Iowa Medicaid Enterprise – Birth Certificate Match to Paid Claims Report

Access to prenatal care, selected behaviors, and selected birth outcomes by Medicaid status among Iowa resident births 2016 – 2019

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Division of Health Promotion & Chronic Disease Prevention, 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 2016 – 2019

Introduction and Highlights

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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 are eligible for Medicaid if their income is 375% of the federal poverty level or below.

Data Sources: Data for this report were derived from a matched file of the birth certificate and Medicaid paid claims for calendar years 2016 through 2019. Medicaid status was based on a paid claim of a delivery for relevant diagnostic related groups, and linked to a birth certificate. Birth certificate data were used to determine maternal demographic characteristics, cigarette smoking during pregnancy, prenatal care initiation and infant birth outcomes.

Report highlights

- Over 40% of deliveries among Iowa residents were reimbursed by Medicaid in 2019. The statistic has remained relatively consistent over the past 4 years (Table 1).
    - The percentage of Medicaid reimbursed deliveries is higher among Iowa populations of color (Figure 2), those who report that their primary language is not English (Figure 3), and among women 24 years of age and younger (Figure 4).

- Mothers with Medicaid reimbursed deliveries initiate first trimester prenatal care at a lower percentage than mothers with other payment sources (Table 2).
    - The percentage of mothers of color who initiate first trimester prenatal care is lower than the state rate as well as significantly lower than that of White mothers (Figure 6).
    - Despite closures of obstetrical units throughout Iowa over the past several years, first trimester initiation of prenatal care remains high among mothers with Medicaid reimbursed deliveries (Figure 5).

- The percent of women who reported breastfeeding at hospital discharge is significantly lower among mothers with Medicaid reimbursed deliveries compared to mothers with deliveries reimbursed by other payment sources (Table 4).
    - Hispanic mothers report the highest percentage of breastfeeding at hospital discharge, followed by White women (Figure 12).
    - Black mothers report the lowest percentage of breastfeeding at hospital discharge.

- Mothers with Medicaid reimbursed deliveries gave birth to low birth weight infants at a significantly higher percentage than mothers with other payment sources for delivery (Table 5).
    - The percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries was significantly higher among non-Hispanic Black women than women of other races and ethnicities (Figure 14).
    - The percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries was significantly higher among women 35 and older and women 18 and younger compared to women in other age groups. (Figure 15).

- The percent of infants born prematurely was significantly higher among mothers with Medicaid reimbursed deliveries than that of mothers with other payment sources for delivery (Table 6).
    - The percent of infants born prematurely among women with Medicaid reimbursed deliveries was significantly higher among non-Hispanic Black women compared to non-Hispanic White women and Hispanic women. (Figure 16).

Potential opportunities

Iowa families of color experience disproportionately lower rates of early prenatal care initiation and higher rates of premature and low birth weight infants in comparison to White Iowa families. Black mothers insured through Iowa Medicaid report the lowest rates of breastfeeding upon hospital discharge. Racial disparities such as these remain a concern for all Iowa families, but especially for those who depend on Medicaid coverage for essential healthcare services.

Identifying program and policy interventions specifically targeting Medicaid populations experiencing disparate outcomes have the potential to not only improve the health of individuals but reduce costs to the Medicaid program. Identifying best practice program and policy solutions with proven records of reducing disparities in disproportionately-impacted populations is key to ensuring Iowa sees a reduction in maternal health disparities in our state. For example, culturally congruent birthing supports, such as access to community based doulas, is a best practice model the Iowa Department of Public Health is currently exploring to support increased health outcomes for Black identified Maternal Child Health Title V program participants. Exploration of interventions such as this may be helpful for Medicaid to consider as it seeks to reduce disparities among its client population.

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Medicaid reimbursed births overall, Iowa resident births, calendar years 2016-2019

Table 1. Number of resident births by Medicaid status and State Total, 2016 - 2019, Iowa resident births

	Medicaid[1]		Non-Medicaid[2]	State Total[3]
Year	Number	%	Number	Number
2019	15,255	40.6	22,342	37,597
2018	16,367	43.4	21,342	37,709
2017	15,683	40.8	22,725	38,408
2016	15,135	38.6	24,088	39,223

Medicaid is an important reimbursement source for maternal and newborn care in Iowa. As reported in Table 1, nearly forty-one percent of deliveries among Iowa resident births were reimbursed by Medicaid in 2019. The percent of Medicaid reimbursed deliveries decreased significantly from 2018 to 2019.

See Figure 1 for the percent of Medicaid reimbursed deliveries by county and by level of rurality (metropolitan, micropolitan, and rural), for calendar year 2019

Rurality is based on the National Center for Health Statistics designations. These designations focus on access to service for the county population, as opposed to only the number of people residing in the county. For more information see the 2013 NCHS Urban-Rural Classification Scheme for Counties. Readers can also find more information at the State Library of Iowa's State Data Center, Metropolitan, Micropolitan, and Combined Statistical Areas.

Medicaid reimbursed deliveries by selected demographics – resident births – calendar year 2019

Among Iowa's populations of color, Medicaid is of even greater importance to support maternal and newborn care. For example, Black women represented approximately eight percent (n=2,844) of 2019 deliveries (See Figure 2). Among this group of women, 78% of deliveries (n=2,209) were reimbursed by Medicaid in 2019. The pattern is true for other populations of color in Iowa. Hispanic women represented approximately 10% percent of deliveries in 2019 (n=3,672). Among Hispanic women, nearly 67% (66.8%; n=2,452) of deliveries were reimbursed by Medicaid. In contrast, White women represented 83% of 2019 deliveries and among this group, 35% of deliveries were reimbursed by Medicaid.

See Appendix A for an explanation of how race and ethnicity are categorized for this report.

[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.

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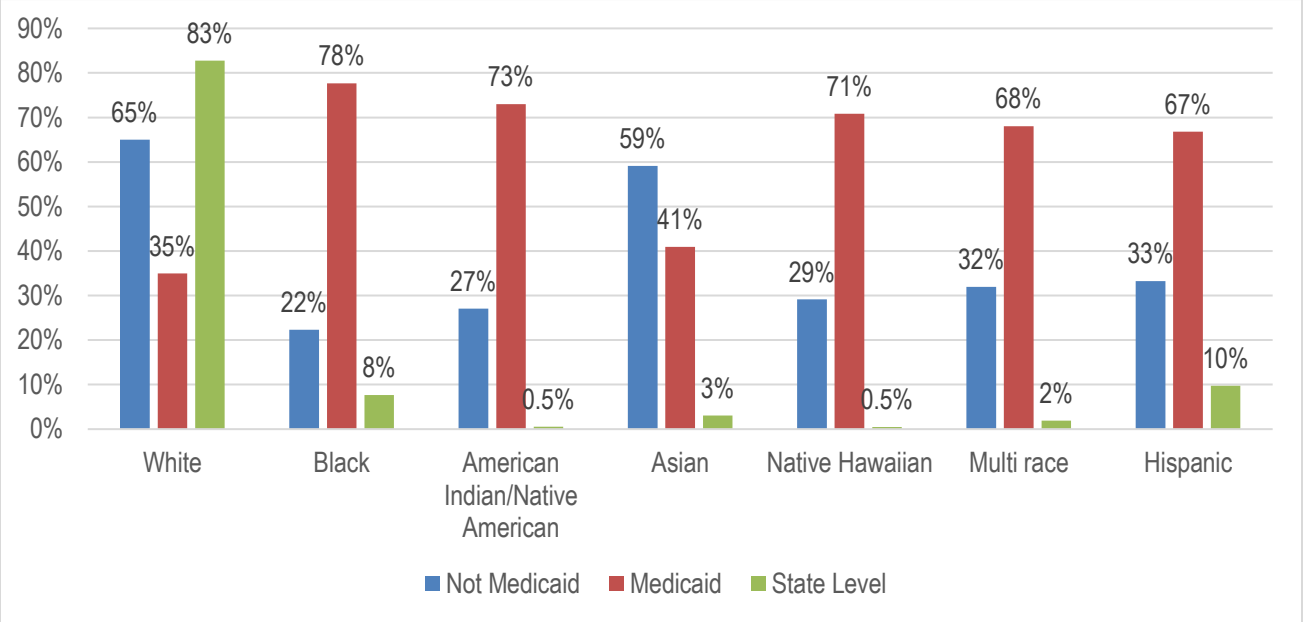
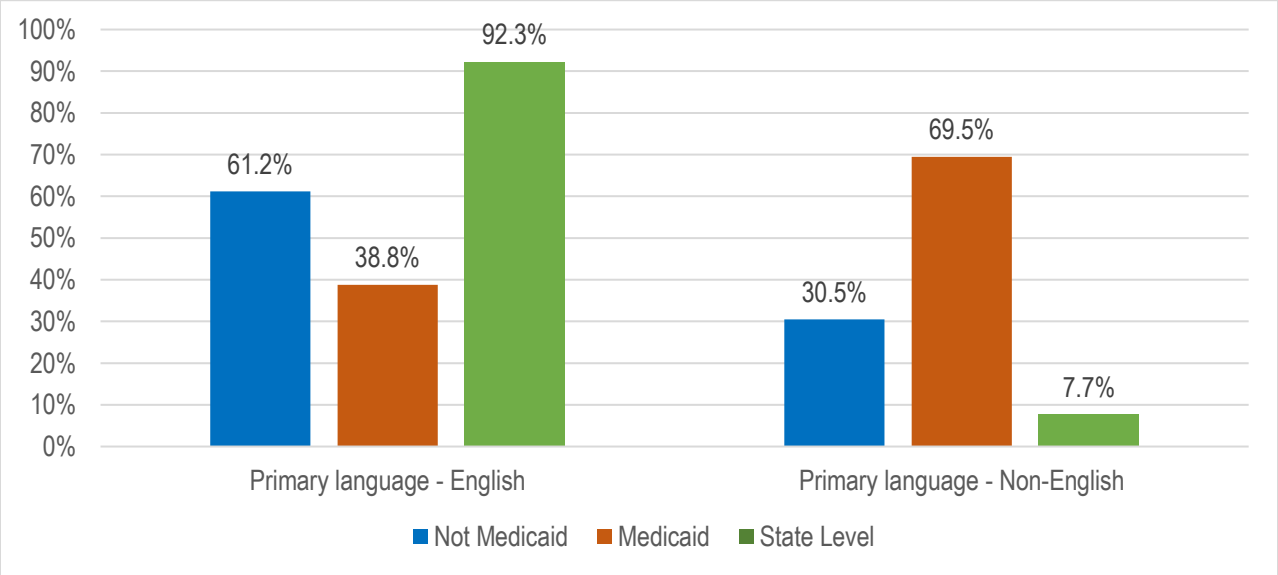
Figure 2. *Medicaid reimbursed deliveries compared to non-Medicaid reimbursed deliveries by maternal race and ethnicity, Iowa resident births, calendar year 2019*



