

Iowa Department of Public Health



Iowa Medicaid – Birth Certificate Match Report

Iowa Department of Public 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 – 2016

Iowa Department of Public Health - Bureau of Family Health

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Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table of Contents

Name	Page
Introduction	4
Table 1. Number of resident births by Medicaid status and State Total, 2012 – 2016, Iowa resident births	5
Table 2. Number and percent of women who initiated prenatal care during their first trimester by Medicaid status and State Total, 2012-2016, Iowa resident births	5
Table 3. Number and percent of women who were reported to have gestational diabetes, by Medicaid status and State Total, 2012-2016, Iowa resident births	5
Table 4. Number and percent of women who reported 3rd trimester smoking by Medicaid status and State Total, 2012-2016, Iowa resident births	5
Table 5. Number and percent of women breastfeeding at hospital discharge by Medicaid status and State Total, 2012-2016 Iowa resident births	6
Table 6. Number and percent of low birth weight infants by Medicaid status and State Total, 2012-2016, Iowa resident births	6
Table 7. Number and percent of very low birth weight infants by Medicaid status and State Total, 2012-2016, Iowa resident births	6
Table 8. Number and percent of pre-term infants by Medicaid status and State Total, 2012-2016, Iowa resident births	6
Table 9. Number and percent of infants admitted to the neonatal intensive care unit by Medicaid status and State Total, 2012-2016, Iowa resident births	7
Table 10. Number and rate of infants/1000 live births diagnosed with newborn abstinence syndrome by Medicaid status and State Total, 2012-2016, Iowa resident births	7
Table 11. Number and percent of infants/1000 live births with newborn in utero exposure to substances including opioids by Medicaid status and State Total, 2012-2016, Iowa resident births	7
Table 12. Number and percent of women who were underweight, overweight, obese, or extremely obese based on pre-pregnancy BMI among Medicaid reimbursed deliveries, 2012-2016, Iowa resident births	8

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table 13. Number and percent of women who were underweight, overweight, obese, or extremely obese based on pre-pregnancy BMI among non-Medicaid reimbursed deliveries, 2012-2016, Iowa resident births	8
Table 14. Number and percent of women who were underweight, overweight, obese, or extremely obese based on pre-pregnancy BMI for State Total deliveries, 2012-2016, Iowa resident births	8
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 women among Medicaid reimbursed deliveries, 2012-2016, Iowa resident births	9
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, 2012-2016, Iowa resident births	9
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, 2012-2016, Iowa resident births	9
Appendix A. Count and code description for newborn intrauterine substance drug exposure and NAS, Iowa resident births, 2012-2016	10

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Introduction

Report purpose: The purpose of the fact sheet is to highlight the 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 certain groups of low-income people, including pregnant women. Iowa Medicaid is administered by the Iowa Department of Human Services through 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 2016. Medicaid status was based on a paid claim of a delivery related diagnostic related group 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.

For Tables 10 and 11 data were derived from the Iowa Hospital Discharge Data file, the inpatient file. Selected IDC-9 and ICD-10 codes were used to define newborn abstinence syndrome and newborn in utero exposure to substances.

[Back to Table of Contents](#)

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table 1. Number of resident births¹ by Medicaid status and State Total, 2012 – 2016, Iowa resident births

Year	Medicaid ²	Non-Medicaid ³	State Total ⁴
	Number	Number	Number
2016	15,135	24,088	39,223
2015	15,405	24,062	39,467
2014	15,229	24,456	39,685
2013	15,212	23,801	39,013
2012	15,598	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, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
2016	10,906	72.1	19,720	81.9	30,626	78.1
2015	11,116	72.4	20,134	83.9	31,250	79.4
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

Table 3. Number and percent of women who were reported to have gestational diabetes, by Medicaid status and State Total, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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

Table 4. Number and percent of women who reported 3rd trimester smoking by Medicaid status and State Total, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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

[Back to Table of Contents](#)

¹ Demographic and birth outcome data were obtained from Iowa vital statistics – certificate of live birth

² Medicaid status was determined by a linkage between Medicaid paid claims and the certificate of live birth

³ Non-Medicaid status includes private insurance, self-pay, and other governmental payment sources

⁴ State total refers to the combined total of Medicaid reimbursed births plus those births reimbursed by another source.

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table 5. Number and percent of women breastfeeding at hospital discharge by Medicaid status and State Total, 2012-2016 Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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

Table 7. Number and percent of VLBW⁶ infants by Medicaid status and State Total, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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

[Back to Table of Contents](#)

⁵ Infant LBW = infant birth weight of <=2400 grams. Calculation includes VLBW infants.

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.

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table 9. Number and percent of infants admitted to the NICU⁸ by Medicaid status and State Total, 2012-2016, Iowa resident births

Year	Medicaid		Non-Medicaid		State Total	
	Number	%	Number	%	Number	%
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 10. Number and rate of infants/1000 live births diagnosed with newborn abstinence syndrome by Medicaid status and State Total, 2012-2016, Iowa resident births⁹

Newborn abstinence syndrome (NAS) is based on ICD-9 code 779.5 and ICD-10 code P96.1

Year	Medicaid ¹⁰		Non-Medicaid ¹¹		State Total	
	Number	Rate	Number	Rate	Number	Rate
2016	97	5.8	14	0.6	111	2.3
2015	113	7.1	26	1.0	143	2.6
2014	94	6.6	27	1.2	121	3.3
2013	73	5.1	23	1.1	96	3.6
2012	70	4.8	13	0.6	83	2.8

