

Addressing Social Determinants of Infant Mortality

Testimony before the Michigan State House , Health
Policy Committee

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Maternal Child Health Coalition of Michigan

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Underlying principles

- Awareness of and attention to the influence of social determinants
- Promotion of the health of women throughout their life
- Use of clear and consistent messaging
- Dedication of resources to support evidence-based policies and programs



NATIONAL PARTNERSHIP FOR ACTION
to End Health Disparities

Health equity is attainment of the highest level of health for all people.

Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, **and the elimination of health and healthcare disparities.**

Underpowered Analysis



Multifactorial Analysis

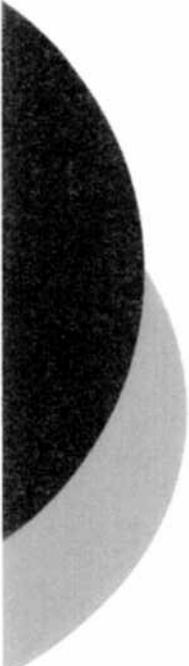
Equal significance for each factor



Ranking significance among several factors



www.shutterstock.com 56059453



Many Causes for Disparities

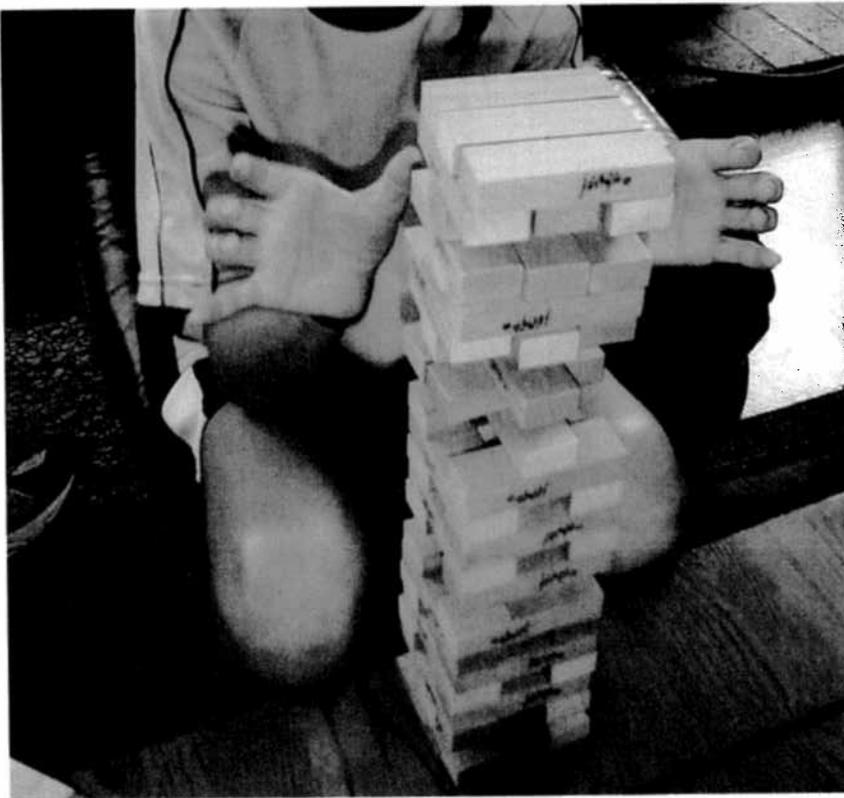
No one suspect, No one solution

Disparities are ubiquitous and multi-factorial. Causes include:

- ***Health system level factors***, related to the complexity of the health care system and how it may be poorly adapted to and disproportionately difficult to navigate for minority patients or those with limited-English proficiency,
 - ***Care-process variables***, related to health care providers, including stereotyping, the impact of race/ethnicity on clinical decision-making, and clinical uncertainty due to poor communication, and
 - ***Patient-level variables***, related to patient's mistrust, poor adherence to treatment, and delays in seeking care.
- Mass. General Hospital Disparities Solution Center

Choices in Promoting Maternal Child Health and Equity

Building and maintaining health infrastructure with community linkages



Playing health policy Jenga



Short Term Consequences

Maternal and Infant Mortality are key indicators of the health of our communities and the state of Michigan.

The average medical costs through the first year of life are approximately **\$32,000** for preterm infants **vs. \$3,000** for a full-term infant.