A greater percentage of women with Medicaid reimbursed deliveries report that their primary language is not English (69.5% vs. 38.8%) (See Figure 3).

Figure 3. *Medicaid reimbursed deliveries compared to non-Medicaid reimbursed deliveries by maternal primary language, Iowa resident births, calendar year 2019*



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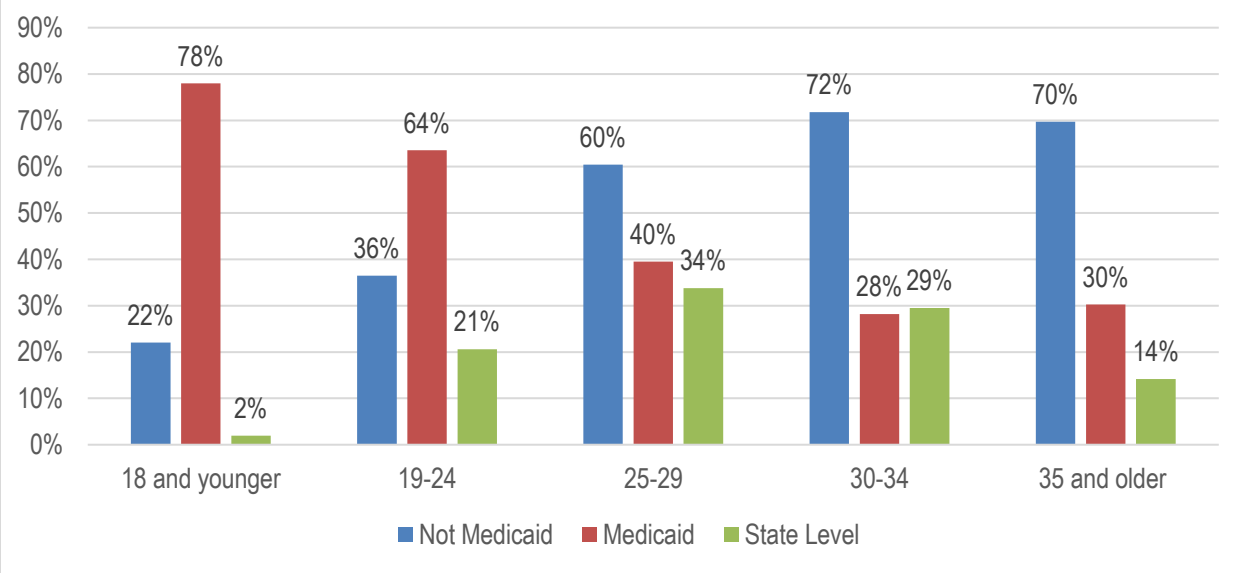
Medicaid is also an important reimbursement source for women under the age of 30. For example, approximately two percent of deliveries in Iowa are among women 18 years of age or younger (n=731). Among this group of women, 78% (n=570) of the deliveries were reimbursed by Medicaid (See Figure 4). The percent of Medicaid reimbursed deliveries decreased with maternal age.

Figure 4. *Medicaid reimbursed deliveries compared to non-Medicaid reimbursed deliveries by maternal age, Iowa resident births, calendar year 2019*



Access to prenatal care overall and by selected characteristics among women with Medicaid reimbursed deliveries

Table 2. Number and percent of women who initiated prenatal care during their first trimester by Medicaid status and State Total, 2016 - 2019, Iowa resident births[4]

	Medicaid		Non-Medicaid		State Total	
Year	Number	%	Number	%	Number	%
2019	11,268	77.4	18,431	88.4	29,699	83.8
2018	11,982	76.8	17,601	88.5	29,583	83.3
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

[4] CY 2016-2019 revised to exclude resident births that occurred outside of Iowa – Prenatal care is not consistently reported for Iowa residents who gave birth outside of Iowa.

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Overall, Iowa has exceeded the Healthy People 2020 goal of 77.9% for the percent of pregnant women who initiate prenatal care in the first trimester (Table 2). The percent of women with Medicaid a reimbursed delivery who have initiated first trimester prenatal care has been slowly increasing since 2016, though remains significantly below that of women with other payment source for delivery. Early initiation of prenatal care can reduce maternal and infant mortality and morbidity through early identification and treatment of risk factors for maternal and newborn outcomes.

Iowa has experienced a dramatic reduction on the number of community level hospital obstetrical (OB) units over the past several years. One concern is whether women living in counties without a hospital-based OB unit retain access to prenatal care. Fortunately, the percent of women with a Medicaid reimbursed deliveries appear to have maintained access to prenatal care regardless of whether the county has a hospital-based OB unit. In fact, among women with Medicaid reimbursed deliveries, a significantly higher percentage of women initiated first trimester prenatal care in counties without OB units compared to counties with OB units (79.4% vs. 76.4%).

See Figure 5 for the percent of women with Medicaid reimbursed deliveries by county level availability of an OB unit.

First trimester initiation of prenatal care by maternal race and ethnicity: Overall, 77.4% of women with Medicaid reimbursed deliveries initiated prenatal care during the first trimester (Table 2). The percent of women with Medicaid reimbursed deliveries who initiated prenatal care during their first trimester differed by race and ethnicity. For example, the percent of Native Hawaiian and Pacific Islander women who initiated first trimester prenatal care was dramatically lower than all other racial and ethnic groups in Iowa (34.1%; n=91). Figure 6 illustrates disparities in access to prenatal care by race and ethnicity.

