

# **Healthy Birth Outcomes: Eliminating Racial and Ethnic Disparities**

**Presentation to the Legislative Council  
Special Committee on Infant Mortality**

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Chief Medical Officer**

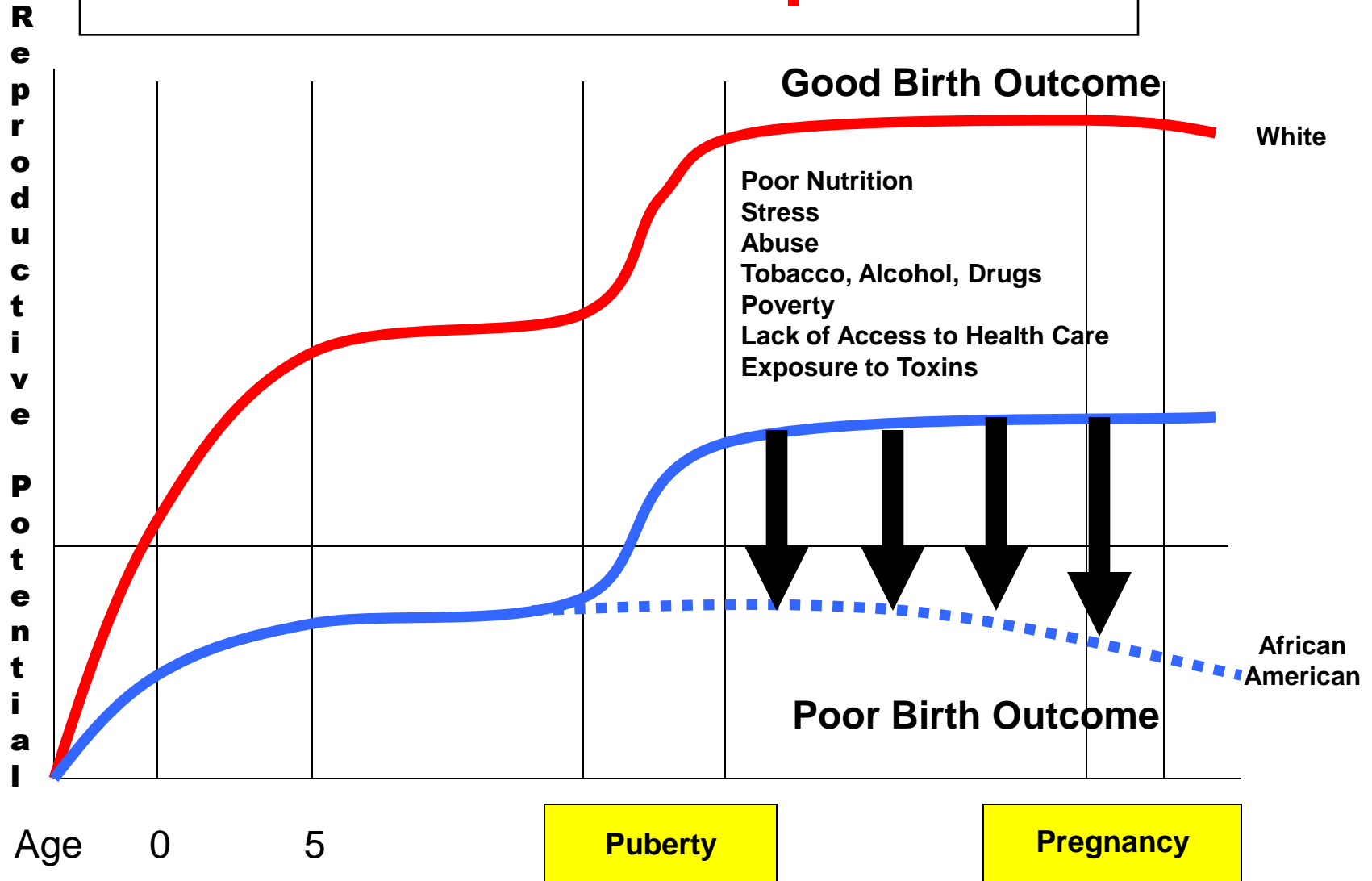
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**Wisconsin Division of Public Health  
Department of Health Services  
September 8, 2010**

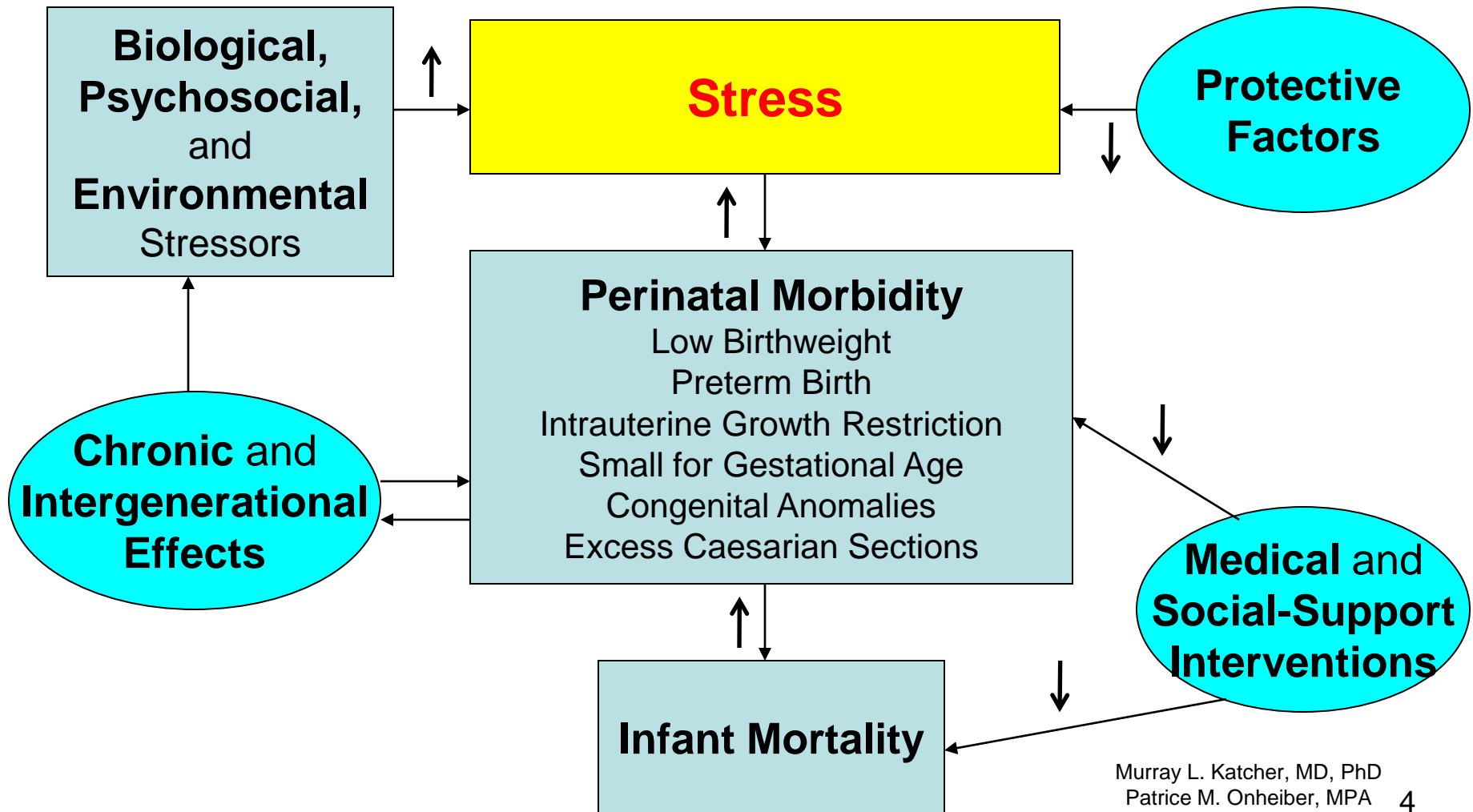
# Overview

- **Stressors and Protective Factors**
- **Data**
- **Current Efforts**
- **Evidence-based Practices**
- **Recommendations**