MANAGED CARE January 2010. © MediMedia USA



Infant Mortality Dashboard



Maternal & Infant Outcomes			
	Prior (2010)	Current (2011)	Progress
Infant Mortality Rate			
White	5.5	4.8	NC
Black	14.2	13.5	NC
American Indian	10.5		
Hispanic	7.4		
Low Birth Weight			
White	8.5%	8.4%	NC
Black	7.1%	6.9%	NC
American Indian	14.0%	14.1%	NC
Hispanic	8.6%	9.2%	NC
<39 wks Birth			
White	28.9%	33.3%	NC
Black	36.5%	43.7%	NC
American Indian	29.1%	34.9%	NC
Hispanic	29.3%	36.8%	NC
Infant Suffocation			
Death Rate – MI			
White	4.5		
Black	2.8		
Hispanic	11.3		
Hispanic	2.5		
Infant placed to sleep on back (2008 and 2011)			
White	75.6%	79.9%	NC
Black	56.1%	56.0%	NC
Hispanic	70.8%	83.7%	NC
MI Maternal Mortality			
Rate			
White	41.0		
Black	31.9		
Black	77.1		

Performance Key	
	Improvement
	Decline
	NC No Change



Pre-/Inter-conception Health			
	Prior (2010)	Current (2011)	Progress
Pre-pregnancy BMI >30	25.4%	21.1%	NC
Mother smoked while pregnant	17.8%	19.3%	NC
Unintended Pregnancy	45.2%	44.6%	NC
Teen (15-17) Pregnancy Rate	23.6	20.9	NC
Breastfeeding Rate (WIC at 6 mos.)	17.8%	18.4%	NC
Ever Breastfed	54.9%	59.5%	NC
Chlamydia Rate	732	729	NC

Health Care System			
	Prior (2010)	Current (2011)	Progress
VLBW births occurring at NICU	85.2%	83.4%	NC
NICU Central Line Infection Rate	1.38	1.63	NC
Insurance Coverage (women 18-64)	84.2%	84.0%	NC
1st Trimester Prenatal Care			
White	78.0%	78.1%	NC
Black	61.9%	62.3%	NC
American Indian	68.7%	71.6%	NC
Hispanic	69.5%	70.0%	NC
% Need Met for Publicly- Funded Family Planning Services	17.0%	15.0%	NC

PERINATAL PERIODS OF RISK - CityMatch

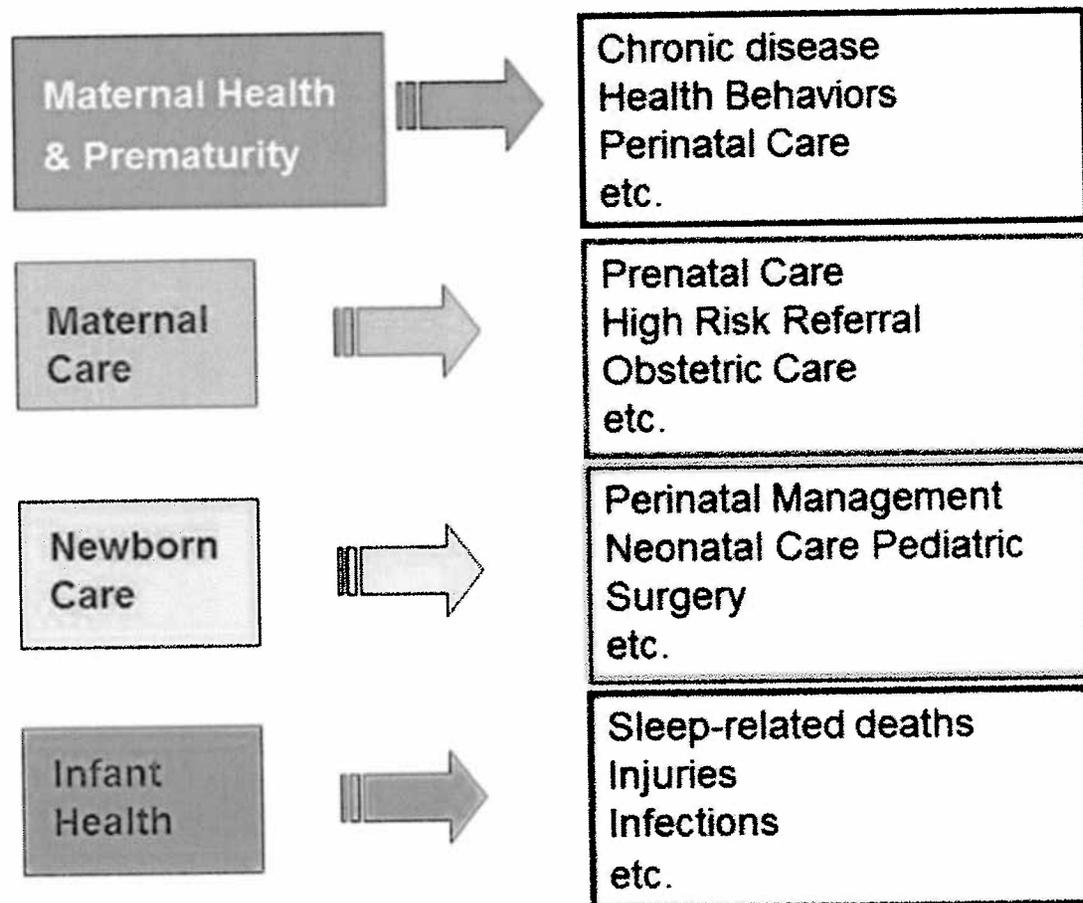
*No simple, standardized, widely accepted approach for communities to examine infant mortality.

