

# **2021 Data Summary**

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#### **OVERVIEW**

The findings in this summary are based on the Iowa Barriers to Prenatal Care project. Ongoing since 1992, the purpose of this project is to obtain brief, accurate information about women delivering babies in Iowa hospitals. Specifically, the project seeks to learn about women's experiences getting prenatal or delivery care during their current pregnancy. Other information is included which may be pertinent to health planners or those concerned with the systematic development of health care services.

This project is a cooperative venture of all Iowa's maternity hospitals, the University of Northern Iowa Center for Social and Behavioral Research, and the Iowa Department of Public Health. The Robert Wood Johnson Foundation funded the first three years of this project. The current funding is provided by the Iowa Department of Public Health. The Director is Dr. Mary Losch, University of Northern Iowa Center for Social and Behavioral Research. The Coordinator for the project is Rodney Muilenburg.

The questionnaire is distributed to over fifty maternity hospitals across the state of Iowa. Nursing staff or those responsible for obtaining birth certificate information in the obstetrics unit are responsible for approaching all birth mothers prior to dismissal to request their participation in the study. The questionnaire takes approximately ten minutes to complete. Completed questionnaires are returned to the University of Northern Iowa Center for Social and Behavioral Research for data entry and analysis. Returns are made monthly, weekly, or biweekly depending on the number of births per week in a given hospital. Except in the case of a mother who is too ill to complete the questionnaire, all mothers are eligible to be recruited for participation.

The present yearly report includes an analysis of large Iowa cities, a trend analysis of the last ten years, a frequency analysis of COVID-19 questions, and a frequency analysis of all variables included in the 2021 questionnaire. Unless otherwise noted, all entries reflect percentages. Please note that because percentages were rounded, total values may not equal 100%. Data presented are based upon 2021 questionnaires received to date (n = 17,152). All analyses reflect unweighted percentages of those responding.

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#### A. Analysis of Selected Variables by City

The present section compares the findings across the following cities for all 2021 data received (n = 10,280). It is important to note that the location of the hospitals where mothers gave birth is the basis for analysis, not the mothers' home zip codes.

DM = Des Moines (n = 4,936)

QC = Quad Cities (n = 934)

SC = Sioux City (n = 205)

WL = Waterloo (n = 1,631)

CR = Cedar Rapids (n = 1,076)

DB = Dubuque (n = 559)

IC = Iowa City (n = 938)

#### **Mother/Family Characteristics**

Overall, the age of the mothers in the cities closely matched the state data. The Quad Cities has the smallest percentage of mothers under 18 (<1%) and Iowa City had the largest percentage of mothers over 35 (13%; see Table A1).

Table A1. Mother's Age

	STATE	DM	QC	SC	WL	CR	DB	IC
<18 years	01	01	<1	01	01	01	01	01
18 – 19 years	03	02	03	02	03	02	03	02
20 – 25 years	23	20	21	22	23	18	12	18
26 – 30 years	36	35	36	41	37	39	41	35
31 – 35 years	27	30	29	24	27	29	35	31
> 35 years	10	12	11	10	09	12	09	13

<sup>\*</sup>all data in the following tables reflect percentages unless otherwise noted.

Sioux City by far had the largest percentage of Hispanic mothers (22%). Dubuque had the lowest percentage of Black mothers (4%) while Waterloo had the highest percentage of Black mothers (9%; see Table A2).

Table A2. Race and Ethnicity

	STATE	DM	QC	SC	WL	CR	DB	IC
Hispanic	09	10	11	22	05	04	03	09
Non-Hispanic	91	90	89	78	95	96	97	91
White	90	87	89	90	87	89	94	89
Black	06	08	08	06	09	08	04	08
Asian/Pacific Islander	03	05	02	03	04	03	02	03
American Indian	01	01	01	01	01	01	<01	01

As shown in Table A3, the Quad Cities had the lowest proportion of mothers born in Iowa (50%) while Waterloo and Cedar Rapids had the highest percentage of mothers who were born in Iowa (72%). Sioux City had the highest percentage of mothers who were born outside of the U.S. (14%).

Table A3. Mother's Place of Birth

	STATE	DM	QC	SC	WL	CR	DB	IC
In Iowa	66	64	50	56	72	72	71	62
In U.S., outside of Iowa	27	26	44	30	20	23	27	30
Outside of U.S.	08	10	06	14	08	05	02	08

In general, mothers throughout the major cities reported attaining similar levels of education as compared to educational attainment across the state. Mothers in Iowa City had the highest proportion completing graduate school (22%). Sioux City had the highest percentage (28%) of mothers reporting that they attained a high school education or less (see Table A4).

Table A4. Education

	STATE	DM	QC	SC	WL	CR	DB	IC
<high school<="" th=""><th>06</th><th>05</th><th>04</th><th>08</th><th>08</th><th>06</th><th>03</th><th>05</th></high>	06	05	04	08	08	06	03	05
High School	20	19	20	20	19	17	13	15
Some College	32	27	36	33	31	33	29	29
College	28	33	24	27	29	28	38	30
<b>Graduate School</b>	13	16	16	12	13	16	18	22

The major cities tend to have a higher proportion of mothers reporting an annual income of \$90,000 or more compared to the state as a whole. Sioux City and Waterloo had the highest proportion of mothers (11%) reporting an annual income of under \$10,000. Dubuque and Des Moines had the highest percent (41%) reporting incomes over \$90,000 per year (see Table A5).

Table A5. Annual Family Income Last Year

	STATE	DM	QC	SC	WL	CR	DB	IC
Under \$10,000	09	08	10	11	11	08	04	09
\$10,000 - \$19,999	07	06	10	07	07	05	05	06
\$20,000 - \$29,000	08	07	08	11	09	08	04	07
\$30,000 - \$39,999	08	08	06	09	07	07	06	08
\$40,000 - \$49,999	07	06	06	03	07	06	06	07
\$50,000 - \$59,999	07	06	06	10	05	08	06	06
\$60,000 - \$69,999	06	06	05	08	06	05	07	06
\$70,000 - \$79,999	08	06	07	07	09	07	10	08
\$80,000 - \$89,999	08	07	08	09	09	09	10	07
\$90,000 or more	33	41	35	24	31	37	41	38

#### **When Became Pregnant**

Sioux City (27%) had the highest rate of unintended pregnancy (see Table A6). Women in Dubuque had the lowest reports of unintended pregnancies (16%). Comparing unintended pregnancies across the major cities (mistimed/unwanted), Sioux City (80%) had the highest proportion of women reporting an unintended pregnancy while not using birth control compared with a state average of 73% (see Table A7).

**Table A6. Pregnancy Intent** 

	STATE	DM	QC	SC	WL	CR	DB	IC
Intended	79	81	75	73	79	79	84	81
Unintended	21	19	25	27	21	21	16	19

Table A7. Unintended Pregnancy, Birth Control Use

	STATE	DM	QC	SC	WL	CR	DB	IC
Unintended - birth control used	27	26	29	20	22	31	26	28
Unintended - no birth control used	73	74	71	80	78	69	74	72

#### **During Pregnancy**

A majority of women in the major cities did visit the dentist during their pregnancy; however, a slightly lower percentage of women in the Quad Cities visited the dentist (51%) as compared to the state (55%; see Table A8).

Table A8. Visited a Dentist

	STATE	DM	QC	SC	WL	CR	DB	IC
No	45	44	49	45	38	41	32	42
Yes	55	56	51	55	62	59	68	58

Mothers in Sioux City were most likely to report not being able to take time off work or being too busy to visit the dentist (11%) and didn't think it was important to visit the dentist (14%) compared to the other major cities. Mothers in the Quad Cities had the highest percentage (9%) reporting that they did not have insurance or (11%) that the dentist wouldn't accept Medicaid or Title 19 (see Table A9).