# Life Course Perspective



# Biopsychosocial Factors Contributing to Poor Birth Outcomes



# Biological

## For Mother

**Maternal age <18 or >40 years; Maternal Low Birthweight**

**Lack of preconception and interconception health care**

**History of prior poor birth outcome**

**Absence of high-quality, culturally-competent evidence-based prenatal care**

**Unplanned pregnancy / lack of family planning**

**Short interpregnancy interval (<18 mo)**

**Poor nutrition and vitamin intake; Inappropriate weight gain; Obesity; Diabetes**

**Hypertension / preeclampsia / eclampsia**

**Anemia**

**Tobacco, alcohol, and/or other drug or medication use**

**Perinatal depression and other mental health conditions**

**Strenuous work and/or high stress**

**STI/STDs (Chlamydia, gonorrhea, bacterial vaginosis); HIV/AIDS**

**Group B beta-hemolytic strep**

**Bacteriuria and urinary tract infection**

**Periodontal disease**

**Cervical or uterine anomaly**

**Multiple pregnancy**

**Polyhydramnios**

# Biological

## For Infant

**Lack of breastfeeding**

**Lack of well-child, acute, and/or chronic disease care**

**Tobacco exposure**

**Unsafe sleep**

# Psychosocial

**Poverty**  
**Unstable housing**  
**Food insecurity**  
**Lack of transportation**  
**Lack of child care**  
**Decreased job opportunities**  
**Judicial/correctional system**  
**Decreased social support**  
**Domestic violence**  
**Segregation**  
**Decreased educational opportunity**  
**Lack of health literacy**  
**Racism**  
**Decreased voting participation**  
**Hopelessness**

