.6	8	*	110	15.5	160	3.1
Total	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9
Education										
< High School	6,952	27.0	8,764	15.1	1,647	33.0	6,665	9.0	8,805	3.0
High School	16,892	20.8	21,017	9.4	3,104	43.9	16,089	6.4	21,096	2.0
> High School	11,339	13.9	14,246	5.5	1,383	49.8	10,589	3.8	14,241	1.2
Excluded Unknown	531	14.1	715	5.7	54	*	448	7.1	716	1.3
Total	35,714	19.7	44,742	9.2	6,188	42.4	33,791	6.1	44,858	1.9

(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: 5/29/2024

Table 12C

2021 Pregnancy Nutrition Surveillance (1)

Page : 14

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	%
Race/Ethnicity									
White, Not Hispanic	21,281	9.5	7.9	22,377	11.8	18,642	4.0	21,510	73.5
Black, Not Hispanic	12,585	16.0	3.4	13,183	16.0	10,491	7.8	12,653	59.5
Hispanic	4,775	8.6	7.7	4,961	12.6	4,149	3.6	4,832	70.6
American Indian/Alaska Native	113	6.2	11.5	132	11.4	99	*	114	71.1
Asian/Pacific Islander	983	13.5	3.2	1,060	11.5	865	8.1	1,014	76.9
Multiple Races	1,823	9.9	7.0	1,930	12.7	1,589	4.6	1,839	72.8
All Other/Unknown	3	*	*	4	*	2	*	4	*
Total	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0
Age									
< 15 Years	31	*	*	31	*	27	*	31	*
15 - 17 Years	834	9.4	3.2	875	11.0	737	5.7	833	59.8
18 - 19 Years	2,604	9.5	4.4	2,746	10.7	2,308	5.8	2,635	63.3
20 - 29 Years	24,986	9.0	6.2	26,197	11.9	21,873	5.0	25,188	69.5
30 - 39 Years	12,133	10.7	7.3	12,758	15.9	10,118	5.2	12,283	69.9
>= 40 Years	825	16.0	6.5	882	20.9	651	8.1	842	70.5
Unknown	150	15.3	4.7	158	15.8	123	7.3	154	58.4
Total	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0
Education									
< High School	8,023	10.7	5.1	8,572	13.4	6,903	6.4	8,151	58.3
High School	19,613	9.5	6.2	20,570	12.9	16,956	5.2	19,796	66.4
> High School	13,285	9.3	7.3	13,802	13.4	11,432	4.3	13,356	79.3
Excluded Unknown	642	11.5	5.6	703	13.9	546	5.9	663	71.0
Total	41,563	11.5	6.3	43,647	13.2	35,837	5.2	41,966	69.0

(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) <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: 5/29/2024

Table 13C

2021 Pregnancy Nutrition Surveillance (1)

Page : 15

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	%
Prepregnancy BMI										
Underweight	822	30.7	28.2	1,135	19.0	2.6	1,207	14.3	964	11.4
Normal Weight	7,695	22.4	43.8	10,477	12.4	4.4	11,019	12.6	9,116	6.2
Overweight	5,512	10.6	61.7	7,738	10.6	6.4	8,072	12.7	6,712	4.4
Obese	7,772	16.6	59.5	11,756	10.3	8.4	12,185	13.7	10,068	4.0
Weight Gain										
< Ideal	-	-	-	3,545	17.3	3.3	3,715	16.6	2,946	8.2
Ideal	-	-	-	5,940	12.3	4.6	6,196	12.7	5,145	5.8
> Ideal	-	-	-	10,960	8.5	8.8	11,429	11.5	9,652	3.7
Smoking During Pregnancy										
Smokers	1,498	18.4	50.7	2,909	14.0	4.4	3,120	13.9	2,512	8.1
Non-Smokers	12,278	17.0	54.5	25,851	9.7	6.8	26,878	12.2	22,646	4.5

(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 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: 5/29/2024

Table 14C

2021 Pregnancy Nutrition Surveillance (1)

Page : 16

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 %
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
Table 15C
2021 Pregnancy Nutrition Surveillance (1)
Michigan
Summary of Trends in Age Distribution

Run Date: 5/29/2024

Page : 17

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 %
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: 5/29/2024

Table 16C

2021 Pregnancy Nutrition Surveillance (1)

Page : 18

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	%
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
2021 Pregnancy Nutrition Surveillance (1)
Michigan
Summary of Maternal Behavioral Indicators

Run Date: 5/29/2024

Page : 19

Summary of Maternal Behavioral Indicators (2)					
Year	Medical Care			WIC Enrollment	
	1st Trimester		No Care	1st Trimester	
	Number	%	%	Number	%
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: 5/29/2024

