

Effect of EPHC on Family Planning, Prenatal Care Visit, and Birth Weight in South Texas

An analysis of women's usage of family planning services and prenatal care when insurance coverage is available for underserved women in ██████████, Texas.

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Abstract

Key Words

Family planning, birth weight, prenatal care, contraceptives, Medicaid, EPHC

Introduction

In 2011 funding for women's health in Texas was severely cut, leading to a large increase in demand for both family planning services and prenatal care. Texas' Women's Health Care Coalition estimates that unplanned pregnancies in Texas make up 47% of all pregnancies in the state as well as Medicaid costs of 1.3 billion dollars annually.¹

Undocumented women in South Texas also have been greatly impacted. These women have had very limited access to affordable prenatal care, and frequently begin prenatal care late in pregnancy. In November of 2013, the Expanded Primary Health Care or EPHC grant was created by the Texas Department of State Health Services (DSHS) and awarded to several clinics throughout the state of Texas with the goal to help provide preventive care to women as well as decrease the rate of unplanned pregnancies². The EPHC grant expanded eligibility for coverage

¹ *Texas Women's Healthcare in Crisis*. Rep. N.p.: n.p., n.d. Texas Women's Healthcare Coalition, 12 Jan. 2013. Web. 31 July 2014. p.4

² "Expanded Primary Health Care." *Expanded Primary Health Care*. N.p., n.d. Web. 30 June 2014.

beyond state Medicaid, to women aged 18 and above with incomes up to 200% of the federal poverty line as well as had more relaxed requirements for legal U.S. documentation.

The aim of this study is to measure the effect of the EPHC grant by evaluating if more women are accessing family planning services and starting prenatal care earlier in pregnancy, and if birth outcomes are improving now that insurance coverage is available. To do this, Electronic Health Records (EHR) data for women aged 18-44 was reviewed from the time of implementation of the EPHC program on November 1, 2013 through July 27th, 2014. Data was analyzed to measure the total number of family planning visits over the time period, the gestational age at the patient's first OB visit, as well as the birth weight of babies when born.

Results showed overall increases in the number of family planning visits over the time period, indicating that having available insurance coverage for contraceptives may be increasing women's usage of and access to services. Results also showed a steady increase in the number of first OB visits for women in their first trimester of pregnancy and a decrease in first OB visits in third trimester. Data for birth weights over the grant period were less conclusive, and showed no clear trend. Overall the results show a positive impact potentially due to the EPHC grant and future work could be done to compare rates of these visits from last year to this year.

Background

Texas' women's access to family planning services and preventive health care has become very limited since 2011. In the 2011 Texas legislation, severe cuts were imposed to the Department of State Health Services' (DSHS) family planning program, which provided contraceptives to women of all ages across the state³. Prior to 2011 funding levels had been three times larger and had provided family planning services to up to 200,000 women in Texas. After

³ "DSHS Funded Family Planning Services." *Texas Department of State Health Services*. N.p., 20 Sept. 2013. Web. 13 Aug. 2014.

cuts, the number of women served was expected to be closer to 65,000.⁴ In 2012 preventive health services to women suffered another cut when the joint federal and state funded Women's Health Program (WHP) was also cut due to state restrictions on providers eligible for the program, which did not meet federal regulations. In 2012, WHP served up to 130,000 women, and funding cuts also were expected to decrease women's access to preventive health care and contraceptives.⁵

In 2013, the Texas' DSHS awarded the EPHC grant to several clinics throughout the state of Texas. Unlike state Medicaid, the EPHC program expands eligibility to all women ages 18 and above who have an income level no greater than 200% of the federal poverty line (fpl), non-pregnant women, and does not require U.S. legal status. The EPHC program identified several goals including:

- Increase the number of women receiving primary and preventive care services;
- Increase early detection of breast and cervical cancers;
- Avert unintended Medicaid births;
- Reduce the number of preterm births; and
- Reduce the number of cases of potentially preventable hospitalizations related to hypertension and diabetes.

