

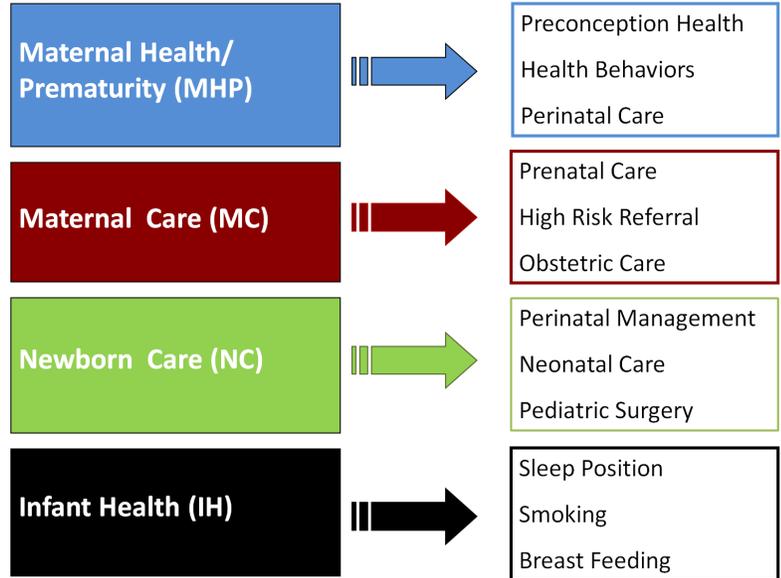


Feto-Infant Mortality in Ector County

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 Ector County

2005-2008 feto-infant mortality rates* (F-IMR) were:

- 8.4/1,000 live births for all races
- 6.9 for Hispanics

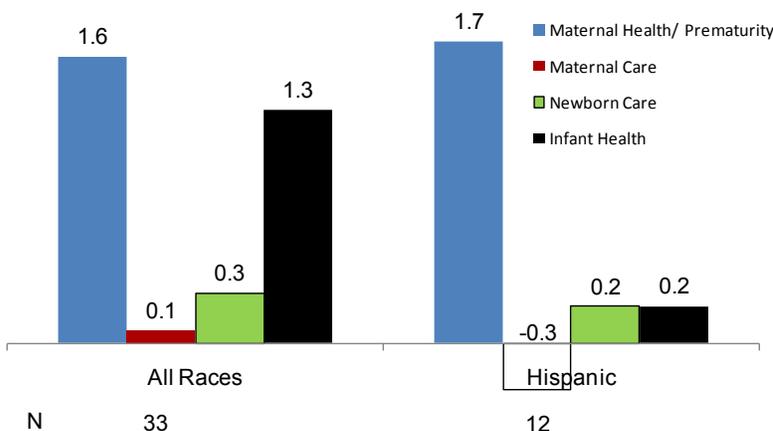
Excess F-IMR is the difference between the exposure group (i.e. Black, White, Hispanic, teen) and the reference group.

The excess F-IMR was (Figure 2):

- 3.3 for all races
- 1.9 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, Ector County



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

- Overall, 49.1% of excess deaths occurred in the Maternal Health/Prematurity risk period. The Infant Health period contributed another 39.9% of excess deaths. Maternal Care and Newborn Care periods contributed 2.3% and 8.7% respectively
- Overall, the excess F-IMR was 3.3. **Potentially 40% of fetal and infant deaths were preventable**
- The highest excess rate among Hispanics occurred in the Maternal Health/Prematurity risk period
- The excess rate in the Infant Health risk period was 6.5 times as high for all race groups combined than it was for Hispanics indicating that the Infant Health risk period is more problematic for non-Hispanic race/ethnicity groups
- Hispanics had a comparable excess F-IMR to all race/ethnicity groups combined for the Maternal Health/Prematurity risk group

Recommendation

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

Area with the Greatest Potential Impact: Maternal Health/Prematurity

Data Source: All data originate from Texas Department of State Health Services, Center for Health Statistics, 2005-2008

Phase II: Maternal Health and Prematurity (MHP)