Table 18C

2021 Pregnancy Nutrition Surveillance (1)

Page : 20

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	%
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: 5/29/2024

Table 19C

2021 Pregnancy Nutrition Surveillance (1)

Page : 21

Michigan

Summary of Trends in Infant Health Indicators

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	%
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: 5/29/2024

Table 20C

2021 Pregnancy Nutrition Surveillance (1)

Page : 22

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	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
	2019	22,546	4.6	58.7	14,128	17.5	52.7	4,351	35.0	6,717	23.2
	2018	23,428	4.6	57.1	14,986	17.8	52.3	4,414	39.6	6,888	29.5
Black, Not Hispanic	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
	2019	13,399	3.7	63.1	8,438	19.9	52.9	3,126	60.9	3,274	45.9
	2018	13,810	3.9	62.9	9,119	19.5	52.4	3,123	64.4	3,041	56.4

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

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

WIC PNSS & PedNSS

Run Date: 5/29/2024

Table 20C

2021 Pregnancy Nutrition Surveillance (1)

Page : 23

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	Pregpregnancy BMI			Weight Gain			Anemia (Low Hb/Hct) (5)			
		(3)			(4)						
		Under-weight		Over-weight	< Ideal		> Ideal	3rd Trimester		Postpartum	
		Number	%	%	Number	%	%	Number	%	Number	%
Hispanic	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
	2019	4,605	2.6	67.1	2,862	22.8	45.5	981	38.2	1,282	30.9
	2018	4,704	2.5	65.6	2,934	22.7	44.3	850	45.4	1,184	38.3
American Indian/Alaska Native	2021	133	3.0	60.9	77	*	*	1	*	4	*
	2020	143	2.1	63.6	77	*	*	8	*	2	*
	2019	160	6.9	61.9	89	*	*	24	*	43	*
	2018	153	5.9	60.8	84	*	*	33	*	56	*

(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

Run Date: 5/29/2024

Table 20C

2021 Pregnancy Nutrition Surveillance (1)

Page : 24

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	%
Asian/Pacific Islander	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	*
	2019	881	7.4	39.4	568	26.6	29.6	170	38.2	287	28.9
	2018	903	7.9	41.1	546	31.5	29.1	162	34.6	294	35.0
Multiple Races	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	*
	2019	2,136	4.4	60.9	1,284	18.8	52.9	446	48.4	598	31.6
	2018	2,265	4.9	58.9	1,429	18.9	50.9	503	54.5	578	42.6

(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

Run Date: 5/29/2024

Table 20C

2021 Pregnancy Nutrition Surveillance (1)

Page : 25

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	2021	1	*	*	0	*	*	0	*	0	*
	2020	0	*	*	0	*	*	0	*	0	*
	2019	3	*	*	1	*	*	0	*	2	*
	2018	29	*	*	20	*	*	4	*	8	*
Total All Race/Ethnic Groups											
	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

(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

Run Date: 5/29/2024

Table 21C

2021 Pregnancy Nutrition Surveillance (1)

Page : 26

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	%
White, Not Hispanic	2021	21,617	92.2	2.2	24,224	30.1
	2020	22,936	86.6	7.7	25,115	32.8
	2019	25,289	86.5	7.7	27,266	31.7
	2018	26,419	85.8	8.1	28,188	32.9
Black, Not Hispanic	2021	12,957	88.4	1.4	14,217	21.0
	2020	14,068	84.2	4.0	15,206	22.4
	2019	15,338	82.8	4.2	16,325	21.3
	2018	15,371	82.7	3.8	16,355	21.7

(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

Run Date: 5/29/2024

Table 21C

2021 Pregnancy Nutrition Surveillance (1)

Page : 27

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	2021	4,758	88.3	2.3	5,319	28.0
	2020	4,915	84.0	7.5	5,354	32.7
	2019	5,240	83.3	8.1	5,672	32.9
	2018	5,277	80.5	9.9	5,723	35.2
American Indian/Alaska Native	2021	135	89.6	2.2	154	34.4
	2020	158	87.3	5.1	182	30.8
	2019	170	85.3	8.2	189	34.4
	2018	169	84.6	6.5	195	30.3

(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

Run Date: 5/29/2024

Table 21C

2021 Pregnancy Nutrition Surveillance (1)

Page : 28

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	2021	1,023	95.6	1.2	1,119	26.0
	2020	1,042	90.7	5.0	1,133	27.8
	2019	1,064	91.0	5.4	1,136	32.0
	2018	1,099	89.1	5.4	1,162	30.1
Multiple Races	2021	1,848	90.7	2.4	2,114	30.1
	2020	2,046	85.1	7.0	2,266	31.0
	2019	2,309	83.3	6.6	2,533	31.3
	2018	2,517	84.4	5.8	2,693	30.4