Under the EPHC program women are able to receive coverage of all preventive health care services, not only family planning services, but pre-natal care and other preventive health services such as diabetes and well women exams. Before the EPHC program, undocumented women had limited access to pre-natal care, not qualifying for state funded Medicaid or

⁴ *Texas Women's Healthcare in Crisis*, p.5

⁵ *Texas Women's Healthcare in Crisis*, p. 6

Children's Health Insurance Programs (CHIP) until late in pregnancy, frequently resulting in delayed prenatal care until coverage was available.⁶

In this study the focus was on two of the primary goals on the EPHC grant, access to preventive health care, specifically family planning services, as well as prenatal care. In the state of Texas up to 47 % of births are unplanned and one in three women of childbearing age do not have health insurance.⁷ In Texas, 71% of these unplanned pregnancies are publicly funded. Pregnancies that are unintended are associated with higher risks of premature birth, delayed prenatal care and adverse maternal and child outcomes.⁸

Prenatal care is an important factor for health birth outcomes. Early prenatal care is essential for identifying problems or complications with pregnancies as well as managing risks of preterm labor. Preterm labor and low birth weights can lead to many complications for the infant as well as lead to large cost in care; preterm infants often have a high rate of breathing problems, cerebral palsy and intellectual disabilities.⁹ Additionally prenatal care can also help to prevent infants born with too high of a birth weight which is also associated with high infant mortality rates as well as complications during birth such as shoulder dystocia.¹⁰ The uninsured population also has high rates of adverse outcomes, including low birth weight and higher infant mortality rates, and receives less prenatal care than their insured counterparts.¹¹

⁶ "Expanded Primary Health Care." *Expanded Primary Health Care*. N.p., n.d. Web. 30 June 2014

⁷ *Texas Women's Healthcare in Crisis*, p. 2 & 4

⁸ "Unintended Pregnancy in the United States." *Unintended Pregnancy in the United States*. Guttmacher Institute, Dec. 2013. Web. 13 Aug. 2014.

⁹ Martin, James N. "Prenatal Care Is Important to Healthy Pregnancies." ACOG, 21 Feb. 2012. Web. 13 Aug. 2014.

¹⁰ "PedNSS Health Indicators." *Centers for Disease Control and Prevention*. Centers for Disease Control and Prevention, 29 Oct. 2009. Web. 13 Aug. 2014.

¹¹ Benefits to women of Medicaid expansion through the Affordable Care Act. Committee Opinion No. 552. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2013;121:223-5.

Methodology

To evaluate the impact of EPHC, EHR records from a Federally Qualified Community Health Center (FQHC) were reviewed for female patients aged 18-44 for family planning visits, first OB visits, and baby birth weights from the implementation of the EPHC program on November 1, 2013 through July 25, 2014. Women below the age of 18 were excluded from this study because of they are not eligible for EPHC. The study was limited at age 44 because national standards for women of childbearing age are considered below age 45.

For family planning visits, EHR records were reviewed to count the total number of family planning visits per month over the EPHC program period. The month of October was used in this evaluation to provide a baseline for the number family planning visits before the EPHC program was implemented.

To evaluate gestational age at patients' first OB visit, charts were reviewed for estimated gestational age in weeks (EGA) at the time of their visit and divided in trimesters according to standards from the American College of Obstetrics and Gynecology (ACOG). First trimester is defined as pregnancy from week 1 up to week 12, second trimester is defined as week 12 up to 28, and third trimester is defined as week 28 up to week 40.

Birth weights were analyzed for all women who delivered during the EPHC program period. Weights were divided into low, normal, and high according to Center of Disease Control (CDC) standards. Low birth weight is defined as babies born under 2500g, normal birth weight ranges from 2500g – 4000g and high birth weight is considered those over 4000g.

Results

Family planning results showed an upwards trend in family planning visits over the EPHC program period. When looking at October, the month prior to EPHC implementation, 184 visits were made for family planning. If we use October as our baseline we can see that

while there was a drop in family planning visits in November and December, but then there was a steady rise in the early months of 2014 before stabilizing by March of 2014. Results for gestational age showed clear trends in first OB visits. Over the time period from November of 2013 to July 25, 2014, there was a steady increase in first OB visits in the first trimester. At the same time the number of first OB visits in third trimester decreased steadily as well as those in second trimester. Birth weights showed no clear trends over the time period. Overall the results

showed fewer high birth weights than low, however overall the majority of births were in the normal range, with differences varying by number of births per month.

