PROMISING PRACTICES
PERINATAL HEALTH INDICATORS
Based on Uniform Data Systems (UDS) Reports

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**INTRODUCTION**

Community health centers (CHCs) are critical to meeting health care needs of the underserved population, a population that is not only burdened by a multitude of health problems, but face significant barriers in accessing health care. CHCs have made admirable strides in bridging the gap between unaffordability and health care in this population group. However, health centers face multiple challenges, some of which are establishing continuity of care, language barriers by patients, transition to electronic health record (EHR) systems, shortage of the primary care workforce, and resource constraints. In the face of these challenges, there is a need for compilation of evidence-based guidelines and promising practices that are adaptable to the primary care setting.

The Uniform Data System (UDS) perinatal health clinical indicators provide the framework for this document, which are **Access to Prenatal Care** and **Low Birth Weight**. The Healthy People 2020 (HP 2020) targets are used as benchmarks to measure performance. Health centers in Illinois that have consistently exceeded the HP 2020 targets or are the consistent top performers when compared with other health centers in Illinois during 2010-2012 UDS data reporting period were identified and interviewed to recognize their successful strategies that have helped them overcome barriers and achieve success. An appropriate mix of urban and rural health centers was aimed for. Health centers interviewed included: **Erie Family Health Center** and **Rural Health, Inc**.

In addition, evidence-based recommendations from experts such as Community Preventive Services Task Force (Task Force) and promising strategies identified through literature review are highlighted. The Community Guide (www.thecommunityguide.org/), website of resources by the Task Force, is a credible resource based on a scientific systematic review process and identifies recommendations from numerous existing studies with strong or sufficient evidence. The Task Force is constituted by expert members who are appointed by the Director of the Centers for Disease Control and Prevention (CDC). The essential purpose of this document is to provide a resource for health centers that consists of not only evidence-based recommendations, but also includes promising practices from some of the best performing Illinois health centers. In addition, this document could be used to facilitate dialogue between health centers on promising practices to further enrich the existing primary care system to attain higher quality and efficiency.

**Using this Resource**

Strategies for both the perinatal health indicators are consolidated on account of low birth weight being dependent on events in the prenatal period. Strategies for improving perinatal health are categorized into following sections: Illinois Health Center Spotlight, The Community Guide recommendations and Strategies from Literature Search.
Illinois Health Center Spotlight

Erie Family Health Center – Chicago, IL
Erie has consistently performed above the HP 2020 target in maintaining high access to prenatal care for pregnant women and low percentage of LBW since 2010 (Figure 1 and 2 on page 4 and 5). In 2012, Erie had 86% of its pregnant women enter into prenatal care in first trimester and its LBW was 5.4%. Success behind this can be attributed to a successful program of pre-pregnancy testing, an active workforce of women’s health promoters, and an emphasis on continuous team-based provision of care. Based on Erie’s successful model of care for prenatal patients, they were highlighted by Health Resources Service Administration (HRSA) in their grantee spotlight. Strategies discussed during interview and identified through the grantee spotlight include:

- Women undergo a free walk-in pre-pregnancy test; and, if found positive, a women’s health promoter talks to them and immediately links them to a primary care physician of their choice ensuring the first access to prenatal care.
- They are part of interdisciplinary women’s health care teams. They play a crucial role in facilitating early entry into prenatal care by being the first point of contact for pregnant women and women who suspect they might be pregnant. If pregnant, their roles can be identified as:
  - Follow a standardized prenatal care intake procedure.
  - Recording patient’s health history.
  - Assessing pregnancy risk status.
  - Providing health education.
  - Linking patients to case managers and social services.
- Group care is provided in accordance with Centering Pregnancy. Also, women’s health promoters work as centering pregnancy facilitators and breast feeding counselors throughout a woman’s pregnancy.

Rural Health, Inc. – Anna, IL
Rural Health has maintained high performance in access to prenatal care since 2010. (Figure 1 on page 4) In 2012, the percentage of prenatal patients having their first prenatal check-up was 94%. With respect to low birth weight (Figure 2 on page 5), Rural Health has improved considerably; in 2010, LBW was 13.6%, which decreased to an impressive 5.8% in 2012 and crossed HP 2020 target of 7.8%. A comprehensive approach to prenatal care and a strong emphasis on health education at every visit has helped lower the percentage of low birth weight and maintain adequate prenatal care.

Strategies practiced are:
- Comprehensive Care-Being located in a rural area, most of the patients face challenges in reaching health centers. To overcome this and to avoid patients make multiple trips, a comprehensive approach is taken when prenatal patients visit health center:
  - During the first visit, the patient meets with a nurse and then the doctor.
  - While waiting, the patient undergoes glucose tolerance screening and watches health education videos.

**Strategies - Access To Prenatal Care**

- A strong emphasis on **health education** at each visit that stresses high risk behaviors such as, smoking, exposure to second hand smoke, alcohol consumption, drug use, and consequences on perinatal health.

- **Provider** – The obstetrician is committed to seeing patients even if they are late along with maintaining a strong relationship with the area hospital that is highly beneficial in a rural setting.

