

Iowa Department of Public Health



Obstetrical Care in Iowa: A Report on Health Care Access to the Iowa State Legislature – Year 2017

Iowa Department of Public Health, Bureau of Family Health • January 2017

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Introduction

This report has been prepared annually in response to a 1997 mandate which 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 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 College of Medicine and the Des Moines University — Osteopathic Medical Center entering into residency programs in obstetrics, gynecology, and family practice. The report may include additional data relating to access to obstetrical services that may be available.

Report to the 2017 Legislature

The Bureau of Family Health (BFH), Iowa Department of Public Health, respectfully submits this report in response to the Legislative mandate. The data summarized in this report provide an overview of the obstetric workforce in Iowa for the calendar years 2011 through 2015.

Revisions Reflected in Current Report:

In past reports, workforce information was based on all licensed physicians and advanced nurse practitioners in the state. Using this previous method, it is likely that the number and percent of providers delivering babies were overstated. In addition, the previous method did not distinguish physicians by their specialties.

To remedy these limitations and beginning with the 2015 report, we used birth certificate data to generate the number and percent of licensed providers actually performing deliveries in our state. Birth certificate data were then linked to data from the Iowa Health Professions Tracking Center (IHPTC) to obtain demographic and physician specialty information.

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 M.D. or D.O. 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 M.D. or D.O. 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 defined as 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. CNMs may perform low forceps deliveries and vacuum extractions.

- A resident is a physician (one who holds the degree of M.D. or D.O.) 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 many jurisdictions.

National Data

- According to Rayburn¹ and colleagues (2012), based on 2010 data there were 5.4 obstetricians/gynecologists per 10,000 women of reproductive age (WRA) in the United States.
- Based on the Rayburn report, Iowa was tied for 46th of 50 states, with 4.2 obstetricians/gynecologists per 10,000 WRA.
 - Rayburn and colleagues may have overestimated the rate of obstetricians/gynecologists per WRA because Rayburn used the total number of the American Congress of Obstetricians and Gynecologists (ACOG) members as a proxy for delivering physicians. In fact, not all obstetricians/gynecologists are members of ACOG, and not all ACOG members actively deliver babies.

2015 Iowa Population and Provider Information²

Following are select population estimates for the state of Iowa, calendar year 2015:

- Estimated total Iowa population: 3,123,899 ([Iowa Quick Facts](#))
- Women of Reproductive Age (WRA), 15-44: 588,384 ([US Census Bureau](#))
- Based on Iowa birth certificate data – the number of physicians that delivered an infant in 2015 per 10,000 WRA was: 11.5: 10,000 (n=677)³
- Based on Iowa birth certificate data – the number of obstetricians/gynecologists that delivered an infant in 2015 per 10,000 WRA was: 3.9: 10,000 (n=231)
 - Iowa's rate cannot be compared to that of the Rayburn report because Iowa's rate was calculated based on the number of obstetricians/gynecologists who actually delivered an infant vs. ACOG membership.
- We identified 799 unique providers (677 physicians, 48 resident physicians, and 74 advanced registered nurse practitioners/certified nurse midwives) who delivered at least one infant during calendar year 2015. Of the physicians:
 - 231 were obstetricians/gynecologists
 - 370 were family medicine physicians
 - 76 were other types of physicians⁴

¹ Rayburn WF, Klagholz JC, Murray-Krezan C, Dowell LE, & Strunk AL. (2012) Distribution of American Congress of Obstetricians and Gynecologists Fellows and Junior Fellows in Practice in the United States. *Obstetrics and Gynecology*; 119 (5) 1017-1022.

² The Rayburn report does not make recommendations for what would be considered an adequate supply and distribution of providers to meet the needs of Iowa's WRA

³ The total number of delivering physicians includes obstetricians, family medicine physicians, general surgeons, and emergency room physicians.

⁴ Includes internal medicine, pediatricians, general surgeons, and unspecified other physicians – excludes resident physicians.

