

## **Ohio Better Birth Outcomes**

### **A Proposal to Reduce the Risk of Preterm Births in Central Ohio**

Ohio's rate of premature births continues to rise with the latest data suggesting over 13% prematurity rate and as high as 18-20% prematurity rate in mothers with high risk conditions. Nationwide Children's Hospital, the Department of Obstetrics and Gynecology at the Ohio State University Medical Center, and the Columbus Health Department have partnered to: evaluate the problem; develop strategies to effectively address this health care issue; and, identify cost effectiveness as a result of a coordinated, multi-faceted approach to reducing premature births (PTB) and the negative outcomes associated with this problem.

This working group has met regularly since August, 2008 to develop a comprehensive proposal which would successfully accomplish the objectives identified by the team. From the perspective that prevention efforts are not all the same, and that a strategy which tackles a major health problem requires various, yet integrated approaches, we have presented interventions which are primary, secondary, and tertiary in their focus. Primary (preventing PTB in first time low income mothers), secondary (preventing PTB births in mothers who previously had a PTB and are pregnant with a subsequent pregnancy), and tertiary (prolonging the inter-pregnancy interval and subsequent PTB in mothers who recently experienced a PTB and the infant is cared for at NCH NICU) interventions have cross-over capacity between the various interventions, as well as resource sharing across the proposed interventions. Lastly, we propose that this model be implemented to provide an infrastructure for a future translational research agenda to evaluate various stress-related gene expressions in high risk pregnant women that would identify medical, behavioral, and environmental influences which threaten maternal-infant health.

# Central Ohio Better Birth Outcomes Prevention Initiatives Overview

## **Primary Prevention**

*(provider-centric)*

### **ELPTD Project**

(Elective Late preterm delivery prevention project)

**Lead:** Kelleher

**Collaborators:** Carr, Bagwell, Slack  
**Subjects:** Ob-Gyn providers/  
practices with >2SD above mean for  
PT deliveries

(Dr. Kelleher will provide a separate  
overview of this project- potential  
integration with Ohio Perinatal  
Quality Collaborative (OPQC)- .  
statewide project supported by  
CMS/ODJFS/ODH)

## **Primary Prevention**

*(patient-centric)*

### **NFP**

(Nurse Family Partnership)

**Lead:** Scribano

**Collaborators:** Stevens, Vaughn

**Subjects:** first time, low income  
pregnant women prior to 28<sup>th</sup> week  
gestation (target >60% by 20<sup>th</sup> week)

**Objectives:**

- reduce premature births
- prolong inter-pregnancy interval  
between first and subsequent  
births

**Intervention:**

- RN home visits
- NFP curriculum

**Outcomes/  
Evaluation**

- Reduced PTB, LBW rates  
compared to matched controls
- Delay in subsequent pregnancy  
and/or prolonged interval to  
subsequent pregnancy
- Reduced ED visits in  
infants/children in year 2
- Cost-identification analysis

## **Secondary Prevention**

### **17-P Project**

(17- Progesterone Intervention)

**Lead:** Gabbe

**Collaborators:** Patrick, Iams,  
Vaughn

**Subjects:** low income, pregnant  
women with PREVIOUS PTB

**Objectives:**

- Reduce premature births

**Intervention:**

- APN home visits
- BBO curriculum (Gabbe, et al.)
- 17-P administration (IM weekly  
injections)

**Outcomes/  
Evaluation:**

- Adherence/ tolerance to drug  
regimen
- Reduced PTB with delay to 38  
weeks
- Cost-identification analysis

## **Tertiary Prevention**

### **NICU CM Project**

(NICU Case Management Project)

**Lead:** Stevens

**Collaborators:** Isley, Gabbe, Patrick,  
Scribano, Vaughn

**Subjects:** Mothers of PTB infants in  
NCH NICU

**Objectives:**

- Prolong inter-pregnancy interval
- Increase breastfeeding
- Improve maternal well-being
- Improve child well-being

**Intervention:**

- TCM
- RN home visits

**Outcomes/  
Evaluation**

- Delay in subsequent pregnancy  
and/or prolonged interval to  
subsequent pregnancy
- Improved adherence to  
breastfeeding
- Adherent reproductive health  
plan
- Improved primary care