*Current approaches don't readily identify potential gaps in the community for further reductions.

*Current approaches don't directly lead to action to targeted studies, investigations or prevention activities.

*Current approaches are not simply and easily communicated to community partners, which can inhibit mobilization.

PPOR helps communities move from data to action



- Gender Oppression
- Institutional Racism
- Economic Disparity

Individual and Family Circumstances

- Accidents
- Substance Abuse
- Domestic Violence
- Infant Sleep Position
- Teen STDs
- Nutrition/Obesity
- Unintended Pregnancy
- Management of Chronic Disease

Medical Conditions

- Birth Defects
- Respiratory Conditions
- Short Cervix
- Prematurity
- Pre-conception Health

Social Issues

- Employment
- Housing
- Transportation
- Food Insecurity
- Health Literacy

Health Care

- C-Sections <39 Weeks
- Racial Discrimination
- Access to Care
 - Pediatric Care
 - Women's Health
 - Mental Health
- Perinatal Infections

Infant Mortality

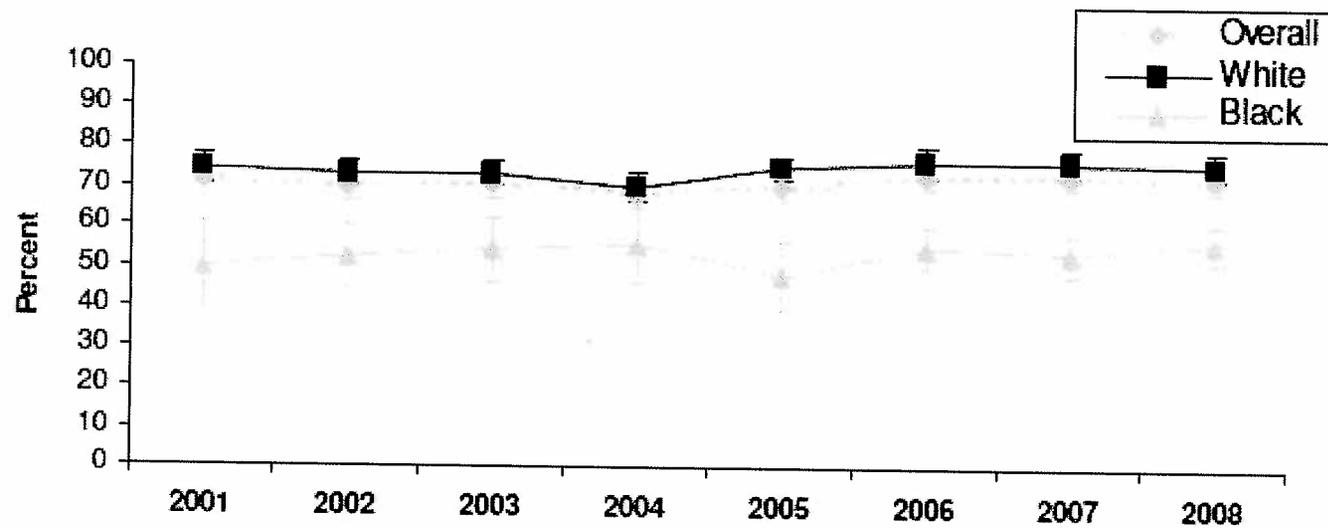
Individual and Family Circumstances

- Accidents
- Substance Abuse
- Domestic Violence
- Teen STD
- Nutrition /Obesity
- Pregnancy
Intentionality
- Chronic Diseases