# Environmental Risk

**Violence (home and community)**  
**Unintentional injury**  
**Toxins (lead, etc.)**  
**Built environment**



# Protective Factors

**Resiliency**

**Health education and empowerment**

**Family planning**

**Preconception and prenatal use of vitamins with folic acid**

**Prenatal screening panel**

**Centering Pregnancy<sup>®</sup>**

**Nutritional counseling/WIC**

**Home visiting / community health workers / Doulas**

**Case management / care coordination**

**Health literacy / health navigator**

**Recognition of signs of preterm labor**

**Recognition of decreased fetal movement**

**Breastfeeding**

**Safe sleep**

**Immunization**

**Well child care**

**DATA**

**Good Policy Decisions**

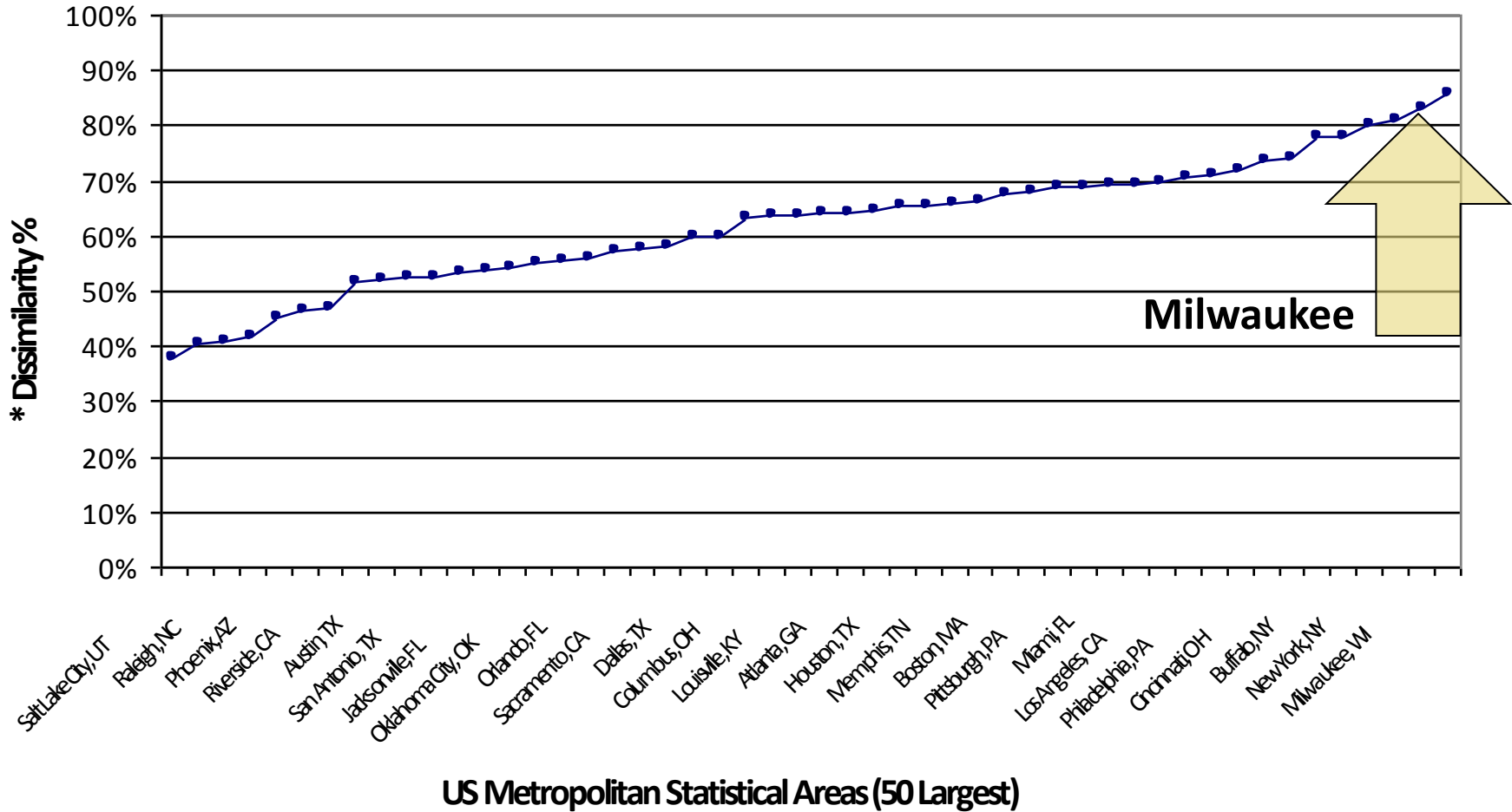
**Start with Good Data**

**Social and Economic Determinants**

**PRAMS**

**FIMR**

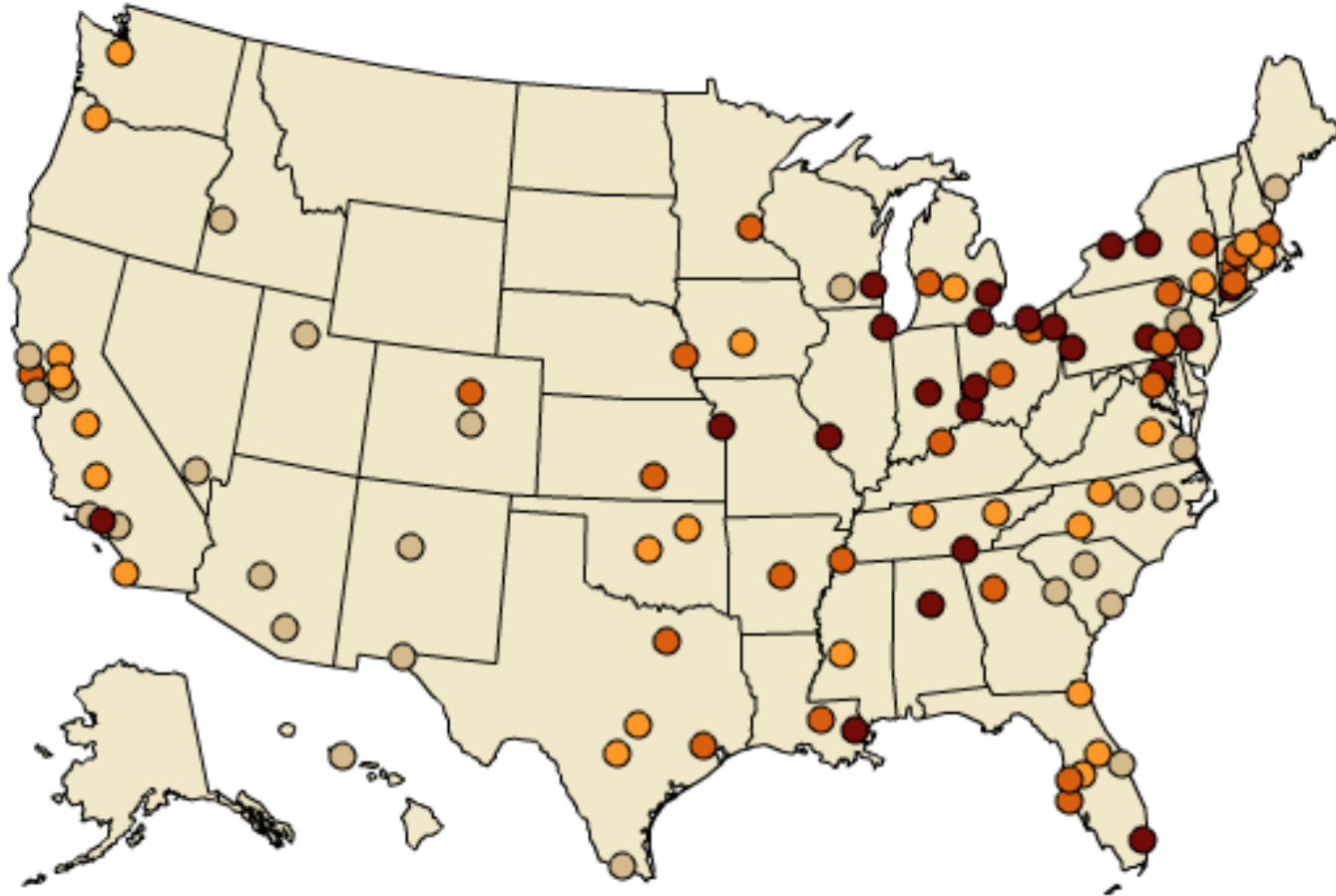
# Segregation



\* 0% = absolute integration; 100% = absolute segregation

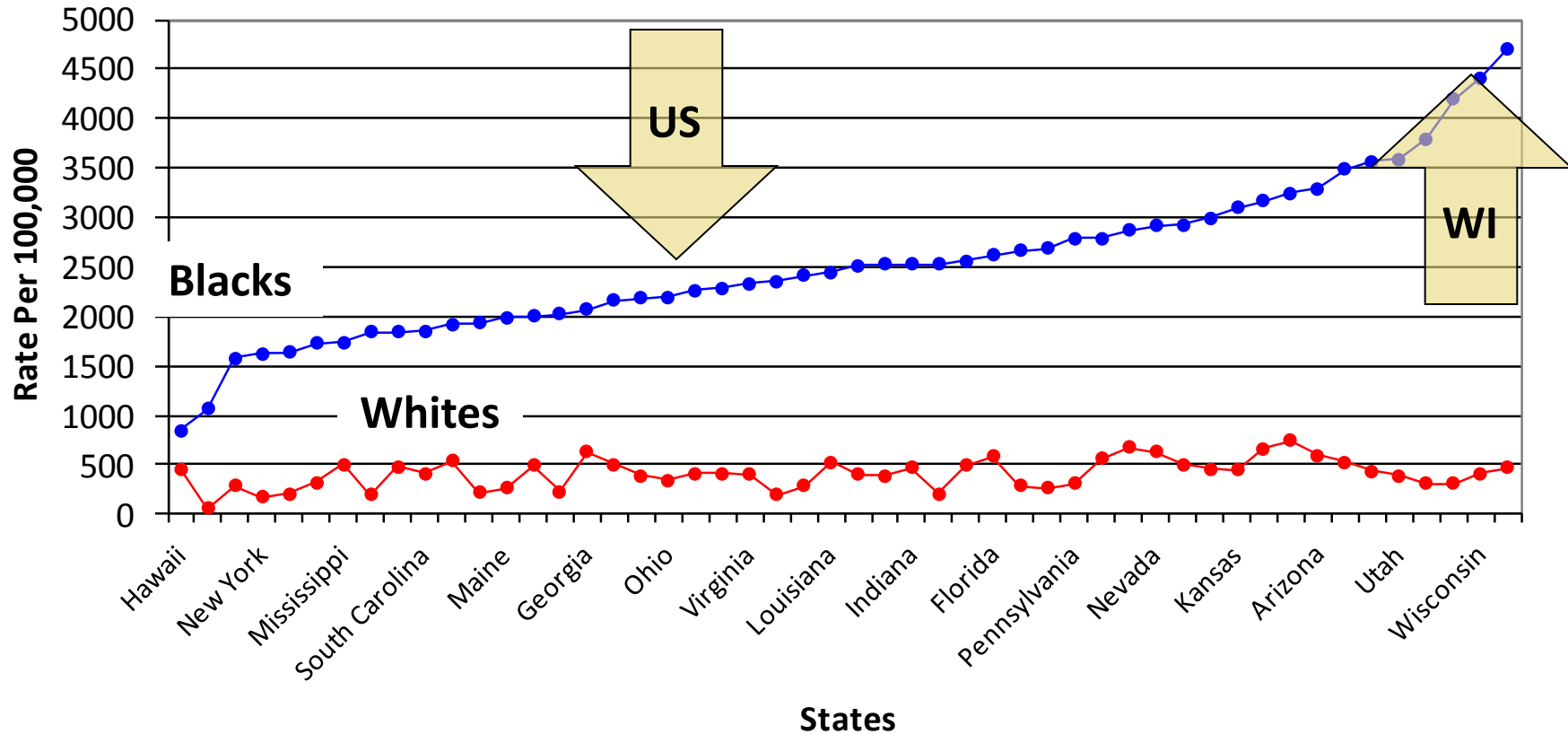
Source: U.S. Census Bureau, 2000 Census

# Segregation

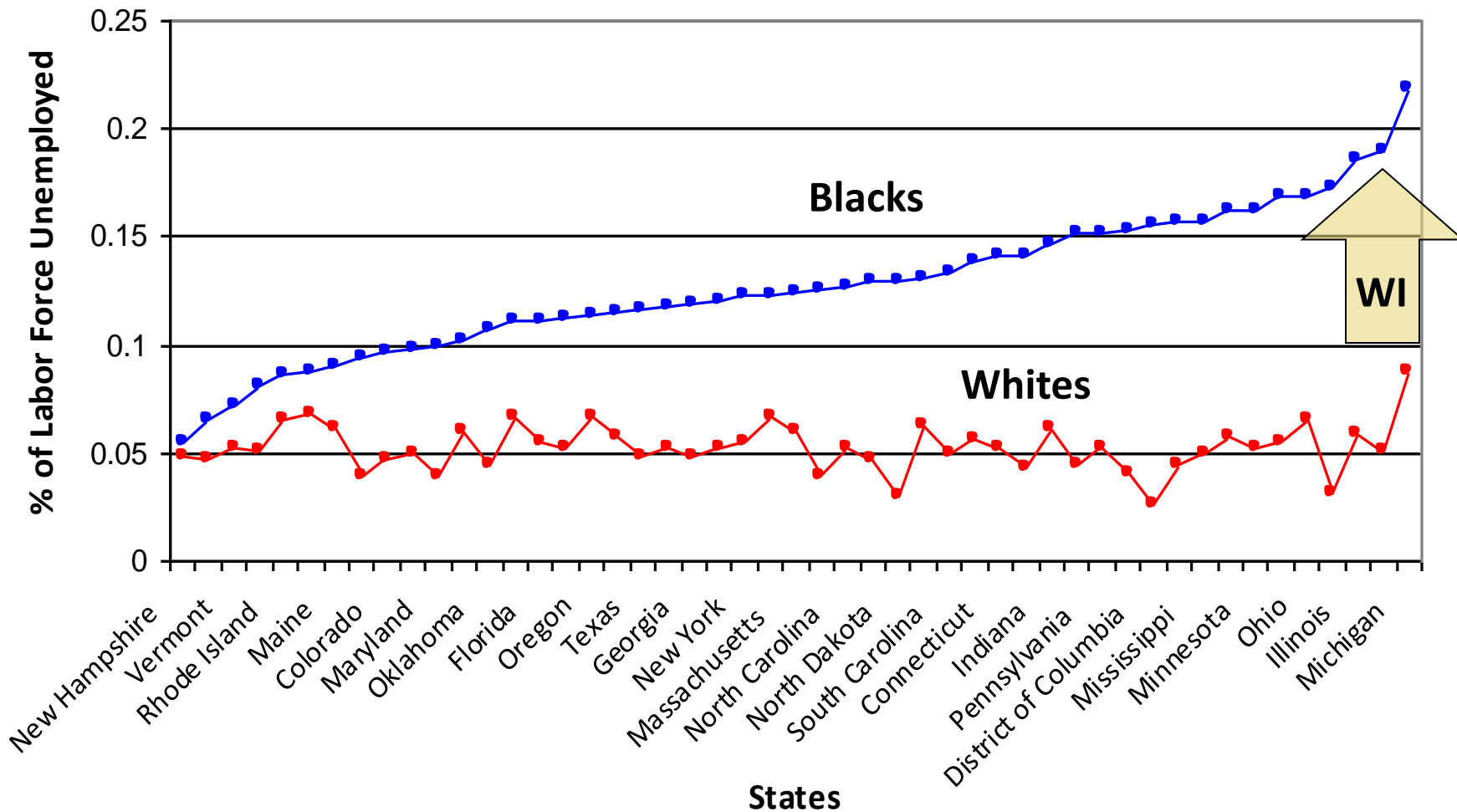


**Key:** ● 26.8% - 51.7% ● 51.7% - 58.6% ● 58.6% - 67.5% ● 67.5% - 85.7%

# Jail and Prison Incarceration Rates



# Unemployment Rates



Source: U.S. Census Bureau American Community Survey 2006-2008

# High School Graduation

## Ranking of States by Black High School Graduation Rate

Rank	State	Black Graduation Rate
1	New Mexico	73%
2	West Virginia	70%
3	Arkansas	69%
4	Maryland	66%
5	Oklahoma	66%
6	Massachusetts	65%
7	Virginia	64%
8	Alaska	64%
9	Rhode Island	63%
10	Louisiana	62%
11	Texas	62%
12	Mississippi	61%
13	Alabama	59%
14	California	58%
15	Missouri	58%
16	Iowa	58%
17	Delaware	58%
18	Pennsylvania	58%
19	Colorado	56%
20	Connecticut	56%

