



**Access to Obstetrical Care in Iowa:  
A Report to the Iowa State Legislature - Calendar year 2018**



**Division of Health Promotion & Chronic Disease Prevention - Bureau of Family Health**

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**Iowa Department of Public Health**  
Protecting and Improving the Health of Iowans



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## **Access to Obstetrical Care in Iowa: A Report to the Iowa State Legislature Calendar Year 2018**

### **Introduction**

This report has been prepared annually in response to a 1997 mandate that amended Iowa Code 135.11, Section 16 (2015 Iowa Code), to require:

*16. Consult with the Office of Statewide Clinical Education Programs at the University of Iowa Carver College of Medicine and annually submit a report to the general assembly by January 15 verifying the number of physicians in active practice in Iowa by county who are engaged in providing obstetrical care. To the extent data are readily available, the report shall include information concerning the number of deliveries per year by specialty and county, the age of physicians performing deliveries, and the number of current year graduates of the University of Iowa Carver College of Medicine and the Des Moines University College of Osteopathic Medicine entering into residency programs in obstetrics & gynecology, and family medicine. The report may include additional data relating to access to obstetrical services that may be available.*

### **Report to the 2020 Legislature**

The Iowa Department of Public Health (IDPH), Division of Health Promotion & Chronic Disease Prevention, Bureau of Family Health, respectfully submits this report in response to the legislative mandate. The data summarized in this report provide an overview of the obstetrical workforce in Iowa for calendar years 2014 through 2018.

This report uses birth certificate data to generate the number and percent of licensed providers who provide deliveries in our state. Birth certificate data are linked to data from the [University of Iowa-Carver College of Medicine-Office of Statewide Clinical Education Programs](#) (OSCEP) to obtain demographic and physician specialty information.

### **Maternity unit closures and workforce development:**

Between the years 2000 and 2018, thirty-four community level hospitals have discontinued their maternity services. [Figure 1](#) provides county level distribution of maternity services. IDPH in partnership with OSCEP and the University of Iowa Department of Obstetrics and Gynecology (UI) has begun to examine Iowans' access to maternity and prenatal care. Provisional results suggest that women's prenatal care access is generally preserved and a high proportion of women have obtained adequate prenatal care, based on an index of prenatal care adequacy. Of concern is a rising number of rural-residing women at risk to deliver outside of a labor and delivery unit and the high rates of maternal transfers. We will continue to monitor these trends and develop strategies to address the trends.

IDPH was recently awarded a [State Maternal Health Innovation Support and Implementation Program grant](#) from the Health Resources and Services Administration, with the goal to develop a perinatal quality care collaborative, improve state-level maternal health data and surveillance, and promote and execute innovation in maternal health service delivery. IDPH will contract with the UI to implement the project, with a specific focus on workforce development.

Workforce initiatives include development of a family medicine obstetric fellowship, rural track

OB/GYN residency, rural-population medical training for current residents and fellows, and a certified nurse midwifery program at the UI.

**Definitions:**

The categories of providers who perform deliveries and who are included in this report are defined as follows:

- An obstetrician/gynecologist physician has either an MD or DO degree and has completed a four-year obstetrics/gynecology residency. This specialty is devoted to medical and surgical care to women and has particular expertise in pregnancy, childbirth and disorders of the reproductive system.
- A family medicine physician has either an MD or DO degree and has completed a three-year family medicine residency. This specialty is devoted to comprehensive care for people of all ages. Often family medicine physicians do not perform surgical deliveries (cesarean sections.)
- An ARNP/CNM (Advanced Registered Nurse Practitioner/Certified Nurse Midwife) is a registered nurse who has completed a midwifery education program and has passed a national certification examination. CNMs tend to care for low-risk pregnant women. Most have a physician as back up if complications arise.
- A resident is a physician (one who holds the degree of MD or DO) who practices medicine usually in a hospital or clinic under the direct or indirect supervision of an attending physician. Successful completion of a residency program is a requirement to obtaining an unrestricted license to practice medicine in Iowa.

**National Data<sup>1</sup>**

- According to Rayburn<sup>2</sup> (2017), there were 4.5 obstetricians-gynecologists per 10,000 women of reproductive age<sup>3</sup> in the United States. In the same publication, Rayburn reported that there were 3.3 obstetricians-gynecologists per 10,000 WRA in Iowa.