(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

Run Date: 5/29/2024

Table 21C

2021 Pregnancy Nutrition Surveillance (1)

Page : 29

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	2021	4	*	*	139	0.7
	2020	0	*	*	127	3.9
	2019	2	*	*	200	1.0
	2018	21	*	*	269	2.6
Total All Race/Ethnic Groups	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

(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

Run Date: 5/29/2024

Table 22C

2021 Pregnancy Nutrition Surveillance (1)

Page : 30

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	%
White, Not Hispanic	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
	2019	24,850	31.9	25,511	19.2	6,274	32.6	20,589	10.5	25,500	2.8
	2018	25,740	33.6	26,654	19.8	6,992	33.0	21,521	11.1	26,665	2.8
	Black, Not Hispanic	2021	10,392	12.4	13,552	4.3	1,139	58.9	9,833	6.4	13,547
	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
	2018	13,953	17.7	15,561	6.9	2,044	55.5	11,708	11.5	15,571	3.9

(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

Run Date: 5/29/2024

Table 22C

2021 Pregnancy Nutrition Surveillance (1)

Page : 31

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	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
	2019	5,158	13.0	5,299	5.6	553	52.4	4,540	4.7	5,278	1.6
	2018	5,195	14.3	5,381	5.9	622	51.9	4,620	5.1	5,380	1.5
	American Indian/Alaska Native	2021	127	43.3	139	25.2	45	*	121	5.8	139
	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
	2018	180	49.4	167	36.5	60	*	148	20.9	168	8.3

(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

Run Date: 5/29/2024

Table 22C

2021 Pregnancy Nutrition Surveillance (1)

Page : 32

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	%
Asian/Pacific Islander	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
	2019	1,058	3.2	1,077	1.1	18	*	851	3.1	1,076	2.3
	2018	1,106	3.4	1,116	1.4	27	*	879	1.9	1,114	1.2
Multiple Races	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
	2019	2,266	30.7	2,331	17.6	562	35.2	1,992	12.9	2,327	3.6
	2018	2,396	29.8	2,538	16.4	586	38.4	2,109	12.7	2,540	3.7

(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

Run Date: 5/29/2024

Table 22C

2021 Pregnancy Nutrition Surveillance (1)

Page : 33

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	%
All Other/Unknown	2021	0	*	4	*	0	*	0	*	4	*
	2020	0	*	0	*	0	*	0	*	0	*
	2019	4	*	2	*	0	*	2	*	2	*
	2018	25	*	22	*	0	*	5	*	22	*
	Total All Race/Ethnic Groups										
	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

(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

Run Date: 5/29/2024

Table 23C

2021 Pregnancy Nutrition Surveillance (1)

Page : 34

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	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
	2019	24,085	8.4	8.1	24,733	11.0	21,257	3.4	24,266	72.3
	2018	25,171	8.3	8.3	25,844	10.9	22,236	3.4	25,327	71.9
Black, Not Hispanic	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
	2019	14,676	14.6	3.4	15,109	15.5	12,281	6.6	14,849	58.1
	2018	14,739	14.4	3.7	15,218	15.5	12,342	6.7	14,896	57.7

(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

WIC PNSS & PedNSS

Run Date: 5/29/2024

Table 23C

2021 Pregnancy Nutrition Surveillance (1)

Page : 35

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	%
Hispanic	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
	2019	5,004	7.7	7.2	5,117	11.6	4,380	3.2	5,029	71.2
	2018	5,062	7.4	7.5	5,167	11.8	4,425	3.3	5,100	72.3
	American Indian/Alaska Native	2021	113	6.2	11.5	132	11.4	99	*	114
	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
	2018	158	7.0	11.4	166	10.2	140	3.6	158	72.8

(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

WIC PNSS & PedNSS

Run Date: 5/29/2024

Table 23C

2021 Pregnancy Nutrition Surveillance (1)

Page : 36

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	%
Asian/Pacific Islander	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
	2019	1,017	10.7	4.2	1,051	10.9	899	6.0	1,022	79.4
	2018	1,039	11.6	4.8	1,075	12.1	905	7.1	1,058	79.4
Multiple Races	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
	2019	2,193	10.6	6.1	2,272	12.1	1,916	5.1	2,202	70.0
	2018	2,402	9.5	7.5	2,475	11.5	2,105	4.3	2,409	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

Run Date: 5/29/2024

Table 23C

2021 Pregnancy Nutrition Surveillance (1)

Page : 37

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	%
All Other/Unknown	2021	3	*	*	4	*	2	*	4	*
	2020	0	*	*	0	*	0	*	0	*
	2019	0	*	*	2	*	0	*	2	*
	2018	21	*	*	21	*	21	*	21	*
Total All Race/Ethnic Groups	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

(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