Preterm Births in Puerto Rico: 2006 - 2016

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Sunshine Seminar 2016
Progress in Addressing Preterm Births in Puerto Rico, 2016

• Puerto Rico had the highest rate of preterm births of all US jurisdictions and the third highest worldwide

• Progress have been made in reducing the rate from nearly 20% to 11.8%

• More needs to be done to reach 8.1% by 2020.

• We can do it!
The Preterm Births Taskforce, Puerto Rico

• Puerto Rico had the highest rate of preterm births of any US jurisdiction in 2006 and beyond
  • Puerto Rico = 19.9%
  • USA = 12.5%

• The **third highest** in the world after Malawi and Congo

• Known factors of preterm births do not explain the high rate of preterm births in Puerto Rico
Preterm Births in Puerto Rico: Challenges

• Lack of Awareness about Preterm Births
  – Few knew that preterm Births is a public health issue
  – Pregnant women were unaware about early signs of preterm labor
  – Obstetricians needed cutting edge information on management and prevention of preterm births

• Need for Policy Changes
  – Access to health insurance
  – Access to 17-Hydroxyprogesterone

• Need to find out the causes of preterm births in Puerto Rico
Preterm Births Summit, 2007
Medical Conferences in Puerto Rico

Drs. Cordero, Oshiro, Lynch, and Pérez

Dr. Sola

Dr. Lockwood
17 Hydroxyprogesterone in Puerto Rico

Prior to Puerto Rico’s 17P Initiative, the preterm birth rate was the highest in the nation at 19.8 percent.

Now 85% of eligible pregnant women are receiving 17P.

In five years, Puerto Rico’s preterm birth rate fell to 14 percent.
Preterm Births By Year, Puerto Rico & USA, 1990-2014
March of Dimes Virginia Apgar Prematurity Campaign Leadership Award

In recognition of the commitment, leadership and collaboration to reduce the rate of preterm birth in the state by achieving an 8% reduction over a five year time period.
Puerto Rico had a reduction of 14.7% in five years!
Contaminated Sites in Puerto Rico

All have been found in groundwater in Puerto Rico

- Phthalates
- Chlorinated solvents (e.g. TCE)
- Pesticides
- Heavy Metals

¹ATSDR, 2007; CERHR, 2006; Latini et al., 2003; Ha and Cho 2002; Khattak, 1999; Lipscomb and Fenster, 19991
• Started in April 2010
• Holistic approach
  – From source to outcome
• Transdisciplinary approach
  – engineers, biochemists, electrochemists, toxicologists, epidemiologist, biostatisticians, pediatricians, agronomist, hydrogeologists, and social scientists.
• What are the environmental causes of preterm birth?
• What are the opportunities for prevention?
Preterm Birth Rates for Very High Human Development Index Countries*

*Preterm birth rates per 100 live births in 2010 (baseline) for 39 countries with VHHDI.

The March of Dimes Prematurity Campaign aims to reduce preterm birth rates across the United States. Premature Birth Report Card grades are assigned by comparing the 2014 preterm birth rate in a state or locality to the March of Dimes goal of 8.1 percent by 2020. The Report Card also provides city or county and race/ethnicity data to highlight areas of increased burden and elevated risks of prematurity.
Prematurity Campaign Roadmap

• Sets out plan for meeting 2020 and 2030 goals
  ➢ Optimize known interventions.
  ➢ Target areas and populations with high preterm birth rates.
  ➢ Improve health equity.
Roadmap Interventions: target delivery to increase health equity

- Birth spacing and interconception care
- Elimination of non-medically indicated early elective deliveries (Hard Stop)
- Smoking cessation
- Low-dose aspirin to prevent preeclampsia
- Access to progesterone shots for women with a previous preterm birth
- Vaginal progesterone and cerclage for short cervix
- Reduce multiple births conceived through Assisted Reproductive Therapy (ART)
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Birth Spacing

Birth Spacing and Birth Outcomes

Birth spacing refers to the time from one child’s birth until the next pregnancy, also known as the interpregnancy interval. Pregnancies that start less than 18 months after birth are associated with delayed prenatal care and adverse birth outcomes, including preterm birth, neonatal morbidity, and low birthweight.1,2,3 Further, these poor birth outcomes are often associated with ongoing health problems such as developmental delay, asthma, and vision and hearing loss.4 In the United States, between 2006 and 2010, about 33% of pregnancies among women with a previous live birth began less than 18 months after the prior birth, placing mothers and infants at risk for adverse health outcomes.5

Access to services that promote appropriate birth spacing can reduce the risk for poor birth outcomes such as preterm birth and low birthweight.6 The March of Dimes promotes birth spacing interventions that are supported by scientific evidence and are most effective in improving maternal and child health outcomes. The March of Dimes urges every woman to consult with a health care provider to select an approach to family planning and birth spacing consistent with her needs and beliefs.

Family Planning Counseling Promotes Women’s and Infants’ Health

Key Points

• One in 10 babies is born preterm.

• Pregnancies spaced less than 18 months after a live birth are associated with delayed prenatal care and increased risk for adverse birth outcomes.

• Between 2006 and 2010, about 33% of all pregnancies among women with a prior live birth in the U.S. occurred less than 18 months after the prior birth.

• Appropriate birth spacing can reduce the risk for poor birth outcomes such as preterm birth and low birthweight.

• Access to family planning counseling and contraception plays a key role in birth spacing and reduced risk for poor birth outcomes.

Contact information: Nicole Garro at ngarro@marchofdimes.org, (202) 659-1800.
Low Dose Aspirin to Prevent Preeclampsia

• Recommended by the US Preventive Services Taskforce

• Low-dose aspirin (range, 60 to 150 mg/d) reduced the risk for preeclampsia by 24% in clinical trials and reduced the risk for preterm birth by 14% and IUGR by 20%

• No significant increased risk for these adverse events. No difference in the risk for placental abruption
Eliminating Early Elective Deliveries

- Implemented in nearly half of hospitals in Puerto Rico that have a delivery room.
- Highly effective in lowering the rate of preterm births and primary cesarean sections
Vaginal Progesterone & Circlage

• Based on sonographic measurement of cervical length
• Vaginal progesterone recommended as well as circlage
Roadmap Targets 15 States And Puerto Rico

• **Phase I: States and territories with highest rates**
  - 5 states and 1 territory in 2017
  - Alabama, Louisiana, Mississippi, Puerto Rico - Highest rates
  - Florida, Texas - Most populous high rate states

• **Phase II: Additional states with large numbers of births**
  - 10 additional states with births >100,000
  - California, Georgia, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia
  - Continue preterm birth prevention

  • in all states
Achieve Demonstrated Improvements in Health Equity and Preterm Birth
March of Dimes, National Ambassador, 2016

- Born 35 weeks, 5 ½ lbs
- Served as Local Ambassador in Puerto Rico
- Fluent in Spanish & English