**2018 Iowa Population and Provider Information**

- 2018 estimated total Iowa population: 3,156,145<sup>4</sup>
- 2018 estimated Iowan women of reproductive age: 594,866<sup>3</sup>

**Table 1. Rate of physicians per 10,000 women of reproductive age, 2015-2018**

Year	Physicians <sup>5</sup>	Obstetricians-Gynecologists
2018	10.7	4.2
2017	10.5	4.1
2016	11.4	4.1
2015	11.5	3.9

<sup>1</sup> The rates reported by the Rayburn report differ from those in this report because the report methods differ.

<sup>2</sup> Rayburn WF. *The Obstetrician-Gynecologist Workforce in the United States: Facts, Figures, and Implications, 2017*. The Office of Workforce Studies and Planning of the American Congress of Obstetricians and Gynecologists: Washington D.C.

<sup>3</sup> Women of reproductive age are defined as women between the ages of 14 and 44.

<sup>4</sup> U.S Census Bureau

<sup>5</sup> The total number of delivering physicians includes obstetricians, family medicine physicians and other types of physicians. It excludes resident physicians.

**Table 2. Count of unique licensed providers who delivered at least one infant, Iowa 2014-2018**

	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
<i>Provider Type</i>	<i>Count of Providers</i>				
<i>Obstetricians &amp; Gynecologists</i>	230	231	245	244	252
<i>Family Medicine</i>	328	370	350	311	324
<i>Other Physicians</i>	93	76	76	66	59
<i>Residents<sup>6</sup></i>	94	48	62	88	47
<i>CNM/ARNP</i>	97	74	79	76	91
<i>Total</i>	832	799	812	785	773

See [Figure 2<sup>7</sup>](#) for the count and distribution of general obstetrician & gynecologist physicians by rural and urban counties, 2018. The urban and rural designation is that used by the University of Iowa-Carver College of Medicine-Office of Statewide Clinical Education Programs

**Table 3. Count and percent of deliveries by provider type, Iowa, 2014 -2018**

<i>Year</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
<i>Provider Type</i>	Number (%)				
<i>Obstetricians &amp; Gynecologists</i>	25,338 (67.2)	27,171 (68.8)	26,909 (68.8)	26,552 (69.4)	26,117 (69.4)
<i>Family Medicine</i>	6,414 (17.0)	6,721 (17.0)	6,351 (16.3)	5,885 (15.4)	5,805 (15.4)
<i>Other Physician<sup>8</sup></i>	1,625 (4.3)	1,578 (4.0)	1,363 (3.5)	1,059 (2.8)	955 (2.5)
<i>Residents</i>	744 (2.0)	292 (0.7)	418 (1.1)	486 (1.3)	235 (0.6)
<i>CNM/ARNP</i>	3,221 (8.5)	3,433 (8.7)	3,691 (9.4)	3,923 (10.3)	4,109 (10.9)
<i>Unlicensed other<sup>9</sup></i>	360 (1.0)	294 (0.8)	344 (0.9)	361 (0.9)	420 (1.1)
<i>Total<sup>10</sup></i>	37,702	39,489	39,076	38,266	37,641

See [Figure 3](#) for the percent of deliveries by general obstetrician & gynecologist physicians and by county, calendar year 2018. See [Figure 4](#) for the percent of deliveries by family medicine

<sup>6</sup> Number may underestimate true count because supervising physician may be reported as delivery provider

<sup>7</sup> Data source: Iowa Health Professional Tracking Center, Office of State Wide Clinical Education Program, UI Carver College of Medicine, May 2019

<sup>8</sup> Other physicians include maternal/fetal medicine specialists, emergency room physicians and general surgeons (who perform cesarean sections for family medicine patients) as well as those without an identifiable specialty.

<sup>9</sup> Unlicensed persons such as lay midwives, registered nurses, EMT staff, and family members

<sup>10</sup> Excludes values for which provider information is unknown or missing

physicians and by county, calendar year 2018. See [Figure 5](#)<sup>11</sup> for the percent of deliveries by nurse midwives and by county, calendar year 2018.