Table A9. Reasons for Not Visiting Dentists

	STATE	DM	QC	SC	WL	CR	DB	IC
Didn't think it was important	11	12	12	14	10	08	09	12
No insurance/Cost	07	06	09	07	07	06	07	06
Wouldn't accept Medicaid/Title 19	07	05	04	11	08	06	05	06
Nervous/Afraid	06	06	04	05	06	07	04	07
Didn't have transportation	02	01	01	03	02	02	01	02
Couldn't take time off work/Too busy	08	08	09	11	09	10	08	08
Doctor/Nurse told me not to go	<01	<01	01	<01	<01	<01	<01	<01
Dentist office said to wait until after	01	01	02	02	01	01	01	03
Read/Heard not safe to go when pregnant	02	03	02	02	02	02	01	01
Didn't routinely go when I wasn't pregnant	24	23	24	24	21	23	23	22
Went before pregnancy	22	23	22	23	22	23	30	24
Other	07	07	08	06	07	09	06	06

Statewide, the three most common reported stressors experienced during pregnancy were moving homes (19%), close friends or family dying (17%), and close family members being sick and hospitalized (13%). In the city comparison, Cedar Rapids had the highest reports of mothers moving homes (21%). More mothers in Cedar Rapids reported experiencing close family members being sick and hospitalized (15%) compared to the other cities. Sioux City mothers (3%) were more likely than others to report that they or their partners were incarcerated during the past year (see Table A10).

**Table A10. Possible Stressors during Pregnancy** 

	STATE	DM	QC	SC	WL	CR	DB	IC
A close family member was very sick and had to be hospitalized	13	13	13	14	13	15	12	13
I got separated or divorced from my husband or partner	02	02	02	02	02	02	01	01
I moved to a new address	19	20	20	18	17	21	14	18
I was homeless (had to sleep outside, in a car, or in a homeless shelter)	01	01	01	<01	<01	01	01	<01
My husband or partner lost their job	04	03	04	02	04	04	04	03
I lost my job	05	05	06	03	06	06	03	04
I argued with my husband or partner more than usual	07	07	07	08	06	05	04	05
My husband or partner said they didn't want me to be pregnant	01	01	01	01	02	01	01	01
I had a lot of bills I couldn't pay	04	04	04	06	04	04	01	05
I was in a physical fight	<01	01	<01	<01	<01	<01	<01	<01
My husband or partner or I went to jail	01	01	01	03	01	01	01	01
A family member or close friend has a bad problem with drinking or drugs	03	03	03	02	02	03	03	03
A family member or close friend died	17	16	17	19	17	18	17	16

The major cities had similar percentages of respondents reporting they had been diagnosed with depression during their pregnancy. Cedar Rapids had the highest rate of respondents diagnosed with depression before their pregnancy (20%) while Dubuque was the lowest both before and during their pregnancy (12% and 1%; respectively see Table A11).

**Table A11. Diagnosed with Depression** 

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	03	03	03	03	03	03	01	02
No	81	83	81	79	80	76	87	81
No – Diagnosed before pregnancy	16	15	16	18	17	20	12	16

Of those reporting a diagnosis of depression, Dubuque had the highest percentage of depressed mothers who took prescription anti-depressants during their pregnancy (61%). Waterloo and Cedar Rapids had the highest percentage of depressed mothers deciding on their own to not take prescription medicine for depression during their pregnancy (13%; see Table A12).

Table A12. Take Prescription Medicine for Depression (of those diagnosed with depression)

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	54	55	55	60	45	53	61	58
No	30	30	32	23	35	29	23	26
No – Doctor told me to stop	04	04	02	07	06	05	04	05
No – I decided to stop	12	11	11	9	13	13	11	11

Statewide, about one in four mothers who were diagnosed with depression received counseling for depression during their pregnancy (26%). Across cities, Iowa City (31%) had the highest percentage of mothers who had counseling for depression during their pregnancy and the Quad Cities had the lowest (18%; see Table A13).

Table A13. Counseling for Depression (of those diagnosed with depression)

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	26	30	18	19	26	29	23	31
No	74	70	82	81	74	71	77	69

Sioux City had the largest percentage of mothers diagnosed with anxiety during their pregnancy (6%). Cedar Rapids had the highest rate of respondents diagnosed with anxiety before their pregnancy (22%; see Table A14).

Table A14. Diagnosed with Anxiety (of those diagnosed with anxiety)

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	03	03	04	06	03	04	02	03
No	79	80	79	75	77	74	86	78
No – Diagnosed before pregnancy	18	18	18	19	20	22	12	19

Of those diagnosed with anxiety disorders, Dubuque had the highest percentage of mothers who took prescription medicine for anxiety during their pregnancy (58%). Cedar Rapids had the highest percentage of mothers reporting that their doctors told them to stop taking their prescription anxiety medication (9%) (see Table A15).

**Table A15. Take Prescription Medicine for Anxiety (of those diagnosed with anxiety)** 

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	48	49	47	42	42	47	58	48
No	35	34	40	40	35	34	29	36
No – Doctor told me to stop	06	06	04	06	08	09	05	05
No – I decided to stop	11	11	10	12	15	10	08	11

Of those diagnosed with anxiety, mothers across the major cities reported receiving counseling for anxiety at varying rates compared to the state average of 26%. Iowa City (33%) had the highest percentage of mothers who had counseling for anxiety during their pregnancy and Sioux City had the lowest (19%; see Table A16).

**Table A16. Counseling for Anxiety** 

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	26	29	20	19	25	27	26	33
No	74	71	80	81	75	73	74	67

Mothers giving birth in the Quad Cities reported the highest rate of e-cigarette use in the past two years at 9% and mothers in Dubuque reported the lowest (4%) (see Table A17).

Table A17. Used E-Cigarettes in Past 2 Years

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	9	08	09	07	08	08	04	06
No	91	92	91	93	92	92	96	94

The major cities had more inconsistent reporting of e-cigarette use three months before the pregnancy compared to the state. Although overall use was low, Dubuque mothers reported the highest percentage of using e-cigarettes more than once a day three months before their pregnancy (60%). More mothers in the Quad Cities (33%) reported that they did not use e-cigarettes during this time (see Table A18).

Table A18. E-Cigarette Use 3 Months before Pregnancy

	STATE	DM	QC	SC*	WL	CR	DB*	IC
More than once a day	43	41	31	43	39	39	60	48
Once a day	09	09	17	14	10	09	<01	12
2-6 days a week	10	12	05	<01	10	15	04	07
1 day a week	11	09	14	21	11	12	04	12
Did not use e-cigarettes	27	28	33	21	30	25	32	22

<sup>\*</sup> Denotes cell counts of fewer than 25

Dubuque had the highest percentage of mothers who did not use an e-cigarette during their last three months of pregnancy (80%). Whereas Cedar Rapids and Iowa City had the highest percentage (15%) of mothers reporting use of e-cigarettes more than once a day during their last three months of pregnancy (see Table A19). It is important to note that the cell sizes here are low and variability is higher. Caution should be used in interpreting these findings.

Table A19. E-Cigarette Use in the last 3 Months of Pregnancy

	STATE	DM	QC	SC*	WL	CR	DB*	IC
More than once a day	13	14	10	07	09	15	12	15
Once a day	04	04	03	07	04	10	04	05
2-6 days a week	05	04	07	07	05	04	<01	03
1 day a week	08	07	03	07	10	02	04	08
Did not use e-cigarettes	71	70	76	71	72	70	80	68

<sup>\*</sup> Denotes cell counts of fewer than 25

The Quad Cities had the highest percentage of mothers reporting marijuana use during the last two years (both 14%) and mothers in Dubuque reported the lowest (5%) (see Table A20).

Table A20. Used Marijuana in Past 2 Years

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	09	09	14	09	07	10	05	10
No	91	91	86	91	93	90	95	90

Sioux City had the highest reports (39%) of no marijuana use three months before pregnancy, whereas Dubuque had the highest percentage (24%) of mothers reporting using marijuana more than once a day during the same period (see Table A21).

Table A21. Marijuana Use 3 Months before Pregnancy

	STATE	DM	QC	SC*	WL	CR	DB*	IC
More than once a day	18	16	21	11	18	16	24	12
Once a day	12	08	17	22	15	20	07	11
2-6 days a week	13	11	14	06	15	13	14	15
1 day a week	30	32	29	22	36	29	34	31
Did not use marijuana	26	32	19	39	17	23	21	30

<sup>\*</sup> Denotes cell counts of fewer than 25

Mothers giving birth in Iowa City reported the least marijuana use in the last three months of pregnancy compared to the state as well as the other major cities (91%). Sioux City had the highest percentage (>23%) of mothers reporting they used marijuana 1 day a week or more during this same time frame (see Table A22).

Table A22. Marijuana Use in the last 3 Months of Pregnancy

	STATE	DM	QC	SC*	WL	CR	DB*	IC
More than once a day	02	01	03	<01	01	02	04	02
Once a day	02	01	<01	06	03	05	04	<01
2-6 days a week	03	03	03	<01	03	02	04	01
1 day a week	09	08	13	17	09	05	07	06
Did not use marijuana	84	87	81	78	84	86	81	91

<sup>\*</sup> Denotes cell counts of fewer than 25

The Quad Cities and Waterloo had the highest proportion (4%) of mothers reporting someone other than themselves smoked in the house daily during the pregnancy. Dubuque and Iowa City had the highest percentage of mothers (96%) reporting no one smoking cigarettes in their homes during their pregnancy (see Table A23).