- **QI Strategies**
  - Monthly medical staff meeting and provider education led by QI Nurse at each meeting are conducted.
  - Three years ago, an adult preventative flow sheet was created that includes majority of the questions for providers to follow related to UDS indicators. Several flow sheets are utilized for other services which help in auditing in addition to care for patients.

- **Other Common Strategies**: In March 2012, NotifyMD helped create a patient outreach call system for certain diagnoses.
  - The system can include daily appointment reminders or automated reply for no-show calls (e.g., missed appointment in the case of prenatal care).
  - It could also include a routine call for reminder appointments. This has dropped the no-show rate from 16-18% to < 9% in the past two years.

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**The Community Guide**

The Task Force recommendations are geared toward reducing fetal abnormalities through targeting alcohol consumption, smoking cessation and weight loss. This recommendation is highly relevant especially with the investigation on alcohol and illicit drugs in newborns done by Stanley Manne Children’s Research Institute of Ann & Robert H. Lurie Children’s Hospital of Chicago. They investigated the rates in which Illinois newborns tested positive for alcohol, narcotics, hallucinogenic agents, and cocaine during the years 2008-12 using ICD-9 codes from hospital discharge data. The key findings of the data released by them in 2014 are:

- The rates at which newborns test positive for alcohol is lower than for illicit drugs. It was identified that alcohol is metabolized much more quickly than illicit drugs, and thus it is assumed to be underestimated.

- The rates at which newborns test positive for cocaine has decreased significantly over time. However, cocaine is the highest detected substance (148.6 per 100,000 live hospital births in Illinois, 2008-12), followed by narcotics (108.3), hallucinogenic agents (48.8) and alcohol (17.7).

- A significant finding is the variation by race of the rates at which newborns test positive for narcotics and cocaine.
  - Black newborns have the highest rate of substance detection for all the tested substances.
  - Hispanic newborns have the lowest rates of substance detection when compared to blacks and whites.
  - The difference between black babies and both white and hispanic babies were greatest for alcohol and hallucinogens.

- Another important finding is the variation by region.
  - All regions had the same pattern as overall rates, except Peoria, where rates of testing positive for narcotics was three times higher than the rate of testing positive for cocaine (215.1 and 128.7 respectively).

- Chicago had the highest rate of testing positive for cocaine at 251.5 per 100,000 live hospital births.
  - In the far South region of Chicago, detection of narcotics and cocaine was nearly equal.
  - The West, South, Southwest, and Far South regions had dramatically higher rates of substance detection compared to the North, Northwest and Central regions.

The above data is of high value for Illinois health centers depending on the location of the health center and the patient population served. Moreover, national data reveals that 18% of pregnant women drink alcohol during early pregnancy and 9% of all pregnant women reported to have consumed alcohol.

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STRATEGIES - ACCESS TO PREGNATAL CARE

The Task Force recommendations address some of the problems as revealed by above data and are:

- **Preventing Excessive Alcohol Consumption** – Based on strong evidence of effectiveness, The Task Force recommends electronic screening and brief intervention (e-SBI) in reducing self-reported excessive alcohol consumption and alcohol-related problems. E-SBI uses electronic devices such as computers, telephones, or mobile devices, to facilitate the delivery of key elements of traditional screening and brief intervention (SBI). SBI involves screening individuals for excessive drinking and delivering a brief intervention that is a personalized feedback about the risks and consequences of excessive drinking.4

- **Tobacco Use Among Pregnant Women** – 15.9% of pregnant women reported to have smoked cigarettes in the past month, based on 2011 and 2012 data.5 The Task Force therefore recommends quitline interventions, especially proactive quitlines where follow-up counseling calls are offered to increase tobacco cessation among clients interested in quitting.6 Mobile phone-based interventions for smoking cessation are also recommended where these interventions use interactive features to deliver evidence-based information, strategies, and behavioral support directly to tobacco users interested in quitting.7

**Other Strategies From Literature Search**

Recommendations to address alcohol and illicit drug use among prenatal patients:

In the investigative report by Child Health Data Lab of Ann and Robert H. Lurie Children’s Hospital of Chicago, some recommendations have been made on how best to address the alcohol and illicit substance use among prenatal patients. Considering the underserved population that the health centers serve and some of the underserved locations, these recommendations are highly valuable.9

- Incorporating a screening tool for misuse or abuse of alcohol, legal medication, illegal drugs and smoking into every prenatal intake and history form.
  - It is identified that quick and brief questionnaires can be effective in prenatal care for assessing alcohol and drug use.
  - Questions when asked in a health context can lessen the stigma associated with the topic, which also expresses concern for the health of the mother and baby.
  - Treatment for substance abuse during pregnancy is significantly more effective than at other times in a woman’s life.
  - Even if mothers do not disclose the use, many pregnant women reduce their use of drugs or alcohol following supportive advice from a health care professional.
- Finding an approach that is comfortable to the provider and being nonjudgmental and supportive while screening can identify more at risk prenatal patients.

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STRATEGIES - ACCESS TO PRENATAL CARE

- Identifying places to refer a patient for further assessment and treatment.

