

Iowa Department of Public Health



Iowa Medicaid – Birth Certificate Match Report

Iowa Department of Public Health, Bureau of Family Health Report to the Iowa Department of Human Services – Iowa Medicaid Enterprise

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status among Iowa resident births 2012 – 2017

Iowa Department of Public Health - Bureau of Family Health

- December 2018

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
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Introduction

Report purpose: The purpose of this report is to highlight access to prenatal care, selected behaviors and birth outcomes of women whose labor and delivery costs were reimbursed by Medicaid, compared to women whose labor and delivery costs were not reimbursed by Medicaid.

Background: Medicaid is a state/federal program that provides health insurance for groups of low-income people, including pregnant women. Iowa Medicaid is administered by the Iowa Department of Human Services through the Iowa Medicaid Enterprise. In Iowa, pregnant women may be eligible for Medicaid if their household income is below 375 percent of the federal poverty level.

Data Sources: Data for this report were derived from a matched file of the birth certificate and Medicaid paid claims for calendar years 2012 through 2017. Medicaid status was based on a paid claim of a delivery for diagnostic related groups between 765 and 775, and linked to a birth certificate. Birth certificate data were used to determine maternal demographic characteristics, pre-existing conditions, cigarette smoking during pregnancy, prenatal care initiation and infant birth outcomes.

Report highlights

- The percent of deliveries reimbursed by Medicaid significantly increased between calendar year 2016 and 2017 (38.6% to 40.8%; Table 1).
- Regardless of Medicaid status, the percent of women who initiated prenatal care during their first trimester has changed little between the years of 2012 and 2017 (Table 2)
 - The percent of women with Medicaid reimbursed deliveries who initiated prenatal care during their first trimester is lower compared to women without a Medicaid reimbursed delivery.
- The percent of women with gestational diabetes (Table 3) as well as the percent of women with extreme pre-pregnancy obesity (Table 14) has significantly increased from 2012-2017.
- The percent of women who reported that they were breastfeeding at hospital discharge has significantly increased from 2012-2017, regardless of a mother's Medicaid status (Table 5).
- The percent of women who report third trimester cigarette smoking continues to decline (Table 4).
- The percent of infants who experienced adverse birth outcomes such as being born at low birth weight (Table 6X), at a very low birth weight (Table 7), and those born pre-maturely (Table 8) has remained relatively stable from 2012-2017.

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Table 1. Number of resident births by Medicaid status and State Total, 2012 - 2017, Iowa resident births

Year	Medicaid ¹		Non-Medicaid ²		State Total ³	
	Number	%	Number	%	Number	%
2017	15,683	40.8	22,725		38,408	
2016	15,135	38.6	24,088		39,223	
2015	15,405	39.1	24,062		39,467	
2014	15,229	38.4	24,456		39,685	
2013	15,212	38.9	23,801		39,013	
2012	15,598	40.3	23,088		38,686	

Table 2. Number and percent of women who initiated prenatal care during their first trimester by Medicaid status and State Total, 2012 - 2017, Iowa resident births⁴

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	11,496	76.4	18,743	88.4	30,236	83.4
2016	10,906	75.3	19,720	87.2	30,626	82.6
2015	11,116	75.8	20,134	88.7	31,250	83.6
2014	11,642	77.0	21,428	88.1	33,070	83.9
2013	11,647	77.1	20,936	88.5	32,583	84.1
2012	11,887	76.7	20,402	89.0	32,289	84.0

Overall, Iowa has exceeded the [Healthy People 2020](#)** goal of 77.9% for the percent of pregnant women who receive prenatal care in the first trimester (Table 2). However, Iowa has not yet met this goal for women with a Medicaid reimbursed delivery. Early initiation of prenatal care can reduce maternal and infant mortality and morbidity through early identification and treatment of risk factors for adverse birth outcomes.

Table 3. Number and percent of women who were reported to have gestational diabetes, by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	1,361	8.7	1,696	7.5	3,057	8.0
2016	1,166	7.7	1,688	7.0	2,854	7.3
2015	1,141	7.4	1,567	6.5	2,708	6.9
2014	1,138	7.5	1,614	6.6	2,752	6.9
2013	1,091	7.2	1,525	6.4	2,616	6.7
2012	1,036	6.6	1,435	6.2	2,471	6.4

¹ Medicaid status was determined by a linkage between Medicaid paid claims and the certificate of live birth

² Non-Medicaid status includes private insurance, self-pay, and other governmental payment sources

³ State total refers to the combined total of Medicaid reimbursed births plus those births reimbursed by another source.