Table 1: Iowa Physician Demographic Information⁵, 2015

<i>Provider Type⁶</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 & Gynecologists</i>	231	53.4	41.4	45.9	54.1
<i>Family Medicine</i>	370	43.6	37.2	56.4	43.6
<i>Other Physicians⁷</i>	76	48.9	38.0	80.5	19.5

Table 2: University of Iowa, Carver College of Medicine, Obstetrics & Gynecology and Family Medicine Residency Programs⁸

<i>Specialty</i>	<i>2016 Residents</i>	<i>2015 Alumni</i>	<i>2015 Iowa residency graduates staying in Iowa to practice</i>
<i>Obstetricians & Gynecologists</i>	10	9	1
<i>Family Medicine</i>	9	20	7

Table 3: Iowa medical school 2016 graduates obtaining a residency position in obstetrics & gynecology or family medicine through the National Resident Matching Program⁹

<i>University</i>	<i>OBGYN Residency Positions</i>	<i>OB Iowa Residency Positions</i>	<i>FM Residency Positions</i>	<i>FM Iowa Residency Positions</i>
<i>U of I Carver College of Medicine</i>	9	2/9 (22%)	24	9/24 (38%)
<i>Des Moines University of Osteopathic Medicine</i>	9	0/9 (0%)	49	16/49 (33%)

⁵ Data source: Office of Statewide Clinical Education Programs, University of Iowa Carver College of Medicine

⁶ Excludes resident physicians and advanced practice nurses

⁷ Includes maternal/fetal medicine specialists, emergency room physicians and general surgeons, and unspecified other physicians – excludes resident physicians.

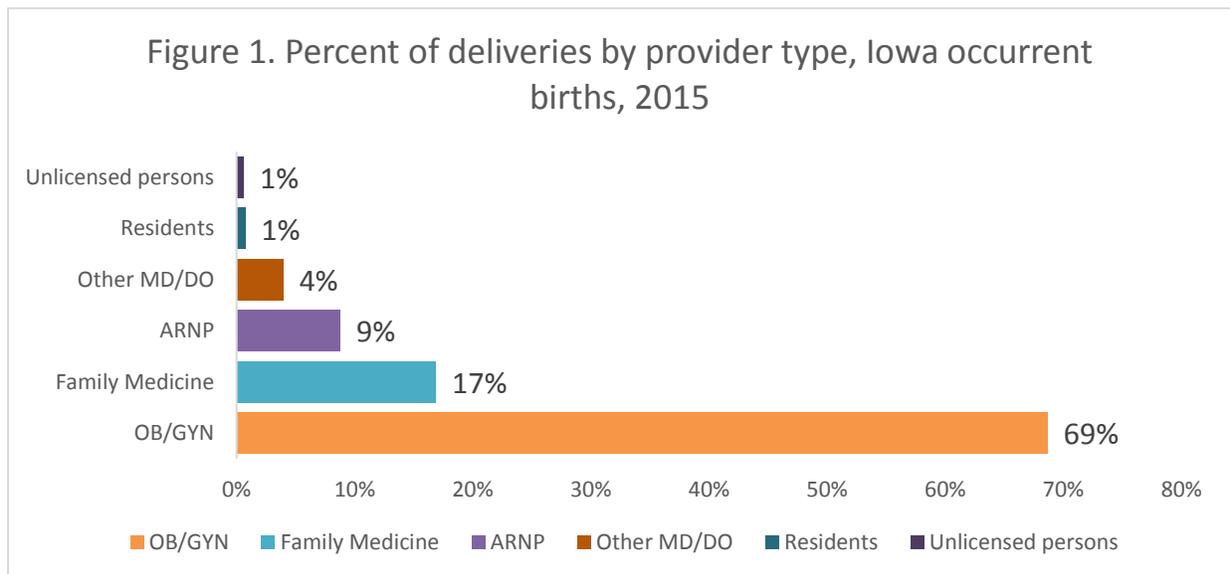
⁸ University of Iowa Graduate Medical Education Program

⁹ Data sources - [University of Iowa 2016 Match Results](#) and [Des Moines University 2016 Match Results](#)

