# **Preterm Birth Initiative (PTBi)**

A UCSF-led Research Initiative

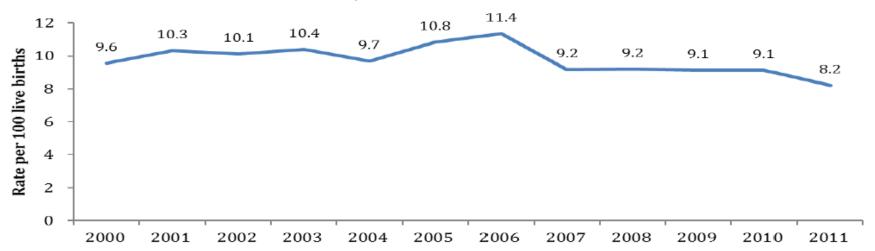
Update for Health Commission: Public Health Committee
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# Significance

- Major cause of infant mortality
  - SF per 1,000: 3.8. White: 2.4; Latino: 4.7; Black: 14.4
- Lifetime of disabilities
  - cerebral palsy, chronic lung disease, learning disability, vision/hearing
- Annual cost of \$26+ billion in U.S.

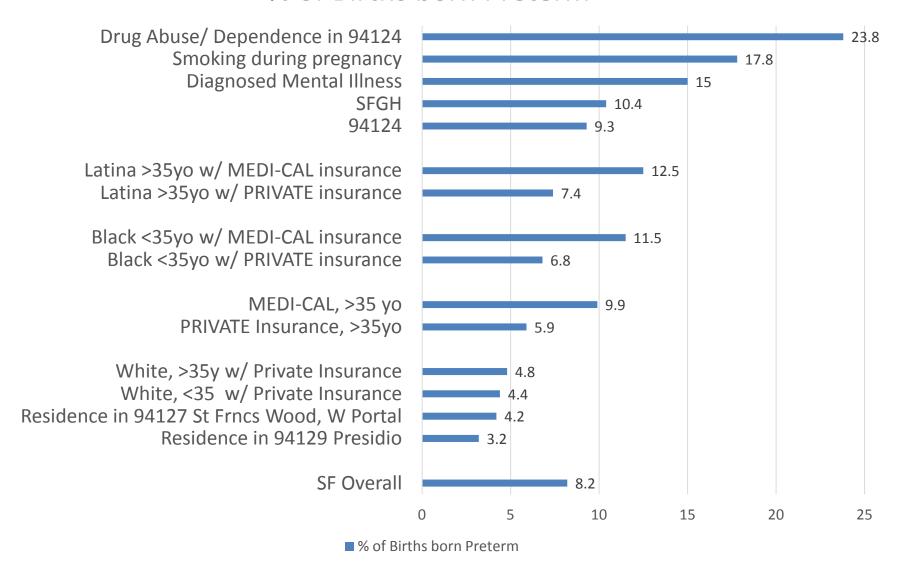
#### Preterm birth rate, SF resident births 2000-2011



### **Disparities in Preterm Birth**

in San Francisco

### % of Births born Preterm





# Factors & Causes of Preterm Birth

Table 3

Table 5.			
Factors of Preterm Birth: (Adapted from IOM Report on Preterm Birth: Causes, Consequences, and Prevention, 2007.)			
Sociodemographic	Psychosocial	Behavioral	Medical & Pregnancy
Factors	Factors	Influences	Conditions
<ul> <li>Maternal age: U-shaped. &lt;16yo, &gt;35         years old</li> <li>Marital status: OR:         1.41 single mothers         living alone</li> <li>Race &amp; Ethnicity:         Particularly African-Americans</li> <li>Socioeconomic conditions</li> <li>Neighborhood conditions</li> </ul>	<ul> <li>Stress</li> <li>Life events. (divorce, death in family, illness, injury, loss of job)</li> <li>Chronic stress</li> <li>Anxiety. OR 2.1</li> <li>Depression. OR 1.96</li> <li>Racism</li> <li>IPV. OR 1.37</li> <li>Unintended pregnancy RR 1.62</li> </ul>	<ul> <li>Tobacco. RR 1.5 for smoking 10-20cig/d; 2.0 for 20+ cig/day</li> <li>Alcohol. Heavy users of alcohol (e.g., &gt;1 drink/day during pregnancy)</li> <li>Cocaine users. OR 2</li> <li>Work conditions. RR=1.3 for work &gt;42 hours/wk, standing &gt;6h/d, low levels of job satisfaction.</li> <li>Lack of leisure physical activity</li> </ul>	<ul> <li>Chronic HTN. OR 4.06</li> <li>Asthma &amp; Lung Dz</li> <li>Previous PTB OR 2.45</li> <li>BMI&lt;20 OR 3.96</li> <li>Birth spacing &lt;6m         <p>RR 1.3 - 1.6     </p></li> <li>Infertility treatment</li> </ul>

## **Evidence-Based Approaches**

to Reduce Preterm Birth & Its Morbidity & Mortality

#### PREVENTION OF PRETERM BIRTH

- Preconception care package, especially family planning, education, nutrition and STI prevention, ensuring adolescent friendly services
- Antenatal care package for all women with targeted care of women at risk of preterm birth
- Obstetric care and provider education to promote appropriate induction and caesarean
- Policy support including smoking cessation and employment safeguards of pregnant women