21	Michigan	56%
22	Nebraska	55%
23	Indiana	53%
24	Illinois	53%
25	Washington	53%
26	Ohio	52%
27	Hawaii	51%
28	Oregon	50%
29	Nevada	50%
30	Florida	47%
31	New York	47%
32	Georgia	46%
33	Wisconsin	44%

# Wisconsin PRAMS

## (Pregnancy Risk Assessment Monitoring System)

**Wisconsin PRAMS**  
Pregnancy Risk Assessment Monitoring System

**What Moms Tell Us**  
Pregnancy Risk Assessment Monitoring System July 2014

**Postpartum Depression**

Postpartum depression affects 10% to 20% of women within a year of giving birth. It is a serious condition that can affect a woman's ability to care for her baby and herself. If untreated, postpartum depression can be disabling for the mother and can be a risk factor for her newborn's emotional or behavioral problems. If you are experiencing postpartum depression, please seek help as soon as possible.

**Is it just the Baby Blues?**

Families often bring home their newborn in the days of pregnancy and are often within a few days of work, school, and other activities. For many, the first few days after delivery are filled with more stress than the days before. It is not unusual.

**Symptoms of postpartum depression**

- Lack of appetite
- Excessive crying and anger
- Loss of interest in baby
- Lack of interest in activities
- Lack of energy
- Feelings of shame, guilt or helplessness
- Severe mood swings
- Difficulty bonding with the baby
- Withdrawal from family and friends
- Thoughts of harming yourself or the baby

**Risk Factors:**

- Depressed events during pregnancy
- Postnatal illness
- Maternal age
- Parity (number of children)
- Maternal and fetal health

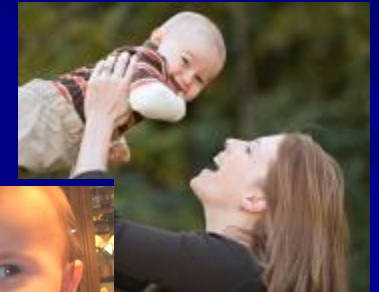
**Wisconsin PRAMS**  
Pregnancy Risk Assessment Monitoring System

Please call 1-800-750-0750  
To answer the survey by phone  
or receive information on PRAMS

The Survey Wisconsin 1-800-750-0750  
-Free available to all women in Wisconsin  
-Free confidential to the survey you are taking  
-Free and information on PRAMS

**Wisconsin PRAMS**  
Pregnancy Risk Assessment Monitoring System

Please call 1-800-750-0750 for more information about the survey.  
Thank you for your help!





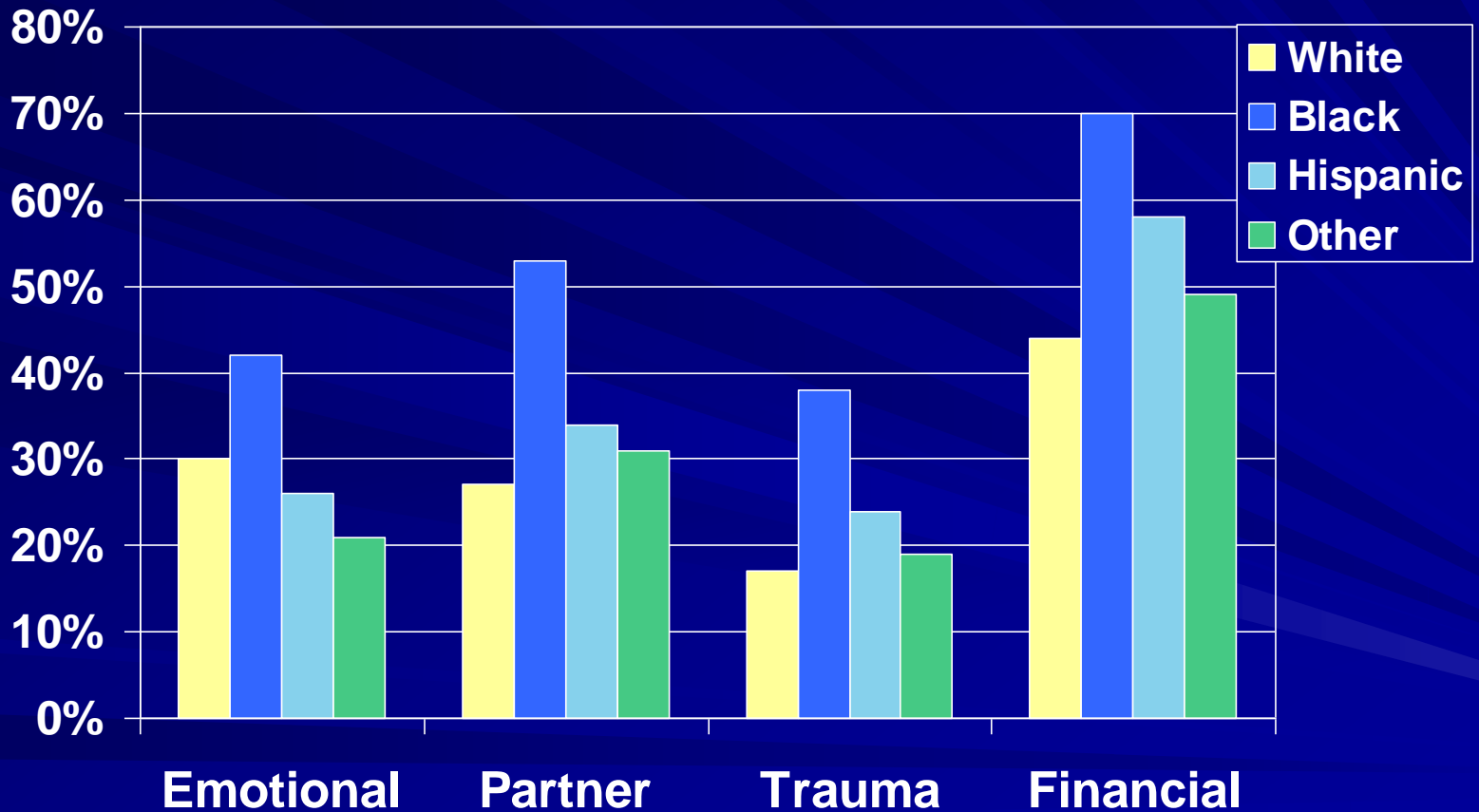
# Data Highlights

## What Moms Told Us in 2007-2008

- Statistically significant (95%) disparities by race/ethnicity for Black, non-Hispanic compared to White, non-Hispanic.
  - Household Income
  - Racism
  - Pregnancy Intention
  - Safe Sleep
  - Depression