⁴ CY 2015-2017 revised to exclude resident births that occurred outside of Iowa – PNC not reported for resident births that occurred outside of Iowa.

** Healthy People provided science based, 10 national objectives for improving the health of all Americans.

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Table 4. Number and percent of women who reported 3rd trimester smoking by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	2,681	17.1	1,030	4.5	3,711	9.7
2016	2,734	18.1	1,140	4.7	3,874	9.9
2015	2,979	19.4	1,266	5.3	4,245	10.8
2014	3,187	21.0	1,358	5.6	4,545	11.5
2013	3,318	21.8	1,356	5.7	4,674	12.0
2012	3,450	22.2	1,216	5.3	4,666	12.1

Between 2012 and 2017, the percent of women who reported that they smoked cigarettes during their third trimester has decreased by 23% among women with Medicaid reimbursed deliveries and by 15.1% among women without Medicaid reimbursed deliveries (Table 4). However, in order to achieve the Healthy People 2020 goal for abstinence from cigarette smoking among pregnant women of 98.6%, health care providers and other stakeholders need to continue to provide interventions and information to reduce smoking rates among pregnant women.

Table 5. Number and percent of women breastfeeding at hospital discharge by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	11,349	72.6	19,946	88.0	31,295	81.7
2016	10,930	72.4	21,145	87.9	32,075	81.8
2015	10,818	71.1	20,770	87.3	31,588	80.0
2014	9,923	65.2	20,228	82.7	30,151	76.0
2013	9,580	63.0	19,569	82.2	29,149	74.7
2012	9,497	60.9	18,741	81.2	28,238	73.0

Table 6. Number and percent of LBW⁵ infants by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	1,129	7.2	1,374	6.1	2,503	6.5
2016	1,213	8.0	1,407	5.9	2,620	6.7
2015	1,245	8.1	1,397	5.8	2,642	6.7
2014	1,090	7.2	1,557	6.4	2,647	6.7
2013	1,044	6.9	1,492	6.3	2,536	6.5
2012	1,098	7.0	1,461	6.3	2,559	6.6

⁵ Infant LBW = infant birth weight of <=2500 grams. Calculation includes VLBW infants.

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Table 7. Number and percent of VLBW⁶ infants by Medicaid status and State Total, 2012-2017, Iowa resident births

	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	189	1.2	214	0.9	403	1.1
2016	187	1.2	254	1.1	441	1.1
2015	219	1.4	246	1.0	465	1.2
2014	199	1.3	233	1.0	432	1.1
2013	174	1.1	256	1.1	430	1.1
2012	180	1.2	256	1.1	436	1.1

Table 8. Number and percent of pre-term⁷ infants by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	1,493	9.5	2,027	8.9	3,520	9.2
2016	1,535	10.2	2,089	8.7	3,624	9.2
2015	1,524	9.9	2,037	8.5	3,561	9.0
2014	1,424	9.4	2,273	9.3	3,697	9.3
2013	1,373	9.0	2,149	9.0	3,522	9.0
2012	1,517	9.7	2,205	9.6	3,722	9.6

Iowa has received a grade of "B" in the [2018 March of Dimes Premature Birth Report Card](#), based on a result of 9.2% pre-term (premature) births, and reported in Table 8 for 2017. The March of Dimes goal is to reach a prematurity rate of 8.1% by 2020.

Table 9. Number and percent of **repeat** pre-term births by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	203	21.4	179	15.9	382	18.4
2016	222	21.9	196	16.9	418	19.2
2015	202	21.7	192	17.1	394	19.2
2014	257	18.0	222	23.4	479	20.2
2013	222	25.3	225	17.2	447	20.5
2012	209	21.2	197	14.5	406	17.2

⁶ Infant VLBW = infant birth weight of <=1500 grams.

⁷ Pre-term birth = infants born at < 37 weeks gestation based on OB estimate of gestational age reported on the birth certificate. Prior to 2012 mother's LMP was used to calculate gestational age.

