The Magnolia Project:

Using PPOR & FIMR Findings to Develop a Community-Based Preconceptional Intervention
Duval vs. Florida

- Duval was one of three counties in 1995-97 that had an infant mortality rate significantly higher than the state.
- Two factors contribute to higher infant mortality rates in Duval:
  - Proportion of nonwhites in the population
  - Poor outcomes among nonwhites
Infant Mortality Rates, Duval County & Florida, 1994 - 99

Approach

- PPOR analysis
- Linking of FIMR findings
- Community engagement
- Development of strategies
- Action!
- Surveillance, monitoring and evaluation
Analysis

- Examined components of poor outcomes (fetal, neonatal, postneonatal)
- Examined causes of death
- Used Perinatal Periods of Risk
  - Simple method, based on a strong prevention framework, to focus community attention on infant mortality reduction efforts
  - Examines age at death AND birthweight to determine potential areas for intervention
### Black & White Fetal-Infant Death Rates
By Period of Risk, Duval County 1995-97

<table>
<thead>
<tr>
<th>Weight Range</th>
<th>Maternal Health/Prematurity</th>
<th>Neonatal</th>
<th>Postneonatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>500-1499g</td>
<td>Black 6.9 White 2.3</td>
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<tr>
<td></td>
<td>R= 3.01</td>
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<td></td>
<td>(2.14, 4.25 95% C.I.)</td>
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<tr>
<td>1500+g</td>
<td>Maternal Care Black 3.4 White 2.0</td>
<td>Newborn Care Black 1.5 White 1.2</td>
<td>Infant Care Black 2.8 White 1.9</td>
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<tr>
<td></td>
<td>R=1.70</td>
<td>R= 1.22</td>
<td>R= 1.44</td>
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<tr>
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<td>(1.12, 2.58 95% C.I.)</td>
<td>(0.67, 2.20 95% C.I.)</td>
<td>(.092, 2.24 95% C.I.)</td>
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</tbody>
</table>

Total Feto-Infant Deaths/1000 (Live Births + Fetal Deaths) =

<table>
<thead>
<tr>
<th>Weight Range</th>
<th>Total Rate</th>
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<tbody>
<tr>
<td>500-1499g</td>
<td>Black 14.6 White 7.4</td>
</tr>
<tr>
<td></td>
<td>R=1.96</td>
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<tr>
<td></td>
<td>(1.59, 2.41 95% C.I.)</td>
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Fetal & Infant Mortality Review (FIMR)

- Information abstracted from birth, death, medical, hospital and autopsy records
- Family interviews
- ACOG process
- Case review team determines medical, social, financial and other issues that may have impacted on poor outcome
FIMR Process

- 142 fetal and infant cases reviewed by CRT since 1995
  - 83 white
  - 53 black
  - 6 other

- Systematic, not random, sample based on specific criteria
Linking FIMR to PPOR

Maternal Health/Prematurity (n=53)

- No Healthy Start screening - 49%
- Problems accessing prenatal care - 43%
- General health of the mother - 34%
- Other infections - 32%
- Nutrition - 32%
- Family planning issues - 32%
- Tobacco/alcohol/drug use - 32%
- Previous poor pregnancy outcome - 28%
Linking FIMR to PPOR

Maternal Care (n=16)
- No Healthy Start screening - 63%
- General health of the mother - 38%
- Other infections - 38%
- STDs - 25%
- Nutrition - 25%
- Tobacco/alcohol/drug use - 25%
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- Pre-pregnancy intervention to reduce racial disparities in infant mortality
- Funded by $2 million federal Healthy Start grant (one of 8 in nation funded in 1999)
- Focuses on risk factors identified through PPOR and FIMR
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- Target area: 32202, 04, 06, 08 and 09
- Area accounts for 30% of black births and nearly 60% of black infant mortality
- 24,191 women of childbearing age
- 1,764 births (1997-99)
- Infant mortality rate: 16.7 deaths/1000 live births (1997-99)
- 32% inadequate prenatal care
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- Interventions:
  - **Enhanced clinical care** (Jax Community Health Center, UF Nurse Midwifery Program)
  - **Case management & risk reduction** (Duval County Health Department, St. Matthew Church, River Region Human Services)
  - **Outreach** (Healthy Families Jax, St. Matthew Church, Durkeeville Wellness Center)
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- Clinic services (free)
  - Age 15-44
  - Resident of target area
  - Pregnant or able to get pregnant

- Case management
  - 15-44 and living in target area
  - Not pregnant, but sexually active
  - 3 or more risk factors: previous loss, repeated STDs, no family planning, substance abuse, pregnancy <15 yrs, mental health probs, protective services, no source of care
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Magnolia Patient Profile (April-Sept 2000)

- 48% under 25 years old
- 65% single
- 90%+ black
- Mean annual income=$8,499
- 12% on Medicaid
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Magnolia Patient Profile (con’t)
- 30% previous poor outcome (miscarriage, death or LBW)
- 43% unintended pregnancy
- 33% not using birth control
- 62% history/current STD or infection
- 13% abnormal PAP
- 37% dietary issues
- 75% dental care > 1 year ago
Surveillance, Monitoring & Evaluation

Are we on target?

FIMR

Linking women to services