Obstetrical Care in Iowa: A Report on Health Care Access To Iowa Legislature -- Year 2014

Introduction

This report has been prepared annually in response to a 1997 legislative mandate detailed in the Iowa Acts 1997 General Assembly, Chapter 197, Section 1, Subsection 18A. The legislative reference for this report is outlined below.

SUBSECTION. 18A. 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 College of Medicine and the University of Osteopathic Medicine and Health Sciences 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.

2013 Report to the 2014 Legislature

The Bureau of Family Health (BFH), Iowa Department of Public Health, respectfully submits this report in response to the legislative mandate. In the past, the Bureau of Oral and Health Delivery Systems was responsible for preparing this report. The data currently tracked provides an overview of issues, but are not sufficient to directly answer the questions posed in the legislation, nor can it comprehensively portray the obstetrical (OB) access issues facing the citizens of Iowa - particularly those in rural areas. Therefore this report also contains a summary of initiatives of the BFH and its partners for the improvement of maternal and obstetric outcomes in Iowa. .

Data sources used for this report include the following:

- U of I, Carver College of Medicine, Office of Statewide Clinical Education Programs (OSCEP),
- Iowa Department of Public Health – Bureau of Vital Records and Health Statistics,
- Iowa Board of Nursing (IBON),
- Association of Iowa Hospital and Health Systems, and
- US Census Bureau Decennial Census Data

Demographics

According to the US Census Decennial Census data:

- Iowa's current population is 3,046,355
- Women of childbearing age, 15-44 number is 579,691
- Ratio of women of childbearing age to FP & OB/GYN providers is 462:1
- Ratio of women of childbearing age to the total number of OB/GYN providers is 2863:1

Other related information

Population living at or below 100 % of the federally set poverty level equals 368,965 (12%).

Provider Information

- OB/GYN Providers:
  - Number working full-time -201
  - Number working part-time - 3
  - Number of full-time equivalent positions - 202.5
  - Average age is 50 years
- Family Practice Providers:
  - Number working full-time - 1,025
  - Number working part-time - 55
  - Number of full-time equivalent positions - 1,052.5
  - Average age is 50 years

Other Provider Information

- Number of Certified Nurse Midwives (IBON) - 99
  - Note: Licenses show ARNPs have OB/GYN training, but do not specify if they are practicing.

Residency Program Information

Both medical schools in Iowa reported on the number of 2013 graduates enrolling in either a family planning or obstetric/gynecological residency program:

University of Iowa Carver College of Medicine

Residency Type	In State	Out of State
Family Practice	6	9
OB/GYN	1	7
Total	7	16

Des Moines University

Residency Type	In State	Out of State
Family Practice	23	45
OB/GYN	0	18
Total	23	63

Total Births by Attendant

2012 Iowa births are by occurrence regardless of residence (includes residents of other states)

Total	38,686
Physician (MD)	26,458
Physician (DO)	9,065
Certified Nurse Midwife	2,759
Other Midwife	214
Other	177
No Response	14

The above data has the following limitations:

- Data to indicate which specialty degrees were held by providers are not available.
- Women may receive prenatal care from one health professional and be attended at the time of birth by a different provider
- The age of the providers delivering births is not available using these databases.

Total Births by Birth Settings Iowa, 2012

The Tables below identify the number of births that occurred in hospitals that provide birthing services in Iowa. (Please see page 8 of this report for a description Iowa's Regionalized System of Perinatal Care and Hospital Level designations)

Total	36,696
Not designated	459
Level 1	8,932
Level 2	8,168
Level 2 Regional	4,465
Level 2 Regional Neonatal	4,373
Level 3	10,299

Frequency missing = 1990

Hospital Location	Percent of total births
Rural hospitals	27.1
Urban hospitals	71.7
Missing data	0.01

Obstetrical Health Care Provider Trends, Iowa -- 2009-2013

Provider Type	2009	2010	2011	2012	2013
OB/GYN FTEs	182.5	200.5	209	203	202.5
Family Practice FTEs	1112.5	1092	1620	1077.5	1052.5
Certified Nurse Midwife FTEs	80	87	80	99	111

Births by County of Residence and Providers by County

Data limitations: IDPH cannot verify if a woman delivered in her county of residence or which physicians are attending births in each county. Table does not include Certified Nurse Midwives.