Infant sleep practices

Risk Factor: Sleeping Practices

Figure 2. Trends of Infant Back Sleep Position by Race, MI PRAMS 2001-2008



Medical Conditions

- Short Cervix
- Wellness of women (preconception,
- spacing of pregnancies- 18 months
- Post partum depression
- Birth Defects
- Children with Complex Medical Needs
- Prematurity
- Respiratory Conditions

Social Issues/Community Stability

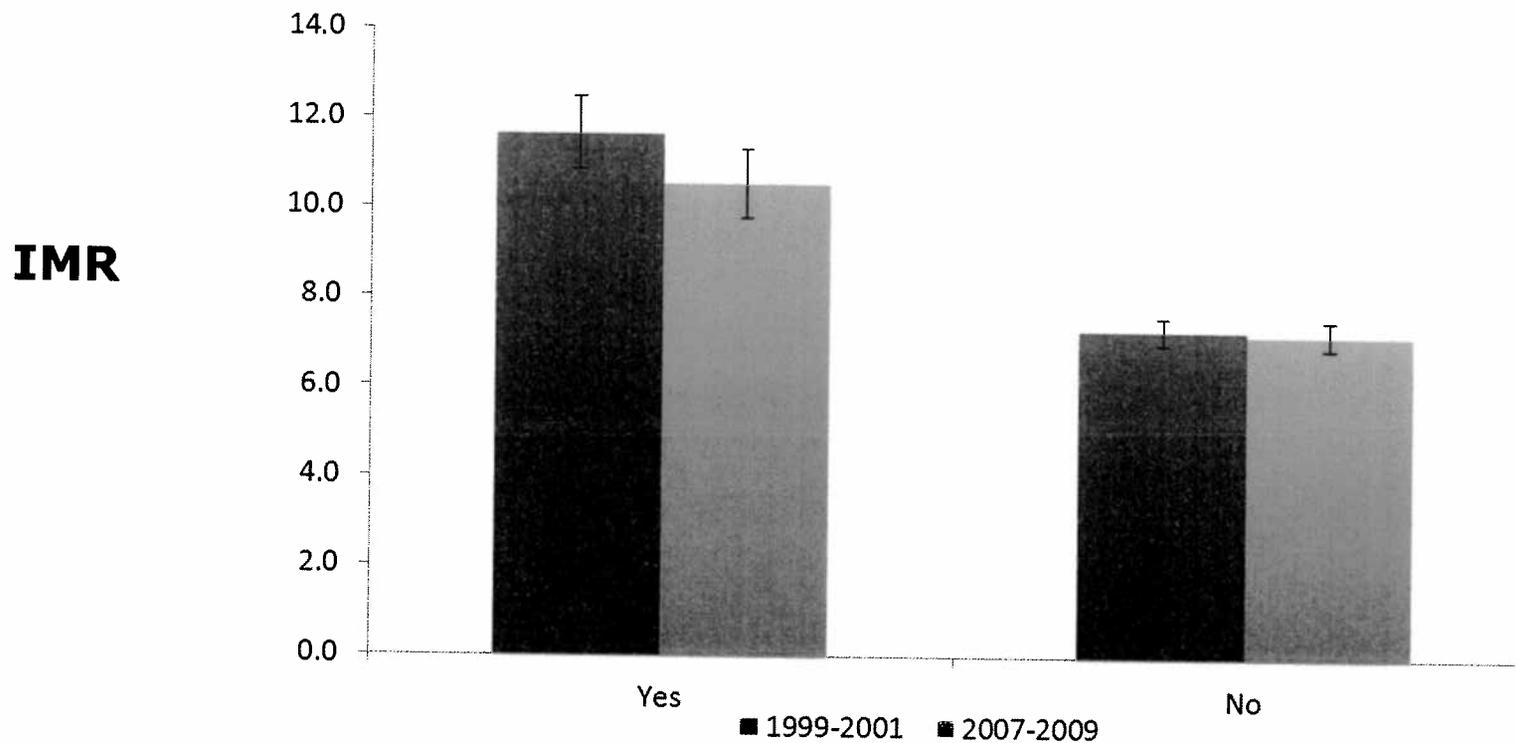
- Education
- Employment/income
- Housing*
- Transportation,public safety
- Food Insecurity*/Food deserts
- Health Literacy /communication– language *, culture