**Table 4. Demographic information for unique licensed providers who delivered at least one infant, Iowa 2018**

<i>Provider Type</i>	<i>Provider Count</i>	<i>Avg. Age, Delivering Males</i>	<i>Avg. Age Delivering Females</i>	<i>% Delivery Providers, Male</i>	<i>% Delivery Providers, Female</i>
<i>Obstetricians &amp; Gynecologists</i>	252	54.6	41.4	39.7	60.3
<i>Family Medicine</i>	324	44.1	38.4	54.3	45.7
<i>Other Physicians</i> <sup>12</sup>	59	50.4	42.1	76.3	23.7

**Table 5. University of Iowa, Carver College of Medicine, Obstetrics & Gynecology and Family Medicine Residency Programs**<sup>13</sup>

<i>Specialty</i>	<i>Total # Residents Graduating in 2019</i>	<i>Total # Continuing Education (Specializing)</i>	<i>Total # Entering Practice</i>	<i>Total # entering an Iowa Practice</i>
<i>Obstetrics &amp; Gynecology</i>	5	3	2	0
<i>Family Medicine</i>	58	4	54	34

**Table 6. Iowa medical school 2018 graduates obtaining a residency position in obstetrics & gynecology (OBGYN) or family medicine (FM) through the National Resident Matching Program**<sup>14</sup>

<i>University</i>	<i># Students Matching in OB-Gyn Residency</i>	<i># Students Matching in UI OB-Gyn Residency Program</i>	<i># Students Matching in Family Medicine Residency</i>	<i># Students Matching in an Iowa Based FM Residency Program</i>
<i>U of I Carver College of Medicine</i>	3	2	15	4
<i>Des Moines University of Osteopathic Medicine</i>	10	0	54	15

<sup>11</sup> Figures 3 through 5 exclude deliveries by other physicians, residents, and unlicensed persons.

<sup>12</sup> Includes maternal/fetal medicine specialists, emergency room physicians and general surgeons, and unspecified other physicians; excludes resident physicians.

<sup>13</sup> University of Iowa Graduate Medical Education Program

<sup>14</sup> Data sources - [University of Iowa 2017 Match Results](#) and [Des Moines University 2017 Match Results](#)

**Table 7. Family Medicine Residents by Location and Year, 2018<sup>15</sup>**

<i>Residency Location</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>3rd year</i>	<i>Total</i>
<i>Cedar Rapids Medical Education</i>	7	7	7	21
<i>Genesis Health System - Davenport</i>	6	6	6	18
<i>Broadlawns Medical Center - Des Moines</i>	8	8	8	24
<i>MercyOne Medical Center – Des Moines</i>	8	8	8	24
<i>UnityPoint - Iowa Lutheran – Des Moines</i>	6	6	6	18
<i>University of Iowa Hospitals and Clinics</i>	6	6	6	18
<i>MercyOne Medical Center - Mason City</i>	6	6	6	18
<i>Siouxland Medical Education Foundation – Sioux City</i>	6	6	6	18
<i>Northeast Iowa Medical Education Foundation - Waterloo</i>	6	6	6	18
<i>Total</i>	<b>59</b>	<b>59</b>	<b>59</b>	<b>177</b>

**Table 8. Obstetrics & Gynecology Residents by Location and Year, 2018<sup>16</sup>**

<i>Residency Location</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>3rd Year</i>	<i>4th Year</i>	<i>Total</i>
<i>University of Iowa Hospitals and Clinics</i>	5	5	5	5	<b>20</b>

### **Perinatal Regionalization in Iowa**

Iowa’s regionalized perinatal care system stratifies maternal and neonatal care into levels of complexity based on the women’s risk for obstetrical complications and/or on the risk that her newborn may experience an adverse birth outcome. The regionalized system of care functions to assure that women at risk to experience delivery complications or at risk to deliver an infant at risk for adverse birth outcomes receive services at centers with the appropriate resources and personnel to address the complex needs of these women and newborns. This regionalized system of care helps ensure the quality of perinatal care throughout the state.

The current level of care system continued through calendar year 2018 with three distinct care levels. Level 1 centers provide basic care; Level 2 centers provide specialty care, with further subdivisions within this level; Level 3 centers provide subspecialty care for critically ill newborns and high risk pregnant women. Table 8 displays the number of births by hospital level for calendar years 2014 through 2018.

In July of 2018, the Iowa Legislature updated [Administrative Rule Chapter 150 Iowa Regionalized System of Perinatal Health](#). The revised levels of care include four separate categories each for maternal and neonatal care. The levels of care are based on national

<sup>15</sup> Data obtained from publicly available organizational websites.

<sup>16</sup> Data source: University of Iowa Graduate Medical Education Program

recommendations from the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists.