County	Frequency	Percent	Cumulative Frequency	Cumulative Percent	FP FTE	Ob/Gyn FTE
Adair	68	0.18	68	0.18	2.5	
Adams	50	0.13	118	0.31	1	
Allamakee	179	0.46	297	0.77	8	
Appanoose	159	0.41	456	1.18	4	1
Audubon	50	0.13	506	1.31	3	
Benton	256	0.66	762	1.97	4.5	
Black Hawk	1729	4.47	2491	6.44	66	15
Boone	317	0.82	2808	7.26	11	2
Bremer	263	0.68	3071	7.94	9	3
Buchanan	267	0.69	3338	8.63	5	
Buena Vista	339	0.88	3677	9.51	10	
Butler	168	0.43	3845	9.94	3	
Calhoun	124	0.32	3969	10.26	2.5	
Carroll	256	0.66	4225	10.92	15	1
Cass	152	0.39	4377	11.32	7.5	1
Cedar	178	0.46	4555	11.78	5	
Cerro Gordo	450	1.16	5005	12.94	34	7

Cherokee	140	0.36	5145	13.3	5	
Chickasaw	153	0.4	5298	13.7	6	
Clarke	126	0.33	5424	14.02	4	
Clay	193	0.5	5617	14.52	11	
Clayton	212	0.55	5829	15.07	7	
Clinton	568	1.47	6397	16.54	15	5
Crawford	229	0.59	6626	17.13	5.5	1
Dallas	1165	3.01	7791	20.14	21	10
Davis	133	0.34	7924	20.48	3	
Decatur	82	0.21	8006	20.7	4	
Delaware	189	0.49	8195	21.19	6	
Des Moines	470	1.22	8665	22.4	18	5
Dickinson	161	0.42	8826	22.82	9	
Dubuque	1176	3.04	10002	25.86	32.5	13
Emmet	115	0.3	10117	26.15	5	
Fayette	219	0.57	10336	26.72	5	
Floyd	168	0.43	10504	27.15	9	
Franklin	108	0.28	10612	27.43	5	
Fremont	81	0.21	10693	27.64	2	
Greene	97	0.25	10790	27.89	4.5	1
Grundy	124	0.32	10914	28.21	5	
Guthrie	104	0.27	11018	28.48	3	
Hamilton	143	0.37	11161	28.85	8	1
Hancock	113	0.29	11274	29.14	2	
Hardin	179	0.46	11453	29.61	11	
Harrison	138	0.36	11591	29.96	4.5	
Henry	224	0.58	11815	30.54	4.5	1
Howard	129	0.33	11944	30.88	4	
Humboldt	101	0.26	12045	31.14	2	
Ida	93	0.24	12138	31.38	2	
Iowa	197	0.51	12335	31.89	6	
Jackson	207	0.54	12542	32.42	8	
Jasper	441	1.14	12983	33.56	15	
Jefferson	140	0.36	13123	33.92	8	
Johnson	1830	4.73	14953	38.66	73	29
Jones	209	0.54	15162	39.2	7	
Keokuk	128	0.33	15290	39.53	1	
Kossuth	151	0.39	15441	39.92	7	1
Lee	431	1.11	15872	41.03	10	3

