Learning Objectives

Participants in this presentation will:

■ Become familiar with the history of federal public health efforts to reduce the national rate of infant mortality and low birth weight babies and to reduce disparities in birth outcomes;

■ Review the components of interventions to promote optimal prenatal, postpartum, and interconceptional care in reducing poor outcomes;

■ Become familiar with the services offered by the Bronx Healthy Start Partnership and the Fetal & Infant Mortality Review Team
Healthy Start – Historical Perspective

41st President – 1989 -1993
"kinder, gentler nation"
National Healthy Start Program Timeline, 1991-2016

- Authorized in Title V
- Re-authorized in Title V
- Authorized in Children’s Health Act
- Secretary’s Advisory Committee on Infant Mortality Report
- Mentoring Phase adds 55 grantees
- Mathematica Evaluations
- National Evaluations

1991-2016

Number of Sites

Sites
Federal Healthy Start Program:
A community strategy to reduce infant and maternal mortality
Healthy Start Objectives

**Improve Women's Health**
- Health insurance
- Reproductive life plan
- Postpartum visit
- Medical home
- Well women visits

**Strengthen Family Resilience**
- Perinatal depression screening and referral
- Address family resiliency factors
- IPV screening
- Father involvement
- Daily reading to children

**Promote Quality Services**
- First trimester prenatal care
- Infants ever breastfed
- Infants breastfed at 6 months
- Abstinence from smoking
- Short Interval Pregnancies (Well child visits
- Elective delivery <39 weeks

**Achieve Collective impact**
- Develop and implement a Community Action Network (CAN)
  - at least 25% HS participant membership on their Community Action Network (CAN)
- Engage with Community coalitions,
- Collaborative to improve outcomes

**Increase Accountability through Quality Improvement, Performance Monitoring & Evaluation**
- Establish QI process and ongoing monitoring
- Conduct Performance Monitoring (achieve MHCB benchmarks)
- Conduct local evaluation
Healthy Start 2014 funds 100 organizations in 37 states, DC & PR; 75 Urban (including 1 Border community); 25 Rural (including 4 Border and 3 Tribal communities).
U.S. Infant Mortality Rate, 1990-2016

Trend: Infant Mortality, United States, 2015 Annual Report

Edition Year

Deaths per 1,000 live births

Number of infant deaths (before age one year) per 1,000 live births

SOURCE:
- CDC, National Vital Statistics System
Support for Families Across the Lifespan

Women of reproductive age & their infants to age 2 years

- Risk Prevention/Reduction
- Health Promotion
- Infrastructure/Systems Building
- Programmatic Involvement of Women, Their Families (*including Male Partners*) & Communities

Causes of Health Disparities

Poverty/
Low Economic Status

Social Injustice

Culture

Possible Influence on Gene Environment Interaction

Prevention
Early Detection
Diagnosis/Incidence
Treatment
Post Treatment/Quality of Life
Survival and Mortality

Freeman, Adapted from Cancer Epidemiology Biomarkers & Prevention, April 2003
Infant Mortality Rates in Context

Bronx Healthy Start Partnership

Working to improve the birth outcomes experienced by the women of the Bronx
Disparities in Fetal and Infant Mortality Rates

2015, Deaths per 1,000 Live births

Data Source: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

National Center for Fatality Review and Prevention
Bronx has the highest burden of infant mortality, of which the leading cause is disorders related to preterm and low birth weight, followed by congenital problems.

![Bar chart and pie chart showing infant mortality rates and cause-specific mortality numbers for different boroughs in New York City. The chart indicates that Bronx has the highest infant mortality rate at 5.0 per 1,000 live births, followed by Manhattan, Queens, and Brooklyn. The pie chart shows the distribution of deaths by cause, with disorders related to preterm/LBW being the largest category.]

Numbers of deaths of children < 1 year old due to each cause are shown.