**Table 9: Occurrent Births by Hospital Level of Care, 2014-2018**

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b><i>OB Level (# of hospitals <sup>17</sup>)</i></b>	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
<i>Non-hospital births<sup>18</sup></i>	532 (1.4)	432 (1.1)	549 (1.4)	500 (1.3)	560 (1.5)
<i>Level 1 (42)</i>	9,571 (25.4)	9,746 (24.7)	9,625 (24.6)	9,134 (23.9)	8,487 (22.6)
<i>Level 2 (13)</i>	8,454 (22.4)	8,964 (22.7)	8,988 (23.0)	9,058 (23.7)	8,932 (23.7)
<i>Level 2 Regional (4)</i>	4,646 (12.3)	5,300 (13.4)	5,111 (13.1)	4,843 (12.7)	4,833 (12.8)
<i>Level 2 Regional Neonatal (2)</i>	4,260 (11.3)	4,690 (11.9)	4,333 (11.1)	4,207 (11.0)	4,275 (11.4)
<i>Level 3 (3)</i>	10,240 (27.2)	10,351 (26.2)	10,488 (26.8)	10,542 (27.5)	10,554 (28.0)
<i>Total</i>	37,703	39,483 <sup>19</sup>	39,094	38,284	37,641

The percent of deliveries at Level 1 hospitals has decreased by 11.0% from the 2014 through 2018 (25.4% - 22.6%). In contrast, the percent of deliveries increased by 5.8% at Level 2 hospitals (22.4% - 23.7%), followed by an increase of 4.1% at Level 2 Regional hospitals (12.3% - 12.8%), and by 2.9% at Level 3 hospitals (27.2% - 28.0%) during the same time period. The percent change of deliveries at Level 2 Regional Neonatal hospital was less than 1%.

See [Figure 6](#) for a count of deliveries by county for calendar year 2018.