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Table 10. Number and percent of infants admitted to the NICU⁸ by Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	1,529	9.8	1,995	8.8	3,524	9.2
2016	1,426	9.4	1,948	8.1	3,374	8.6
2015	1,519	9.9	2,058	8.6	3,577	9.1
2014	1,403	9.2	2,223	9.1	3,626	9.1
2013	1,359	8.9	2,331	9.8	3,690	9.5
2012	1,577	10.1	2,126	9.2	3,703	9.6

Table 11. Number and percent of women who were **underweight**⁹, based on pre-pregnancy BMI¹⁰ Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	516	3.3	550	2.4	1,066	2.8
2016	543	3.6	595	2.5	1,138	2.9
2015	584	3.8	629	2.6	1,213	3.1
2014	603	4.0	686	2.8	1,289	3.3
2013	600	4.0	640	2.7	1,240	3.2
2012	650	4.2	673	2.9	1,323	3.4

Table 12. Number and percent of women who were **overweight**, based on pre-pregnancy BMI Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	4,075	26.1	5,960	26.3	5,960	26.3
2016	3,757	24.9	6,232	26.0	6,232	26.0
2015	3,893	25.4	6,201	25.9	6,201	25.9
2014	3,940	26.0	6,281	25.6	6,281	25.6
2013	3,898	25.7	6,154	26.0	6,154	26.0
2012	3,975	25.6	5,850	25.5	5,850	25.5

⁸ Neonatal intensive care unit

⁹ Underweight <18.5 BMI; overweight 25.0-29.9 BMI; obese 30.0-39.9 BMI; extreme obesity 40.0 or greater. See [Weight Gain During Pregnancy](#) and [Defining Adult Overweight and Obesity](#)

¹⁰ BMI = Body mass index

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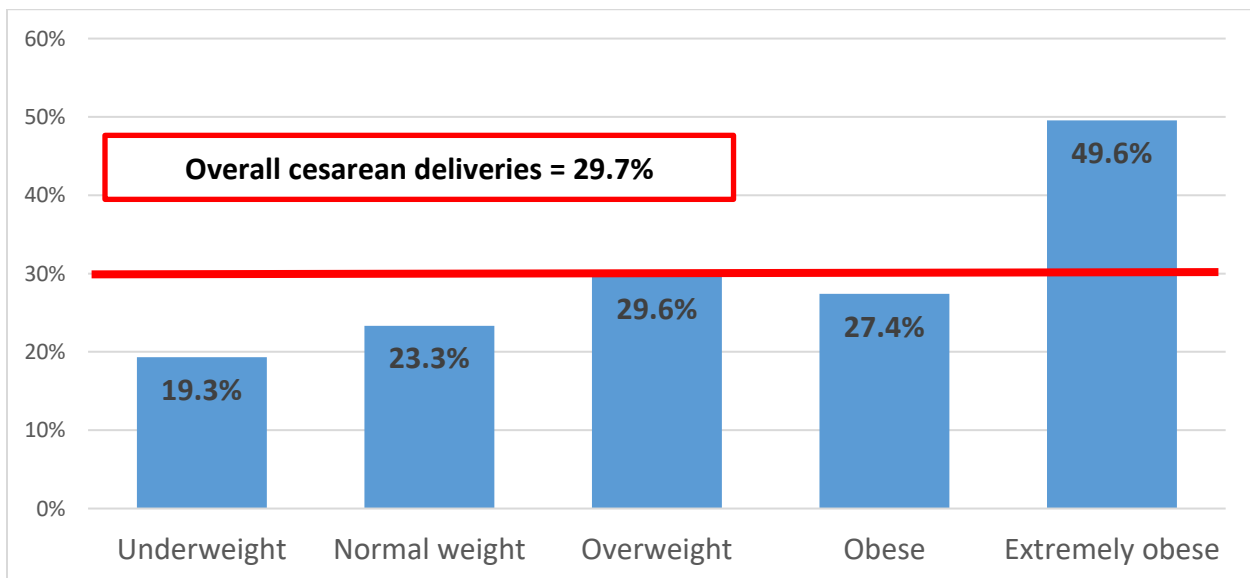
Table 13. Number and percent of women who were **obese**¹¹, based on pre-pregnancy BMI Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	4,009	25.6	4,700	20.4	8,709	22.7
2016	3,899	25.9	4,925	20.5	8,824	22.6
2015	3,799	24.8	4,534	19.0	8,333	21.2
2014	3,674	24.3	4,608	18.2	8,282	21.0
2013	3,729	24.6	4,394	18.6	8,123	20.9
2012	3,676	23.7	4,133	18.0	7,809	20.3

Table 14. Number and percent of women who were **extremely obese**, based on pre-pregnancy BMI Medicaid status and State Total, 2012-2017, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2017	1,246	8.0	1,161	5.1	2,407	6.3
2016	1,198	8.0	1,140	4.8	2,338	6.0
2015	1,128	7.4	1,071	4.5	2,199	5.6
2014	1,080	7.1	1,045	4.3	2,125	5.4
2013	1,023	6.8	909	3.8	1,932	5.0
2012	1,002	6.5	901	3.9	1,903	4.9

Figure 1. Percent cesarean deliveries by a woman's pre-pregnancy BMI compared to the percent of cesarean deliveries overall, calendar year 2017, Iowa resident births