Maternal Health/Prematurity (MHP) death in Ector 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 a greater number of VLBW births with all deaths at the county level and to Hispanics attributed to VLBW (Figure 3)
- Birth weight specific mortality is an indication of the mortality rate among VLBW babies. Ector County had BW specific births lower than the reference group

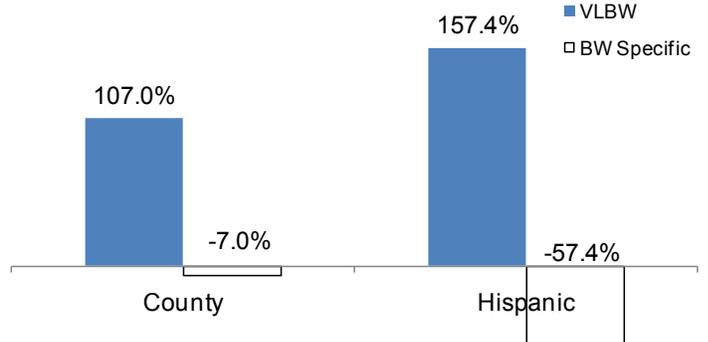
VLBW-Related Modifiable Risk Factors:

- The risk factor contributing most to VLBW was weight gain less than 15 lbs.
- 20% of VLBW births were attributed to weight gain less than 15 lbs
- Blacks, Hispanics, and teens were more likely to gain less than 15 lbs. during pregnancy

BW Specific Modifiable Risk Factors for VLBW Births:

- Inadequate prenatal care contributed to 23% of BW specific deaths
- Hispanics and teens were more likely to have inadequate prenatal care

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



Note: Negative numbers are the result of BW specific birth rates which are lower than the state reference group. This also increases the VLBW rates to above 100%.

Recommendations:

- Reduce the number of women gaining less than 15 lbs.
- Improve access to and use of prenatal care for all race groups and teens
- Stress importance of early entry into care

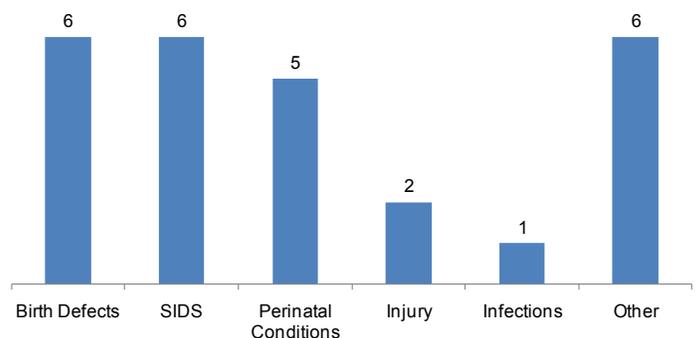
Phase II: Infant Health (IH)

Infant Health death in Ector 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 26 Infant Health-related deaths, Birth defects and SIDS were the primary causes representing 46.2% of infant deaths in this period
- Perinatal conditions (primarily disorders related to short gestation and to complications of pregnancy, labor, and delivery) contributed 5 deaths
- Hispanics accounted for 5 of the 6 deaths related to birth defects
- Teens represented 3 of the 5 deaths related to perinatal conditions
- Teens also accounted for 3 of the 6 SIDS-related deaths
- No breast feeding at hospital discharge, inadequate and no first trimester prenatal care, and teen pregnancy were risk factors contributing most to IH-related infant death

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



Recommendations:

- Target interventions that promote breast feeding
- Reduce the number of women gaining less than 15 lbs.
- Improve access to and use of prenatal care for all race groups and teens
- Stress importance of early entry into care

Phase II: Maternal Care (MC)

Maternal Care risk period death in Ector County: fetal deaths greater than or equal to 1,500 grams

- Weight gain less than 15 lbs. and parental smoking was more likely among Ector County mothers than for the reference population

Recommendations:

- Target interventions to reduce the number of pregnant women gaining less than 15 lbs.
- Target interventions that reduce parental smoking among women of child-bearing ages