Health Care

- C- Sections < 39 weeks
- Racial Discrimination
- Access to care- addiction*, oral health, pediatric, women's health, mental health services*
- Perinatal infections
- Health literacy/communication skills

Risk Factors: Tobacco use during pregnancy

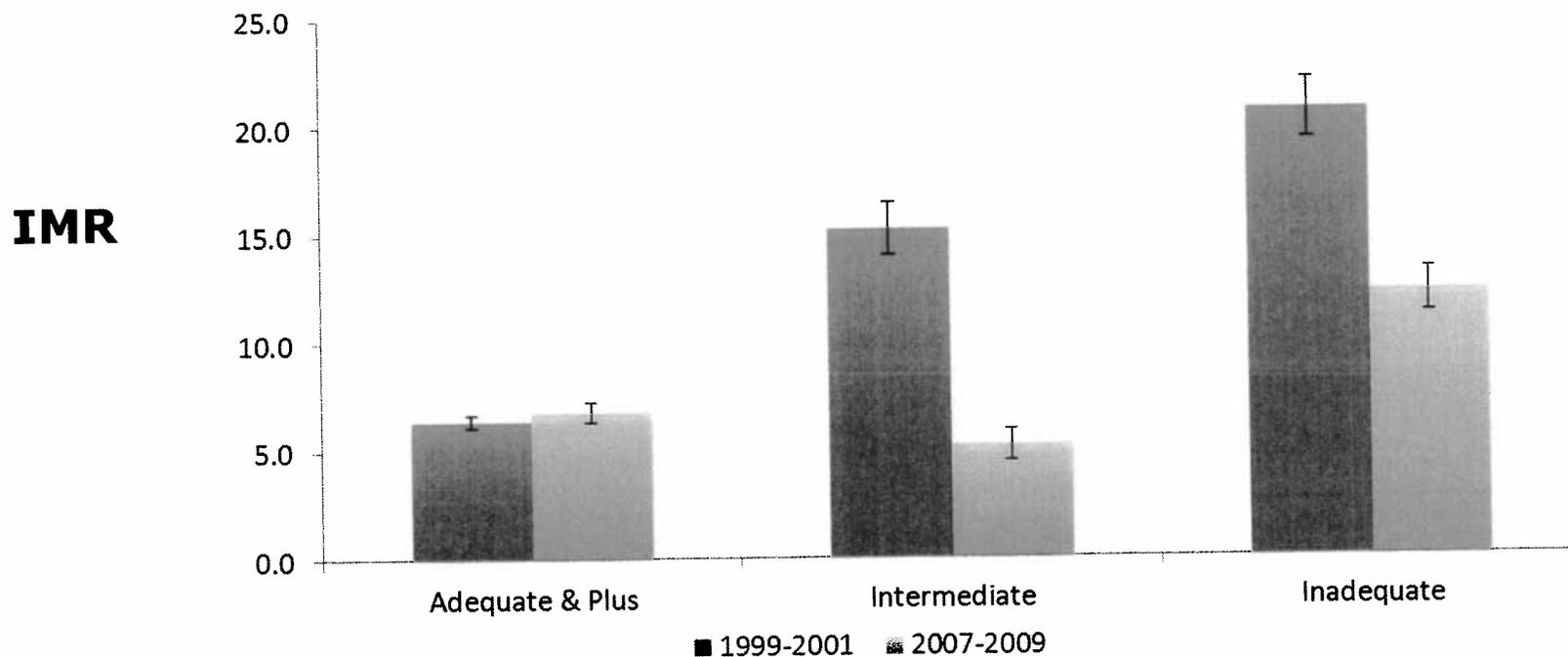
- IMR is significantly higher among women who used tobacco during pregnancy
- No significant change in the past 10 years



Source: 1999-2009 Michigan linked birth/death file, Division for Vital Records and Health Statistics, MDCH

Risk Factors: Prenatal Care

- IMR is significantly higher among women who received inadequate prenatal care
- IMR decreased significantly among women who received intermediate or adequate prenatal care



Source: 1999-2009 Michigan linked birth/death file, Division for Vital Records and Health Statistics, MDCH