# Stressful Events by Type





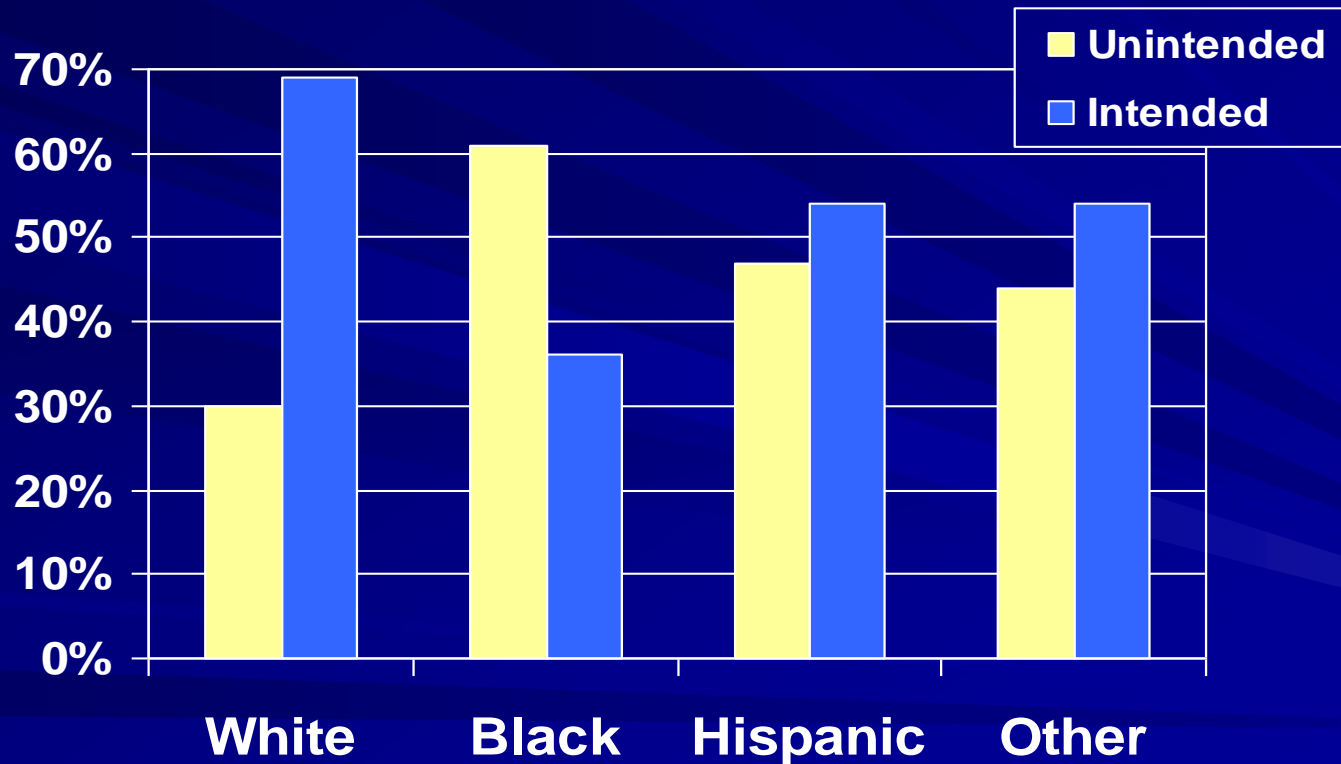
## Total Household Income before Taxes

<u>Race/ethnicity</u>	<u>Less than \$10,000</u>	<u>More than \$50,000</u>
White, non-Hispanic	10%	49%
Black, non-Hispanic	48%	6%
Hispanic/Latina	32%	5%
Other, non-Hispanic	22%	6%

**During the *12 months before your baby was born*, did you feel emotionally upset as a result of how you were treated *based on your race*?**

<u>Race/ethnicity</u>	<u>Yes</u>
White, non-Hispanic	3%
Black, non-Hispanic	22%
Hispanic/Latina	21%
Other, non-Hispanic	19%

# How do you feel about becoming pregnant?



# Safe Sleep

<b>Race/ethnicity</b>	<b>Back</b>	<b>Side</b>	<b>Stomach</b>
White, non-Hispanic	79%	7%	10%
Black, non-Hispanic	61%	11%	13%
Hispanic/Latina	79%	7%	4%
Other, non-Hispanic	75%	13%	3%

# Safe Sleep Practices

**How often does your new baby sleep in the same bed with you or someone else?**

<b>Race/ethnicity</b>	<b>Always</b>	<b>Sometimes</b>	<b>Never</b>
White, non-Hispanic	4%	53%	41%
Black, non-Hispanic	23%	51%	21%
Hispanic/Latina	21%	51%	24%
Other, non-Hispanic	19%	58%	18%

# Moms report symptoms of depression since birth of new baby

<u>Race/ethnicity</u>	<u>Yes *</u>
White, non-Hispanic	11%
Black, non-Hispanic	26%
Hispanic/Latina	18%
Other, non-Hispanic	21%
Total	14%



\* = Always or Often



# FETAL INFANT MORTALITY REVIEW

REPORT TO THE CITY OF MILWAUKEE



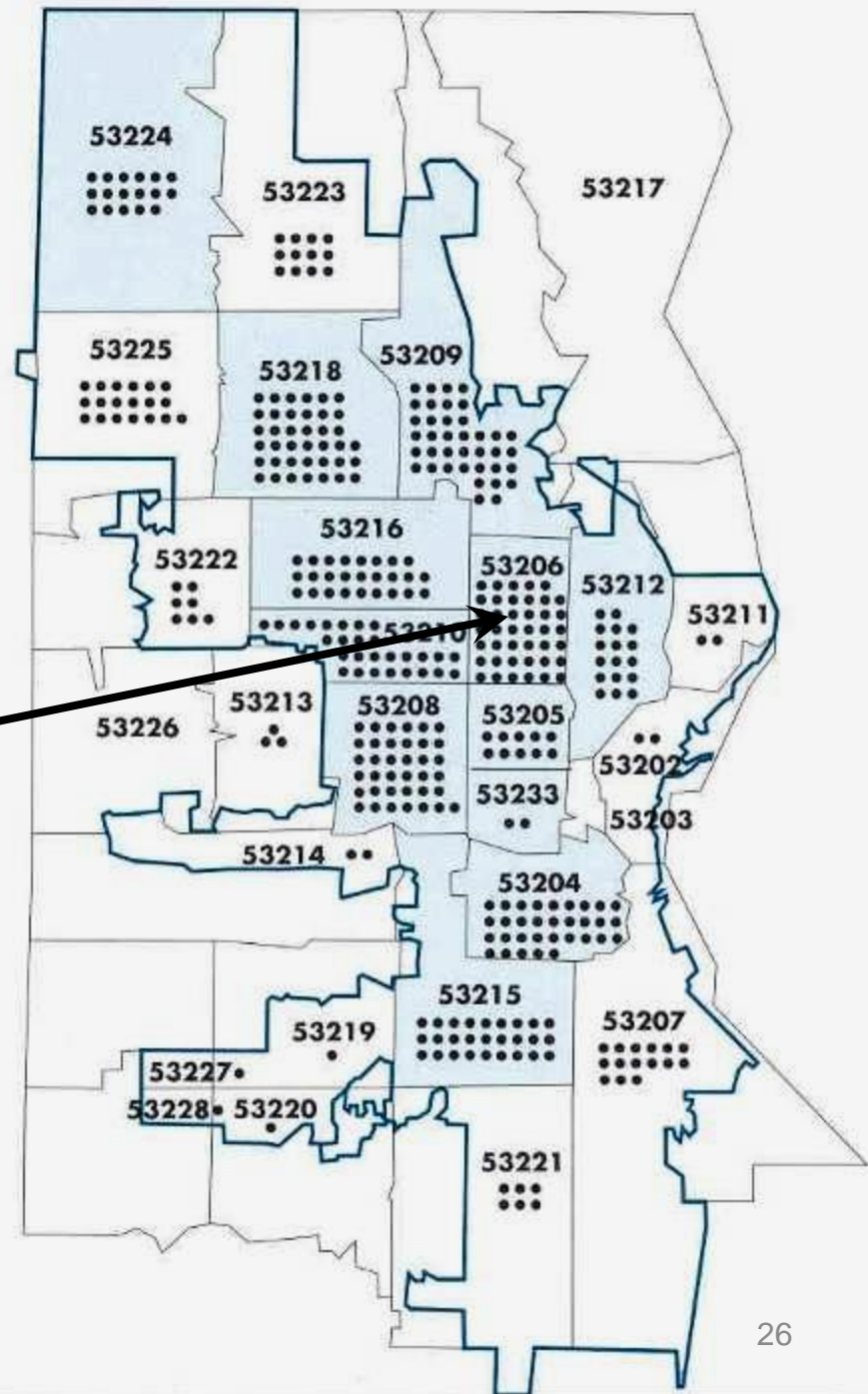
2002-2004 INFANT MORTALITY

2003-2004 FETAL MORTALITY

# Map of Milwaukee Infant Deaths 2002-2004 (N = 389)

Zip Code **53206** had the greatest number of infant deaths = 41 and the highest infant mortality rate = 20.4

Milwaukee Home Visiting Program, Empowering Families in Milwaukee is in **53204, 05, 06, 08, 12, & 33**



