DIME & MIME: Bringing IPC to Mississippi

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Agenda

Discuss IPC impact on infant mortality
• MS infant mortality & disparities
• Impact of very low birthweight (VLBW)
• MS chronic disease & morbidity
• Need for IPC

Identify components of an IPC
• CDC recommendations for IPC
• DIME & MIME intervention package
• Problems and solutions

Discuss health policy & practice
• DIME & MIME project evaluation
• Goal for policy change
• Strategies to effect policy change
IMR by County 1998-2007 (10 Year Average)

Infant mortality rates vary throughout the state.

- 10-year average 10.4
- Lowest: Perry 5.6
- Highest: Tunica 20.5
- Healthy People 2010 Goal 4.5

Produced 11/2/2008
Source: MSDH, Public Health Statistics
# White & Non-white rates

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Infant Mortality by period of death, Mississippi 2007

- Neonatal: 42%
- Postneonatal: 58%
Percent of infant deaths by birth weight, Mississippi, 2007

- VLBW: 51.2%
- LBW: 29.6%
- Normal: 14.9%
- Unknown: 4.3%
Average Percent of Infant Deaths by birth weights, Mississippi, 1998-2007

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Findings from Linked Data

- A population of (n=297,418) non-Hispanic white & black singleton live-born infants studied.
- Assessing relationship between chronic conditions and IM, LBW, PTB.
Findings from Linked Data

• Maternal demographics
  – Younger
  – African American
  – Lower education
  – Lower income
  – Unmarried

• Maternal health
  – Smoking
  – Diabetes
  – Obesity
  – Hypertension
  – Heart disease
Kotelchuck Index

- Evaluates prenatal care based on timing & number of visits
- Adequate prenatal care had lower infant mortality rate than inadequate group
- “Adequate plus” prenatal care had much higher infant mortality rate than adequate group (what does this tell us?)
- Mississippi boasts of nearly 85% rate of early entry into care
Need for IPC

**Problem:** Many Mississippi babies die very small & very young despite prenatal care

**Hypothesis:** Mississippi women are not healthy enough to achieve a full term, normal weight delivery

**Solution:** Intervention PRIOR to conception

**Method:** IPC for small population with highest risk for poor delivery outcomes
CDC Recommendations for IPC

- Improve knowledge, attitudes, behaviors of men & women related to preconception health

- Assure all women of childbearing age in the U.S. receive preconception care services (i.e., evidence-based risk screening, health promotion, and interventions) enabling entry to pregnancy in optimal health

- Reduce risks indicated by previous adverse pregnancy outcome through interventions during the interconception period, to prevent or minimize health problems for a mother and her future children

- Reduce the disparities in adverse pregnancy outcomes
MIME & DIME

• Preconception / interconception care pilot programs
• Rural vs. Urban communities
• Delta Infant Mortality Elimination
• Metro Infant Mortality Elimination
Partnering organizations

- UMMC – principal recruitment site & service provider.
- Healthy Linkages – referral service for identification of medical homes.
- Division of Medicaid – data source.
- Community health centers – primary care medical homes.
MIME & DIME

IPC intervention package

- Individualized interpregnancy care plan based on assessments of medical/ social risks for subsequent poor pregnancy outcomes;
- Provision of primary health care & dental services in accordance with care plan for 24 months;
- Assistance in achieving a woman’s desire for subsequent pregnancies & need for optimum child spacing (ideally 18-20 months);
- Provision of appropriate social services & community outreach in each woman’s community.
MIME & DIME

Problems & solutions

• Expansive & rural geographical area
• Limited funding
• Limited resources
• Communication
• Transportation
MIME / DIME

Role of Health Department

• Lead agency & grant applicant
• Oversight & primary leadership for the project
• Contractual & logistical arrangements
• Local level support services:
  – Case management & outreach
• Data analysis & evaluation
• Policy development
MIME / DIME

Project evaluation

• On-going surveillance combined with evaluation at the project’s end
• Acceptability and delivery of the IPC service package indicators followed on an on-going basis
• Health & Reproductive outcomes evaluated at project’s end
• Cost-benefit analysis to compare cost savings to costs of program
Goal for policy change

• Medicaid lost 6 weeks post-partum
• No primary care during interim before subsequent pregnancies so poor chronic disease management
• Goal: Primary care for poverty-level Mississippi women who deliver VLBW
• Format: Medicaid waiver
MIME / DIME

Strategies to effect policy change

Cost analysis

– Reduction in Medicaid costs
  >60 % of Mississippi births covered by Medicaid
– High risk pregnancy care
– High risk infant care
– Long term morbidities & developmental delay
– Low number of qualified women (n= ~800)
– Low cost of primary care
Questions?