Table A23. Someone Smoking Cigarettes in the Home

			0 0					
	STATE	DM	QC	SC	WL	CR	DB	IC
Daily	04	03	04	03	04	03	03	03
Weekly	01	01	01	<01	01	<01	<01	01
Monthly	<01	<01	<01	<01	<01	01	<01	<01
Less than monthly	01	01	01	03	01	02	01	01
Never	94	95	94	95	94	94	96	96

#### **Prenatal Care**

How to monitor changes in the baby's activity (84%) and medicines that are safe to take during pregnancy (82%) were the most frequently reported types of information received during pregnancy. The Quad Cities had an even higher percentage (88%) of mothers compared to the state and other major cities reporting receiving information about monitoring changes in the baby's activity. Oral health and physical abuse were the least reported types of information across locations. (see Table A24).

Table A24. Information Provided by a Health Care Professional during This Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
How smoking during pregnancy may affect baby	52	45	55	54	53	51	51	50
Breastfeeding my baby	65	58	70	63	66	61	66	73
How drinking during pregnancy may affect baby	49	43	54	48	51	50	50	51
Using a seatbelt during pregnancy	42	34	44	38	41	49	43	42
Medicines safe to take during pregnancy	82	82	85	81	81	81	85	83
How using illegal drugs may affect baby	40	33	48	38	42	43	38	41
How using prescription medications may affect baby	47	43	51	45	47	48	44	50
Doing tests on me/baby to screen for birth defects/diseases	75	76	79	69	75	78	75	78
What to do if I feel depressed during pregnancy/after baby born	58	58	59	48	58	60	52	59
Physical abuse to women by their husbands or partners	32	26	35	27	35	33	30	34
Signs and symptoms of preterm labor	65	61	72	61	66	59	63	71
What to do if labor starts early	70	67	75	65	71	66	70	75
How to monitor changes in baby's activity during pregnancy	84	87	88	79	80	83	84	85
What to do if baby had not felt as active as expected	73	73	78	66	73	73	75	76
Oral health or dental care	23	18	23	22	21	21	28	25
The Zika Virus	43	39	41	42	49	46	47	45
Not provided with any information listed above	05	04	03	04	06	05	07	04

Sioux City had the highest percentage of mothers reporting they were tested for HIV/AIDS during their pregnancy (39%) and Dubuque had lowest percentage of mothers reporting that they were not tested (24%). Approximately 1 in 5 mothers indicated that they did not know whether or not they had been tested (see Table A25).

Table A25. HIV/AIDS Testing

	STATE	DM	QC	SC	WL	CR	DB	IC
Tested	34	32	34	39	35	35	24	37
Not tested	41	43	43	38	42	39	53	40
Offered but not tested	01	01	01	02	01	01	01	<01
Don't know	24	24	22	21	21	24	22	23

Iowa City had the highest percentage of mothers (37%) tested for syphilis during their pregnancy; Dubuque had the lowest percentage (23%) of mothers reporting being tested. Approximately 3 in 10 mothers in all locations indicated that they did not know whether or not they had been tested (see Table A26).

Table A26. Syphilis Testing

	STATE	DM	QC	SC	WL	CR	DB	IC
Tested	31	30	36	35	33	31	23	37
Not tested	37	38	33	39	37	37	49	35
Offered but not tested	01	01	01	<01	01	<01	01	<01
Don't know	31	31	29	27	29	32	27	28

The majority of mothers statewide (53%) reported that they were able to travel to their prenatal care visits in under 15 minutes; however, mothers giving birth in Iowa City were least likely to report the ability to travel to their provider in under 15 minutes (39%) compared to other major cities. Consistent with more high-risk mothers giving birth at the University of Iowa Hospitals and Clinics, higher percentages of mothers giving birth in Iowa City also reported travel times in the 31 to 60-minute range (24%) and in the greater than 60 minute category (10%; see Table A27).

**Table A27. Travel Time to Prenatal Care Visits** 

	STATE	DM	QC	SC	$\mathbf{WL}$	CR	DB	IC
<15 Minutes	51	53	50	57	55	56	51	39
16-30 Minutes	31	33	30	21	26	29	28	27
<b>31-60 Minutes</b>	16	12	19	19	17	14	19	24
>60 Minutes	02	03	01	03	01	01	01	10

In general, a majority of mothers reported they received a flu shot during their pregnancy; however, mothers in Dubuque had the lowest proportion of mothers reporting they received a flu shot during their pregnancy (78%). The Quad Cities had the largest percentage of mothers indicating that they did not want the flu shot (4%). Iowa City had the highest percentage of mothers (84%) receiving a flu shot during their pregnancy (see Table 28).

Table A28. Flu Shot

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	82	82	82	82	79	82	78	84
No – Before pregnancy	15	15	14	17	17	15	19	13
No – Did not want it	03	03	04	02	03	03	03	03
No – Doctor told me not to	82	82	82	82	79	82	78	84
No – Do not ever get them	15	15	14	17	17	15	19	13
Flu shot was not available	03	03	04	02	03	03	03	03

#### **Hospital Care**

Mothers giving birth in Iowa City had the highest reports of encouragement to breastfeed (84%) following the birth of their baby and mothers in Dubuque had the highest reports of not receiving encouragement to breastfeed (19%) following the birth of their baby but the percentages were similar across locations (see Table A29).

Table A29. Encouraged to Breastfeed by Hospital Staff

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	82	82	82	82	79	82	78	84
No	15	15	14	17	17	15	19	13
I don't remember	03	03	04	02	03	03	03	03

Mothers in Sioux City had higher reports of receiving information about action steps you can take when their baby cries (69%), the dangers of shaking an infant (71%), and how to lay the baby down to sleep (73%) compared to those giving birth in other major cities and the state as a whole. Less than a third of those giving birth in the Quad Cities reported being given information on the dangers of shaking an infant (see Table A30).

Table A30. Information Provided by a Health Care Professional during This Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
Action steps to decrease frustration when my infant cries	46	35	34	69	36	61	41	39
How to lay my baby down to sleep	60	53	44	73	55	69	53	52
Dangers of shaking an infant	45	35	29	71	33	61	31	35
Did not receive information and have not scheduled time to discuss these topics	29	37	43	11	34	20	38	37

Large percentages of mothers across the state indicated that they planned to lay their babies on their backs to sleep. Sioux City had the highest percentage of mothers indicating that they planned to lay their baby on their back to sleep (96%). The mothers in the Quad Cities had the highest reports of no preference (6%) for the position they plan to lay their baby in to sleep (see Table A31).

Table A31. Baby's Sleep Position

	STATE	DM	QC	SC	WL	CR	DB	IC
On his or her back	94	95	92	96	93	95	95	95
On his or her side	01	01	02	<01	02	02	01	<01
On his or her stomach	<01	<01	<01	<01	<01	<01	<01	<01
No preference	04	04	06	04	05	03	05	04

Mothers giving birth in the Quad Cities reported the highest percent for planning to have their baby sleep in the same bed as them on a daily basis (8%); whereas mothers in Cedar Rapids and Sioux City had the highest reports of never planning to have their baby sleep with anyone (86%) (see Table A32).

Table A32. Plan to Have Baby Sleep in Same Bed

	STATE	DM	QC	SC	WL	CR	DB	IC
Daily	06	06	08	07	05	05	07	06
Weekly	06	04	07	03	07	05	07	08
Monthly	01	01	01	01	01	01	<01	01
A few times a year	04	04	06	04	04	04	03	03
Do not plan to have my baby sleep with me or anyone else	82	85	78	86	83	86	82	82

Receipt of information about breastfeeding was high across locations. Iowa City had the lowest percentage of mothers who reported having breastfed their baby in the hospital (78%). Mothers in Cedar Rapids the Quad Cities had the highest reports of receiving help to learn how to breastfeed (79%; see Table 33).

Table A33. Happened at the Hospital

	STATE	DM	QC	SC	WL	CR	DB	IC
Breastfed my baby	80	81	82	79	80	81	79	78
Hospital staff gave information about breastfeeding	87	87	88	80	84	88	84	88
Hospital staff helped me learn how to breastfeed	76	77	79	69	74	79	74	76
Hospital staff told me to breastfeed whenever my baby wanted	69	67	75	55	66	69	65	67

Most mothers reported being able to have skin-to-skin contact with their baby within the first hour after giving birth. Iowa City had the highest percentage of mothers whose baby was ill or in the NICU preventing skin-to-skin contact (17%; see Table A34).