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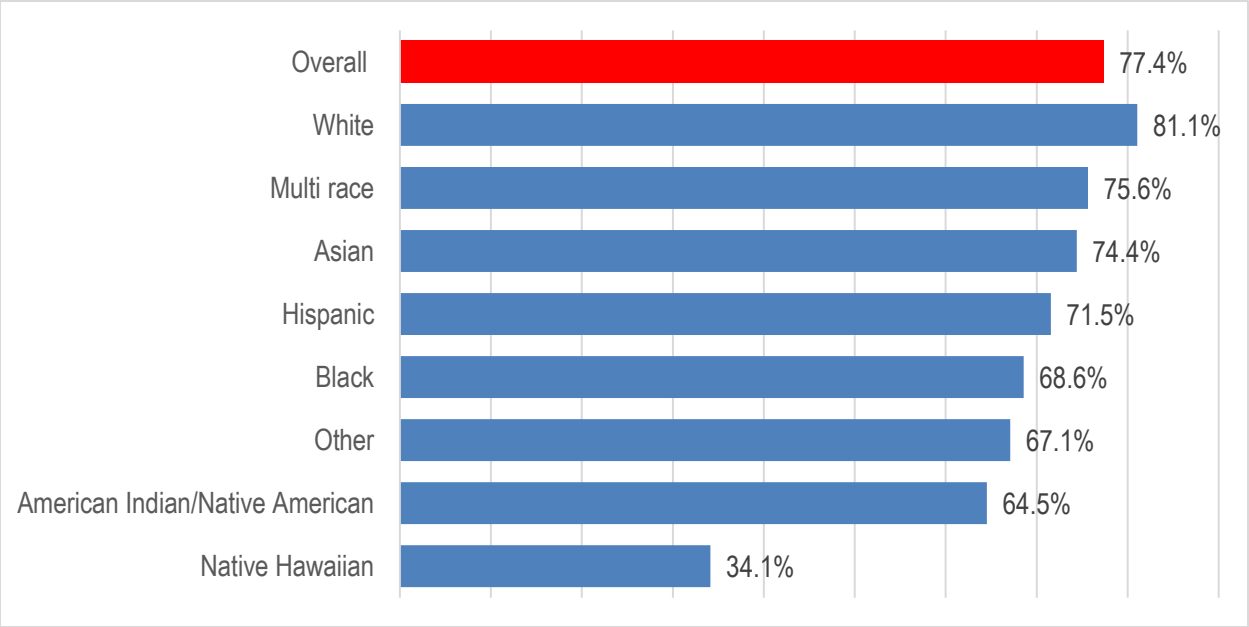
Figure 6. *First trimester initiation of prenatal care among women with Medicaid reimbursed deliveries by maternal race and ethnicity, Iowa resident births, calendar year 2019*



First trimester initiation of prenatal care by maternal race, ethnicity, and level of rurality: In order to examine first trimester initiation of prenatal care by maternal race, ethnicity, and level of rurality, it was necessary to group race and ethnicity into four categories: non-Hispanic White, non-Hispanic Black, non-Hispanic of other races, and Hispanic (of all races).

Regardless of level of rurality, non-Hispanic White women initiated first trimester prenatal care at the highest percentage compared to all other racial and ethnic groups (See Figure 7).

First trimester prenatal care initiation among women with Medicaid reimbursed deliveries was lowest among non-Hispanic women of other races who resided in micropolitan communities (51.9%; n=68), followed by Hispanic women who resided in rural communities (60.4% n=298). In contrast, non-Hispanic Black women who resided in rural communities initiated first trimester prenatal care at a higher percentage (76.8%; n=53) than non-Hispanic Black who resided in micropolitan (67.8%; n=164) or metropolitan communities (68.9%; n=1,405).

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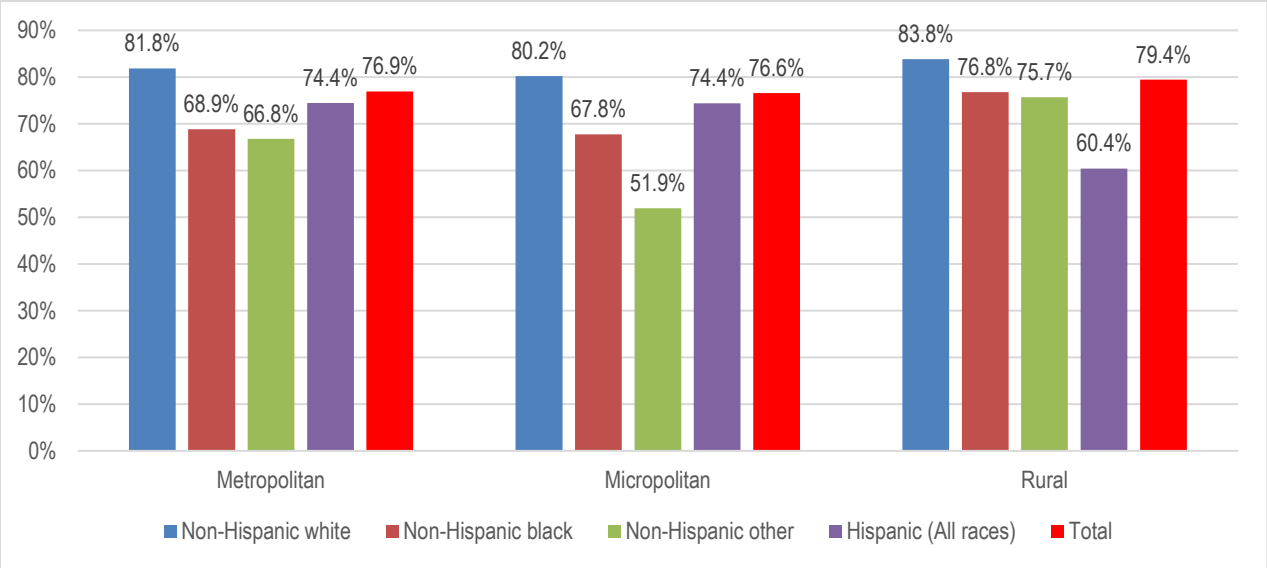
Figure 7. *First trimester initiation of prenatal care among women with Medicaid reimbursed deliveries by maternal race, ethnicity, and level of rurality, Iowa resident births, calendar year 2019*



First trimester initiation of prenatal care by maternal primary language: The percent of women with Medicaid reimbursed deliveries who reported that their primary language was not English was 69.5% (See Figure 3). Women with Medicaid reimbursed deliveries who reported that their primary language was not English initiated prenatal care during their first trimester at a significantly lower percent than that of the state level (62.6% vs. 77.4%) as well as the percentage of women who that their primary language was English (62.6% vs. 79.5%).

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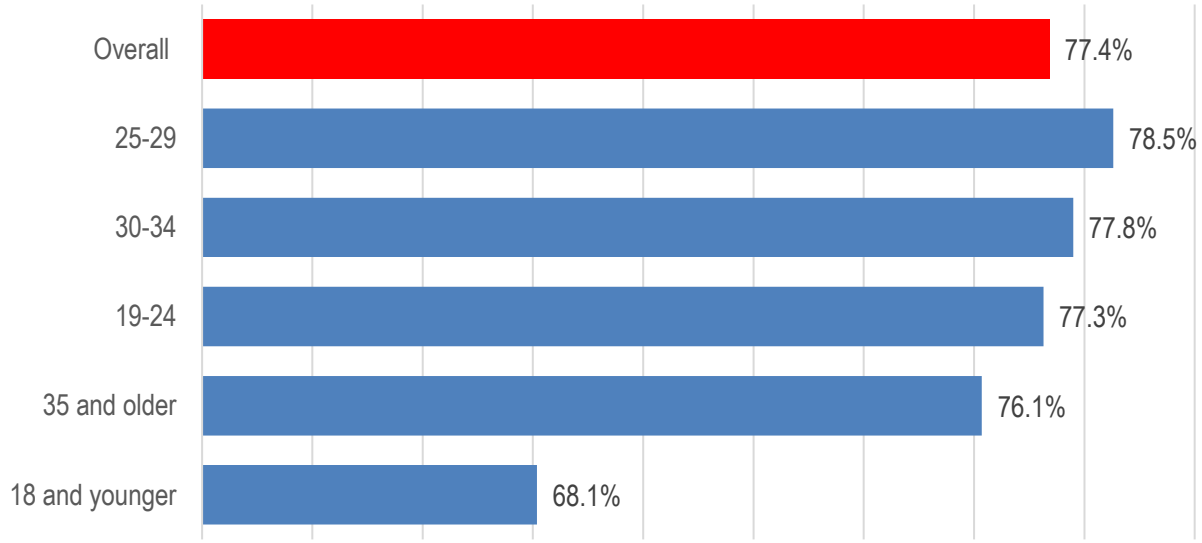
First trimester initiation of prenatal care by maternal age: Like race and ethnicity, first trimester initiation of prenatal care varied by age among women with Medicaid reimbursed deliveries. The percent of women ages 18 and younger who initiated prenatal care during their first trimester was significantly lower than that of women of all other age groups (See Figure 8).

Figure 8. *First trimester initiation of prenatal care among women with Medicaid reimbursed deliveries by maternal age, Iowa resident births, calendar year 2019*



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Third trimester cigarette smoking overall and by selected characteristics among women with Medicaid reimbursed deliveries

Table 3. Number and percent of women who reported 3rd trimester smoking cigarettes by Medicaid status and State Total, 2016-2019, Iowa resident births

	Medicaid		Non-Medicaid		State Total	
Year	Number	%	Number	%	Number	%
2019	2,300	15.1	775	3.5	3,075	8.2
2018	2,637	16.1	764	3.6	3,401	9.0
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

Between 2016 and 2019, the percent of women who reported that they smoked cigarettes during their third trimester has decreased by 16.6% among women with Medicaid reimbursed deliveries and by 25.5% among women without Medicaid reimbursed deliveries (Table 3).