Table 1. Number of Family Planning Visits Per Month

Month	Visits Per Month
Oct-13	184
Nov-13	152
Dec-13	168
Jan-14	207
Feb-14	213
Mar-14	189
Apr-14	204
May-14	179
Jun-14	189
Jul-14	157
Total	1842



Figure 1. Number of family planning visits per month from October 1, 2013 through June 30, 2014

Table 2. Gestational Age at First OB appointment

Month	1st Trimester	2nd Trimester	3rd Trimester	Total per Month
Nov-13	10	23	9	42
Dec-13	7	20	8	35
Jan-14	22	31	7	60
Feb-14	22	29	9	60
Mar-14	16	22	5	43
Apr-14	19	23	4	46
May-14	29	26	4	59
Jun-14	20	24	13	57
Jul-14	25	17	3	45
Total per Trimester	170	215	62	447

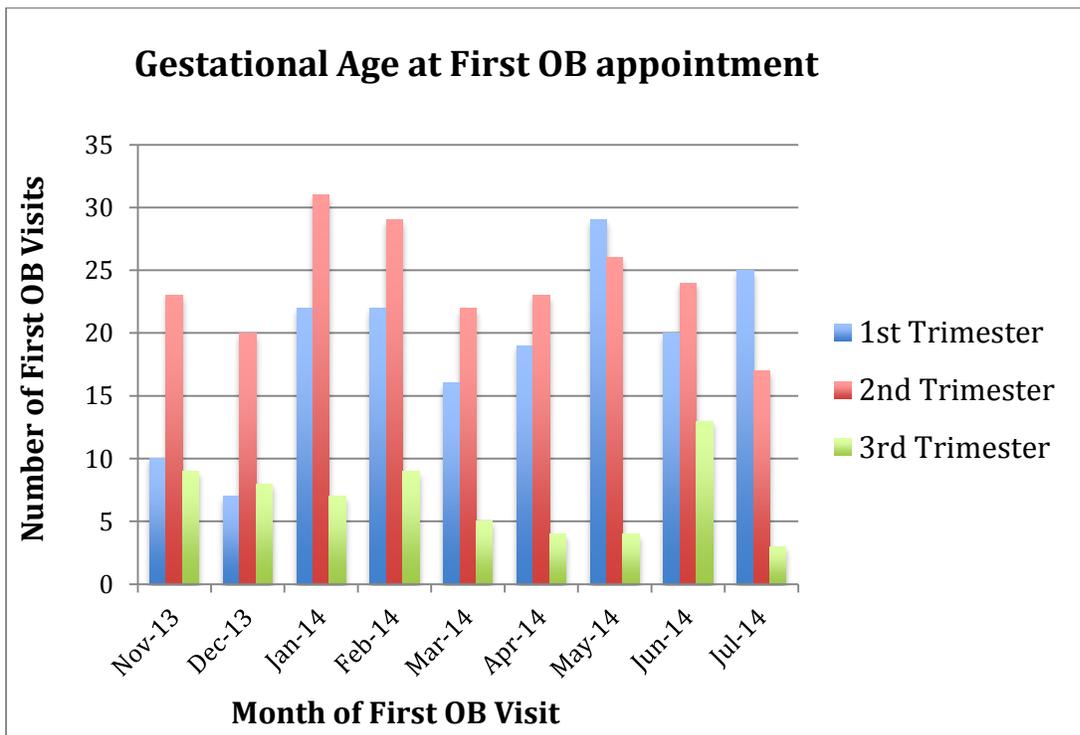


Figure 2. Gestational ages of fetus at mother’s first OB visit from November 1, 2013 through July 25, 2014

Table 3. Number of Low, Normal, and High Birth Weights Per Month

Month	Low	Normal	High	Total per Month
Nov-13	3	30	2	35
Dec-13	3	42	2	47
Jan-14	0	34	2	36
Feb-14	3	20	3	26
Mar-14	2	36	0	38
Apr-14	1	33	0	34
May-14	2	30	6	38
Jun-14	6	39	0	45
Jul-14	3	33	0	36
Total Per Birth Weight	23	297	15	335

