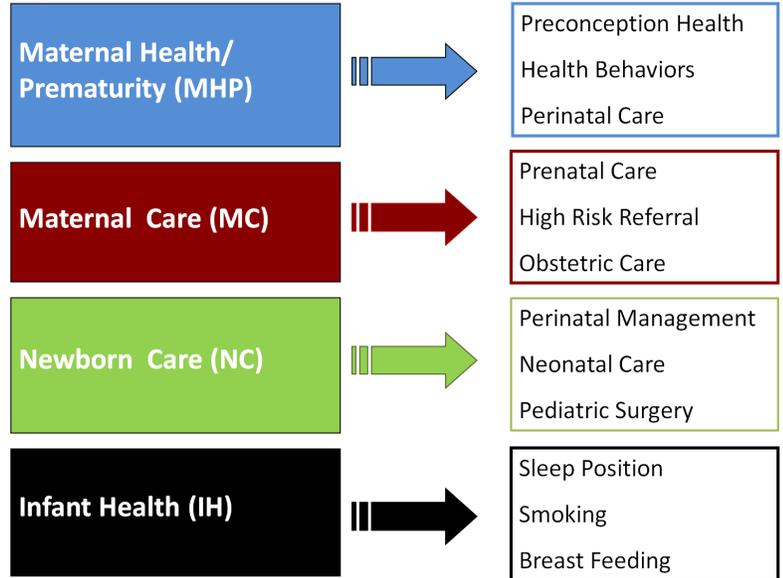


Feto-Infant Mortality in Cameron County

About Perinatal Periods of Risk (PPOR):

- The goal is to prioritize and target prevention and intervention efforts
- Based on birth weight and age of death, the PPOR approach partitions fetal and infant deaths into four areas (Figure 1) corresponding to specific intervention points in the health care continuum. These four components have different risk factors, causes of death, and corresponding interventions
- Texas and sub-populations are compared to a state-level reference group (non-Hispanic White women who are at least 20 years of age and have at 13+ years of education) generally known to have better feto-infant mortality outcomes
- Phase I analysis: Differences between the perinatal periods
- Phase II analysis: Periods and populations with the greatest disparities

Figure 1: PPOR Risk Periods: Points of Intervention



NOTE: Due to relatively small excess mortality, the newborn care risk period is not discussed

Phase I: Perinatal Period Comparison

Excess Feto-Infant Mortality in Cameron County 2005-2008 feto-infant mortality rates* (F-IMR) were:

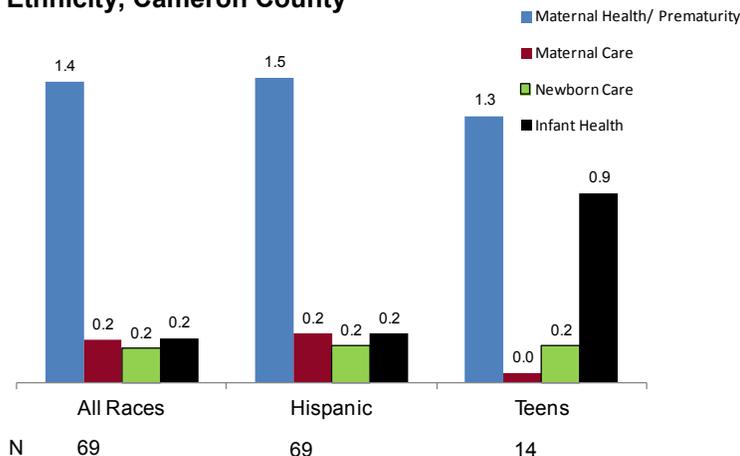
- 7.1/1,000 live births for all races
- 7.2 for Hispanics

Excess F-IMR is the difference between the exposure group (i.e. Black, White, Hispanic, teen) and the reference group. The excess F-IMR was (Figure 2):

- 2.0 for all races
- 2.1 for Hispanics

Due to low numbers of births and infant deaths among Blacks and Whites they could not be included in some analyses