<sup>17</sup> Number of hospitals by level as of 12.31.2018

<sup>18</sup> Includes home births and births that occurred outside of hospital

<sup>19</sup> n=6 missing place of delivery for calendar year 2015

Figure 1. County level availability of maternity delivery services, 2000 - 2018

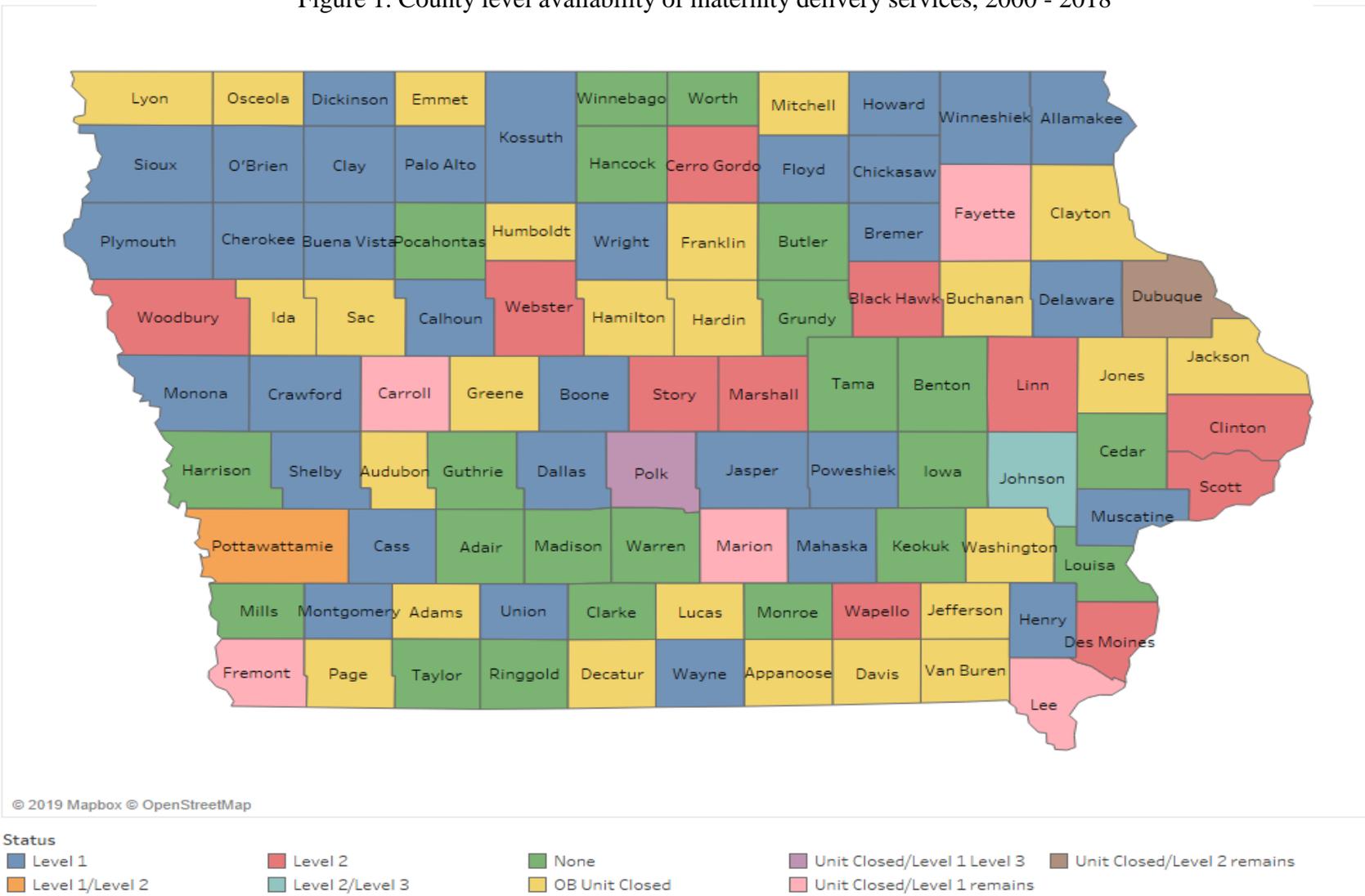


Figure 2. Count and distribution of OB/GYN physicians (n=245) by rural or urban county, 2018

