



The Perinatal Periods of Risk Approach



Phase 2 Analytic Methods
MATERNAL CARE
PERIOD OF RISK

CityMatCH Training
www.citymatch.org



Phase 1 is NOT enough.
Phase 2 analyses are REQUIRED to determine which risk factors are most important in YOUR community



Steps of the Phase 2 Analysis Plan

1. Identify causal pathways or biologic mechanisms for excess mortality
2. Estimate prevalence of risk and preventive factors by type of mechanism
3. Estimate the impact of the risk and preventive factors.

Phase 2 Overview

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PPOR Phase 2 Analysis Strategy

- ◆ Eliminate from consideration factors that are unlikely to be contributing
- ◆ Find and target KNOWN factors that are likely to be contributing



MATERNAL CARE PERIOD

Phase 2 Analysis

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Phase II Analysis Maternal Care Period

- ◆ Not as much information on fetal death certificates.
- ◆ More missing data
- ◆ Causal pathways such as chromosomal abnormalities, severe congenital anomalies, placental vascular abnormalities cannot be described using current vital records information
- ◆ It is possible to "skip" the first step, and go on to examine risk factors for all causes of death in this period.

Phase 2 Analysis

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Phase II Analysis Maternal Care Period

- ◆ Risk Factors that are reliably collected on fetal death certificates in some states include
 - ◆ Birthweight and Gestational age
 - ◆ Maternal age and race
 - ◆ Parity and previous fetal loss
 - ◆ Smoking
 - ◆ Education/socioeconomic
 - ◆ Inter-pregnancy interval
 - ◆ Multiple gestation
 - ◆ ETC.

Phase 2 Analysis

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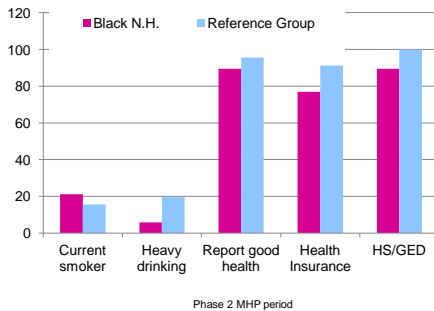


Phase II Analysis SAS code Defining Small for Gestational Age (SGA)

```
***** FROM: 1991 U.S. LIVE BIRTH FILE by Greg Alexander *****
** SGA: BELOW 10TH PERCENTILE OF BW FOR GESTATIONAL AGE **;
SGA = 0;
IF (GEST = 20 & BW < 275) OR (GEST = 21 & BW < 314) OR
(GEST = 22 & BW < 376) OR (GEST = 23 & BW < 440) OR
(GEST = 24 & BW < 498) OR (GEST = 25 & BW < 558) OR
(GEST = 26 & BW < 625) OR (GEST = 27 & BW < 702) OR
(GEST = 28 & BW < 798) OR (GEST = 29 & BW < 925) OR
(GEST = 30 & BW < 1085) OR (GEST = 31 & BW < 1278) OR
(GEST = 32 & BW < 1495) OR (GEST = 33 & BW < 1725) OR
(GEST = 34 & BW < 1950) OR (GEST = 35 & BW < 2159) OR
(GEST = 36 & BW < 2354) OR (GEST = 37 & BW < 2541) OR
(GEST = 38 & BW < 2714) OR (GEST = 39 & BW < 2852) OR
(GEST = 40 & BW < 2929) OR (GEST = 41 & BW < 2948) OR
(GEST = 42 & BW < 2935) OR (GEST = 43 & BW < 2970) OR
(GEST = 44 & BW < 2885)
THEN SGA = 1;
IF ^ (125 <= BW <= 8000) OR ^ (20 <= GEST <= 44) THEN SGA = .;
*Phase 2 MHP period
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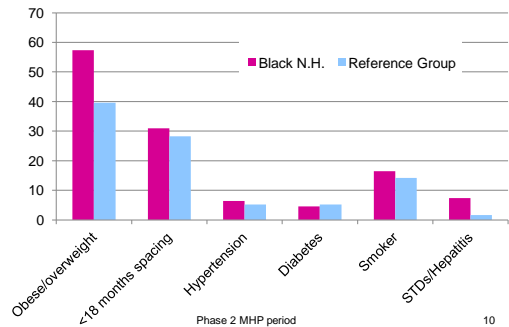
Disparities in prevalence of risk factors (Urban County BRFSS— represents all females age 18-44)



Phase 2 MHP period

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Disparities in prevalence of risk factors, (Urban County vital records data – PPOR eligible live births plus fetal deaths)



Phase 2 MHP period

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Phase II Analysis Maternal Care Period

- Risk Factors from other data sources
 - BMI
 - Weight gained during pregnancy adjusted for BMI
 - Diabetes
 - Hypertension
 - RH disease
- USE FIMR TO EXAMINE LARGER FETAL DEATHS



Summary of Phase 2 Analysis

STEPS:

1. Identify causal pathways for excess mortality
2. Examine prevalence of risk and preventive factors
3. Estimate impact

STRATEGY:

Eliminate causes unlikely to be contributing

Target causes that are likely to be contributing most

Phase 2 Analysis

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