# From the FIMR Mothers

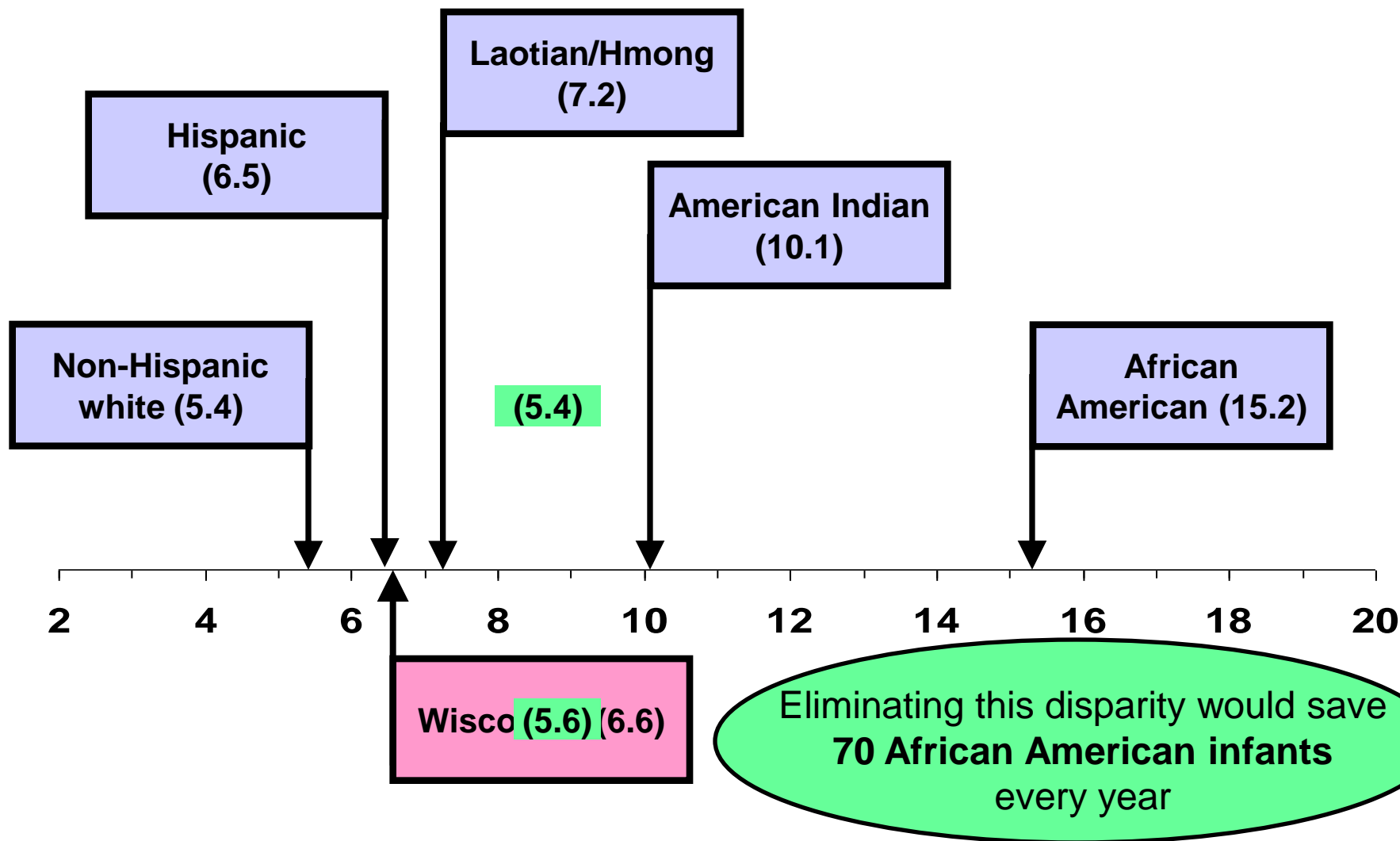
“I wish I’d have been told more about contractions and signs of labor,” replied one mother. **Symptoms of preterm labor (PTL) were experienced by 42% of interviewed mothers, but nearly 16% of them didn’t recognize them as signs of PTL.** One mother said, “I didn’t call my doctor right away because I thought maybe I had a urinary tract infection and the cramping was normal.”

# From the FIMR Mothers

A second and more difficult problem is getting mothers' concerns across to the right people when she calls the hospital. **13.5% of mothers with symptoms of preterm labor were delayed in coming to the hospital by staff, or their concerns were dismissed by staff.** It isn't clear whether mothers are having difficulty communicating their concerns, or whether they are being prevented from talking with a doctor or nurse trained in obstetrics by the triage system.

# Wisconsin Infant Mortality Rates

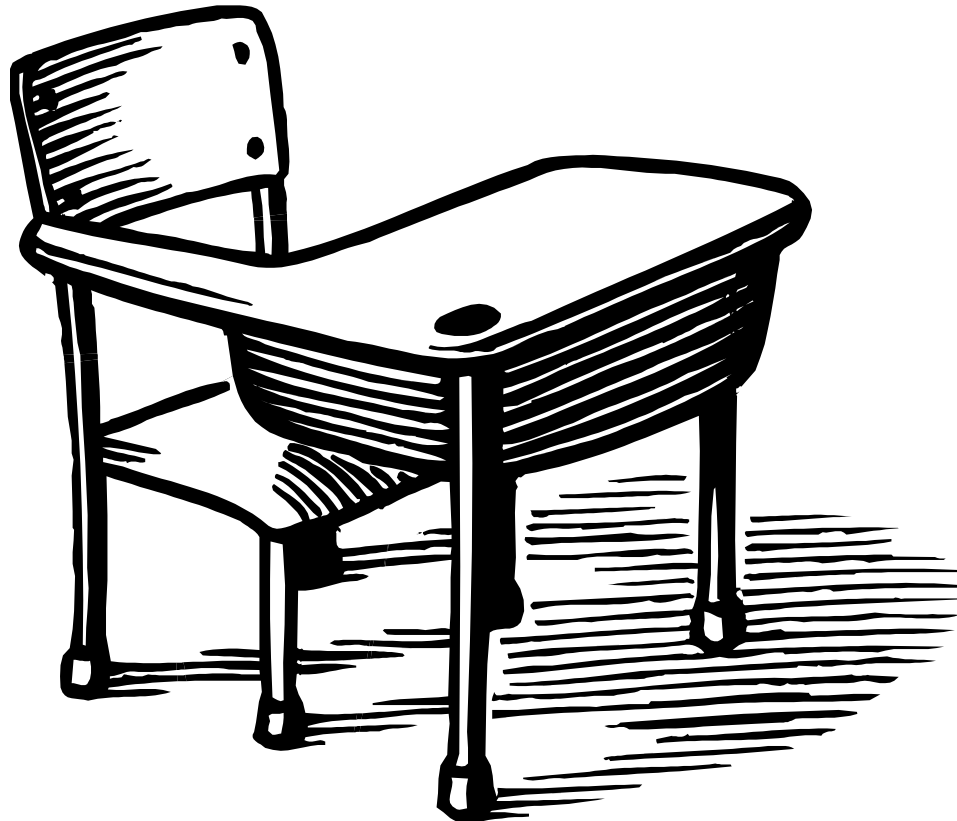
(Per 1,000 live births, 2006-2008)



Eliminating this disparity would  
save **70 African American infants**  
every year

=

**3 classrooms** full of children  
every year



# State Infant Mortality Rates (all races), 2003-2005

Rank	State	IMR
1	Minnesota	4.78
2	Massachusetts	4.89
3	Utah	4.92
4	New Hampshire	5.02
5	California	5.22
6	Vermont	5.37
7	Washington	5.39
8	Iowa	5.40
9	New Jersey	5.44
10	Connecticut	5.53
11	Oregon	5.68
12	Nevada	5.86
13	Maine	5.87
14	Nebraska	5.89
15	New York	6.02
16	Idaho	6.12
17	New Mexico	6.13

Rank	State	IMR
18	Rhode Island	6.20
19	Colorado	6.27
<b>20</b>	<b>Wisconsin</b>	<b>6.34</b>
21	Montana	6.35
21	North Dakota	6.35
23	Alaska	6.45
23	Texas	6.45
25	Hawaii	6.67
26	Arizona	6.69
27	Kentucky	6.79
28	Wyoming	6.95
29	Kansas	7.12
30	South Dakota	7.18
31	Florida	7.24
32	Pennsylvania	7.30
33	Virginia	7.50
34	Illinois	7.53

Rank	State	IMR
35	Missouri	7.63
36	West Virginia	7.73
37	Ohio	7.82
38	Oklahoma	7.86
39	Indiana	7.87
40	Maryland	8.00
41	Michigan	8.02
42	Arkansas	8.29
43	Georgia	8.35
44	North Carolina	8.58
45	Tennessee	8.87
46	Alabama	8.96
47	Delaware	9.03
47	South Carolina	9.03
49	Louisiana	9.79
50	Mississippi	10.74
51	D.C.	12.22

# State Infant Mortality Rates (all races), 2003-2005

If the African American infant mortality rate had been equal to the white rate...