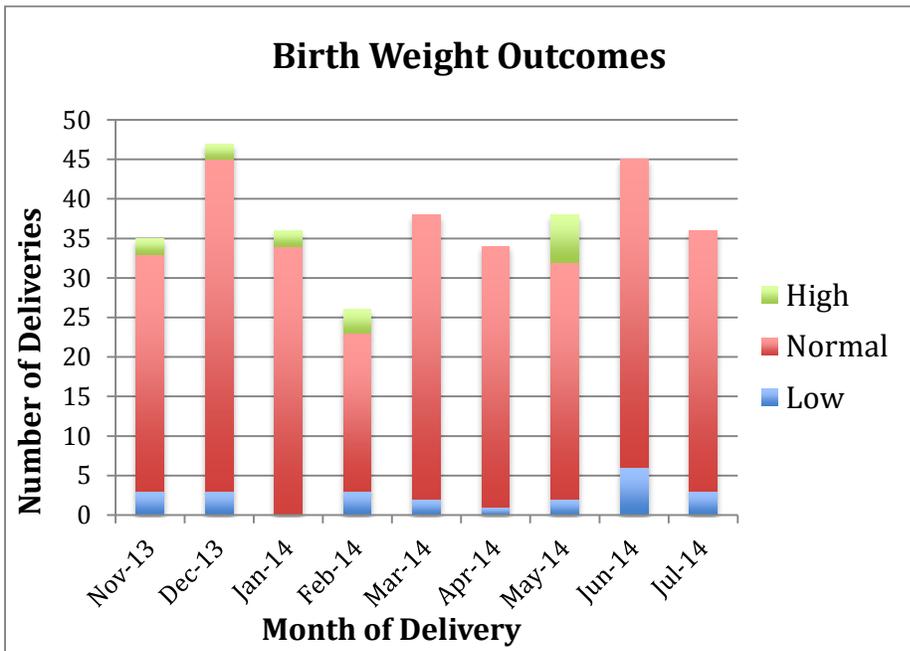


Figure 3. Number of low, medium, and high birth weights from November 1, 2013 to July 25, 2014

Discussion

Results show a potential impact of EPHC. While statistical significance was not calculated, trends show that overall rates of family planning visits increased over the time period. October was included in the data to include a baseline of family planning visits before EPHC was implemented. From October through February family planning visits rose, which can correlate with awareness about the program increasing and peaking in February. It is reasonable to conclude that it likely took some time for women to qualify for EPHC, turn in required documentation and receive coverage, with a peak in women qualifying for coverage in early 2014. After February the visits begin to stabilize and likely at that point most women who could qualify had already qualified and received treatment.

Gestational ages at first OB showed more impressive results. A large increase in women receiving prenatal care in the first trimester increased over the EPHC period. In the past, undocumented women had few options for insurance coverage before third trimester of pregnancy. Some women needing prenatal care to control diabetes or other conditions often did not come in until they had insurance coverage. Similar to family planning visits, there was a large increase in in women receiving care in the first trimester in January with a continuing upwards trend into 2014. Again this seems like correlation with the time of roll out of EPHC, as at the end of 2013 women would just be qualify and enrolling in the program. First OB visits in second and third trimester also decreased steadily over the time period, except for June which seemed to have a large spike in women starting prenatal care in their third trimester. An explanation for why there would be an increase in June is unclear, however it is known that many women will come from Mexico while pregnant and may or may not have received prenatal care beforehand.

Birth weights showed no clear trends over the time period of EPHC. However because EPHC has only been implemented from November of 2013, most women who gave birth over the time period studied would have become pregnant before implementation of the program. In order to get the impact of the EPHC program on birth outcomes, it would be important to measure the birth weights for the following nine months.

This study also had several data limitations. The sample size for both gestational ages and birth weights does not include all pregnancies and deliveries over the time period because data was unavailable for all pregnancies and deliveries. Gestational age data was not available for all pregnancies at the clinic over this time period because of limitations of the EHR system and variations in the way the data is input by the provider. Without a uniform method to input data, including all pregnancies during this time period would be difficult. Additionally until recently birth weight was not a measure tracked by the clinic under the mother's chart. While birth weight was always entered into the baby's chart as its own patient, birth weight was not commonly entered under the birth outcome of the mother. As this is a newly needed measure to be tracked by FQHCs, it is likely that this number will increase in the coming months and would be more easily tracked. Another short-coming of the data is that no data was available for the same period one year previously. The clinic recently went through change in EHR systems and data from the past medical records system was unavailable at the time of this study.

Recommendations

Based on this study, recommendations can be made to the Texas' DSHS to continue funding the EPHC program as it has successfully increased women's access to family planning appointments as well as access to prenatal care.

Another recommendation can be made to continue to study the impact of the EPHC program by evaluating birth weights in the following nine months of the program, in comparison to previously. Additional research could be completed comparing rates of prenatal care as well as family planning visits to the previously period one year prior if data can be extracted.

Conclusion

Looking at the data provided for this small study, it can be concluded that the EPHC grant has been effective in increasing family planning access for women. Additionally it has increased the number of women that receive prenatal care starting earlier in pregnancy. This will potentially have a positive impact on birth outcomes and help to reduce the rate of pre-term or high birth weight of babies.