Linn	2722	7.04	18594	48.07	98	20.5
Louisa	137	0.35	18731	48.42	2	
Lucas	82	0.21	18813	48.63	4	
Lyon	169	0.44	18982	49.07	3	
Madison	166	0.43	19148	49.5	5	
Mahaska	267	0.69	19415	50.19	8	1
Marion	368	0.95	19783	51.14	22	2
Marshall	583	1.51	20366	52.65	14	2
Mills	179	0.46	20545	53.11	7	1
Mitchell	106	0.27	20651	53.39	3	
Monona	94	0.24	20745	53.63	8.5	
Monroe	82	0.21	20827	53.84	5	
Montgomery	114	0.29	20941	54.13	3	2
Muscatine	557	1.44	21498	55.57	11.5	3
O'Brien	153	0.4	21651	55.97	6	
Osceola	80	0.21	21731	56.18	3	
Page	183	0.47	21914	56.65	13.5	1
Palo Alto	88	0.23	22002	56.88	6	
Plymouth	293	0.76	22295	57.64	9	
Pocahontas	69	0.18	22364	57.81	2	
Polk	6729	17.4	29093	75.21	223.5	46.5
Pottawattamie	1180	3.05	30273	78.26	27.5	8
Poweshiek	178	0.46	30451	78.72	10	1
Ringgold	56	0.14	30507	78.86	3.5	
Sac	101	0.26	30608	79.13	3.5	
Scott	2200	5.69	32808	84.81	74.5	14
Shelby	135	0.35	32943	85.16	7	
Sioux	510	1.32	33453	86.48	23	
Story	919	2.38	34372	88.86	30.5	9
Tama	219	0.57	34591	89.42	3	
Taylor	77	0.2	34668	89.62		
Union	130	0.34	34798	89.96	4	1
Van Buren	107	0.28	34905	90.23	7	
Wapello	432	1.12	35337	91.35	7	5
Warren	542	1.4	35879	92.75	17	
Washington	278	0.72	36157	93.47	12.5	2
Wayne	92	0.24	36249	93.71	4	
Webster	449	1.16	36698	94.87	12	4
Winnebago	105	0.27	36803	95.14	5	

Winneshiek	163	0.42	36966	95.56	12.5	1
Woodbury	1503	3.89	38469	99.45	40	9
Worth	86	0.22	38555	99.67	1	
Wright	128	0.33	38683	100	7	

Frequency Missing = 3

IDPH and Partner Initiatives

Title V Maternal Health

Twenty-one local maternal health agencies provided maternal health services to approximately 11,105 low-income pregnant women in 2012. The maternal health agencies serve as the community utility to link pregnant women to prenatal care, mental health or dental care. A wide range of health education and support services are available to low-income pregnant women, such as risk assessment, social assessment and guidance, health screening for depression, domestic violence, alcohol, tobacco and substance abuse. The agencies assess also provide oral health screening and preventive services. They provide transportation to health care providers and assess health insurance needs and assist with immediate enrollment. The maternal health agencies also provide care coordination to promote early entry into care and link families to needed resources in their local community. A link to the Maternal Health agencies can be found at. http://www.idph.state.ia.us/webmap/default.asp?map=maternal_health.

Iowa Barriers to Prenatal Care Project

The purpose of the Iowa Barriers to Prenatal Care Project is to obtain brief, accurate information about women delivering babies in Iowa hospitals. Specifically, the project seeks to learn if women had problems getting prenatal or delivery care during their pregnancy. Other information is included which may be pertinent to health planners or those concerned with the system development of health care services.

The project is a cooperative venture of all of Iowa's maternity hospitals, the Statewide Perinatal Care Program, the University of Northern Iowa Center for Social and Behavioral Research, and the Iowa Department of Public Health. Current funding is provided by the Iowa Department of Public Health.

Data include responses to a questionnaire that is distributed to all maternity hospitals in the state of Iowa. All birth mothers are approached prior to discharge and asked to complete the questionnaire. Completed questionnaires are returned to the University of Northern Iowa Center for Social and Behavioral Research for data entry and analysis.

The Iowa Barriers to Prenatal Care Survey describes the access Iowa women report they have to obstetric providers. In 2012 eighty two percent of women reported that they had no difficulty getting a prenatal appointment. The women who did report difficulty in obtaining prenatal appointment reported a variety of reasons including: difficulty getting an appointment at the desired time, payment issues, transportation issues, problems with Medicaid coverage, getting time off work and child care issues. While 98.2 percent reported they were never refused prenatal care during their pregnancy, 1.8 percent reported they were refused care at some point in their pregnancy.