#### CARE OF PREMATURE BABY

#### MANAGEMENT OF PRETERM LABOUR

- Tocolytics to slow down preterm labour
- Antenatal corticosteroids
- Antibiotics for pPROM

- Essential newborn care, especially feeding support and thermal care
- Neonatal resuscitation if needed
- Extra care of premature babies including Kangaroo Mother Care
- Management of premature babies with complications, especially respiratory

distress syndrome and infections

 Comprehensive neonatal intensive care, where capacity allows

REDUCTION OF PRETERM BIRTH

MORTALITY
REDUCTION AMONG
BABIES BORN
PRETERM

Source: Lawn et al, Born too Soon. WHO & March of Dimes, 2012

### The Birth of the PTBi

- Co-funded by Marc and Lynne Benioff and the Bill and Melinda Gates Foundation
  - A research initiative led by UCSF in collaboration with the SFDPH and several global partners

### • 3 Aims

- Discovery
  - Causes, diagnostics, therapeutics)
- Implementation
  - Scaling up what works; understanding barriers
- Knowledge Transfer

# Organization/Structure of the PTBi

# Internal Advisory Committee

 8 UCSF leaders (Deans, Chairs, etc.)

### **Exec Management Team (EMT)**

- Larry Rand & Jaime Sepulveda
- 8 Deputy Directors: planning year

# **External Advisory Committee**

 8 international and domestic health leaders

Discovery Working Group

**Implementation Working Groups** 

Knowledge
Transfer
Working Group

### **Trans-Disciplinary Council**

EMT members plus Working Group lead facilitators

#### **Focus / Interest Groups**

 Groups of UCSF experts who inform Working Groups and explore specific PTB issues

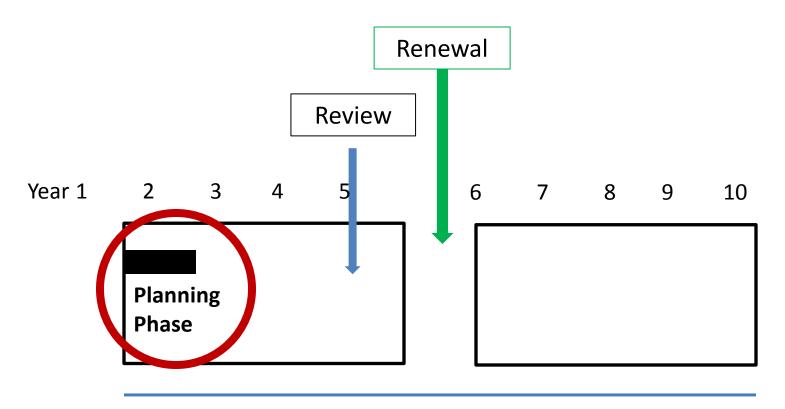
### **Community Advisory Boards**

 Community members in the selected geographies of the PTBI

#### **External Study Sections**

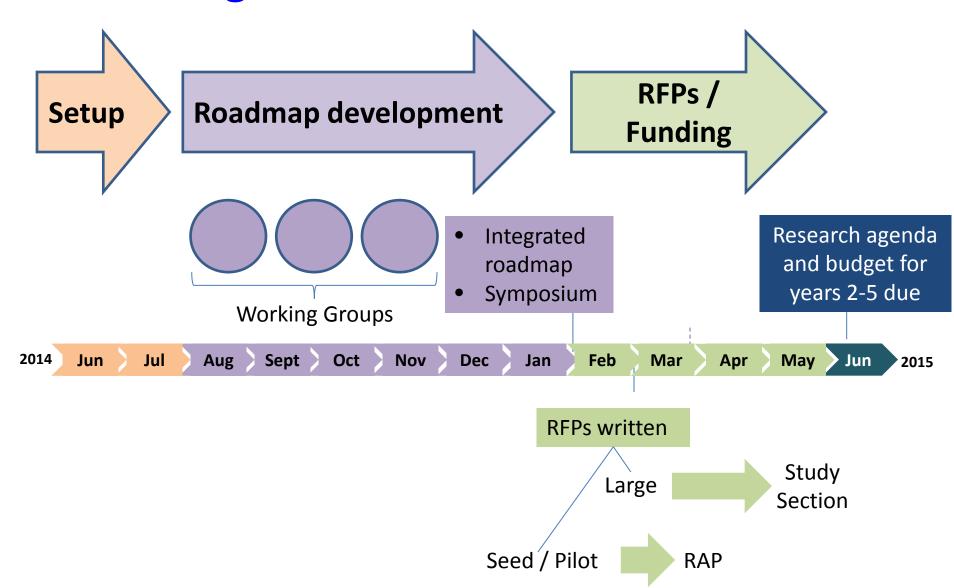
 Academic leaders in maternal / child health outside UCSF, tasked with reviewing RFP submissions

### Ten-Year Overview of the PTBi



\$100M over 10 years

## **Planning Year Activities and Deliverables**



### Role of SFDPH in PTBi

- Collective Action to prevent preterm birth:
  - Prenatal care, young women's healthcare, adolescent health, family planning, & social conditions.
  - Headline indicator of Population Health Division Strategic Plan
- Leadership and innovation within a significant local and global research effort
- Stakeholder Engagement
  - Train community leaders in community-based participatory research