

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

## **Presentation to the Milwaukee LIHF Community Kickoff**

**Murray L. Katcher, MD, PhD  
Chief Medical Officer**

**Patrice M. Onheiber, MPA  
Director, Disparities in Birth Outcomes**

**Wisconsin Division of Public Health  
Department of Health Services  
October 14, 2010**

**DATA**

**Good Policy Decisions  
Start with Good Data**

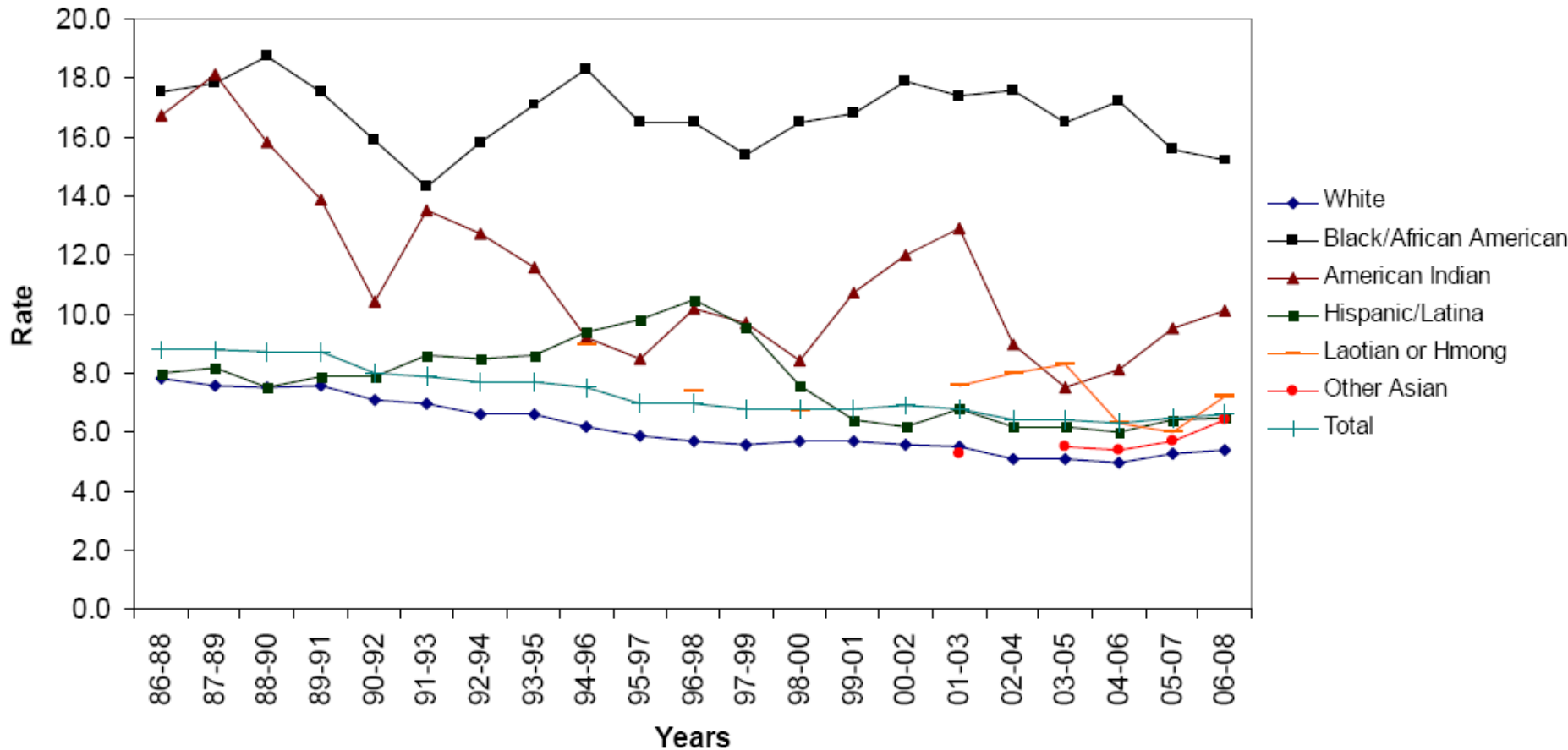
**Birth Outcomes**

**Social and Economic Determinants**

**PRAMS**

**FIMR**

# Wisconsin Infant Mortality Rates by Race/Ethnicity, 1986-2008 (3-Year Rolling Averages)



# African American Infant Mortality Rates, reporting states and DC, 2004-2006

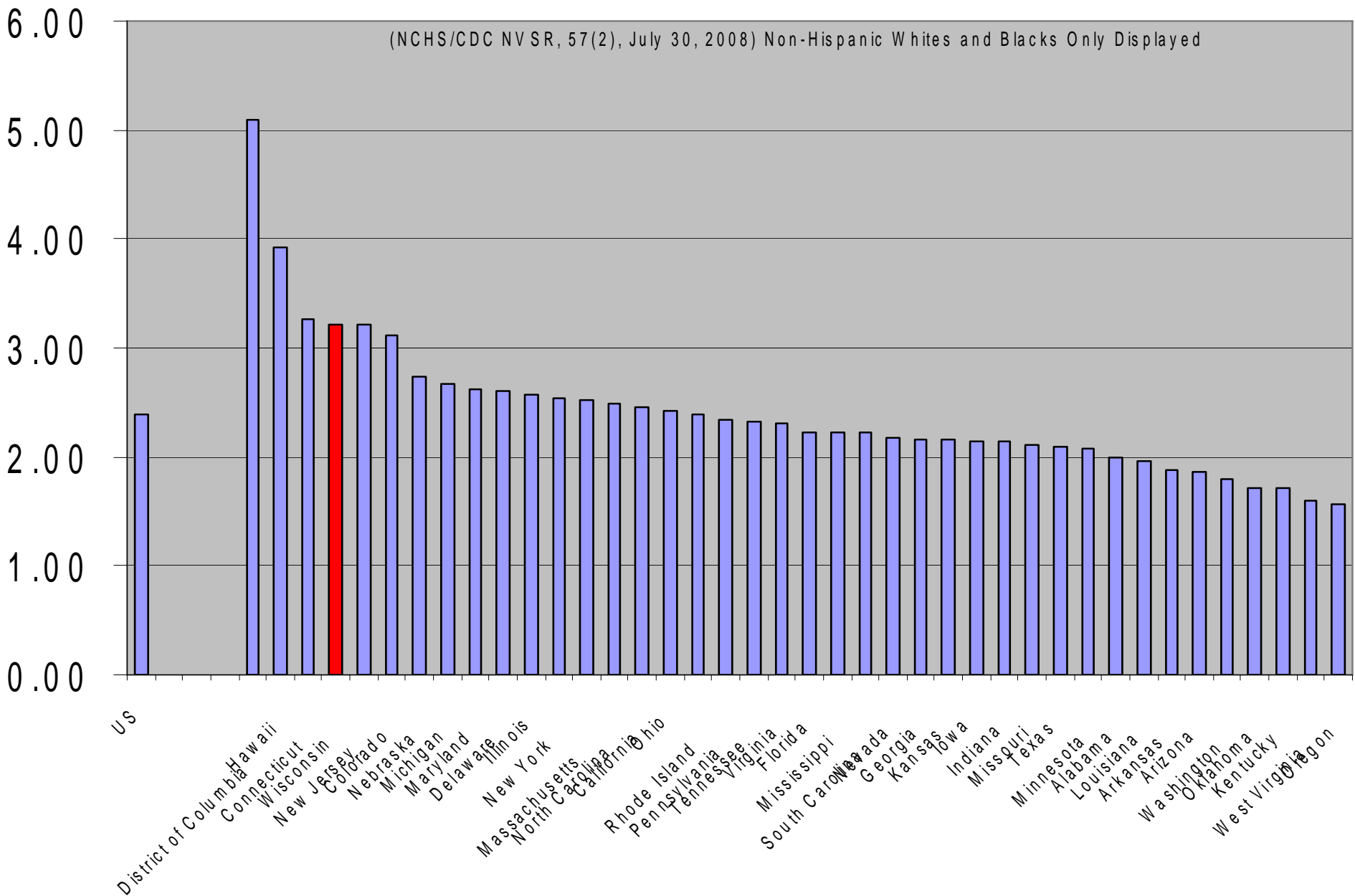
*U.S. African American IMR: 13.52 per 1,000 live births*

| Rank | State         | AA IMR |
|------|---------------|--------|
| 1    | Washington    | 8.12   |
| 2    | Iowa          | 8.18   |
| 3    | Oregon        | 9.42   |
| 4    | Minnesota     | 9.62   |
| 5    | Massachusetts | 10.31  |
| 6    | California    | 11.40  |
| 7    | Rhode Island  | 11.42  |
| 8    | New York      | 11.46  |
| 9    | New Jersey    | 11.76  |
| 10   | Texas         | 12.11  |
| 11   | Nebraska      | 12.15  |
| 12   | Arizona       | 12.30  |
| 13   | Kentucky      | 12.54  |
| 14   | Florida       | 12.76  |
| 15   | Maryland      | 12.94  |

| Rank | State          | AA IMR |
|------|----------------|--------|
| 16   | Georgia        | 12.95  |
| 17   | Oklahoma       | 13.07  |
| 18   | Connecticut    | 13.38  |
| 19   | Alabama        | 13.76  |
| 20   | Missouri       | 13.79  |