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.

Bureau of Family Health (BFH) staff is collaborating with the Division of Tobacco Use Prevention and Control to identify evidence based interventions to support smoking cessation among women during pregnancy. In addition, the BFH has selected smoking during pregnancy as one of its priority performance measures based on the Title V MCH Block Grant Needs Assessment. This means that Title V community-based maternal health agencies will also coordinate efforts to reduce smoking among low-income pregnant women.

See Figure 9 for the percent of women with Medicaid reimbursed deliveries who reported that they smoked during by county during calendar year 2019.

Third trimester cigarette smoking by maternal race and ethnicity: Because of small numbers, figures for third trimester cigarette smoking by race and ethnicity among women with Medicaid reimbursed deliveries are grouped in a different manner than other outcomes presented in this report. By race and ethnicity, the highest percentage of smokers was by far among non-Hispanic White women (20.3%) (Figure 10). The lowest percentage of third trimester cigarette smoking was among Hispanic women (3.8%).

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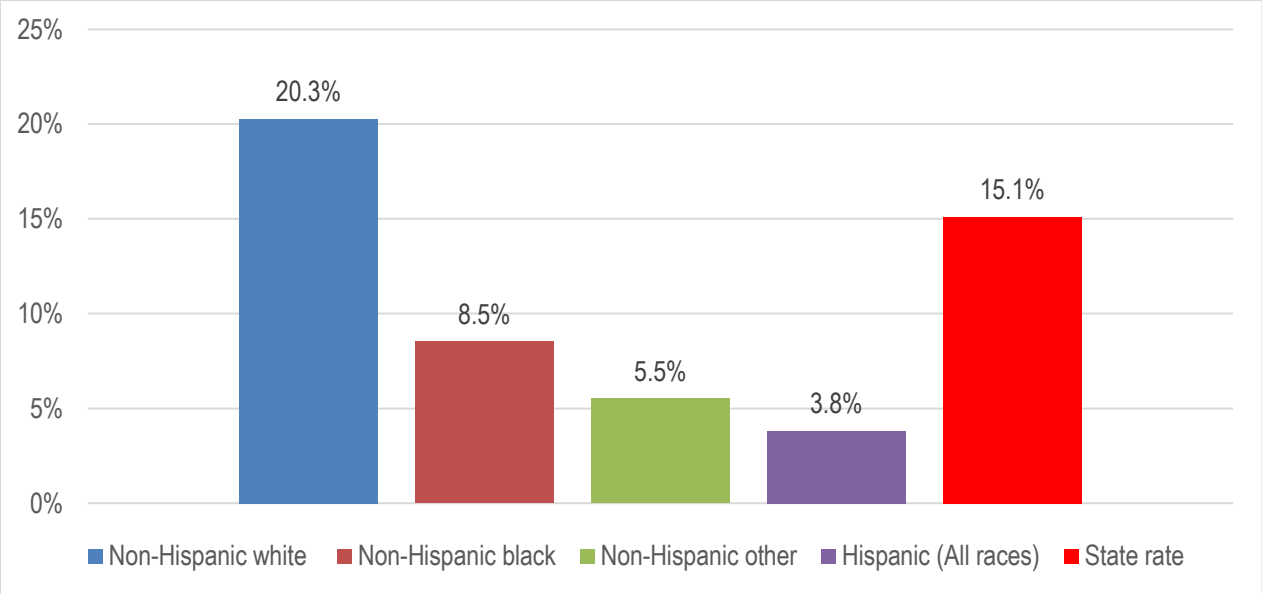
Figure 10. *Percent of women Medicaid reimbursed deliveries who reported third trimester cigarette smoking by maternal race and ethnicity, Iowa resident births, calendar year 2019*



Third trimester cigarette smoking by maternal age: By maternal age, the percent of women who reported third trimester cigarette smoking varied little with the exception of women 18 years of age and younger (Figure 11). Women ages 18 and younger reported the lowest percentage of third trimester cigarette smoking compared to all other age groups (9.5%). In 2020, Iowa passed legislation (Senate File 2268) to increases the legal age to purchase tobacco products from 18 to 21 years of age. Future reports will investigate how this law may influence cigarette smoking among young women with Medicaid reimbursed deliveries.

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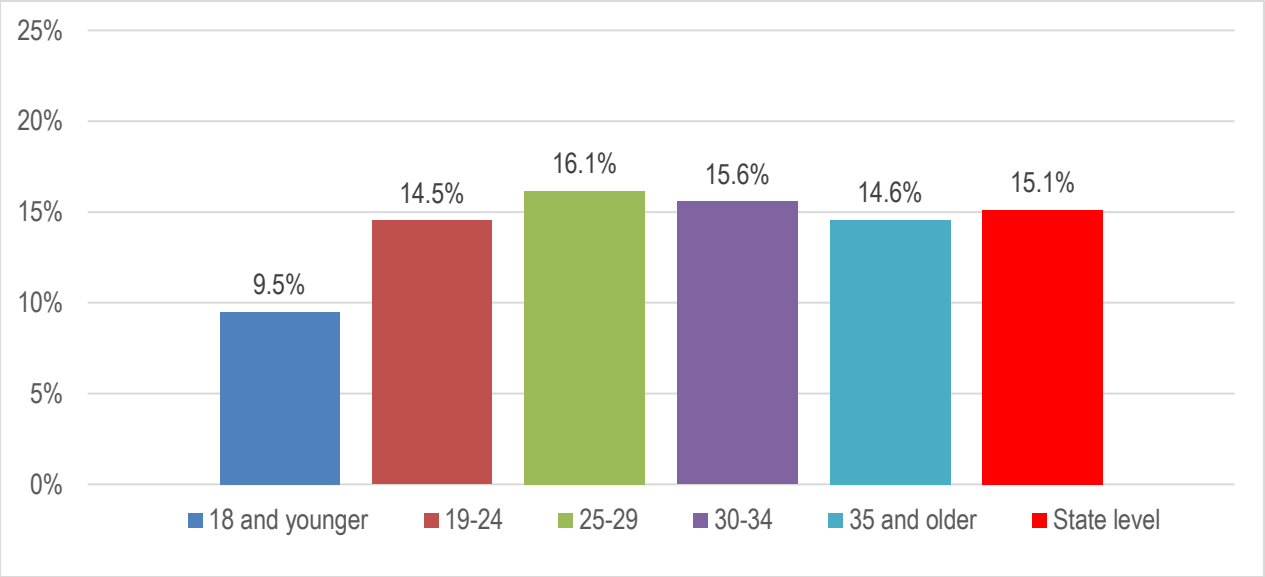
Figure 11. *Percent of women Medicaid reimbursed deliveries who reported third trimester cigarette smoking by maternal age, Iowa resident births, calendar year 2019*



Breastfeeding at hospital discharge overall and by selected characteristics among women with Medicaid reimbursed deliveries

Table 4. Number and percent of women breastfeeding their infants at hospital discharge by Medicaid status and State Total, 2016-2019, Iowa resident births

	Medicaid		Non-Medicaid		State Total	
Year	Number	%	Number	%	Number	%
2019	11,166	73.5	19,809	88.9	30,975	82.6
2018	11,981	73.4	19,048	89.4	31,029	82.4
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

The overall percent of women who reported that they were breastfeeding their infants at hospital discharge exceeds the Healthy People 2020 goal of 81.9%. However, women with Medicaid reimbursed births have not yet reached this goal.

Breastfeeding at hospital discharge by maternal race and ethnicity: Hispanic women reported the highest percentage of breastfeeding at hospital discharge (77.9%). See Figure 12. The lowest percentage of women who reported breastfeeding at hospital discharge was among Black women (67.0%).