Bronx Maternal Mortality Rate, 2006-2015

Source: NYS Department of Health
Bronx Healthy Start Partnership

Is a collaboration of Albert Einstein College of Medicine, Bronx Community Health Network (BCHN), Morris Heights Health Center (MHHC), Bronx Health Link, Montefiore Medical Center, Group, and other community partners.

**Goals:**
1. Improve Women’s Health
2. Promote Quality Services
3. Strengthen Family Resilience
4. Achieve Collective Impact
5. Accountability, Performance Monitoring & Evaluation
Required Healthy Start Service Components

1. Promote Women’s Health
   - Focus on prevention & health promotion & health education
   - Core competencies for workforce

2. Promote Quality Service
   Service coordination & systems integration
   Standardized curriculum & interventions

3. Strengthen Family Resilience
   - Address toxic stress & support delivery of trauma-informed care
   - Support mental & behavioral health
     ■ Promotion of father involvement
   - Improving Parenting

4. Achieve Collective Impact
   - Develop & use Community Action Network (CAN)
   - Contribute to collective impact (i.e., Community coalitions, collaboratives, etc.)

5. Increase Accountability through Quality Improvement, Performance Monitoring & Evaluation
   - Use QI
   - Conduct Performance Monitoring (achieve MHCB benchmarks)
   - Conduct evaluation
Each year, about 450 deaths occur citywide because all babies don’t have the same chances of living to their 1\textsuperscript{st} birthday. Of these, more than 120 excess deaths are in the Bronx.
A Definition of Collective Impact

“A disciplined, cross-sector approach to solving complex social and environmental issues on a large scale.”

- FSG: Social Impact Consultants
Perinatal Periods of Risk (PPOR) is a method of analyzing fetal and infant mortality in order to identify:

- **Population groups** with disproportionately high fetal-infant mortality rates (FIMR).
- **Periods of risk** that are contributing to “excess” FIMR.
- **Factors contributing to disparities** including:
  - social determinants;
  - health care system barriers;
  - and health behaviors.
Fetal Infant Mortality Review - Assessment

PPOR STUDY

- Number of Deaths: 102 (OVS 2015) -- 5.1 Fetal Mortality Rate (per 1,000 live births)

- The most common causes of Infant Deaths in the last year?
  - 25 Prematurity/Low Birth Weight
  - 13 Sudden Unexpected Infant Deaths (including SIDS, Accidental Suffocation, Undetermined)
  - 16 Congenital Anomalies (Birth Defects)
  - 48 Other

- FIMR – Phase II study and intervention
PPOR Phase 2: Fetal Infant Mortality Review

Phase 2 analyses use **birth and death records** and other data to:

- **Identify pathways / mechanisms** for excess feto-infant mortality with:
  - Cause-specific mortality rates for deaths in Infant Health period
  - Birth weight distribution and birthweight-specific mortality for deaths in the Maternal Health / Prematurity period

- Estimate the prevalence of risk and preventive factors, comparing study and reference populations with ratios or differences.

- Estimate the impact of risk and preventive factors using population-attributable risk percentage (PAR%).
When Vital Statistics alone cannot tell us the story . . . .

. . . Communities turn to FIMR to tell us how and why babies are dying
Fetal and Infant Mortality Review?

FIMR is:

- A warning system that can describe effects of health care systems change
- A method for implementing continuous quality improvement (CQI)
- A means to implement needs assessment, quality assurance and policy development which are essential public health functions, at the local level.
FIMR: A Public Health Model

1. Fetal and Infant Deaths Selected
2. Maternal Interview Conducted
3. Records Abstracted & Summarized
4. FIMR Team Reviews & Makes Recommendations
5. Community Action Team Prioritizes and Takes Action
6. Improved Systems, Services & Resources for Families
7. Improved Health of the Community

National Center for Fatality Review and Prevention
Community Empowerment

Through the fetal-infant mortality review process, the community becomes the expert in the knowledge of the entire local service delivery systems and community resources for childbearing families.
Thank you!

Alma Idehen  
Bronx Healthy Start Partnership  
Albert Einstein College of Medicine  
Alma.Idehen@Einstein.yu.edu