Rank	State	IMR
1	Minnesota	4.78
2	Massachusetts	4.89
3	Utah	4.92
4	New Hampshire	5.02
5	California	5.22
<b>6</b>	<b>Wisconsin</b>	<b>5.29</b>
7	Washington	5.39
8	Iowa	5.40
9	New Jersey	5.44
10	Connecticut	5.53
11	Oregon	5.68
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23	Alaska	6.45
23	Texas	6.45
25	Hawaii	6.67
26	Arizona	6.69
27	Kentucky	6.79
28	Wyoming	6.95
29	Kansas	7.12
30	South Dakota	7.18
31	Florida	7.24
32	Pennsylvania	7.30
33	Virginia	7.50
34	Illinois	7.53

36	West Virginia	7.73
37	Ohio	7.82
38	Oklahoma	7.86
39	Indiana	7.87
40	Maryland	8.00
41	Michigan	8.02
42	Arkansas	8.29
43	Georgia	8.35
44	North Carolina	8.58
45	Tennessee	8.87
46	Alabama	8.96
47	Delaware	9.03
47	South Carolina	9.03
49	Louisiana	9.79
50	Mississippi	10.74
51	D.C.	12.22



# Current Efforts (DHS/DCF/Partners)

Beloit, Kenosha, Milwaukee, Racine

- Maternal and Child Health Program
- WIC
- Milwaukee Healthy Beginnings
- Statewide Advisory Committee and Recommendations
- ABCs for Healthy Families and Journey of a Lifetime
- text4baby
- Home Visiting
- Centering Pregnancy®
- Racism and Fatherhood Action Learning Collaborative
- Medicaid Healthy Birth Outcomes Medical Home Pilot and P4P
- Smoking Cessation and Substance Abuse Prevention
- Racine – Kenosha Birthing Project
- Project LAUNCH

[www.dhs.wisconsin.gov/healthybirths](http://www.dhs.wisconsin.gov/healthybirths)

# ABCs for Healthy Families



## Community-driven social marketing



Let's deal with  
stress in ways  
that don't stress  
our babies



text "NoStress" to 32075

[myspace.com/JourneyofaLifetime](http://myspace.com/JourneyofaLifetime)

**text4baby**<sup>SM</sup>



**JOURNEY** of a **LIFETIME**  
Healthy Babies through Healthy Families

# Home Visiting

- **Empowering Families of Milwaukee**
- **Racine Healthy Births Healthy Families**
- **Family Foundations**
- **Federal Health Reform Funding**



# Centering Pregnancy®

- **Group prenatal care for 8-10 teens/women with similar due dates**
- **Self-monitoring (e.g., blood pressure)**
- **Brief physical assessment with certified nurse midwife (CNM) or physician**
- **Education sessions and social support with skilled facilitator**
- **3 providers in Milwaukee**



# Action Learning Collaborative

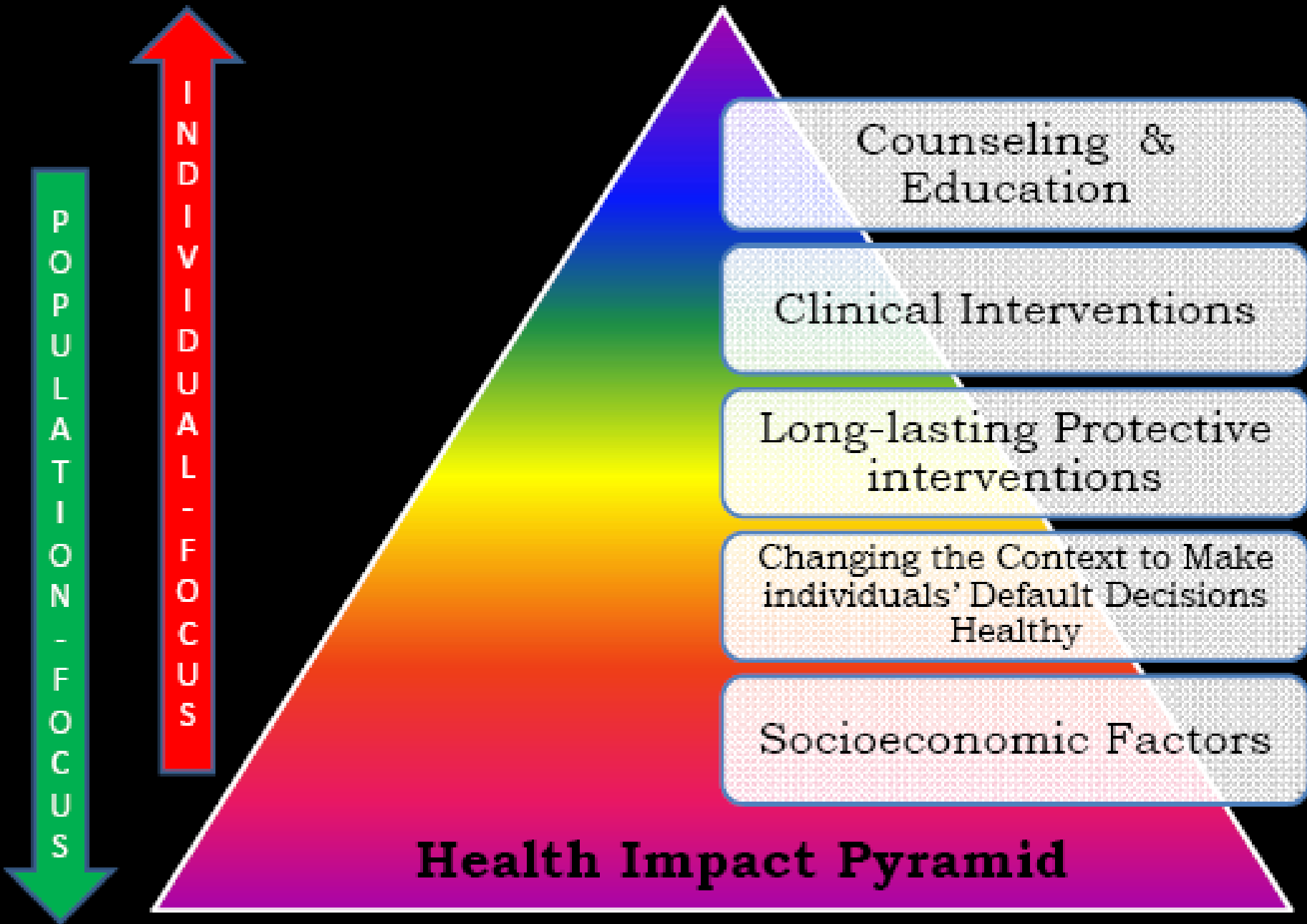
- **Partnership to Eliminate Disparities in Infant Mortality (PEDIM)**
- **Racism and Fatherhood in Milwaukee**
  - Community Education/Training
  - Empowerment Coaching Pilot Project
  - Promote positive media images of men of color



# Health Reform

## Patient Protection and Affordable Care Act (ACA)

- **Home Visiting**
  - Department of Children and Families (\$1.16 M)
- **Support Pregnant & Parenting Teens / Women**
  - Office of Adolescent Health (\$2M/yr for 3 years)
  - Centering Pregnancy<sup>®</sup>; Social Marketing; Social Support
- **Public Health Infrastructure for Improved Health Outcomes**
  - Includes HW2020 to reduce racial and ethnic disparities in birth outcomes for minimum of 5 local health departments
  - \$300,000 (per year for 5 years; \$50,000 for LHDs)





# Evidence-Based Practice Workgroup Topics

## Medical:

- ❖ Anemia
- ❖ Bacterial Vaginosis
- ❖ Chronic Diseases
- ❖ Gestational Diabetes
- ❖ Group B  $\beta$ -Strep
- ❖ HIV
- ❖ Hypertension of Pregnancy
- ❖ Immunizations
- ❖ 17 alpha-hydroxyprogesterone (17-P) for Previous Preterm Birth
- ❖ Mental Health/Depression
- ❖ Preconception/Interconception Care/ Interpregnancy Interval
- ❖ Sexually Transmitted Infections
- ❖ Urinary Tract Infections