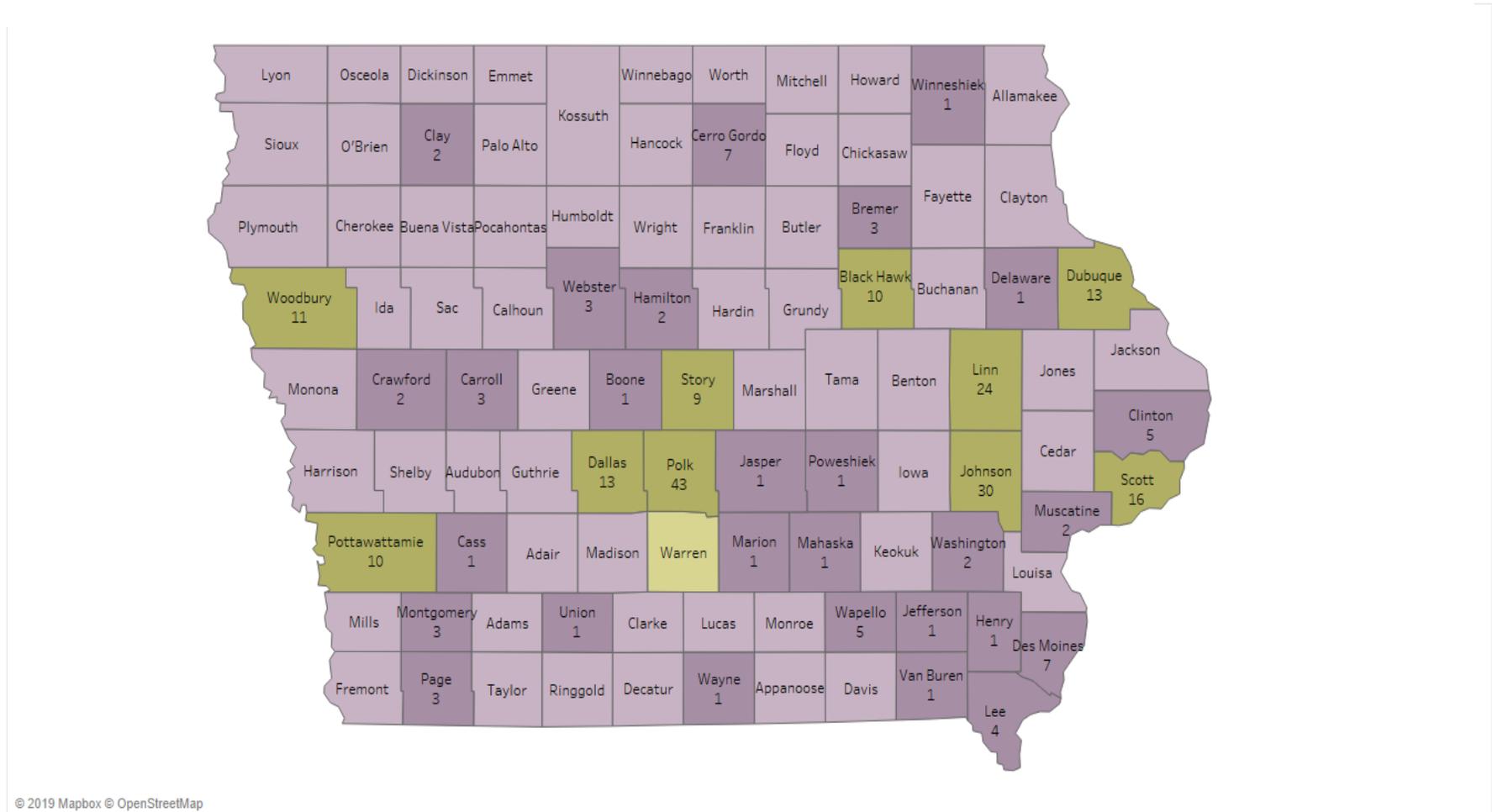


Figure 3. Percent of deliveries by Obstetricians/Gynecologists, by county, calendar year 2018