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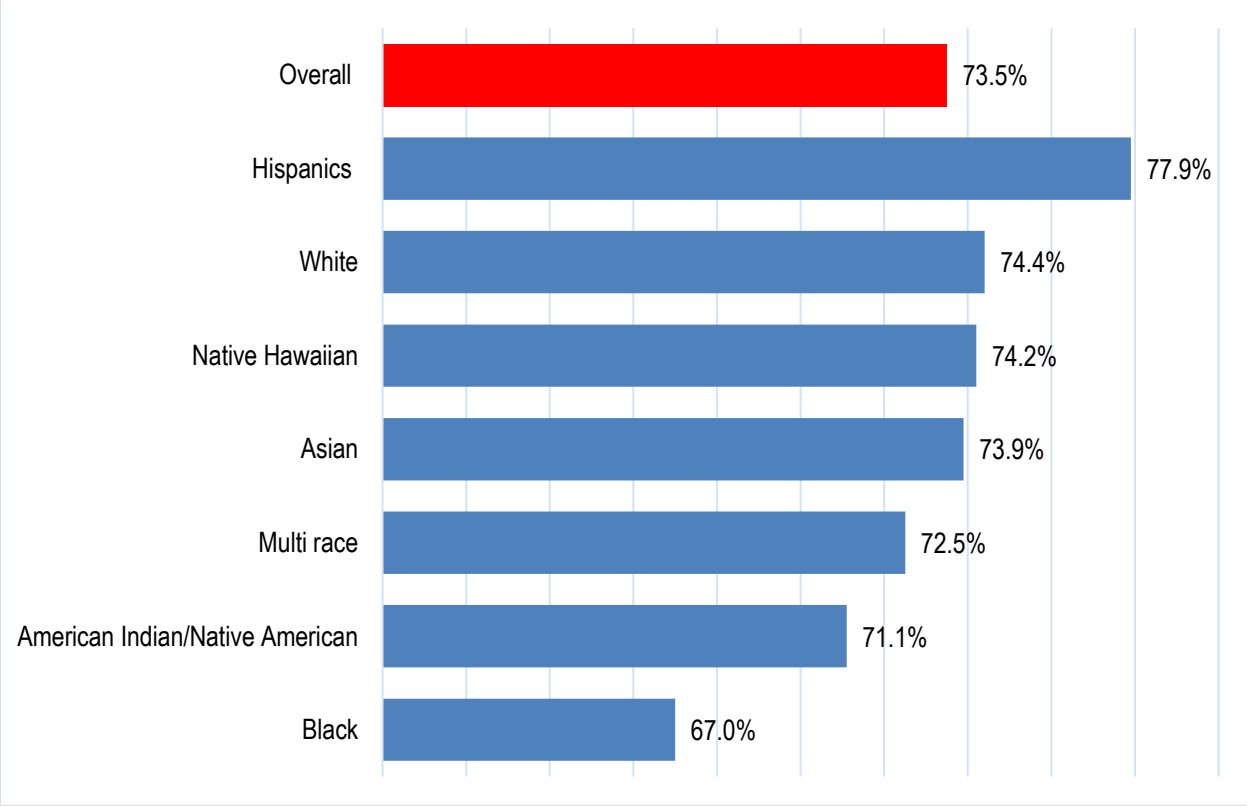
Figure 12. *Percent of women with Medicaid reimbursed deliveries who reported breastfeeding at hospital discharge, by maternal race and ethnicity, Iowa resident births, calendar year 2019*



Breastfeeding at hospital discharge by maternal age: Women between the ages of 30 to 34 reported the highest percentage of breastfeeding at hospital discharge (75.4%). See Figure 13. The lowest percentage of women who reported breastfeeding at hospital discharge was among women 18 years of age and younger (63.4%).

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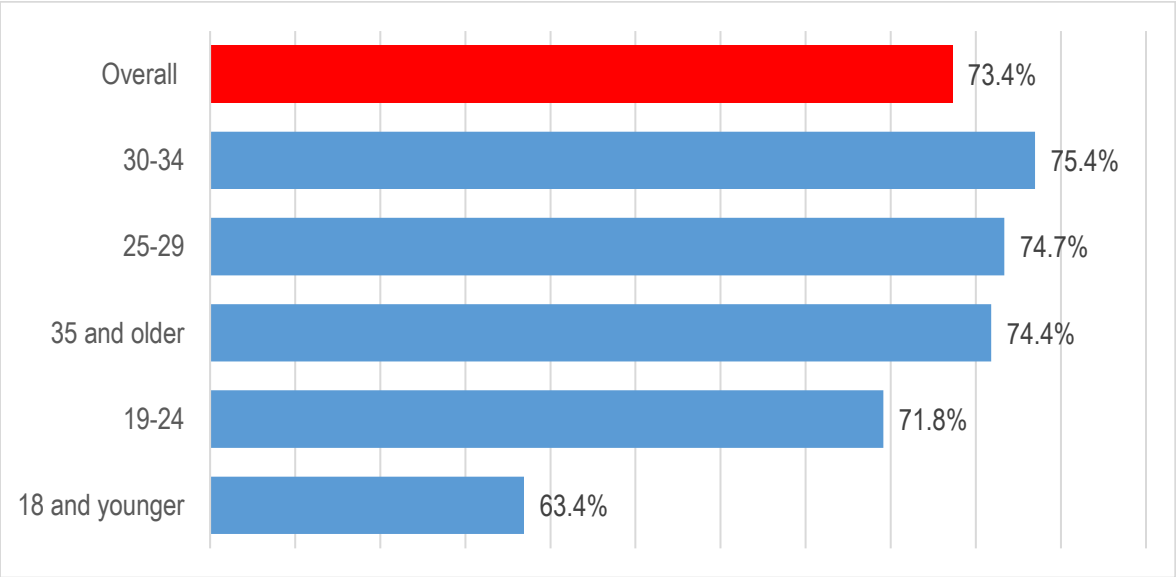
Figure 13. *Percent of women with Medicaid reimbursed deliveries who reported breastfeeding at hospital discharge, by maternal age, Iowa resident births, calendar year 2019*



The Ten Steps to Successful Breastfeeding provide an evidence-based strategy shown to increase breastfeeding rates and duration. It is a framework that guides the Baby-Friendly Hospital Initiative. However, this evidence-based strategy in not readily accessible to all Iowan families. Lack of accessibility to the Ten Steps to Successful Breastfeeding is most prevalent among Iowans who also experience health disparities, and have the greatest need for support in order to be successful at breastfeeding. Iowa is addressing this need by convening stakeholders from various sectors to develop an actionable strategic plan to maximize breastfeeding support and improve breastfeeding rates for all Iowan mothers.

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Birth outcomes overall and by selected characteristics among women with Medicaid reimbursed deliveries

Table 5. Number and percent of LBW[5] infants by Medicaid status and State Total, 2016-2019, Iowa resident births

	Medicaid		Non-Medicaid		State Total	
Year	Number	%	Number	%	Number	%
2019	1,153	7.6	1,367	6.1	2,520	6.7
2018	1,217	7.4	1,357	6.4	2,574	6.8
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

The overall percent of infants born at a low birth weight to Iowa residents did not decrease significantly in 2018 (6.7%) compared to 2019 (6.7%) (Table 5). Healthy People 2020 has proposed a goal low birth weight rate of 7.8% by 2020. Iowa has achieved this goal overall and among women with Medicaid reimbursed deliveries.

Mothers with Medicaid reimbursed deliveries gave birth to low birth weight infants at a significantly higher percentage than mothers with other payment sources for delivery.

Infant low birth weight by maternal race and ethnicity: Because of small numbers, figures for the percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries are grouped in a different manner than other outcomes presented in this report. By race and ethnicity, the highest percentage of infants born at a low birth weight was among non-Hispanic Black women (10.8%; n=256). See Figure 14. The lowest percentage of infants born at a low birth weight was among non-Hispanic women of other races (6.0%; n=48).

[5] Infant LBW = infant birth weight of <=2500 grams. LBW calculation includes VLBW infants.

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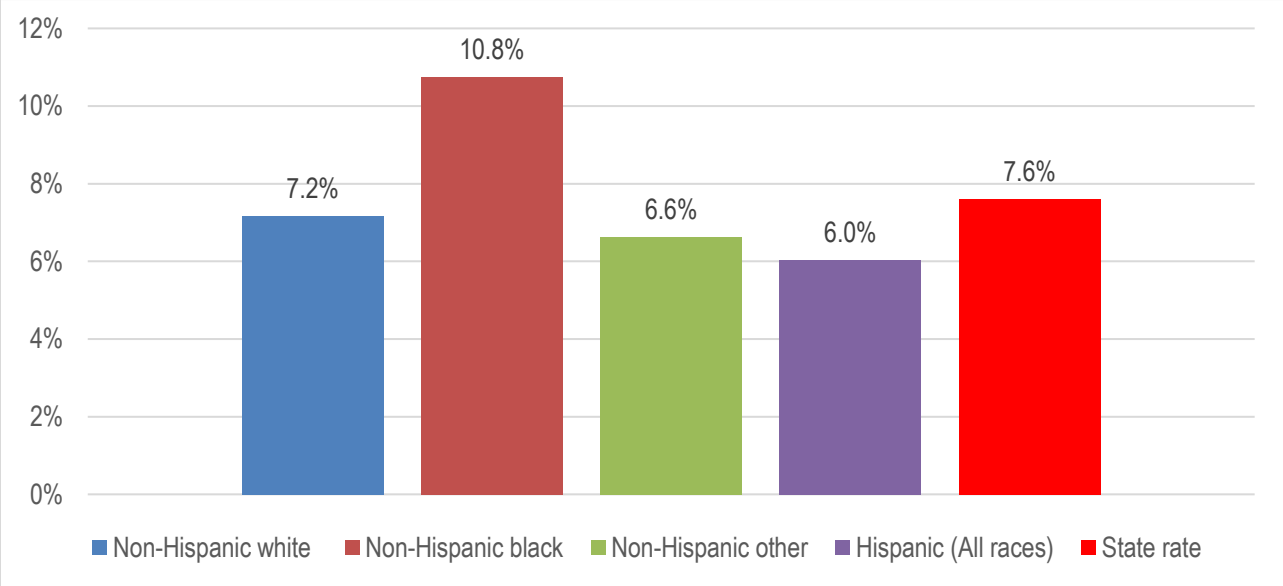
Figure 14. *Percent of infant born at a low birth weight among women with Medicaid reimbursed deliveries, by maternal race and ethnicity, Iowa resident births, calendar year 2019*



The percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries was significantly higher among non-Hispanic Black women than women of other races and ethnicities (Figure 14).

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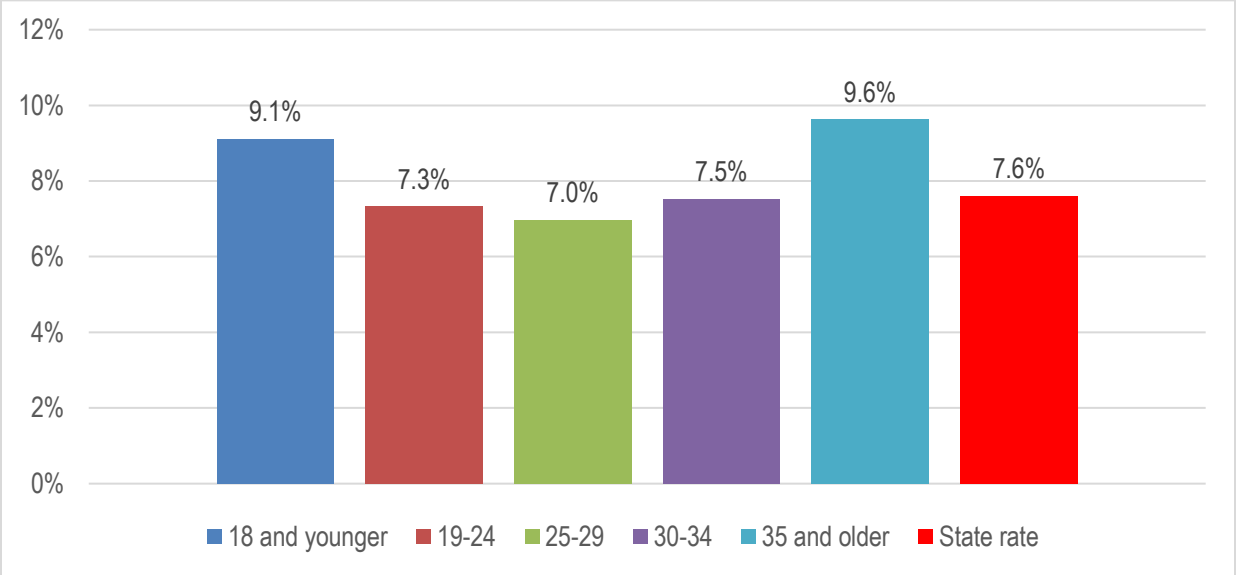
Infant low birth weight by mother's age: By age, the highest percentages of infants born at a low birth weight were among women ages 35 and older and women 18 and younger (9.6%; n= 155 and 9.1%; n=52 respectively). See Figure 15. The lowest percentage of infants born at a low birth weight was among women ages 25 to 29 (7.0%; n=350).

Figure 15. *Percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries, by maternal age, Iowa resident births, calendar year 2019*



The percent of infants born at a low birth weight among women with Medicaid reimbursed deliveries was significantly higher among women 35 and older and women 18 and younger compared to women in other age groups. (Figure 15).

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Table 6. Number and percent of infants born prematurely[6] infants by Medicaid status and State Total, 2016-2019, Iowa resident births

	Medicaid		Non-Medicaid		State Total	
Year	**Number**	**%**	**Number**	**%**	**Number**	**%**
2019	1,540	10.1	2,023	9.2	3,563	9.5
2018	1,676	10.2	2,052	9.6	3,728	9.9
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

The overall percent of infants born prematurely to Iowa residents did not decrease significantly from 2018 (9.9%) to 2019 (9.5%) (Table 6). Healthy People 2020 has proposed a goal prematurity rate of 9.4% by 2020.

The percent of infants born prematurely was significantly higher among mothers with Medicaid reimbursed deliveries than that of mothers with other payment sources for delivery.

Iowa's prematurity rate rose from a "C" in 2019 to a grade of "C+" in the 2020 March of Dimes Premature Births Report Card. In 2018, Iowa received a grade of "B" based on the 2018 March of Dimes Premature Report Card. The March of Dimes prematurity goal is to reach a rate of 8.1% by 2020.

Infant preterm birth by maternal race and ethnicity: Because of small numbers, figures for the percent of infants born prematurely among women with Medicaid reimbursed deliveries are grouped in a different manner than other outcomes presented in this report. By race and ethnicity, the highest percentage of infants born prematurely was among non-Hispanic Black women (11.7%; n=278). Figure 16. The lowest percentage of infants born prematurely was among Hispanic women (9.6%; n=2,338).

[6] 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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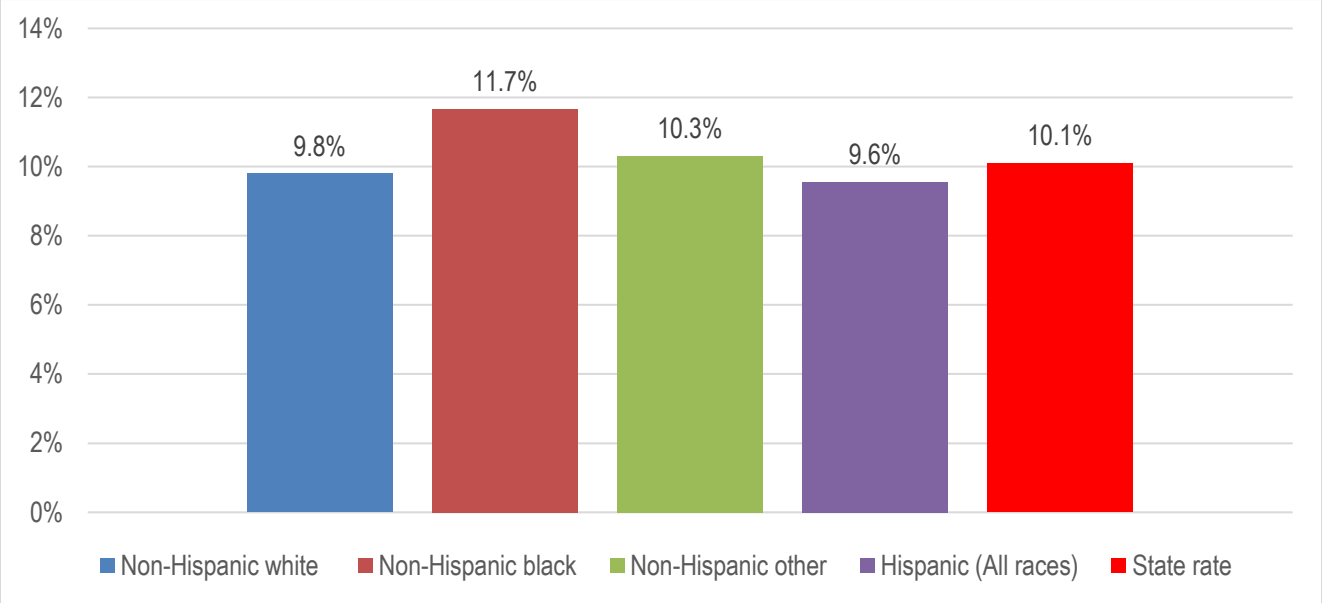
Figure 16. *Percent of infants born prematurely among women with Medicaid reimbursed deliveries, by maternal race and ethnicity, Iowa resident births, calendar year 2019*



The percent of infants born prematurely among women with Medicaid reimbursed deliveries was significantly higher among non-Hispanic Black women compared to non-Hispanic White women and Hispanic women. (Figure 16). The percent of infants born prematurely among women with Medicaid reimbursed deliveries was **not** significantly higher among non-Hispanic women of other races compared to non-Hispanic White women and Hispanic women.