Social Forces

- Gender Oppression
- Racism and privilege –institutionally mediated
-segregation, individually mediated
,internalized
- Economic Disparity-working harder and
getting less ,widening income and wealth gaps

2007-2011 Infant Mortality

Kids Count Data

Genesee County	Number of deaths	57	55	51	42	40
	Rate	9.5	9.2	9.0	7.8	7.7
Genesee County	Number of births	6,031	5,933	5,712	5,450	5,216

Infant Deaths | KIDS COUNT Data Center - Google Chrome

datacenter.kidscount.org/data/Line/1637-infant-deaths?loc=24&loct=5#3/3692-3693,3696/false/867,133,38,35,18,17,1

By City

By County

Uncheck All

- Alcona
- Alger
- Allegan
- Alpena
- Antrim
- Arenac
- Baraga
- Barry

Compare to Michigan

YEARS

Choose up to 10 years:

- 1998
- 1997
- 1996
- 1995
- 1994
- 1993
- 1992

Ascending (left to right)

Infant Deaths KIDShtm

Flint Flint Twp Grand Blanc Twp

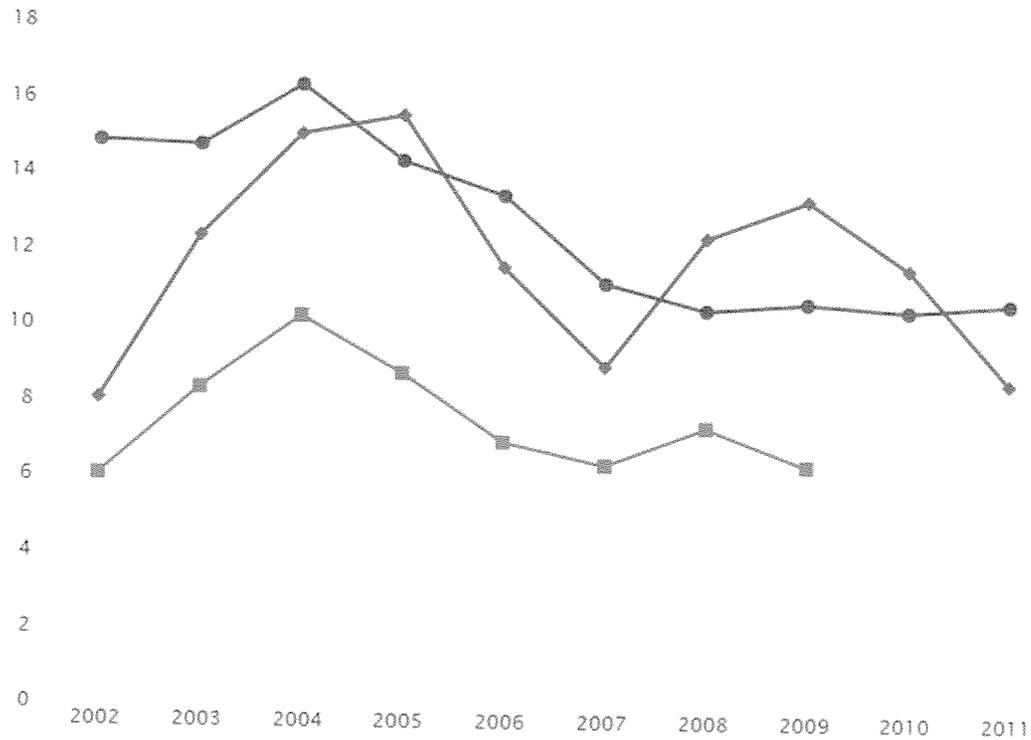


TABLE VIEW

EXPAND

DEFINITIONS & SOURCES

COLLAPSE

Definitions: Infant Deaths include deaths of infants up to one year of age. The rate is the number per 1,000 live births. An * indicates fewer than six occurrences.

Data Source: Source: Michigan Department of Community Health, Vital Records and Health Data Development

Show all downloads...

The Problem

- Infant mortality rates vary by racial or ethnic groups
- Place can be a substitute for race in a segregated society
- The gap or disparity has not closed in decades even as overall infant mortality rates have improved.
- A comprehensive CQI process can help address disparities

Life Course Concept # 1

TIMELINE

- Today's experiences and exposures influence tomorrow's health .

Life Course Model Concept #2

Timing

Health trajectories are particularly affected during critical or sensitive periods.