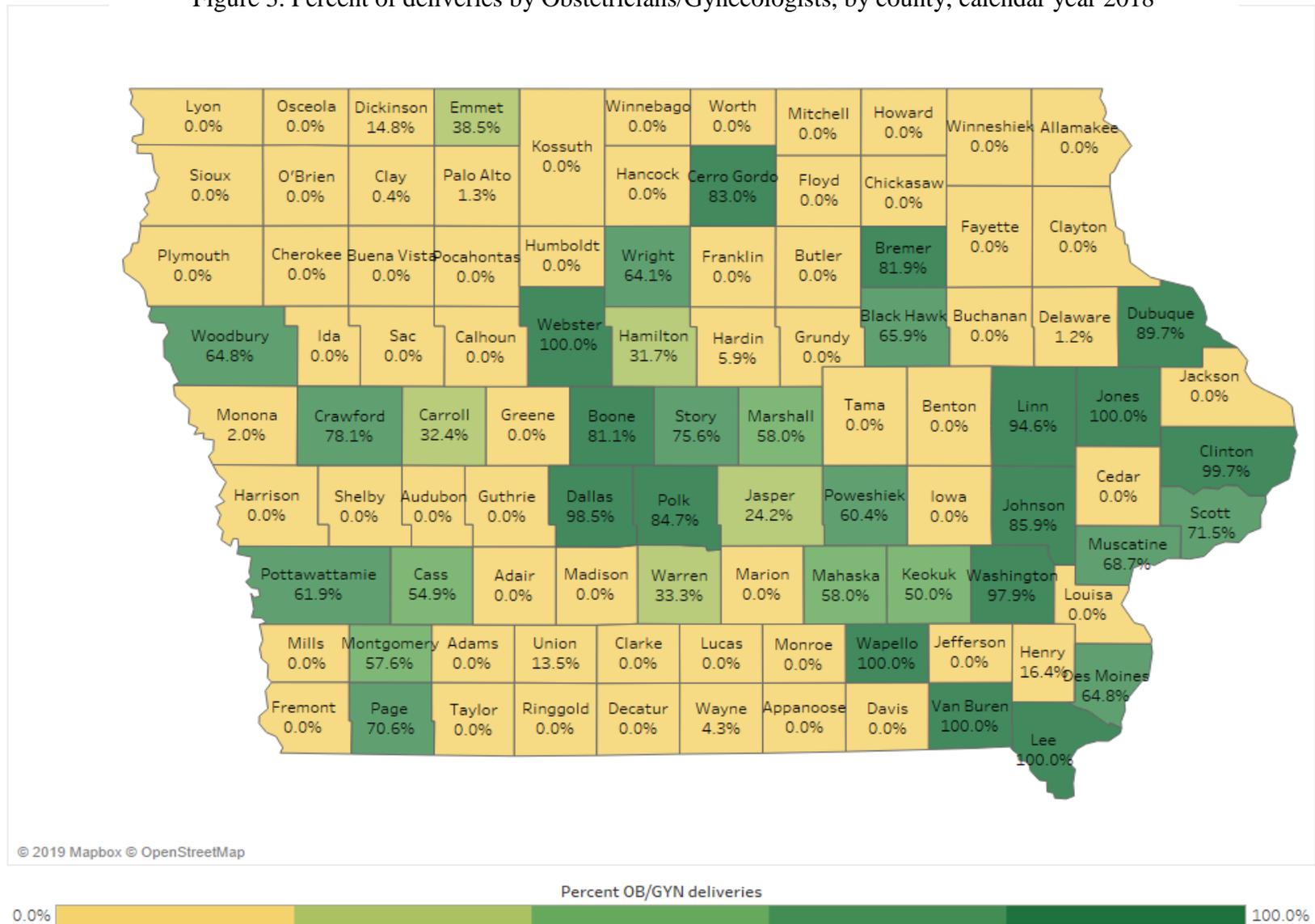


Figure 4. Percent deliveries by Family Medicine physicians, by county, calendar year 2018