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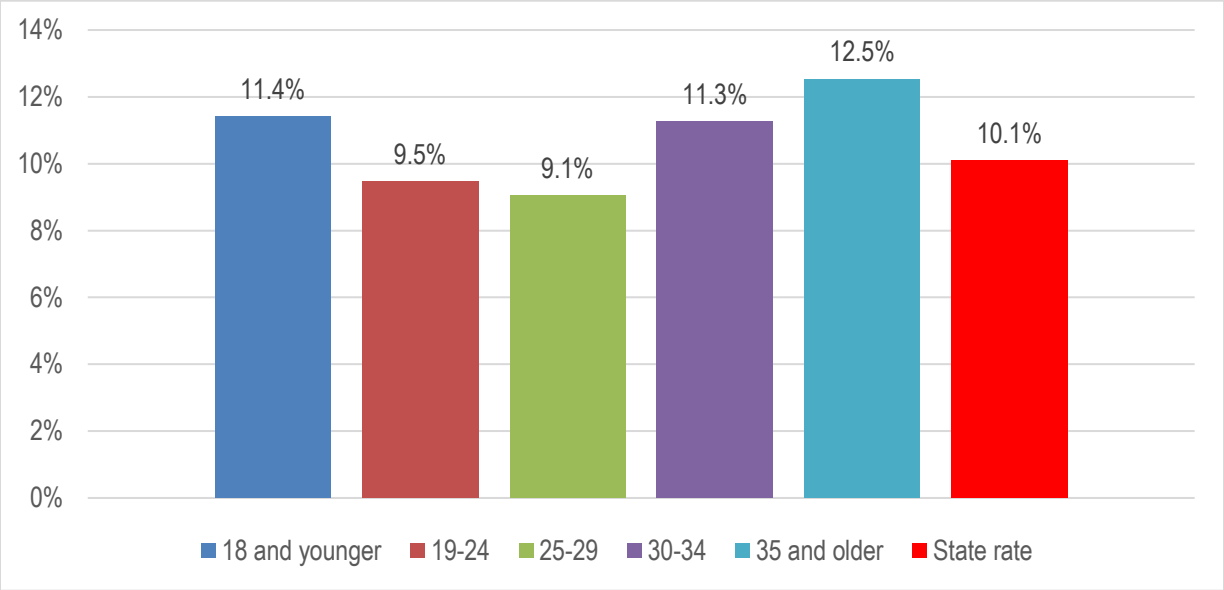
Infant preterm birth by age: By age, the highest percentages of infants born prematurely were among women ages 35 and older and women 18 and younger (12.5%; n=202 and 11.4%; n=65 respectively). See Figure 17. The lowest percentage of infants born prematurely was among women ages 25 to 29 (9.1%; n=454).

Figure 17. *Percent of infants born prematurely among women with Medicaid reimbursed deliveries, by maternal age, Iowa resident births, calendar year 2019*



The percent of infants born prematurely among women with Medicaid reimbursed deliveries was significantly higher among women ages 35 and older and among women ages 30 to 35 compared to women in other age groups. (Figure 17). The percent of infants born prematurely among women ages 18 and younger was higher than women between the ages of 19 and 24 and between the ages of 25 and 29. However the difference was not statistically significant.

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County level maps of selected characteristics

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Figure 1. ***Medicaid reimbursed deliveries by county and level of rurality, Iowa resident births, CY 2019***

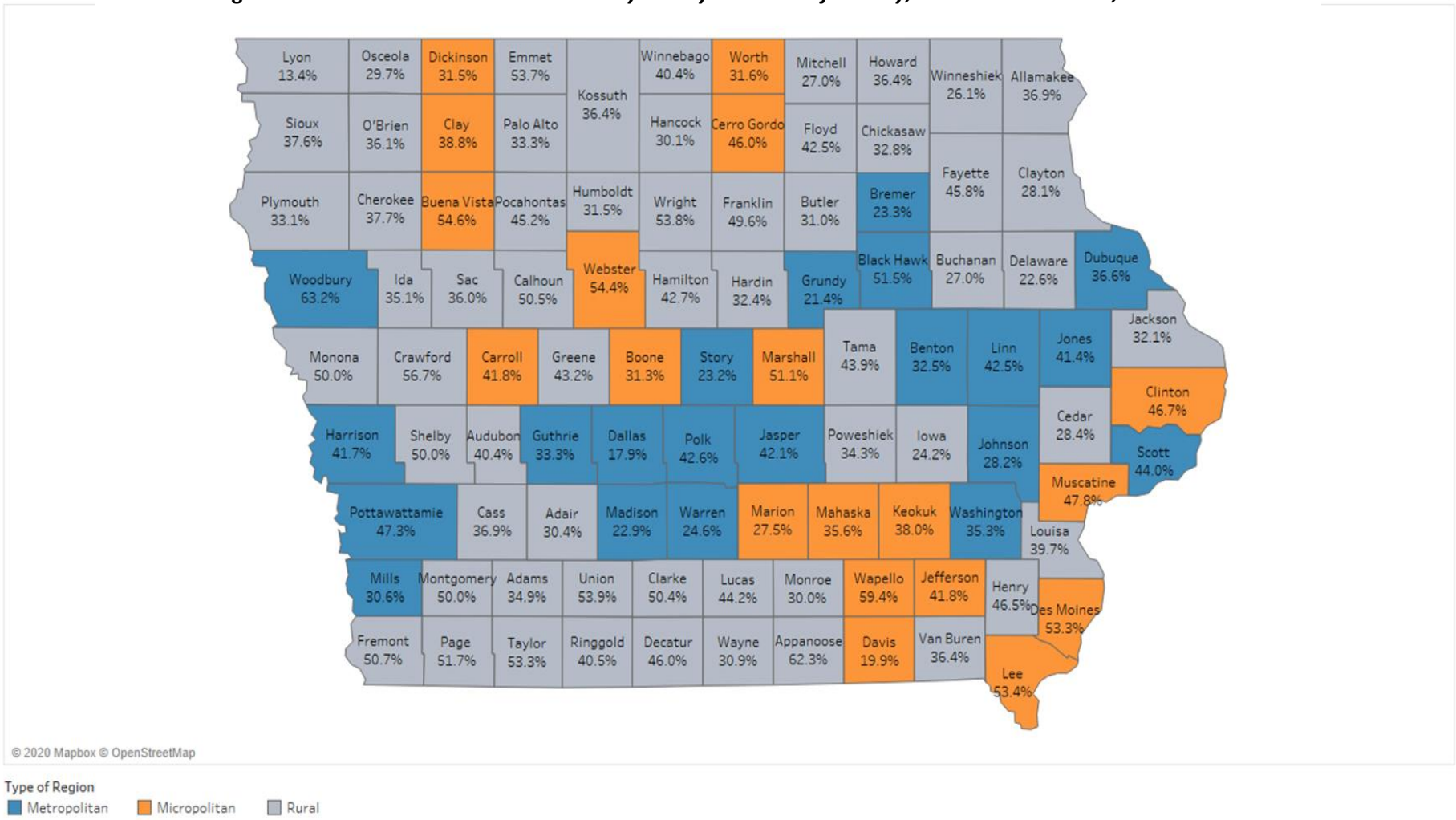

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Figure 5. ***Percent of women with Medicaid reimbursed deliveries who initiated prenatal care during their first trimester, by county level availability of OB units, resident births, Iowa 2019***