This report sites rates per county for key variables. Unless otherwise noted, all entries reflect percentages. Please note that since percentages were rounded, total values may not equal 100%.

Full report: http://www.idph.state.ia.us/common/pdf/publications/prenatal_barriers_2012.pdf

County level data: http://www.idph.state.ia.us/hpcdp/prenatal_care_barriers.asp

Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS was initiated in 1987 by the CDC to help state health departments establish and maintain an epidemiologic surveillance system of selected maternal behaviors and experiences. PRAMS was started at a time when the US infant mortality rate was no longer declining as rapidly as it had in past years and the prevalence of low birthweight was showing little change. Maternal behaviors such as alcohol and tobacco use and limited prenatal and pediatric care were contributing to the slow rate of decline. PRAMS was designed to supplement data from vital records and to generate data for planning and assessing perinatal health programs in each participating state. http://www.idph.state.ia.us/prams/

Regionalized system of Perinatal Care

Iowa's regionalized system of Perinatal Care was developed so health care providers can rapidly access specialty services for at risk pregnant women and newborns. The classification system is based on availability of appropriate personnel, physical space, equipment, technology and organizational support for newborns and pregnant women so an appropriate referral of the patient can be made quickly when the need occurs. Participation in the regionalized system is voluntary. Hospitals determine if they want to participate and agree to comply with the rules appropriate to the level of participation selected. The classification system in Iowa has three levels of care.

> **Level I**: basic inpatient care for pregnant women and newborns without complications; manage perinatal emergencies, including resuscitation; identify at risk patients and seek consultation or referral for high risk patients,

Level II: provide management of certain high risk pregnancies and for newborns with selected complications; have an obstetrician and pediatrician on staff,

Level II Regional: have a special care nursery for premature and mildly ill newborns with a defined referral area; they may have as few as four NICU beds; OB unit provides care for higher risk maternity patients due to presence of NICU; they have a neonatal transport team,

Level II Regional Neonatology Center: demonstrated commitment to providing higher level of neonatal care and will manage many at risk pregnancies and neonates less than 34 weeks; exceptions will exist for cases for which surgical intervention or maternal or pediatric subspecialty care is needed or anticipated; hospital has a minimum of two neonatologists on staff; anesthesiologists on staff have additional training or experience in obstetric and pediatric anesthesia available 24/7; exceptions also include pregnancies that require maternal fetal medicine specialist,

Level III: regional neonatal intensive care for with comprehensive services to treat all medical and surgical problems of newborns and manage the most high risk pregnancies; professional staff has access to more extensive technology; maternal/fetal specialist, neonatologist, anesthesiologist on staff have additional training or experience in obstetric and pediatric anesthesia and are available 24/7; pediatric surgeon is active on staff; pediatric cardiologist is active on staff.

For more information see the Department's administrative rule 641 chapter 150. For a map of Iowa Hospitals go the following link:

http://www.idph.state.ia.us/hpcdp/common/pdf/map_ia_hosp_maternity.pdf

Statewide Perinatal Care Program

The Statewide Perinatal Care Program, now in its 39th year of operation, provides education, develops standards/guidelines for care, consultation to regional and primary providers and evaluation of the quality of care delivered to reduce the mortality and morbidity of mothers and infants in the State of Iowa. Through a contract between the Iowa Department of Public Health and the University of Iowa's College of Medicine, these services are offered to all Iowa hospitals that perform deliveries.

What we do

- The Statewide Perinatal Care Program is charged with maintaining Iowa's Regionalized System of Perinatal Care as defined in Iowa Code. This objective is accomplished at several levels, including direct visitation to all hospitals in Iowa that provide obstetrical services and provision of multidisciplinary educational programs. A review of the care provided at each hospital is performed and an educational program specific to the

identified needs of the particular facility is presented to nurses and physicians at that hospital.

- In addition to case-based education, evidence based guidelines, perinatal care "bundles" and standards of care are provided to every hospital in the state delivering care to mothers and babies. These educational materials are provided electronically to facilitate distribution. The ongoing education allows patients in all communities to receive the highest level of clinical care within their communities while limiting the need for travel to higher level centers.