## Non-medical:

- ❖ Alcohol and other drug use
- ❖ Breastfeeding
- ❖ Community Health Worker/Doula/Home Visitor
- ❖ Domestic Violence
- ❖ Fatherhood
- ❖ Malnutrition/Underweight
- ❖ Oral Health
- ❖ Patient Education/Health Literacy
- ❖ Preterm Labor Awareness and Fetal Movement Recognition
- ❖ Racism
- ❖ SUID/SIDS
- ❖ Tobacco
- ❖ Unintended Pregnancy

# **Evidence-Based or Best-Practice Interventions for Healthier Birth Outcomes**

## **Medical Conditions:**

- **Diabetes and  
Gestational Diabetes**
- **Hypertension**
- **Infections**

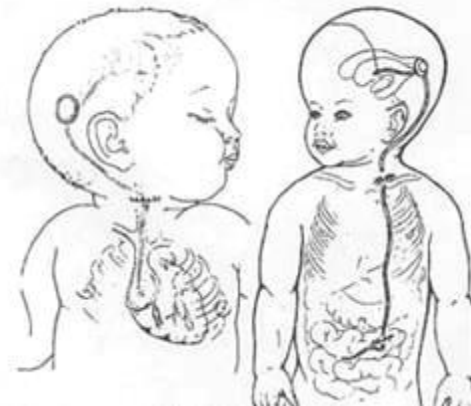
# **Evidence-Based or Best-Practice Interventions for Healthier Birth Outcomes**

## **Diagnosis and Treatment of Infections:**

- **Urinary Tract Infections**
- **Sexually-Transmitted Disease (STDs) and HIV/AIDS**
- **Periodontal Disease**

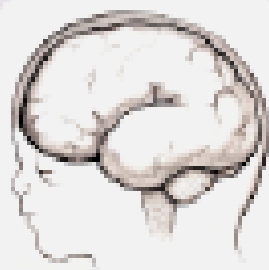
# Evidence-Based or Best-Practice Interventions for Healthier Birth Outcomes

- **Nutritional support**
- **Breast Feeding**
- **Prevention of birth defects with folic acid and other vitamins/minerals**



# If your pregnancy is healthy, it's best if your baby is born at 40 weeks.

A baby's brain at 35 weeks weighs only two-thirds of what it will weigh at 40 weeks.



35 weeks



40 weeks

- In the last six weeks of pregnancy, your baby's brain adds connections needed for balance, coordination, learning and social functioning. During this time, the size of your baby's brain almost doubles.
- Babies born early have more learning and behavior problems in childhood than babies born at 40 weeks.
- Babies born early are more likely to have feeding problems because they can't coordinate sucking, swallowing and breathing as well as full-term babies.
- Babies born early are likely to have breathing problems, like apnea. Apnea is when a baby stops breathing.
- Babies born early are more likely to die of sudden infant death syndrome (SIDS). SIDS is when a baby dies suddenly and unexpectedly, often during sleep.

**march of dimes**  
pregnancy & newborn  
health education center

[marchofdimes.com](http://marchofdimes.com)

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# Medical Home Pilot

- **High-risk pregnant women or a teen**
- **Live in Milwaukee, Racine, or Kenosha zip codes, or have chronic condition**
- **400 women total for 2011**
- **Coordinate with community programs**
- **Implement evidence-based practices**

# Evidence-Based or Best-Practice Interventions

## Safe Sleep:

- “Back to Sleep”
- Firm surface
- No soft objects or loose bedding
- No overheating
- NO smoking in environment of sleeping baby
- No co-bedding while sleeping
- Promote breastfeeding

# Essential Elements of Good Prenatal Care

Assessment

Health Promotion

Medical and Psychosocial Treatment

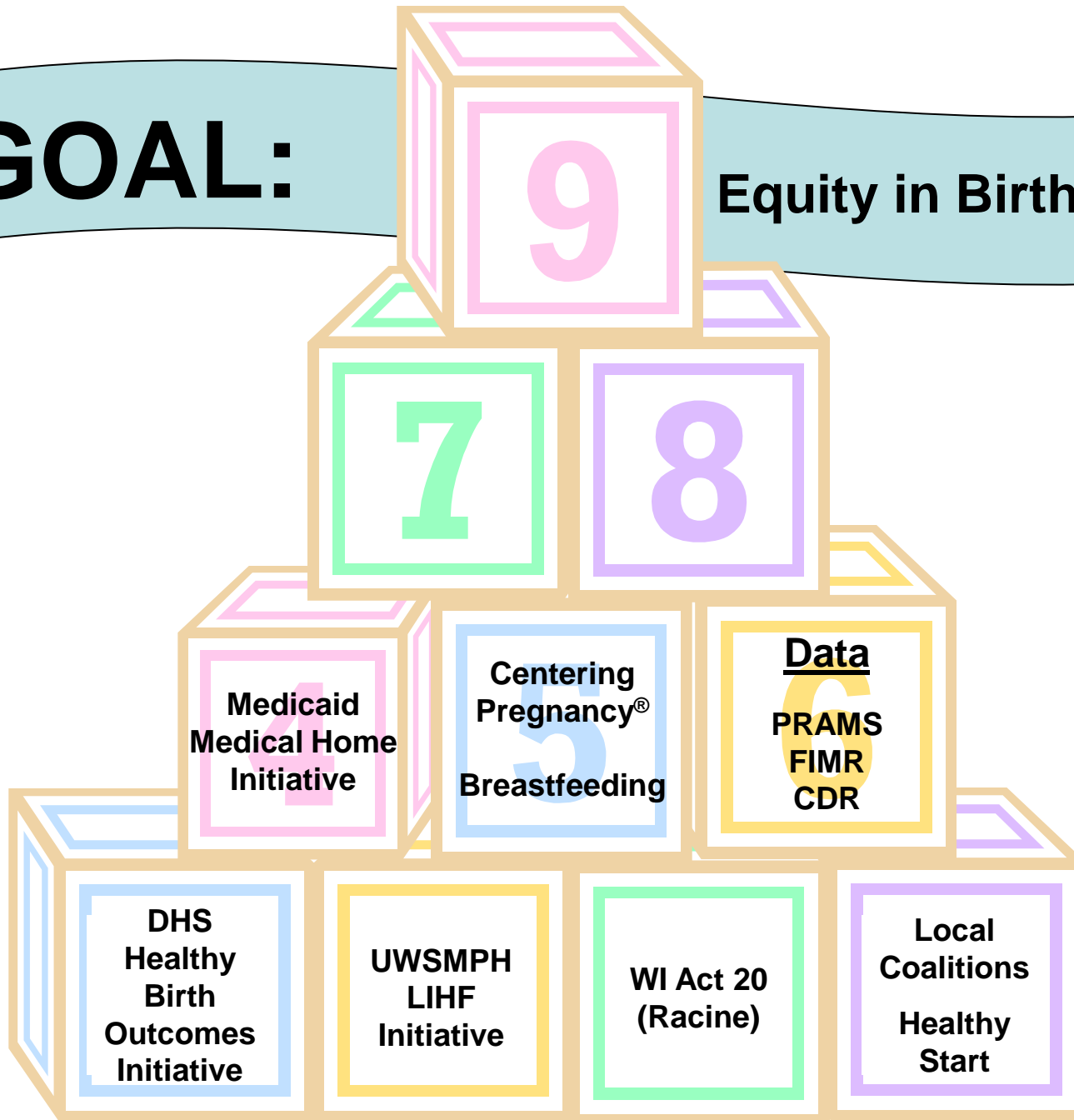


Adapted from the Care Model-Ed Wagner MacColl Institute



**GOAL:**

**Equity in Birth Outcomes**



# Recommendations

1. Continue **data** programs - FIMR; PRAMS; vital statistics; Medicaid data and chart audits
2. Sustain and expand **social marketing** and **social-support**, including **fatherhood** initiatives
3. **Home visiting** - maximize funding and **include birth outcomes and early childhood development**
4. Support Medicaid programs to **improve quality**, including P4P and **Centering Pregnancy<sup>®</sup>**
5. Extend Medicaid **PNCC** beyond 2 months and **Child Care Coordination** in Kenosha and Beloit

# Recommendations

- 6. Integrate health care delivery and providers into community coalitions;** consider strengthening perinatal regionalization
- 7. Breastfeeding** - policies at workplace and child care, Baby-Friendly hospitals, childbirth classes, and peer-support
- 8. Improve hospital care** - modeling and education of safe sleep, breastfeeding, and car seats; and scheduling maternal post-partum visit
- 9. Medicaid Medical Home Pilot** - evaluate and replicate if indicated