Table 4: Number and percent of deliveries by provider type, Iowa, 2011 -2015¹⁰

<i>Year</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>
<i>Provider Type</i>	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
<i>Obstetricians & Gynecologists</i>	20,805 (60.4)	21,632 (60.2)	22,377 (60.4)	25,338 (67.2)	27,171 (68.8)
<i>Family Medicine</i>	3,525 (10.2)	3,601 (10.0)	3,847 (10.4)	6,414 (17.0)	6,721 (17.0)
<i>Other Physician¹¹</i>	7,799 (22.6)	8,196 (22.8)	8,169 (22.0)	1,625 (4.3)	1,578 (4.0)
<i>Residents</i>				744 (2.0)	292 (0.7)
<i>CNM/ARNP</i>	2,128 (6.2)	2,322 (6.5)	2,516 (6.7)	3,221 (8.5)	3,433 (8.7)
<i>Unlicensed other¹²</i>	193 (0.6)	163 (0.4)	156 (0.4)	360 (1.0)	294 (0.8)
<i>Total</i>	34,450	35,914	37,065	37,702 ¹³	39,489

The increase in the number of family medicine physicians and a decrease in the number of other physicians may be reflective of previous provider specialty misclassification. IDPH staff will continue to monitor this trend.



¹⁰ Data sources: Office of Statewide Clinical Education Programs, University of Iowa Carver College of Medicine and IDPH – Bureau of Health Statistics

¹¹ 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

¹² Providers without recorded license information such as lay midwives, ambulance drivers and family members

¹³ n=1 – missing provider data

Table 5: Number and percent of unique licensed providers who delivered at least one infant, Iowa 2011-2015

	2011	2012	2013	2014	2015
Provider Type	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
<i>Obstetricians & Gynecologists</i>	176 (37.8)	189 (33.2)	195 (35.0)	230 (27.3)	231 (28.9)
<i>Family Medicine</i>	209 (44.9)	235 (41.2)	262 (47.0)	328 (39.0)	370 (46.3)
<i>Other Physicians¹⁴</i>	27 (5.8)	31 (5.4)	41 (7.4)	93 (11.0)	76 (9.5)
<i>Residents</i>	Data not available			94 (11.2)	48 (6.0)
<i>CNM/ARNP</i>	53 (11.4)	56 (9.8)	59 (10.6)	97 (11.5)	74 (9.3)
<i>Total</i>	465	511	557	842	799

The increase in the count of unique providers from 2011 through 2015 may be reflective of improvements in the process of unique provider identification. The results from years 2011, 2012, and 2013 were completed at the same point in time. We applied the lessons learned from this process to improve the accuracy of 2014 and 2015 results.

The Iowa Regionalized Perinatal Care system includes criteria that stratify maternal and neonatal care into levels of complexity, and recommends referral of high risk patients to higher-level centers with the appropriate resources and personnel to address the required increased complexity of care. This regionalized system of care helps ensure the quality of perinatal care in our rural state.

The current system has three distinct levels, with subdivisions in Level 2 centers. 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.

For specific information about Iowa’s Regionalized System of Care, refer to the [Guidelines for Perinatal Services, 8th Edition](#).

¹⁴ Other physicians include maternal/fetal medicine specialists, emergency room physicians and general surgeons (who perform cesarean sections for family medicine patients)

Table 6: Births by Hospital Level of Care, 2011-2015

	2011	2012	2013	2014	2015
<i>OB Level (# hospitals per level¹⁵)</i>	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
<i>Non-hospital births¹⁶</i>	450 (1.2)	459 (1.3)	467 (1.3)	532 (1.4)	432 (1.1)
<i>Level 1 (54)</i>	8,832 (24.4)	8,932 (24.2)	9,342 (25.2)	9,571 (25.4)	9,746 (24.7)
<i>Level 2 (13)</i>	8,092 (22.3)	8,168 (22.3)	8,209 (22.1)	8,454 (22.4)	8,964 (22.7)
<i>Level 2 Regional (4)</i>	4,608 (12.7)	4,465 (12.2)	4,582 (12.4)	4,646 (12.3)	5,300 (13.4)
<i>Level 2 Regional Neonatal (2)</i>	4,528 (12.5)	4,373 (11.9)	4,276 (11.5)	4,260 (11.3)	4,690 (11.9)
<i>Level 3 (3)</i>	9,772 (26.9)	10,299 (28.1)	10,189 (27.5)	10,240 (27.2)	10,351 (26.2)
<i>Total</i>	36,282	36,696	37,065	37,703	39,483 ¹⁷

Figure 2, page eight, presents the number and percent of deliveries by obstetricians by county of delivery for deliveries that occurred in Iowa during calendar year 2015.