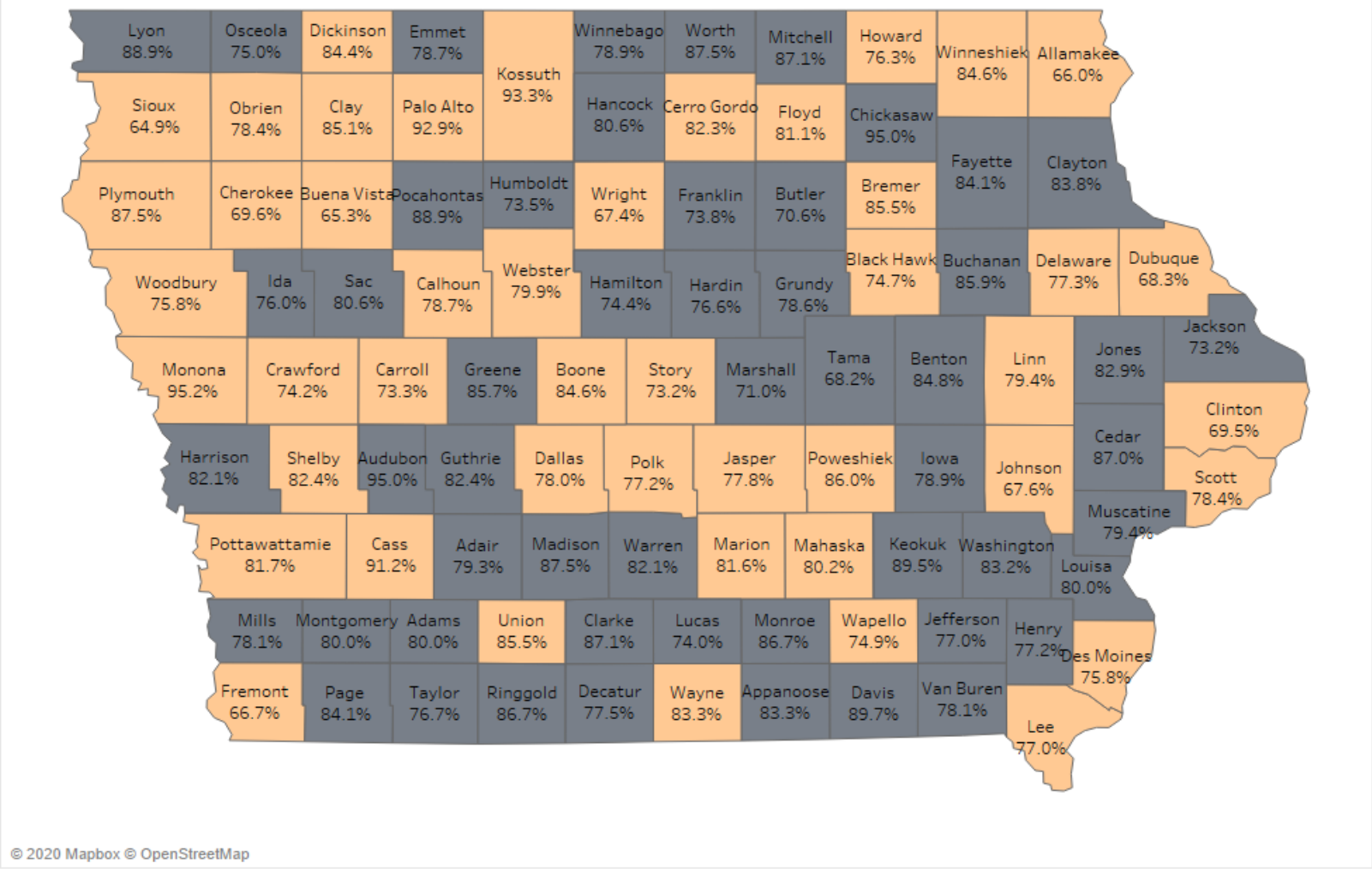

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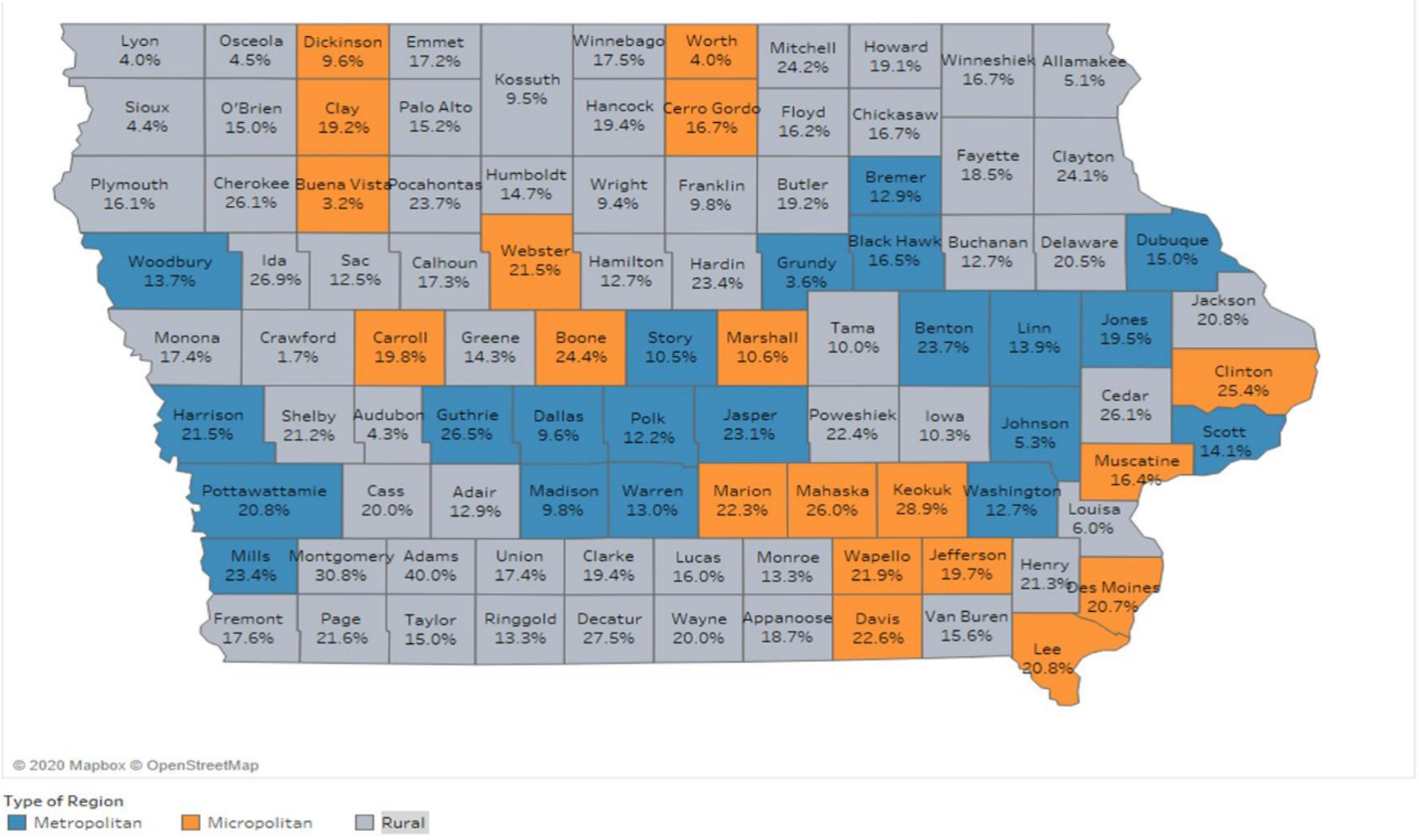
Figure 9. ***The percent of women who reported third trimester smoking by county and level of rurality, Iowa resident births, CY 2019***



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Appendix A

Race and ethnicity categorizations for this report

This report uses the certificate of live birth to determine the mother's race and ethnicity. Race and ethnicity information are collected on the "Official Worksheet to Establish Legal Certification of Live Birth – Birth Mother's Worksheet". On this worksheet mothers self-report their race and ethnicity.

Ethnicity: For ethnicity the mother is asked the following: Is the birth mother of Spanish/Hispanic/Latina origin? (Check Yes or No. If yes, *specify*). The response options are as follows: No, not Spanish/Hispanic/Latina or Yes with the option to select Mexican, Mexican American, Chicana, or Puerto Rican or Cuban, or other (*specify*).
Ethnicity is then re-coded into two categories – Hispanic or non-Hispanic.

Race: For race, the mother is asked the following (she may select more than one race): Race that birth mother considers herself to be. The response options are as follows: White, Black or African American, American Indian or Alaska Native (*Specify*), Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian (*Specify*), Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander (*Specify*) or Other (*Specify*).
Race is grouped as follows when reported in six categories:

1. American Indian/Native American
2. Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian)
3. Black or African American
4. Multi race (American Indian/Native American, Asian or Pacific Islander, Black, or White)
5. Native Hawaiian (Native Hawaiian, Guamanian or Chamorro, Samoan, Other Pacific Islander)
6. White

The category of "Other" was excluded from the analysis because it provided no information beyond the word other. This category contributed 3.6% (n=1,344) to the 2019 birth cohort. When possible race was reported using six categories plus a category for ethnicity. It may be possible to gain insight into the race group "Other" through examination of other birth certificate variables. Women can refuse to complete this section of the worksheet and typically approximately 1.1% (n=~400) of birth certificates are missing race information.

Combined race and ethnicity: To facilitate statistical testing it was necessary to combine race and ethnicity into the following categories:

1. Non-Hispanic White
2. Non-Hispanic Black
3. Non-Hispanic other (includes all other races [1, 2, 4, & 5 from the list of races]
4. Hispanic (Of any race)