2 Nurse-Family Partnership Program:
The Nurse-Family Partnership (NFP) is a non-profit organization. The program is derived from an evidence-based model that partners public health nurses with first-time mothers to empower them to make the right choices to improve pregnancy outcomes; help parents to provide responsible and competent care to improve child health and development; and help parents achieve economic self-sufficiency. The key elements of the model are to enroll first-time, low-income mothers early in their pregnancies; trained public health nurses deliver home-visits over two-and-a-half years; and establish support for the program within an implementing organization.\(^\text{10}\)

In Illinois, NFP was launched in 2000 as an Illinois charity.\(^\text{11}\) The partnership serves clients in DuPage, Jefferson, Kane, Lake and Marion Counties and in South Chicago. The 2013 Illinois state report identifies client demographics and positive outcomes. Key client demographics were: 87% Medicaid recipients, median age of 18 years, 68% white, 27% African American or black, and 49% Hispanic/Latina. Some of the positive outcomes for clients served by Illinois’ Nurse-Family Partnership are:\(^\text{12}\)

- 92% of babies were born full term and 92% were born at a healthy weight – at or above 5.5 lbs.
- 62% reduction in domestic violence during pregnancy.
- 83% of mothers initiated breast feeding.
- 94% of children received all recommended immunizations by 24 months.

For those health centers located in the above mentioned counties, local agencies can be contacted; and for those health centers who would like to inquire about bringing NFP into their communities, the NFP business development manager can be contacted. The links for the above contact information can be obtained from www.nursefamilypartnership.org/locations/Illinois.

3 Summary from a peer learning conversation on early prenatal care entry:
The peer learning call was presented by National Academy for State Health Policy (NASHP) in collaboration with HRSA in April 2014. The goal was to share promising practices from health centers performing well on creating early access to prenatal care. Health centers featured were Harbor Health Services in Massachusetts, Seattle Indian Health Board in Washington, and other participating health centers. Additional strategies from other health centers were also featured.

Summarizing the key strategies:

Designing protocols to facilitate early entry into prenatal care and address the need of pregnant mother.

- The Harbor Health Services policy ensured that a patient expecting to be pregnant not only met with a provider, but was also started on prenatal vitamins, connected with social and community services, received healthy pregnancy counseling, and received a next appointment. They also created ‘Perinatal Collaborative’ with representatives from the health center’s women’s health department, on-site Women, Infants, and Children (WIC), pediatrics, social services and behavioral health.
- Seattle Indian Health Board created walk-in, same day appointments for women who might be pregnant. They created ‘Prenatal Thursdays’ and made available providers to see prenatal patients for pregnancy testing and early prenatal visits, including a pharmacist, nutritionist, and breastfeeding educator.
- To address provider and space shortage, one health center started a group prenatal welcome visit prior to the initial exam that included an hour-long health education presentation by a nurse or health educator. Educational materials are distributed on issues such as prenatal appointment schedules, labs, prenatal screening tests, health center’s call system to reach providers, dietary changes, community resources, and relevant state programs.

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Utilizing EHR in establishing continuity of care, care coordination, and for monitoring and tracking performance. Although many health centers find the transition to EHR challenging, the benefits over time clearly outweighed the difficulties of transition.\textsuperscript{13}

\textbf{Application to Health Centers}

Not all of these strategies can be implemented in all health center settings, nevertheless social determinants of health play a critical role in perinatal health and must be tackled when possible. Health centers should seek to address social determinants through health education and collaborations with community organizations.

- A comprehensive approach addressing clinical assessment and health education during the same visit will help those patients who have barriers to frequently access care.
- Culturally and linguistically appropriate women’s health promoters might play a key role in ensuring regular follow-up of prenatal patients.
- Health education tailored to patients background (level of education, socioeconomic status, availability of resources) will help in lowering the chances of low birth weight.
- Connecting early with pregnant women, assessing risk factors, providing tailored education, and connecting with community and social services will help in patient retention and ensure provision of quality prenatal care.
- Extra effort needs to be taken in health centers to address the racial disparities and geographic differences in illicit substance and alcohol use among prenatal patients.

Appendix A – Health Center Information

Erie Family Health Center – Chicago, IL
Erie serves more than 60,000 patients from 13 sites. Erie has EHR and is NCQA PCMH recognized and TJC PCMH certified. According to 2014 UDS data, 93% of its patients belong to racial/ethnic minority group – 73% Hispanic/Latino, 43% African American, 10% Asian. 50% of the patients are best served in a language other than English. 98.6% of patients are below 200% of Federal Poverty Line. 30% are uninsured. In 2014, Erie served 3,305 prenatal patients of whom 2,074 delivered.
http://www.eriefamilyhealth.org/

Rural Health Care, Inc. – Anna, IL
Rural Health serves close to 11,000 patients from 5 sites. 8.6% of its patients belong to racial/ethnic minority group – 3.3% Hispanic/Latino, 5% African American. Majority of the patients (93.5%) were White. 70.6% of patients were below 200% of Federal Poverty Line. 10% were uninsured and 41.2% had Medicaid. In 2013, Rural Health served 182 prenatal patients of whom 85 delivered.
http://www.ruralhealthinc.org/