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.**
Disparities in Preterm Birth in San Francisco

% of Births born Preterm

Drug Abuse/Dependence in 94124
Smoking during pregnancy
Diagnosed Mental Illness
SFGH
94124

Latina >35yo w/ MEDI-CAL insurance
Latina >35yo w/ PRIVATE insurance

Black <35yo w/ MEDI-CAL insurance
Black <35yo w/ PRIVATE insurance

MEDI-CAL, >35 yo
PRIVATE Insurance, >35yo

White, >35y w/ Private Insurance
White, <35 w/ Private Insurance
Residence in 94127 St Frncs Wood, W Portal
Residence in 94129 Presidio

SF Overall

% of Births born Preterm

0 5 10 15 20 25
# Factors & Causes of Preterm Birth

Table 3.

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

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

Trans-Disciplinary Council
- EMT members plus Working Group lead facilitators

Discovery Working Group

Implementation Working Groups

Knowledge Transfer Working Group

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

Year 1          2          3         4          5

Planning Phase

6          7          8  9         10

Renewal

Review

$100M over 10 years
Planning Year Activities and Deliverables

Setup

Roadmap development

- Working Groups
- Integrated roadmap
- Symposium

RFPs / Funding

RFPs written

- Large Seed / Pilot
- RAP

Research agenda and budget for years 2-5 due
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