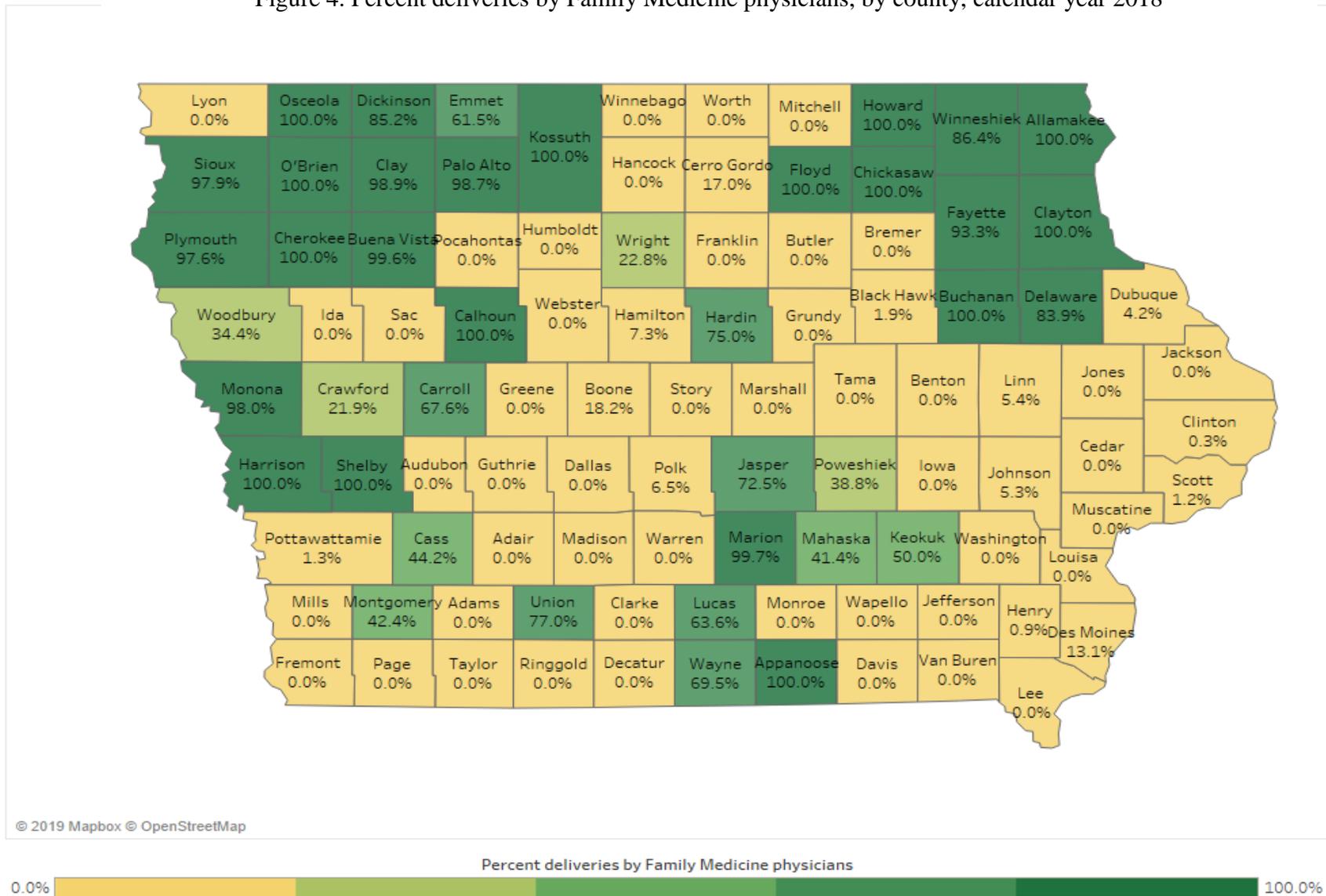


Figure 5. Percent deliveries by Nurse Midwives, by county, calendar year 2018

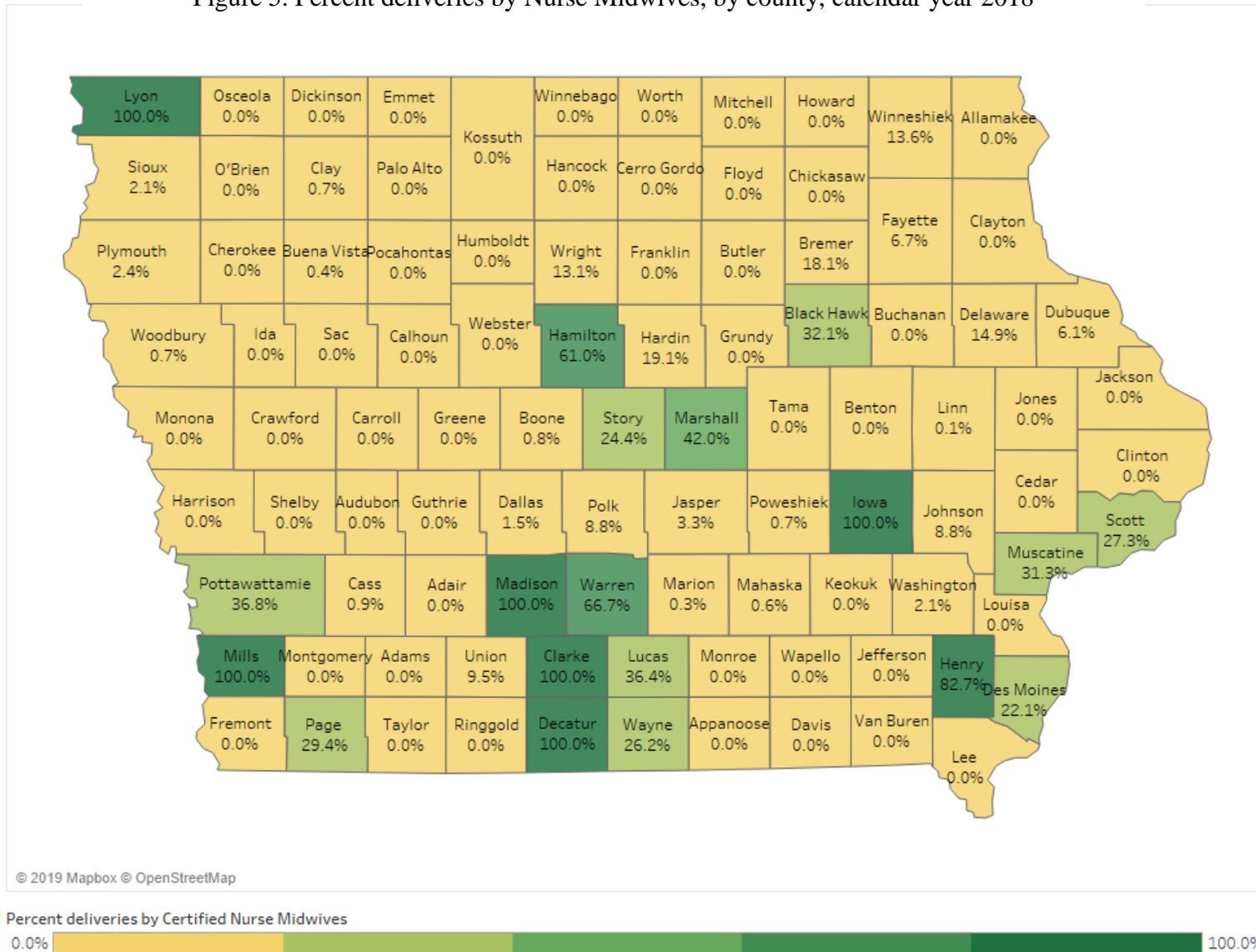


Figure 6. Count of deliveries by county, calendar year 2018 (counts of 5 or less are suppressed)