Table 11. Number and percent of infants/1000 live births with newborn *in utero* exposure to substances including opioids by Medicaid status and State Total, 2012-2016, Iowa resident births¹²

Newborn *in utero* exposure to substances includes the ICD-9 and ICD-10 NAS codes as well as other drugs. See [Appendix A](#) for a complete listing of the ICD-9 and ICD-10 codes

Year	Medicaid		Non-Medicaid		State Total	
	Number	Rate	Number	Rate	Number	Rate
2016	374	22.3	89	3.9	463	11.7
2015	210	13.1	65	2.7	275	6.9
2014	180	12.5	51	2.3	231	6.2
2013	178	12.3	47	2.1	225	6.1
2012	158	10.8	28	1.3	186	5.1

[Back to Table of Contents](#)

⁸ Neonatal intensive care unit

⁹ Data source – Iowa Hospital Discharge Data (HDD)

¹⁰ For Tables 10 and 11 Medicaid status is based on the HDD primary payment source and includes fee-for-service, Medicaid managed care, and starting in 2016, the Medicaid MCOs

¹¹ For Tables 10 and 11 non-Medicaid status includes private insurance, self-pay, and other governmental payment sources

¹² Data source – Iowa Hospital Discharge Data

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Table 12. Number and percent of women who were underweight¹³, overweight, obese, or extremely obese based on pre-pregnancy BMI¹⁴ **among Medicaid reimbursed deliveries**, 2012-2016, Iowa resident births

Year	Underweight		Overweight		Obese		Extremely Obese	
	Number	%	Number	%	Number	%	Number	%
2016	543	3.6	3,757	24.9	3,899	25.9	1,198	8.0
2015	584	3.8	3,893	25.4	3,799	24.8	1,128	7.4
2014	603	4.0	3,940	26.0	3,674	24.3	1,080	7.1
2013	600	4.0	3,898	25.7	3,729	24.6	1,023	6.8
2012	650	4.2	3,975	25.6	3,676	23.7	1,002	6.5

Table 13. Number and percent of women who were underweight, overweight, obese, or extremely obese based on pre-pregnancy BMI **among non-Medicaid reimbursed deliveries**, 2012-2016, Iowa resident births

Year	Underweight		Overweight		Obese		Extremely Obese	
	Number	%	Number	%	Number	%	Number	%
2016	595	2.5	6,232	26.0	4,925	20.5	1,140	4.8
2015	629	2.6	6,201	25.9	4,534	19.0	1,071	4.5
2014	686	2.8	6,281	25.6	4,608	18.2	1,045	4.3
2013	640	2.7	6,154	26.0	4,394	18.6	909	3.8
2012	673	2.9	5,850	25.5	4,133	18.0	901	3.9

Table 14. Number and percent of women who were underweight, overweight, obese, or extremely obese based on pre-pregnancy BMI for **State Total** deliveries, 2012-2016, Iowa resident births

Year	Underweight		Overweight		Obese		Extremely Obese	
	Number	%	Number	%	Number	%	Number	%
2016	1,138	2.9	9,989	25.6	8,824	22.6	2,338	6.0
2015	1,213	3.1	10,094	25.7	8,333	21.2	2,199	5.6
2014	1,289	3.3	10,221	25.9	8,282	21.0	2,125	5.4
2013	1,240	3.2	10,052	25.9	8,123	20.9	1,932	5.0
2012	1,323	3.4	9,825	25.5	7,809	20.3	1,903	4.9

[Back to Table of Contents](#)

¹³ 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](#)

¹⁴ BMI = Body mass index

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

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 women¹⁵ among **Medicaid reimbursed** deliveries, 2012-2016, Iowa resident births

Year	C-sections overall		Primary c-sections		C-sections without a TOL ¹⁶		C-sections among low risk women	
	Number	%	Number	%	Number	%	Number	%
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

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**, 2012-2016, 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	%
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**, 2012-2016, 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	%
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

[Back to Table of Contents](#)

¹⁵ 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

¹⁶ TOL = Trial of labor – includes all C-sections (primary and repeat)

Access to prenatal care, selected behaviors/conditions, and selected birth outcomes by Medicaid status
Iowa resident births 2012 - 2016

Appendix A

Count and code description for newborn intrauterine substance drug exposure and **NAS**, 2012-2016

ICD-10 Code	Code description	Count ICD-10 codes	ICD- 9 Code	Code description	Count ICD-9 codes
			292.0	Drug withdrawal syndrome	8
			304.9	Unspecified drug dependence	0
			305	Non-dependent abuse of drugs	0
P04.49	Newborn affected by maternal use of other drugs of addiction		760.63	Hallucinogenic agents affecting fetus or newborn	
P04.9	Newborn affected by maternal noxious substance, unspecified	13	760.70	Unspecified noxious substance affecting fetus or newborn via placenta or breast milk	64
P04.3	Newborn affected by maternal use of alcohol	17	760.71	Alcohol Affecting Fetus or Newborn	23
P04.49	Newborn affected by maternal use of other drugs of addiction	327	760.72	Narcotics affecting fetus or newborn	228
P04.49			760.73	Phencyclidine (PCP)	73
P04.41	Newborn affected by maternal use of cocaine	10	760.75	Noxious influence on fetus: Cocaine	28
P04.1	Other maternal medication	53	760.77	Barbiturates	12
P04.1	Other maternal medication		760.77	Diazepam and Lorazepam	
P04.1	Other maternal medication		760.77	Neurontin (Gabapentin)	
P96.1	Neonatal withdrawal symptoms from maternal use of drugs of addiction	141	779.5	Drug withdrawal syndrome in newborn	383

[Back to Table of Contents](#)

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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