- Activities of the Program promote the provision of high quality care to the mothers and babies of Iowa. The regionalization and standardization of care across the state results in lower maternal and neonatal morbidity and mortality rates, particularly in Iowa's smallest hospitals. Paramount to these outcomes are the relationships those hospitals have with higher level centers that readily accept transfers of more complicated obstetric and neonatal patients.

On going program focus

- Prevention of prematurity.
- Elimination of elective delivery before 39 weeks gestation
- Decreasing cesarean section rates.
- Recognition of short and long term morbidities associated with late preterm birth
- Provision of evidenced-based obstetrical and newborn care in rural hospitals.
- Evaluation of quality and safety in obstetrical and newborn care in Iowa.
- Limiting neonatal and maternal morbidity and mortality.

Medicaid Maternal Heath Task Force

The Medicaid Maternal Heath Task Force is a collaborative project between IDPH and Iowa Medicaid Enterprise (IME).This group formed out of a desire to use data to develop quality improvement strategies for pregnant Medicaid recipients and their infants. The Chair of the committee is Jason Kessler, MD - Medical Director of Iowa Medicaid Enterprise (IME). Our current project is a Maternal Tobacco Cessation Quality Improvement Project

The Iowa Medicaid - Birth Certificate Match Project is supported by an interdepartmental agreement between the Iowa Department of Human Services and the Iowa Department of Public Health/Bureaus of Family Health and Health Statistics. The purpose of the project is to describe the characteristics of pregnant Medicaid recipients, their behaviors during pregnancy and at hospital discharge, their receipt of pregnancy related services, and their birth outcomes. This information can be used to improve programs and policies to benefit Medicaid recipients. Below are links for the four 2012 Medicaid fact sheets:

2012 Iowa Medicaid Demographics by Medicaid Status

http://www.idph.state.ia.us/hpcdp/common/pdf/family_health/2012_medicaid_demographics.pdf

2012 Iowa Medicaid Dis parities in prenatal care and birth outcomes

http://www.idph.state.ia.us/hpcdp/common/pdf/family_health/2012_medicaid_disparities.pdf

2012 Iowa Medicaid and Interpregnancy intervals

http://www.idph.state.ia.us/hpcdp/common/pdf/family_health/2012_medicaid_intervals.pdf

2012 Iowa Medicaid – Maternal obesity and related morbidity

http://www.idph.state.ia.us/hpcdp/common/pdf/family_health/2012_medicaid_obesity.pdf