Figure 3, page nine, presents the number and percent of deliveries by family practitioners by county of delivery for deliveries that occurred in Iowa during calendar year 2015.

Figure 4, page ten, presents the number and percent of deliveries by ARNP/CNMs by county of delivery for deliveries that occurred in Iowa during calendar year 2015.

Data sources used to develop this report:

- University of Iowa, Carver College of Medicine, Office of Statewide Clinical Education Programs and Obstetrical/Family Medicine Programs
- Iowa Department of Public Health, Bureau of and Health Statistics
- United States Census Bureau, Iowa Population Estimates 2014
- Des Moines University – College of Osteopathic Medicine
- Iowa Board of Nursing

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¹⁵ Number of hospitals per level is based on 2015 data

¹⁶ Includes home births and births that occurred outside of hospital

¹⁷ n=6 missing place of delivery

Figure 2. Number and percent of deliveries by Obstetricians by county of delivery, occurrent births, Iowa 2015

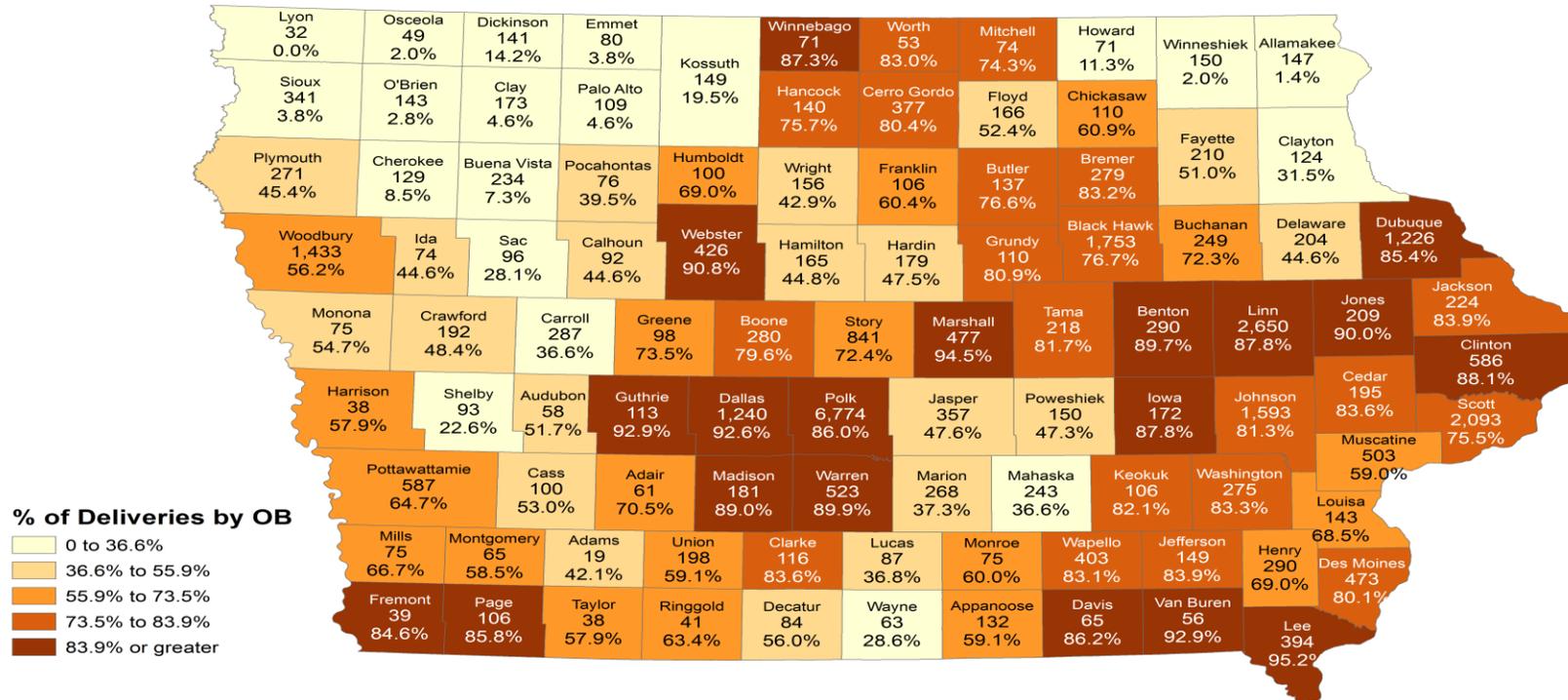


Figure 3. Number and percent of deliveries by Family Practice physicians by county of delivery, occurrent births, Iowa 2015