Figure 2: Excess Feto-infant Mortality Rates by Race/Ethnicity, Cameron County



* F-IMR = number of fetal and infant deaths \geq 500 grams and \geq 24 weeks gestation / number of live births & fetal deaths \geq 500 grams and \geq 24 weeks gestation

- Overall, 71.3% of excess deaths occurred in the Maternal Health/Prematurity risk period. The Infant Health period contributed another 10.5% of excess deaths. Maternal Care and Newborn Care periods contributed 10.2% and 8.0% respectively
- Overall, the excess F-IMR was 2.0. **Potentially 28% of fetal and infant deaths were preventable**
- The highest excess rates occurred in the Maternal Health/Prematurity risk period
- 97% of all births in Cameron County from 2005-2008 were to Hispanic mothers
- The highest excess rate for teens occurred in the Infant Health risk period with an excess rate 4.5 times that of the entire population

Recommendation

- Target Maternal Health/Prematurity to all race groups and teens
- Target Infant Health to teens

Area with the Greatest Potential Impact:
Maternal Health/Prematurity

Phase II: Maternal Health and Prematurity (MHP)

Maternal Health/Prematurity (MHP) death in Cameron County: fetal and infant deaths weighing 500-1,499 grams

Very Low Birth Weight (VLBW) vs. Birth Weight Specific mortality:

- A larger percentage of feto-infant deaths in the MHP period are due to higher mortality rates among Cameron County infants at specific birth weight categories (Indicates a higher mortality rate among VLBW babies) (Figure 3)
- Deaths in the teen group are equally attributed to higher mortality rates at specific birth weight categories and to a greater number of VLBW births

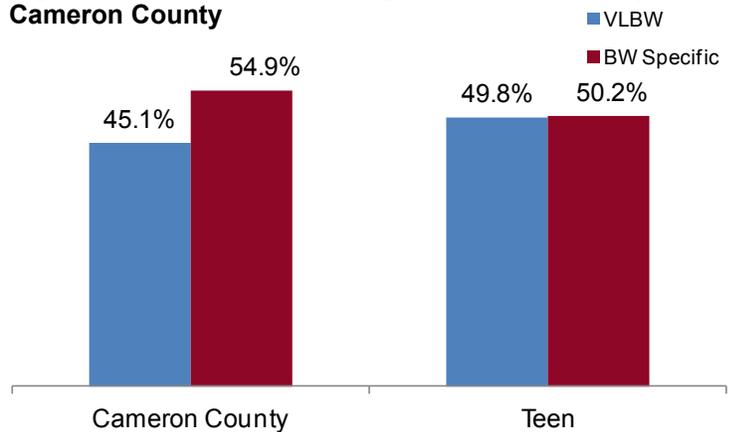
VLBW-Related Modifiable Risk Factors:

- The risk factors contributing most to VLBW were:
 - Weight gain less than 15 lbs.
 - Teen pregnancy
- 17% of VLBW births were attributed to weight gain less than 15 lbs
- Hispanics, and teens were more likely to gain less than 15 lbs. during pregnancy

BW Specific Modifiable Risk Factors for VLBW Births:

- Teen pregnancy contributed to 14% of BW specific deaths

Figure 3: VLBW vs. Birth Weight Specific Mortality, Cameron County



- Hispanics had a greater proportion of teen mothers compared to the reference group
- Premature rupture of membranes also contributed to BW specific deaths

Recommendations:

- Reduce the number of women gaining less than 15 lbs.
- Reduce teen pregnancy
- Target interventions that reduce premature rupture of membranes

Phase II: Infant Health (IH)

Infant Health death in Cameron County: infants weighing more than 1,500g at birth and survived to more than 28 days

Causes of Infant Health-related death (Figure 4):

- Of the Infant Health-related deaths, birth defects and perinatal conditions (primarily disorders related to short gestation and to complications of pregnancy, labor, and delivery) were the primary causes representing 81.8% of infant deaths in this period
- Teen pregnancy was the risk factor contributing most to IH-related death

The following recommendations should be targeted towards teens in Cameron County:

- Target interventions that reduce birth defects
- Reduce the number of premature births
- Target interventions that reduce teen pregnancy

Figure 4: IH-Related Death by Cause, Cameron County