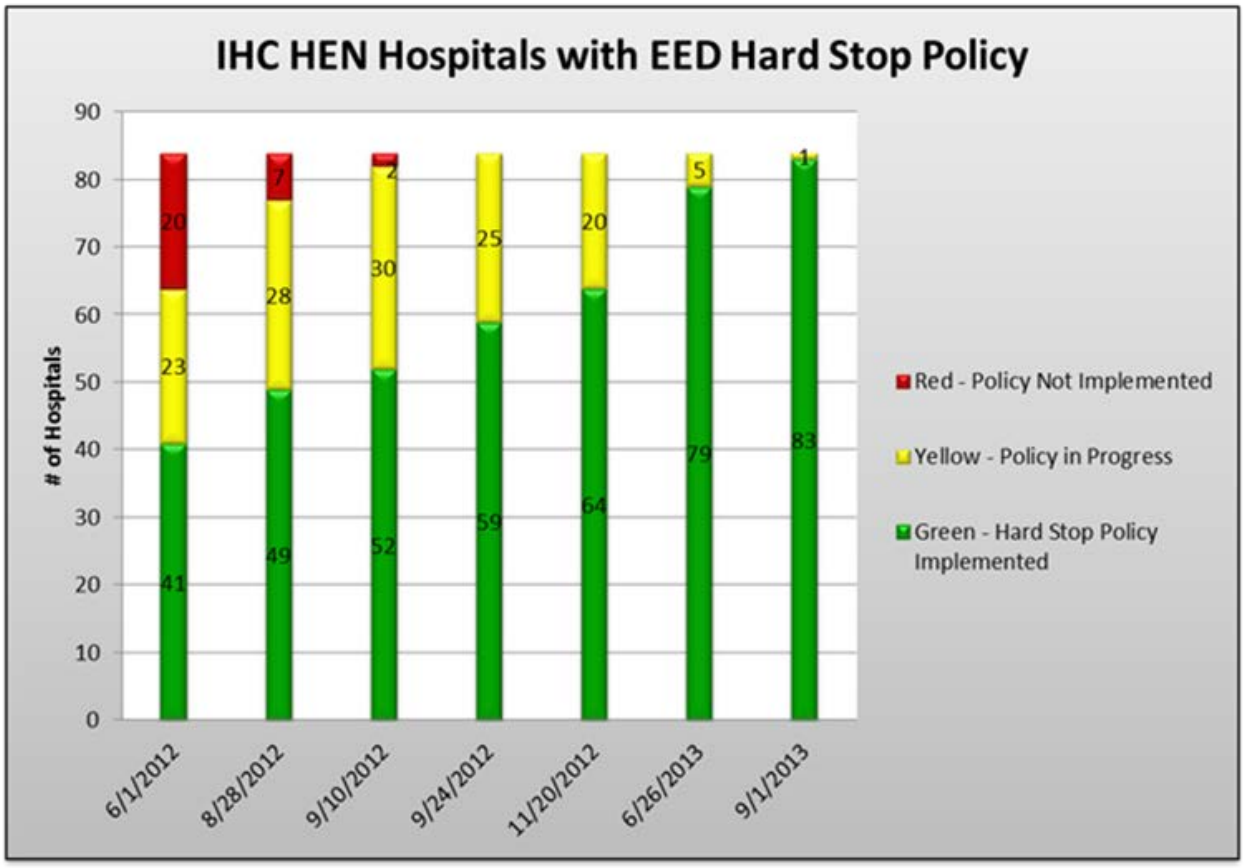
Statewide OB task Force

The OB Statewide Task Force has been convened to formulate a state plan that will guide improvement of OB and perinatal care in Iowa. The group includes leaders from Iowa Department of Public Health (IDPH), Iowa Statewide Perinatal Care Program, Iowa Medical Society (IMS), Iowa Healthcare Collaborative (IHC),American Congress of Obstetricians and Gynecologists (ACOG), Iowa Academy of Family Physicians (IAFP), Iowa Medicaid Enterprise (IME), March of Dimes (MOD), Wellmark, Iowa Hospital Association (IHA), Association of Women's Health, Obstetrical and Neonatal Nurses (AWHONN), the Iowa Nurses Association (INA), Iowa Association of Neonatal Nurses (IANN), and several hospitals and providers throughout the state. Through a federally funded initiative, the Iowa Healthcare Collaborative's Partnership For Patients/Health Engagement Network (HEN) has been engaging hospitals to focus on preventing adverse obstetrical events. Concurrently, the Statewide Perinatal Care Program provides professional training, development of standards/guidelines of care, consultation to regional and primary providers and evaluation of the quality of care delivered to reduce the mortality and morbidity of infants.