¹¹ Underweight <18.5 BMI; overweight 25.0-29.9 BMI; obese 30.0-39.9 BMI; extreme obesity 40.0 or greater. See [Weight Gain During Pregnancy](#) and [Defining Adult Overweight and Obesity](#)

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Table 15. Number and percent of deliveries by C-section overall, primary C-section, C-section **without** a trial of labor, and C-sections among low risk women¹² among Medicaid reimbursed deliveries, 2012-2017, Iowa resident births

Year	C-sections overall		Primary c-sections		C-sections without a TOL ¹³		C-sections among low risk women	
	Number	%	Number	%	Number	%	Number	%
2017	4,652	29.7	2,485	15.9	2,725	17.4	1,013	24.3
2016	4,601	30.4	2,557	19.9	2,775	18.3	1,005	23.8
2015	4,640	30.1	2,565	16.7	2,911	18.9	1,033	23.4
2014	4,542	29.8	2,347	15.4	3,038	20.0	1,033	23.7
2013	4,651	30.6	2,458	16.2	3,070	20.2	1,150	24.4
2012	4,812	30.9	2,726	17.5	3,107	19.9	1,299	26.2

Tables 15-17

- Regardless of reimbursement status, about one in three women who gave birth in Iowa from 2012-2017 did so by a Cesarean delivery. According to the American College of Obstetricians and Gynecologists, Cesarean deliveries are clearly indicated for certain clinical conditions (placenta previa, uterine rupture). However, in the absence of these conditions, Cesarean delivery may pose a higher risk for maternal or newborn morbidity than vaginal delivery.
- One strategy to reduce C-sections overall, is to reduce the percent of primary Cesarean deliveries. The American College of Obstetricians and Gynecologists with the Society for Maternal-Fetal Medicine have developed a consensus statement called the [Safe Prevention of the Primary Cesarean Delivery](#).
- Strategies that support women to attain and maintain a healthy pre-pregnancy weight may also reduce the percent of Cesarean deliveries in Iowa.
- The Healthy People 2020 goal is to reduce the percent of C-section births among low risk women from a baseline of 26.5% to 23.9% by 2020. Iowa is making progress toward this goal regardless of a woman's Medicaid status.

¹² Women at low risk for a c-section are defined as nulliparous women, who gave birth to a singleton infant, in vertex presentation at a gestational age of greater than or equal to 37 weeks

¹³ TOL = Trial of labor – includes all C-sections (primary and repeat)

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Table 16. Number and percent of deliveries by C-section overall, primary C-section, C-section **without** a trial of labor, and C-sections among low risk women **among non-Medicaid reimbursed deliveries**, 2012-2017, Iowa resident births

Year	C-sections overall		Primary c-sections		C-section without a TOL		C-sections among low risk women	
	Number	%	Number	%	Number	%	Number	%
2017	6,775	29.8	3,963	17.4	4,118	18.1	1,650	23.9
2016	7,174	29.8	4,279	17.8	4,412	18.3	1,848	24.0
2015	7,126	29.6	4,157	17.3	4,599	19.1	1,940	24.2
2014	7,364	30.1	4,246	17.4	4,899	20.0	2,041	23.3
2013	7,364	30.9	4,351	18.3	4,983	20.9	1,949	24.4
2012	7,113	30.8	4,197	18.2	4,920	21.3	1,843	25.5

Table 17. Number and percent of deliveries by C-section overall, primary C-section, C-section **without** a trial of labor, and C-sections among low risk women at the **State Total**, 2012-2017, Iowa resident births

Year	C-sections overall		Primary c-sections		C-section without a TOL		C-sections among low risk women	
	Number	%	Number	%	Number	%	Number	%
2017	11,427	29.8	6,448	16.8	6,843	17.8	2,663	24.0
2016	11,775	30.0	6,836	17.4	7,187	18.3	2,853	23.9
2015	11,766	29.8	6,722	17.0	7,510	19.0	2,824	23.9
2014	11,906	30.0	6,593	16.6	7,937	20.0	3,142	25.2
2013	12,015	30.8	6,809	14.5	8,053	20.6	3,096	24.4
2012	11,930	30.8	6,923	17.9	8,027	20.8	2,951	23.6

ADDITIONAL INFORMATION^a

For additional information or to obtain copies of this data report, contact Debbie Kane at Debbie.kane@idph.iowa.gov, 515-281-4952, or at the Iowa Department of Public Health, Bureau of Family Health, at 321 E. 12th Street, Des Moines, IA 50309 or toll-free at 1-800-383-3826.

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