Table A34. Skin-to-Skin Contact within First Hour

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	88	85	92	89	90	90	86	72
No – not offered chance	04	05	02	03	04	03	06	09
No – baby was ill/in NICU	06	08	05	07	05	07	06	17
No – baby was asleep	01	01	01	01	02	<01	02	02

Similar to skin-to-skin contact, mothers giving birth in Iowa City hospitals had the highest reports of their baby being ill or in the NICU preventing them from breastfeeding within the first hour after the birth (21%). The Quad Cities, Waterloo, and Dubuque had the highest percentage of mothers who reported breastfeeding within the first hour after the birth (71%; see Table A35).

Table A35. Breastfed within First Hour

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	69	67	71	70	71	65	71	59
No – not offered chance	10	11	09	07	11	12	10	12
No – baby was ill/in NICU	09	11	08	08	07	10	09	21
No – baby was asleep	12	11	12	14	11	13	10	08

Those giving birth in Iowa City reported the longest travel times to reach the hospital at 31 to 60 minutes (31%) or greater than 60 minutes (15%), which is much higher than the next highest reporting city in both categories (see Table A36). This is understandable given the role the University of Iowa Hospitals and Clinics plays caring for those with high-risk pregnancies.

Table A36. Travel Time to Hospital when Delivering Baby

							,	
	STATE	DM	QC	SC	WL	CR	DB	IC
<15 Minutes	44	41	47	55	51	53	48	31
16-30 Minutes	33	39	32	20	28	28	31	23
31-60 Minutes	19	15	20	19	20	17	19	31
>60 Minutes	03	04	01	06	01	02	01	15

#### B. Trend Analysis of Barriers Data 2012 – 2021

All percentages in the present section reflect statewide percentages. Consistent with drops in the birth rate and total numbers of births per year (36,845 in 2021), the number of respondents has been declining over the last few years and dipped below 20,000 for the first time in the past decade in 2019 and has continued to decline in 2021. The number of cases in 2021 reflects about 47% of Iowa births.

Respondents by	7 Year
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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>N</b> =	23,674	24,634	24,696	23,212	21,928	20,919	20,035	19,007	18,014	17,152

#### **Demographics**

The number of mothers who are 26 years old or older has increased since 2012 with mothers between 26 and 30 increasing from 35% to 36%, mothers between 31 and 35 increasing from 22% to 27%, and mothers older than 35 years increasing from 7% to 10% (see Table B1).

Table B1. Mother's Age Ranges

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<18 years	02	02	01	01	01	01	01	01	01	01
18 – 19 years	05	04	04	04	03	03	03	03	03	03
20 – 25 years	29	29	28	27	26	25	24	24	24	23
26-30 years	35	35	35	35	36	36	37	37	37	36
31 - 35 years	22	23	24	25	25	26	26	26	26	27
>35 years	07	07	08	08	08	09	09	10	10	10

Educational attainment of participants has increased over time with smaller percentages of completing some college (decreasing from 36% to 32%) and increasing percentages of those completing college degrees (26% to 28%) and graduate school (10% to 13%; see Table B2).

Table B2. Education

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Mother										
<high school<="" td=""><td>08</td><td>08</td><td>08</td><td>07</td><td>07</td><td>07</td><td>07</td><td>07</td><td>07</td><td>07</td></high>	08	08	08	07	07	07	07	07	07	07
High school	20	20	19	20	20	21	21	21	21	20
Some college	36	36	36	35	34	34	33	33	32	32
College	26	26	27	27	27	27	27	27	27	28
Graduate school	10	10	10	11	11	12	12	12	12	13

Compared to previous years, there is a continued trend of more racially and ethnically diverse mothers. The number of White mothers has decreased slightly from 91% in 2012 to 90% in 2021 with Hispanic mothers increasing from 6% to 9% across those same years. However, the number of Black, Asian/Pacific Islander, American Indian mothers responding has remained consistent since 2012 (see Table B3).

**Table B3. Race / Ethnicity** 

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Mother										
Hispanic	06	07	07	07	07	07	08	08	09	09
Non-Hispanic	94	93	93	93	93	93	92	92	91	92
White	91	91	91	91	91	90	90	90	90	90
Black	05	05	05	05	05	06	06	06	06	06
Asian/Pacific Islander	03	03	03	03	03	03	03	03	03	03
American Indian	01	01	01	01	01	01	01	01	01	01

The response categories were expanded starting in 2021. The percentage of mothers reporting an annual income of under \$10,000 has decreased from 16% to 9% since 2012 while the percentage of mothers reporting an annual income above \$70,000 has increased from 31% to 49% (see Table B4).

Table B4. Annual Family Income Last Year

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Under \$10,000</b>	16	16	14	14	12	12	11	11	11	09
\$10,000 - \$19,999	11	11	10	10	09	09	08	08	08	07
\$20,000 - \$29,999	10	10	10	09	09	09	09	09	09	08
\$30,000 - \$39,999	08	08	09	09	09	08	08	08	08	08
\$40,000 - \$49,999	08	08	08	07	08	07	08	08	07	07
\$50,000 - \$59,999	09	08	09	08	08	08	08	08	07	07
\$60,000 - \$69,999	08	08	07	08	07	07	07	07	07	06
\$70,000 - \$79,999	31	32	33	36	38	39	41	42	44	08
\$80,000 - \$89,999	-	-	-	-	-	-	-	-	-	08
\$90,000 or more	-	-	_	_	_	-	-	-	-	33

# **Prenatal Experiences and Care**

Over the years, the percentage of mothers reporting that they were not using birth control at the time of conception has increased from 85% in 2012 to 89% in 2020. However, in 2021, that percentage decreased to 85%. There has also been a slight decrease in the reported use of condoms at the time of conception from 5% to 2%, and a decrease in the use of birth control pills from 7% to 4% (see Table B5).

**Table B5. Birth Control Used at Conception** 

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
No birth control used	85	84	86	86	87	86	87	88	89	85
Birth control pills	07	07	06	06	06	06	06	05	05	04
Diaphragm	<01	<01	<01	<01	<01	<01	<01	<01	<01	<01
Spermicidal foam/insert	<01	<01	<01	<01	<01	<01	<01	<01	<01	<01
Condom	04	04	04	04	03	03	03	03	02	02
NFP / Rhythm Method	01	01	01	01	01	01	01	01	01	01
Birth control patch	<01	<01	<01	<01	<01	<01	<01	01	<01	<01
Birth control injection	01	01	01	01	01	01	01	01	<01	<01
NuvaRing	01	01	01	01	<01	<01	<01	<01	<01	<01
IUD / IUC	01	01	01	01	01	01	01	01	01	<01
Implant / Nexplanon	<01	<01	<01	<01	<01	<01	<01	<01	<01	<01
Other	<01	01	01	<01	01	<01	01	01	<01	<01

Among women not wanting a pregnancy (either mistimed/unwanted), 73% in 2021 reported that they did not use any form of birth control. This percentage has increased from a low of 66% in 2012. The two highest reported forms of birth control used by women not desiring pregnancy in 2021 were birth control pills (15%) and condoms (5%). The use of both birth control pills and condoms have decreased since 2012 among those not desiring pregnancy (see Table B6).

**Table B6. Reported Birth Control Type among Those Not Desiring Pregnancy** 

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
No birth control used	66	66	66	68	70	70	72	72	74	73
Birth control pills	18	18	17	17	16	16	16	15	14	15
Diaphragm	<01	<01	<01	<01	<01	<01	<01	<01	<01	<01
Spermicidal foam/insert	<01	<01	<01	<01	<01	<01	<01	01	<01	<01
Condom	11	10	09	09	07	08	07	06	05	05
NFP / Rhythm Method	02	01	02	02	02	02	02	02	02	02
Birth control patch	01	01	01	01	01	01	01	02	01	01
Birth control injection	02	02	02	02	01	02	01	02	01	01
NuvaRing	02	02	01	01	01	01	01	01	01	01
IUD / IUC	01	01	01	01	01	01	01	01	01	01
Implant / Nexplanon	<01	<01	<01	<01	<01	01	01	01	01	01
Other	01	01	01	01	01	01	01	01	01	01

There has been a slight increase in the percentage of women reporting wanting to become pregnant at the time of conception and earlier (33% in 2012; 38% in 2021) as well as an increase in the percentage of women reporting that they wanted to become pregnant at that time (35% in 2012 to 41% in 2021). The percentage of women who did not want to become pregnant at the time but did want to sometime in the future have decreased from 29% in 2012 to 19% in 2021. The percentage of women not wanting to become pregnant at all has varied between 3% and 4% and dropped to 02% in 2021 (see Table B7).