Life Course Concept # 1 TIMELINE

- Today's experiences and exposures influence tomorrow's health .

Life Course Concept #4 Equity

While genetic make-up offers both protective and risk factors for disease conditions, **inequality affects personal choice.**

Life Course Model

Rethinking Maternal Child Health

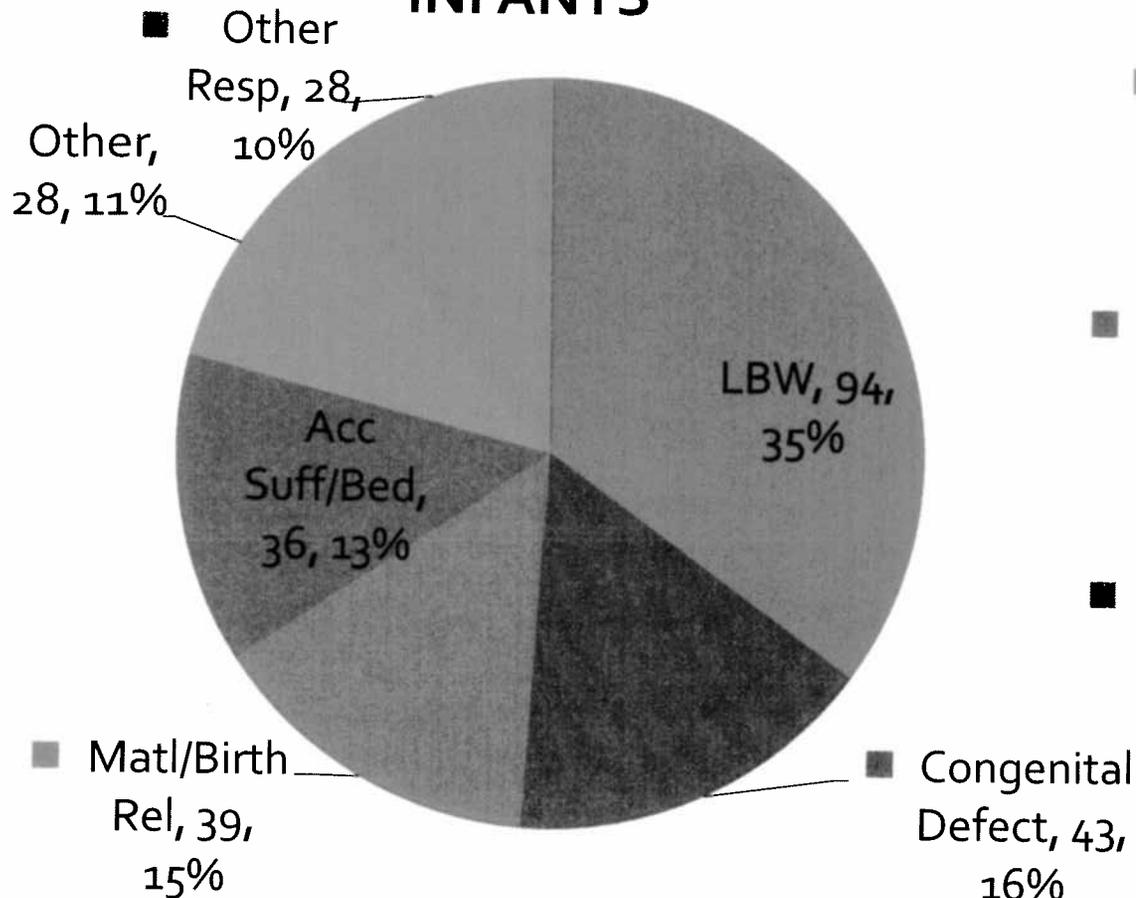
- ... that while obtaining high quality healthcare is very important...achieving optimal health for all goes beyond medical /clinical care and beyond current public health practice .
- US DHHS, HRSA,MCHB Concept Paper November 2010 , Version 1.1

Definitions

- **Infant mortality**- death of an infant within the first year of life.
- **Disparities**-“population specific differences in the presence of disease, health outcomes, or access to care.”
- **Race**- a social construct that groups people based on the physical appearance or characteristics of a person by law , rule, or imposed practice. Privileges are assigned or denied based on such assignments.

Michigan Infant Mortality Rate Cause of Death

BLACK NON-HISPANIC INFANTS



WHITE NON-HISPANIC INFANTS

