Ohio Infant Mortality: The Dental Connection

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Public Health Crisis in Ohio
Why is this happening?
What is a preterm birth?
Factors associated with preterm births

- Maternal smoking/drug use
- Low maternal body mass index
- Low socioeconomic factors
- Maternal Nutrition
- Maternal infections
Factors associated with preterm births

- Diabetes
- African American ancestry
- High or Low Maternal Age
- Multiply Pregnancies
- Hypertension
Percent of Preterm Births
By County, 2010-2012

Percent preterm \(^1\) births
(Standard deviation)

- Less than 10.0 (\(<-1.0\))
- 10.0 to 13.3 (-1.0 to 1.0)
- Above 13.4 (\(\geq 1.0\))
Ohio Counties Above 13.4% Preterm Births

- Erie
- Cuyahoga
- Summit
- Allen
- Hardin
- Marion
- Franklin
- Montgomery
- Hamilton
- Adams
- Ross
- Pike
- Scioto
- Vinton
- Jackson
- Lawrence
- Meigs
- Meigs
Ohio Infant Mortality Rates - 2012

Deaths per 1,000 live births
Total deaths: 1,047
March 2014 release of final Ohio 2012 Infant Mortality Rate data
Source: Ohio Department of Health Vital Statistics
Lets Review

Infection

Bacteria

Immune Responses

Inflammatory Mediators

Preterm labor
Inflammatory Mediators: The Culprits

- Cytokines
- Prostaglandins
- Matrix metalloproteinases
The Facts
“However”
“A prime time to reduce the risk of prematurity is prior to pregnancy. The management of chronic health conditions and smoking cessation will reduce risk. Preconception physicals, as well as early prenatal care, can identify women who may need special care before or early in pregnancy.” (2014)
Health Care Providers

- Physicians
- Obstetricians
- Dental Professionals
- Dieticians
- Midwives
What can we do?