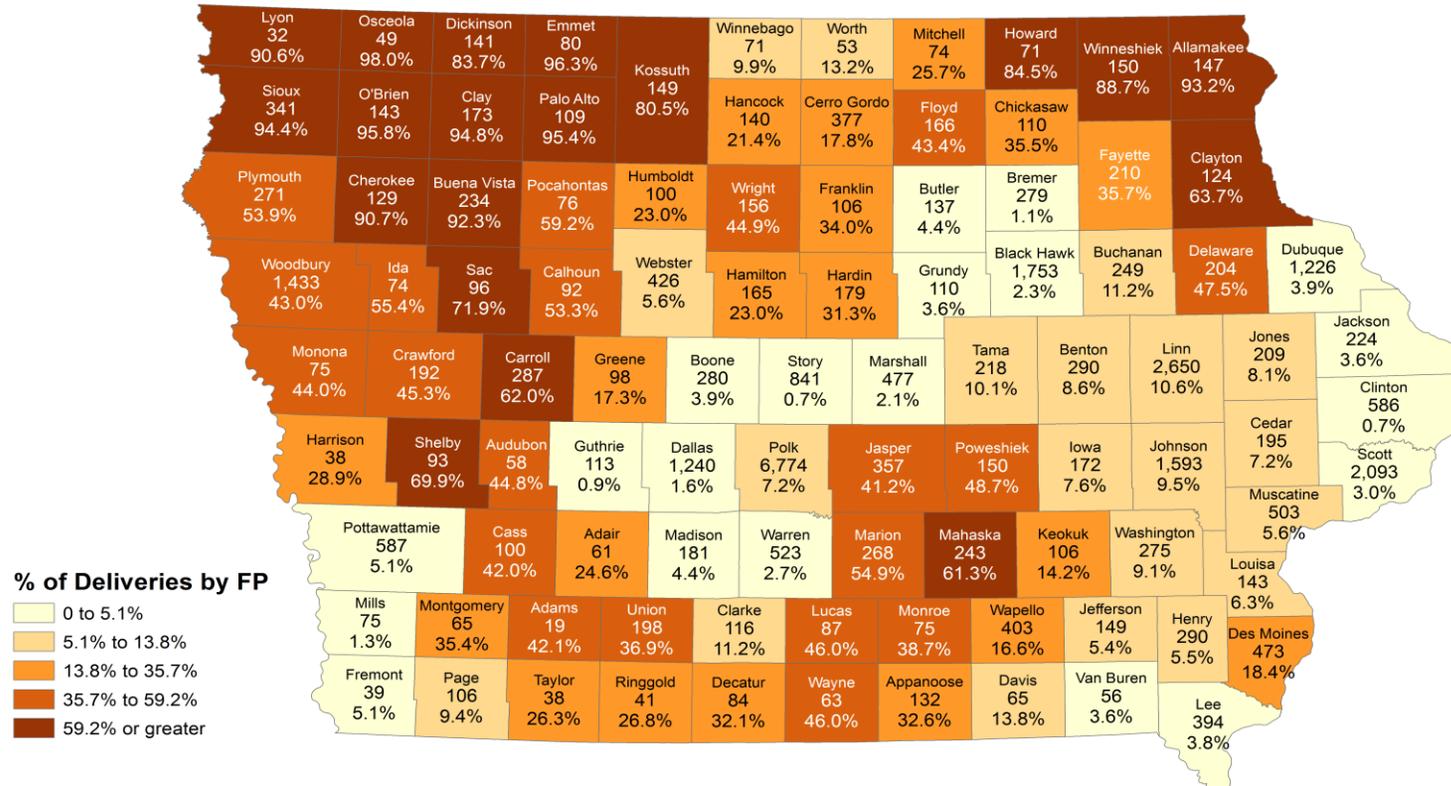


Figure 4. Number and percent of deliveries by midwives and advanced practice registered nurses by county of delivery, occurrent births, Iowa 2015