Table B7. Desirability of Pregnancy

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Yes, and earlier	33	32	34	33	34	34	35	35	38	38
Yes, at that time	35	37	36	38	37	37	37	37	40	41
No, but in the future	29	28	27	26	26	25	24	24	20	19
No, nor in future	03	04	04	04	03	04	03	04	03	02

Lack of birth control use among mothers with mistimed and unwanted pregnancies has increased by 10% over the past ten years (see Table B8).

Table B8. No Birth Control Use by Desirability of Pregnancy

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Yes, and earlier	97	96	97	96	97	96	97	97	97	97
Yes, at that time	95	94	94	93	94	94	94	94	94	95
No, but in the future	67	67	67	68	71	70	73	73	75	74
No, nor in future	55	61	59	62	63	62	64	65	68	68

The most common reason women reported for not using any form of birth control when not desiring a pregnancy was not trying to become pregnant but were not actively preventing the pregnancy (ambivalence; 49.9%). Almost 19% of the women who did not desire the pregnancy reported their birth control failed and an increasing number indicated that they experienced physical discomfort or side effects. Those expressing "ambivalence" as a reason continues to increase and is now the primary reason indicated for about half of those responding (see Table B9a – note that this table contains a single decimal place owing to the very small percentages and only eight years are included owing to a change in the question).

Table B9a. Reported Reason for Not Using Birth Control When Pregnancy Not Desired

	2014	2015	2016	2017	2018	2019	2020	2021
Didn't want to ruin mood	1.1	1.0	1.0	1.0	1.0	2.7	1.3	1.5
Physical discomfort / side effects from birth control	8.0	8.8	10.3	10.0	11.8	12.6	13.0	13.8
Embarrassed buying or going to health care provider	0.4	0.5	0.5	0.5	0.5	0.7	0.4	0.3
Against religious beliefs	1.2	1.4	1.5	1.5	2.0	1.6	1.4	1.3
Judgement impaired	2.0	2.0	1.6	1.8	1.8	1.8	1.9	1.6
Ran out	5.7	4.4	5.1	3.8	4.8	3.4	3.3	3.3
Did not plan to have intercourse	5.9	5.4	5.7	4.7	5.3	5.0	5.7	4.8
Father wanted child / refused	1.0	0.9	0.8	0.7	0.8	1.5	0.9	0.7
Preferred method too expensive	1.9	1.4	1.0	1.1	1.0	2.2	1.2	1.0
Birth control failed	21.3	19.1	18.9	17.9	18.4	18.5	18.8	18.4
Not trying to become pregnant, not actively preventing	45.6	44.8	47.7	46.2	49.9	50.2	51.4	49.9
Thought I (or partner) could not become pregnant	8.1	9.0	8.1	8.7	9.3	11.3	10.4	10.4
Other	7.1	5.4	6.4	5.2	5.4	6.0	3.7	4.9

Among mothers who were not desiring a pregnancy, 36% of those under 18 years old reported that they were not trying to become pregnant but were not actively preventing it (see Table B9b).

Table B9b. Not Trying to Become Pregnant, but Not Actively Preventing among Those Not Desiring a Pregnancy by Age Group

	2015	2016	2017	2018	2019	2020	2021
Under 18 years old	45	41	43	42	41	41	36
18-19 years old	47	49	48	45	43	52	44
20-25 years old	46	47	49	51	51	53	51
26-30 years old	49	48	51	51	53	52	51
31-35 years old	47	50	50	52	50	51	51
Over 35 years old	44	47	47	47	46	47	49

Among those mothers not desiring a pregnancy, 20% of mothers over 35 years of age thought they or their partner could not become pregnant (see Table B9c).

Table B9c. Thought I (or Partner) Could Not Become Pregnant among Those Not Desiring a Pregnancy by Age Group

	0		0	1			
	2015	2016	2017	2018	2019	2020	2021
Under 18 years old	10	06	12	10	16	08	06
18-19 years old	10	08	09	11	13	13	07
20-25 years old	09	08	08	08	09	10	09
26-30 years old	08	07	08	08	11	08	09
31-35 years old	09	08	09	10	12	12	13
Over 35 years old	19	15	19	16	19	17	20

Across the past seven years, out of all mothers, fewer mothers aged 31-35 (25%) and over 35 (25%) reported that they were not trying to become pregnant, but not actively preventing it compared to mothers in other age groups (see Table B10).

Table B10. Not Trying to Become Pregnant, but Not Actively Preventing among All Mothers by Age Group

	2015	2016	2017	2018	2019	2020	2021
Under 18 years old	45	40	42	37	39	35	33
18-19 years old	46	48	46	41	37	41	37
20-25 years old	45	46	47	39	40	38	35
26-30 years old	47	45	48	30	33	30	27
31-35 years old	45	48	46	26	27	27	25
Over 35 years old	42	43	43	26	26	28	25

Over time, women reporting that they thought themselves or their partner could not become pregnant as a reason for not using birth control at the time of conception has decreased. The trend shows more women in the over 35 year old age group cited this as a reason than the other age groups (see Table 11 – note that some cell sizes are small and range from 5 to 114).

Table B11. Thought I (or Partner) Could Not Become Pregnant among All Mothers by Age Group

	2015	2016	2017	2018	2019	2020	2021
Under 18 years old	10	06	11	09	16	07	05
18-19 years old	10	08	09	10	11	10	06
20-25 years old	08	07	08	07	07	07	06
26-30 years old	08	07	07	05	07	05	05
31-35 years old	09	08	09	05	07	06	06
Over 35 years old	18	14	17	09	11	10	10

Across the years, a low percentage of mothers reported discussing physical abuse by husbands or partners during the pregnancy. Most mothers reported discussing safe medicines during pregnancy as well as counting the kicks or monitoring the baby's movements during pregnancy. Lower percentages of mothers have reported discussing many topics over time (see Table B12).

Table B12. Topics Discussed during Prenatal Care Visit

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Smoking during pregnancy	64	55	62	50	59	52	59	51	57	52
Breastfeeding my baby	71	37	70	66	68	69	67	68	69	65
Drinking alcohol during pregnancy	60	52	57	47	55	51	55	49	54	49
Using a seat belt during pregnancy	48	44	47	41	45	43	43	42	46	42
Medicines that are safe during pregnancy	83	81	83	79	82	81	84	81	83	82
How using illegal drugs could affect my baby	50	43	49	39	46	40	45	40	46	40
How using prescription medications could affect my baby	56	48	56	47	53	49	53	48	53	47
Doing tests on me or my baby to screen for birth defects or diseases	83	77	81	73	81	76	83	75	78	75
What to do if I feel depressed during or after the pregnancy	58	52	58	59	57	53	59	57	62	58
Physical abuse to women by their husbands or partners	36	31	36	29	34	29	31	30	36	32
The signs and symptoms of preterm labor	70	64	68	61	67	62	67	62	68	65
What to do if my labor starts early	70	65	69	63	68	65	69	66	72	70
Count the kicks, monitor the movements								82	84	84
How to monitor changes in my baby's activity during pregnancy	75	72	75	73	76	75	78			
What to do if my baby had not felt as active as I would have expected	74	72	75	73	76	75	78	72	76	73
Oral health or dental care during pregnancy						44	44		48	23
The Zika Virus							36	32	28	43
Not provided with any information	01	02	01	02	01	05	04	04	05	05

The percentage of women reporting travel time of under 15 minutes to their prenatal care visits has increased from 40% in 2010 to 52% in 2021 (see Table 13a). The distribution of travel time to the hospital has shifted from the 16 to 30-minute category having the highest reported percent in 2010 to the under 15-minute category having the highest reported percent in 2021. There has also been an increase from 14% to 20% of women reporting travel time to hospital taking between 31 and 60 minutes between 2010 and 2021 (see Table 13b).

Table B13a. Time in Minutes to Prenatal Care Visit

	2010*	2019	2020	2021
1-15 minutes	40	56	53	52
16-30 minutes	46	28	30	31
31-60 minutes	13	13	15	16
More than 60 minutes	02	02	02	02

<sup>\*2010</sup> was the last year the question was asked until it was reintroduced in 2019.