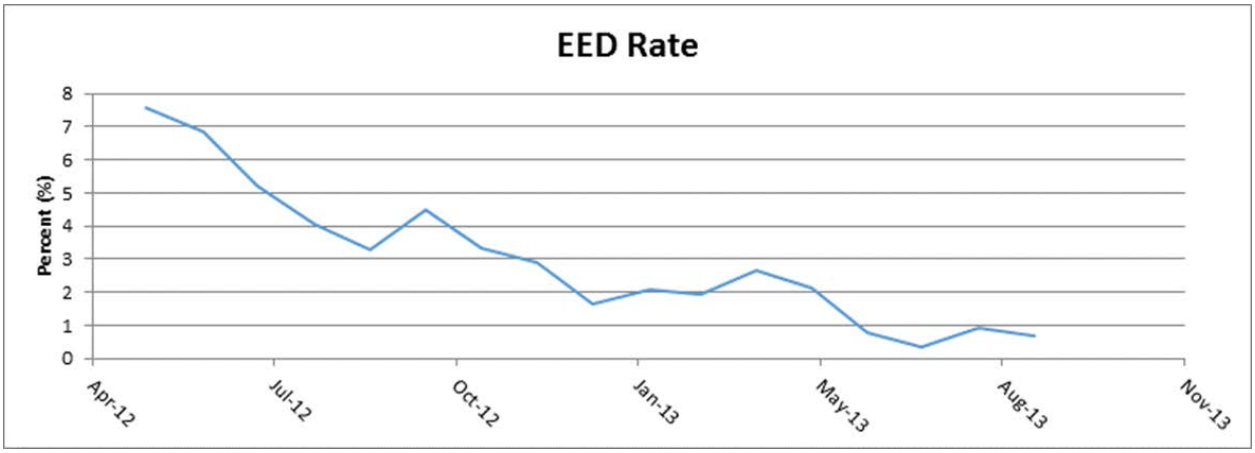
Our mission is timely. By bringing stakeholders together and collaborating resources now, the task force will be able to design an evidence-based strategy that engages providers, reduces adverse outcomes and improves care for mothers and babies while reducing the likelihood of mandates and exposure to costly litigation. Health Care Reform, Partnership for Patients and the ASTHO Challenge to reduce preterm births, provide opportunities and incentives when mapping a strategy that best meets Iowa's needs for both health care providers and mothers and their babies throughout their pregnancy.

Statewide OB strategies and tactics are to deploy evidence-based best practices. The impact of one such evidence-based practice is described here and in the charts below.

- Reduce Early Elective Deliveries
    - Ensure Iowa birthing hospitals have a policy to eliminate non- medically indicated deliveries prior to 39 weeks. The chart below illustrates the success of the Iowa Health Care Collaborative and Hospital Engagement Network in getting birthing hospitals to develop hard stop policies.



This IDPH vital records data show the reduction in early elective deliveries prior to 39 weeks.



Other goals for 2014

- Reduce Pre-term Births
  - Smoking cessation in pregnancy and after delivery
  - Progesterone use when indicated to reduce pre-term labor
- Avoid Adverse Obstetrical Events
  - Avoid C-sections when there is a stillbirth
  - Use safety check lists and promoted standard policy's for Pitocin Therapy
  - Management of hypertension during pregnancy and after delivery to avoid Ecclampsia and other complications
  - Screening for critical congenital heart disease.
- Ensure all women have access to care
- Increase provider and consumer awareness of available resources

Closing Remarks

The Bureau of Family Health has applied to have a Graduate Student Epidemiology Program (GSEP) intern from the Centers for Disease Control and Prevention (CDC) in 2014 to work on performance improvement plans for this report. The proposed intern would look at existing data sources, assess the gaps in available data, and develop and conduct a survey to get additional primary data for the report.

In future Obstetrical Care in Iowa reports to the legislature, the Bureau of Family Health also plans to use birth certificate data to provide a more accurate description of the availability of obstetric providers and workforce trends over time.

The limitations of the data sources for this report make it difficult to respond completely to the information requested by the Iowa Legislature. Nevertheless, this report may be valuable to IDPH and its partners. The issue of access to prenatal and obstetrical health care has become

more complex over time. This is due, in part, to lack of data and the growing use of physician assistants and nurse practitioners for provision of obstetrical care.

IDPH will continue to work with the Iowa Healthcare Collaborative, Statewide OB Taskforce, the Medicaid Maternal Health Task Force, the Statewide Perinatal Care Program using available data from a variety of sources inform this report, continue to make it a useful tool to understand the obstetric workforce in Iowa, and use it to make policy decisions about improving maternal and newborn outcomes.

Additional information may be covered or questions asked by contacting: Gretchen Hageman, Bureau Chief, Bureau of Family Health, Iowa Department of Public Health, 321 East 12th Street, Lucas State Office Building, 5th Floor NE, Des Moines, Iowa 50319 or call 515-745-3663.