Table B13b. Time in Minutes to the Hospital to Give Birth

	2010*	2019	2020	2021
1-15 minutes	39	48	47	44
16-30 minutes	45	32	32	33
31-60 minutes	14	17	18	20
More than 60 minutes	03	03	03	03

<sup>\*2010</sup> was the last year the question was asked until it was reintroduced in 2019.

Experiences during pregnancy have remained relatively constant across the past 10 years. The highest reports of a mother having a family member or close friend die during their pregnancy occurred in 2017 and 2021 (17%). Moving to a new address during pregnancy has steadily decreased across the past 10 years with the highest reports of moving being 24% in 2012 and 2014 and the lowest reports being 19% in the most recent year of 2021 (see Table 14).

**Table B14. Experiences during Pregnancy** 

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Close family member was sick and hospitalized	13	12	13	12	11	12	11	13	12	13
Got separated or divorced from my husband or partner	04	03	03	03	03	03	03	03	02	02
Moved to a new address	24	23	24	22	22	21	20	20	20	19
Was homeless (had to sleep outside, in a car, or in a homeless shelter)	01	01	01	01	01	01	01	01	01	01
Husband or partner lost their job	05	05	05	04	05	04	04	04	05	04
Lost my job	06	06	05	05	05	05	05	05	06	05
Argued with husband or partner more than usual	11	10	10	09	09	10	08	08	07	07
Husband or partner said they didn't want me to be pregnant	02	02	02	01	02	02	01	02	01	01
Had a lot of bills I couldn't pay	08	08	07	07	06	07	06	06	05	04
Was in a physical fight	01	01	01	01	01	01	01	01	01	01
Husband or partner or I went to jail	02	02	02	02	02	02	02	02	02	01
Family member or friend had a problem with drinking or drugs	04	03	03	03	03	04	04	04	03	03
Family member or close friend died	15	15	15	15	14	17	14	15	15	17

#### C. COVID-19 Supplements Frequency Tables

The following section contains the frequency tables for all questions included in a supplemental questionnaire that was completed with the Barriers to Prenatal Care survey in 2021. This questionnaire was created in response to the onset of the COVID-19 pandemic in late Spring of 2020. The total number of respondents for the following questions was N = 16,702.

A majority of mothers reported never being diagnosed with COVID-19 by a healthcare provider or a positive test result during their pregnancy (87.1%; see Table C1).

Table C1. COVID-19 Diagnosis

	Frequency	Valid Percent
Yes, I was told that I had COVID-19, but I was not tested	74	0.5
Yes, I was told that I had COVID-19 and it was confirmed by a test	2,035	12.5
No, no healthcare provider said that I had COVID-19	13,873	84.9
No, no healthcare provider said that I had COVID-19, but I had symptoms and think I had it	363	2.2

Question: During your pregnancy, did a healthcare provider tell you that you had COVID-19 or tested positive for COVID-19?

Of mothers who were diagnosed with COVID-19 during their pregnancy, 1% of mothers reported being told their baby had COVID-19 but only 0.3% of mothers had confirmed tests that their baby had COVID-19 (see Table C2).

Table C2. COVID-19 Diagnosis for Baby

	Frequency	Valid Percent
Yes, I was told that my baby had COVID-19, but my baby was not tested	19	1.0
Yes, I was told that my baby had COVID-19 and it was confirmed by a test	6	0.3
No, no healthcare provider said that my baby had COVID-19	1,965	98.7

Question: Did a healthcare provider tell you that your baby had COVID-19 or tested positive for COVID-19?

Of the mothers who reported being diagnosed with COVID-19, a majority reported that they were not separated from their baby after the birth (97.7%; see Table C3).

Table C3. Positive COVID-19 Diagnosis Cause Separation

		<u> </u>
	Frequency	Valid Percent
Yes	42	2.3
No	1,761	97.7

Question: If you had a diagnosis of coronavirus/COVID-19 or a positive COVID-19 test result at the time of delivery, were you separated from your baby?

Roughly one-fifth of mothers reported breastfeeding issues due to the separation after the birth of the baby due to a COVID-19 diagnosis (see Table C4).

**Table C4. Separation Prevented Breastfeeding** 

	Frequency	Valid Percent
Yes	22	18.6
No	96	81.4

Question: Did the separation prevent you from breastfeeding?

A majority of mothers reported that their healthcare provider did not instruct them to wear a face mask or covering while at home (92.5%; see Table C5).

Table C5. Healthcare Provider Instructed Mask Use at Home

	Frequency	Valid Percent
Yes	1,224	7.5
No	15,023	92.5

Question: Has a healthcare provider instructed you to use a mask or face covering at home?

Most mothers also reported not being given a mask or other protective equipment to be used at home during the pregnancy (87.5%; see Table C6).

Table C6. Provided Mask for Use at Home

	Frequency	Valid Percent
Yes	2,047	12.5
No	14,367	87.5

Question: Have you been given masks or other protective equipment for use at home?

A little more than 1 in 10 mothers reported that their prenatal care visits were altered in one or more ways due to the COVID-19 pandemic. Of all the mothers reporting, 5.8% reported that they delayed or rescheduled their appointment, 3.5% reported that their healthcare provider delayed or rescheduled the appointment, and 3% reported that their prenatal care visit changed to a telehealth appointment (e.g., online, over the phone; see Table C7).

Table C7. Prenatal Care Visits Altered due to COVID-19

	Frequency	Valid Percent
Yes, I delayed or rescheduled the appointment	969	5.8
Yes, my healthcare provider delayed or rescheduled the appointment	584	3.5
Yes, my healthcare provider changed to phone or online visits one or more times	493	3.0
No, number and type of visits were not changed	14,629	87.6

Question: Were any of your prenatal care visits delayed, rescheduled or held by telehealth due to COVID-19/pandemic concerns? [SELECT ALL THAT APPLY]

A majority of mothers (89%) reported that no one in their household was told they had COVID-19 (see Table C8).

Table C8. Household COVID-19 Diagnosis

	Frequency	Valid Percent
Yes, one or more members of my household was told they had COVID-19, but they were not tested	121	0.7
Yes, was told that one or more members had COVID-19 and it was confirmed by a test	1,690	10.3
No, no healthcare provider said that others in my household had COVID-19	13,917	84.6
No, no healthcare provider said that others in my household had COVID-19, but I think others had it	729	4.4

Question: During your pregnancy, did a healthcare provider tell any of your other household members they had COVID-19?

Most mothers (95.3%) did not experience any changes to their birthing plans as a result of the COVID-19 pandemic (see Table C9).

Table C9. Birth Experience Changed due to COVID-19

	Frequency	Valid Percent
I changed from planning a vaginal birth to a C-section	76	0.5
My planned C-section or labor induction schedule was changed	110	0.7
I changed from planning a home birth to a hospital birth	17	0.1
I changed from planning a hospital birth to planning a home birth	31	0.2
I had more/extra prenatal visits	235	1.4
Nothing changed	15,915	95.3

Question: Which of the following changes, if any, have you experienced as a result of the COVID-19 outbreak? [SELECT ALL THAT APPLY]

# **D. 2021 Questionnaire Frequency Tables**

Presented below is a frequency analysis of all variables in the 2021 questionnaire. Data presented in this section are based upon 2021 questionnaires received to date (n= 17,152). All entries reflect unweighted percentages of those mothers answering the item.

#### MOTHER / FAMILY CHARACTERISTICS

# 1. How old are you (baby's mother)?

	Frequency	Valid Percent
< 18 years	116	0.7
18 – 19 years	441	2.6
20 – 25 years	3,903	22.9
26 – 30 years	6,201	36.4
31 – 35 years	4,647	27.3
>35 years	1,719	10.1

# 2. Where were you born?

	Frequency	Valid Percent
In Iowa	11,070	65.8
In the US outside of Iowa	4,475	26.6
Outside the US	1,273	7.6

# 3. What is the <u>highest grade</u> or year of regular school or college that you have completed? (select only one)

	Frequency	Valid Percent
Grade school	188	1.1
Junior high	65	0.4
Some high school	851	5.0
12 <sup>th</sup> grade or GED	3,471	20.3
Vocational school or A.A. Degree	2,371	13.9
Some college	3,077	18.0
Bachelor's degree	4,781	28.0
Master's degree	1,734	10.1
Doctoral/Professional degree	550	3.2

4. Which one of the following <u>best</u> describes your <u>racial background</u>? (select only one) Are you...

	Frequency	Valid Percent
Black	941	5.6
White	15,199	90.4
Asian/Pacific Islander	544	3.2
American Indian or Native Alaskan	122	0.7

5. Which one of the following best describes your ethnic background? Are you...

	Frequency	Valid Percent
Hispanic	1,442	8.5
Non-Hispanic	15,514	91.5

6. What was the general range of your household income before taxes last year – including wages, unemployment, Social Security, and all other sources of income?

	Frequency	Valid Percent
Under \$10,000	1,511	9.2
\$10,000 - \$19,999	1,112	6.8
\$20,000 - \$29,999	1,323	8.1
\$30,000 - \$39,999	1,260	7.7
\$40,000 - \$49,999	1,074	6.5
\$50,000 - \$59,999	1,171	7.1
\$60,000 - \$69,999	1,057	6.4
\$70,000 - \$79,999	1,273	7.8
\$80,000 - \$89,999	1,238	7.5
\$90,000 or more	5,380	32.8

7. During the last year, how many people, including you depended on that income?

	Frequency	Valid Percent
1	1,980	12.0
2	4,940	29.8
3	4,825	29.1
4	2,866	17.3
5	1,244	7.5
6	413	2.5
7	146	0.9
8	55	0.3
9	24	0.1
10 or more	61	0.4

### **BEFORE YOU BECAME PREGNANT**

8. In the twelve months prior to becoming pregnant, did a doctor, nurse, dental provider, or other health care professional ever talk to you about any of the following topics as they relate to pregnancy? (mark all that apply)

	Frequency	Valid Percent
Taking folic acid or a multivitamin	7,951	46.4
Smoking	5,494	32.0
Drinking alcohol	4,991	29.1
Your weight	4,702	27.4
Regular exercise	5,441	31.7
How romantic relationships affect your health	2,242	13.1
Oral health	4,335	25.3
Did not see health care professional	4,867	28.4

### WHEN YOU BECAME PREGNANT

9. Thinking back to the time you became pregnant were you (or your partner) using any form of birth control when you got pregnant? (mark all that apply)

	Frequency	Valid Percent
No birth control used	15,548	90.6
Birth control pills	742	46.3
Birth control patch	59	3.7
Diaphragm	2	0.1
Spermicidal foam/insert	10	0.6
Birth control injection	47	2.9
NuvaRing	56	3.5
Condom	270	16.8
NFP or rhythm method	153	9.5
IUD/ParaGard/Mirena/Skyla/Liletta	78	4.9
Implant/Nexplanon	44	2.7
Other	50	3.1

10. Thinking back, just before you became pregnant, did you want to become pregnant at that time?

	Frequency	Valid Percent
Yes, I wanted this pregnancy at an earlier time as well as at that time	6,371	37.6
Yes, I wanted to become pregnant at that time	6,980	41.2
No, I did not want to become pregnant at that time, but I wanted a child sometime in the future	3,182	18.8
No, I did not want to become pregnant at that time or any time in the future	399	2.4

## 11. If you did not want to get pregnant, why did you not use any form of birth control? (mark all that apply)

	Frequency	Valid Percent
Wanted to get pregnant – SKIP TO Q12	10,674	62.2
Didn't want to ruin the "mood" or was embarrassed	56	0.9
Experienced physical discomfort or side effects	506	7.8
Embarrassed buying or uncomfortable going to health care provider	10	0.2
Against religious beliefs	48	0.7
Judgement impaired due to alcohol and/or drug use	58	0.9
Ran out of birth control	122	1.9
Did not plan to have intercourse	176	2.7
Father wanted child/refused to use birth control	28	0.4
Preferred method too expensive	39	0.6
Birth control failed	667	10.3
Not trying to become pregnant, not actively preventing it	1,878	29.0
Thought I (or partner) could not become pregnant	390	6.0
Other	180	2.8

### **DURING YOUR PREGNANCY**

### 12. During this pregnancy, did you visit a dentist, dental clinic, or get dental care?

	Frequency	Valid Percent
No	7,521	45.1
Yes – SKIP TO Q14	9,149	54.9

## 13. What were the reasons that you did not got to a dentist, dental clinic, or get dental care? (mark all that apply)

	Frequency	Valid Percent
Didn't think it was important	907	11.3
No dental insurance/cost too much	596	7.4
Wouldn't accept Medicaid/Title19 coverage	573	7.2
Nervous or afraid to go	460	5.7
No transportation	123	1.5
Couldn't take time off work/too busy	674	8.4
Doctor/nurse told me not to go while pregnant	24	0.3
Dentist office told me not to go while pregnant	103	1.3
Heard or read it wasn't safe to go while pregnant	168	2.1
Don't routinely go even when not pregnant	1,892	23.6
Went to the dentist before pregnancy	1,790	22.4
COVID-19 related reasons	272	3.4
Other	553	6.9

# 14. Here are a few things that might happen to some women during pregnancy. Please tell us if any of these things happened to you during this pregnancy. (mark all that apply)

	Frequency	Valid Percent
Close family member was sick and hospitalized	2,188	12.8
Got separated or divorced from my husband or partner	353	2.1
Moved to a new address	3,186	18.6
Was homeless (had to sleep outside, in a car, or in a homeless shelter)	92	0.5
Husband or partner lost their job	603	3.5
Lost my job	823	4.8
Argued with husband or partner more than usual	1,140	6.6
Husband or partner said they didn't want me to be pregnant	209	1.2
Had a lot of bills I couldn't pay	728	4.2
Was in a physical fight	82	0.5
Husband or partner or I went to jail	209	1.2
Family member or friend had a problem with drinking or drugs	530	3.1
Family member or close friend died	2,929	17.1

## 15. At any time during this pregnancy, did a doctor, nurse, or other health care worker diagnose you with depression?

	Frequency	Valid Percent
Yes	475	2.8
No – SKIP TO Q18	13,632	80.9
No – Diagnosed with depression before I became pregnant	2,735	16.2

## 16. At any time during this pregnancy, did you take prescription medicine for your depression?

	Frequency	Valid Percent
Yes	1,745	54.2
No	962	29.9
No, doctor told me to stop taking my medications for depression during pregnancy	138	4.3
No, decided on my own to stop taking my medications for depression during my pregnancy	375	11.6

### 17. At any time during this pregnancy, did you get counseling for your depression?

	Frequency	Valid Percent
Yes	837	26.1
No	2,369	73.9

## 18. At any time during this pregnancy, did a doctor, nurse, or other health care worker diagnose you with anxiety?

	Frequency	Valid Percent
Yes	509	3.0
No – SKIP TO Q21	13,205	78.7
No – Diagnosed with anxiety before I became pregnant	3,072	18.3

## 19. At any time during this pregnancy, did you take prescription medicine for your anxiety?

	Frequency	Valid Percent
Yes	1,745	47.9
No	1,270	34.8
No, doctor told me to stop taking my medications for anxiety during pregnancy	227	6.2
No, decided on my own to stop taking my medications for anxiety during my pregnancy	404	11.1

### 20. At any time during this pregnancy, did you get counseling for your anxiety?

	Frequency	Valid Percent
Yes	931	26.0
No	2,653	74.0

### 21. Have you used e-cigarettes or other vaping products in the past 2 years?

	Frequency	Valid Percent
Yes	1,519	9.0
No – SKIP TO Q24	15,332	91.0

## 22. In the 3 months <u>before you got pregnant</u>, on average, how often did you use ecigarettes or other vaping products?

	Frequency	Valid Percent
More than once a day	657	42.9
Once a day	135	8.8
2-6 days a week	153	10.0
1 day a week	173	11.3
I did not use e-cigarettes or other vaping products then	413	27.0

## 23. In the <u>last 3 months of your pregnancy</u>, on average, how often did you use ecigarettes or other vaping products?

	Frequency	Valid Percent
More than once a day	193	12.6
Once a day	68	4.4
2-6 days a week	72	4.7
1 day a week	117	7.7
I did not use e-cigarettes or other vaping products then	1,079	70.6

### 24. Have you used marijuana in the past 2 years?

	Frequency	Valid Percent
Yes	1,456	8.7
No – SKIP TO Q27	15,343	91.3

## 25. In the 3 months <u>before you got pregnant</u>, on average, how often did you use marijuana?

	Frequency	Valid Percent
More than once a day	269	18.2
Once a day	182	12.3
2-6 days a week	194	13.1
1 day a week	451	30.4
I did not use marijuana then	386	26.0

### 26. In the <u>last 3 months of your pregnancy</u>, on average, how often did you use marijuana?

	Frequency	Valid Percent
More than once a day	25	1.7
Once a day	33	2.2
2-6 days a week	43	2.9
1 day a week	132	8.9
I did not use marijuana then	1,243	84.2

## 27. During your most recent pregnancy, how often did someone other than you smoke cigarettes inside your home?

	Frequency	Valid Percent
Daily	664	3.9
Weekly	117	0.7
Monthly	36	0.2
Less than monthly	176	1.0
Never	15,831	94.1

#### PRENATAL CARE

The next questions are about the prenatal care that you received during this pregnancy. Prenatal care includes visits to a doctor, nurse, or health care worker before your baby was born for checkups and advice about pregnancy.

28. During any of your prenatal care visits, did a doctor, nurse, dental provider, or other health care professional provide you with information about any of the things listed below? (mark all that apply)

	Frequency	Valid Percent
How smoking during pregnancy could affect my baby	8,872	51.7
Breastfeeding my baby	11,211	65.4
How drinking alcohol during pregnancy could affect my baby	8,386	48.9
Using a seat belt during my pregnancy	7,235	42.2
Medicines that are safe to take during pregnancy	14,099	82.2
How using illegal drugs could affect my baby	6,931	40.4
How using prescription medications could affect my baby	8,114	47.3
Doing tests on me or my baby to screen for birth defects or diseases	12,913	75.3
What to do if feeling depressed during pregnancy/after baby born	9,970	58.1
Physical abuse to women by their husbands/partners	5,446	31.8
Signs and symptoms of preterm labor	11,132	64.9
What to do if labor starts early	12,050	70.3
Count the kicks, monitor movements	14,328	83.5
What to do if baby had not felt as active as expected	12,540	73.1
Oral health or dental care during pregnancy	3,946	23.0
The Zika virus	7,353	42.9
I was not provided with any of the information listed above	821	4.8

## 29. Some women experience problems getting prenatal care, while others do not. Here is a list of problems some women can have getting prenatal care. (mark all that applied <u>during this pregnancy</u>)

	Frequency	Valid Percent
Did not have any problems	15,652	91.3
Couldn't get an appointment when wanted	164	10.9
Difficulty paying for visits	116	7.7
No way to get to doctor's office or clinic	104	6.9
Couldn't take time off work	110	7.3
Doctor or health plan wouldn't start care as early as wanted	56	3.7
Problems signing up for Medicaid/Title 19	108	7.2
Medicaid coverage was dropped during pregnancy	36	2.4
Had no one to take care of my children	143	9.5
Had too many other things going on	96	6.4
Didn't want anyone to know I was pregnant	34	2.3
The drive to the clinic was too far	94	6.3
Some other problem	71	4.7

### 30. Were you ever refused prenatal care during this pregnancy?

	Frequency	Valid Percent
Yes	130	0.8
No – SKIP TO Q32	16,631	99.2

### 31. Why were you refused care? (mark all that apply)

	Frequency	Valid Percent
Didn't have insurance	28	< 0.5
Had problems with insurance	27	< 0.5
Doctor was not accepting new patients	17	< 0.5
Unable to find doctor who accepted Medicaid/Title 19	5	<0.5
Pregnancy was high risk	28	< 0.5
Too late in pregnancy to change doctors	6	< 0.5
Unsure why I was refused care	14	< 0.5

### 32. Were you tested for HIV/AIDS during this pregnancy?

	Frequency	Valid Percent
Yes	5,650	33.8
No	6,804	40.7
No – I was offered testing. I did not want to be tested	186	1.1
I don't know	4,091	24.5

### 33. Were you tested for syphilis during this pregnancy?

	Frequency	Valid Percent
Yes	5,188	31.0
No	6,198	37.0
No – I was offered testing. I did not want to be tested	127	0.8
I don't know	5,241	31.3

### 34. How many minutes did it usually take you to get to your prenatal care provider?

	Frequency	Valid Percent
1-15 minutes	8,422	51.5
16-30 minutes	5,011	30.6
31-60 minutes	2,565	15.7
More than 60 minutes	368	2.2

### **HOSPITAL CARE**

35. During the first 24 hours following the birth of your baby, did the hospital staff encourage you to breastfeed?

	Frequency	Valid Percent
Yes	13,650	82.1
No	2,474	14.9
Don't remember	501	3.0

36. During your hospitalization, has a doctor, nurse or other healthcare professional discussed the following topics? (mark all that apply)

	Frequency	Valid Percent
Action steps to decrease frustration when baby cries	7,946	46.3
How to lay baby down to sleep	10,233	59.7
Dangers of shaking an infant	7,652	44.6
Did not receive information and have not scheduled a time to discuss these topics	4,978	29.0

37. In which of the following positions do you plan to lay your baby down to sleep most of the time?

	Frequency	Valid Percent
On his or her back	15,632	94.4
On his or her side	170	1.0
On his or her stomach	33	0.2
No preference – whatever seems most comfortable	723	4.4

38. Listed below are some locations or descriptions of where a new baby might sleep. For each one, please mark yes, no or not sure for whether you think your baby will ever sleep in a similar way for naps or at night.

In a crib, bassinet, or portable crib

	Frequency	Valid Percent
No	61	0.4
Yes	16,484	99.2
Not sure	69	0.4

### With pillows nearby or under him/her

	Frequency	Valid Percent
No	14,834	96.4
Yes	202	1.3
Not sure	353	2.3

### With bumper pads

	Frequency	Valid Percent
No	13,876	90.7
Yes	643	4.2
Not sure	784	5.1

#### Covered with a loose blanket

	Frequency	Valid Percent
No	14,260	93.0
Yes	580	3.8
Not sure	499	3.3

### With stuffed toys

	Frequency	Valid Percent
No	15,034	98.2
Yes	86	0.6
Not sure	184	1.2

In bed with me or another person

	Frequency	Valid Percent
No	14,067	91.3
Yes	476	3.1
Not sure	860	5.6

39. How often do you plan to have your new baby sleep in the same bed, in a reclining chair or on a couch with you or anyone else? Sleeping would include both at night and for naps during the day.

	Frequency	Valid Percent
Daily	1,043	6.3
Weekly	1,005	6.1
Monthly	171	1.0
A few times per year	704	4.3
Do not plan to have baby sleep with me or anyone else	13,598	82.3

40. This question asks about things that may have happened at the hospital where your new baby was born. For each item, mark No if it did not happen or Yes if it did.

I breastfed my baby in the hospital

	Frequency	Valid Percent
No	3,204	19.7
Yes	13,052	80.3

### Hospital staff gave me information about breastfeeding

	Frequency	Valid Percent
No	2,107	13.2
Yes	13,912	86.8

### Hospital staff helped me learn how to breastfeed

	Frequency	Valid Percent
No	3,822	24.2
Yes	11,978	75.8

	Frequency	Valid Percent
No	4,776	30.8
Yes	10,717	69.2

### 41. My baby was placed in skin-to-skin contact within the first hour of birth.

	Frequency	Valid Percent
Yes	14,486	87.9
No – not offered the chance	734	4.5
No – my baby was ill or admitted to the NICU	1,051	6.4
No – my baby was asleep	207	1.3

### 42. I breastfed my baby within the first hour after my baby was born.

	Frequency	Valid Percent
Yes	10,999	69.4
No – not offered the chance	1,620	10.2
No – my baby was ill or admitted to the NICU	1,408	8.9
No – My baby was asleep	1,832	11.6

### **43.** Were you offered long acting contraception (IUD/implant) when your baby was born?

	Frequency	Valid Percent
Yes	2,367	14.8
No	13,651	85.2

### 44. Will you, or have you received the long acting contraception (IUD/implant)?

	Frequency	Valid Percent
Yes	850	36.2
No	1,501	63.8

## 45. How many minutes did it take you to travel from your home to the hospital where you delivered your baby?

	Frequency	Valid Percent
1-15 minutes	7,225	44.0
16-30 minutes	5,453	33.2
31-60 minutes	3,200	19.5
More than 60 minutes	552	3.4

### 46. What is the current month?

	Frequency	Valid Percent
January	1,421	8.3
February	1,346	7.9
March	1,581	9.2
April	1,445	8.4
May	1,553	9.1
June	1,571	9.2
July	1,747	10.2
August	1,602	9.3
September	1,515	8.8
October	1,380	8.0
November	958	5.6
December	1,026	6.0