| 20   | Virginia       | 13.79  |
| 22   | Pennsylvania   | 13.82  |
| 23   | Colorado       | 13.97  |
| 24   | Arkansas       | 13.99  |
| 25   | Nevada         | 14.33  |
| 26   | South Carolina | 14.34  |
| 27   | Illinois       | 14.39  |
| 28   | Kansas         | 14.46  |
| 29   | Louisiana      | 14.69  |
| 30   | Delaware       | 15.02  |

| Rank      | State                   | AA IMR |
|-----------|-------------------------|--------|
| 31        | West Virginia           | 15.09  |
| 32        | Mississippi             | 15.40  |
| 33        | Michigan                | 15.66  |
| 33        | North Carolina          | 15.66  |
| 35        | Tennessee               | 15.87  |
| 36        | Ohio                    | 15.92  |
| 37        | Indiana                 | 16.07  |
| <b>38</b> | <b>Wisconsin</b>        | 16.94  |
| 39        | District of<br>Columbia | 18.46  |
| 40        | Hawaii                  | 20.85  |

# Black:White IMR Ratio 2003-2005



An iceberg floating in the ocean. The tip of the iceberg is above the water line, and the much larger base is submerged. A black arrow points from the left towards the tip of the iceberg. The text '1,432 Deaths' is written in red above the tip. The text '15,134 LBW' is written in red in the middle of the submerged part. The text '24,146 Premature' is written in red in the lower part of the submerged part. The text 'Wisconsin 2006-2008' is written in red at the bottom of the image.

**1,432 Deaths**

**15,134 LBW**

**24,146 Premature**

**Wisconsin 2006-2008**

# Infant Mortality Rates, 2004-2008

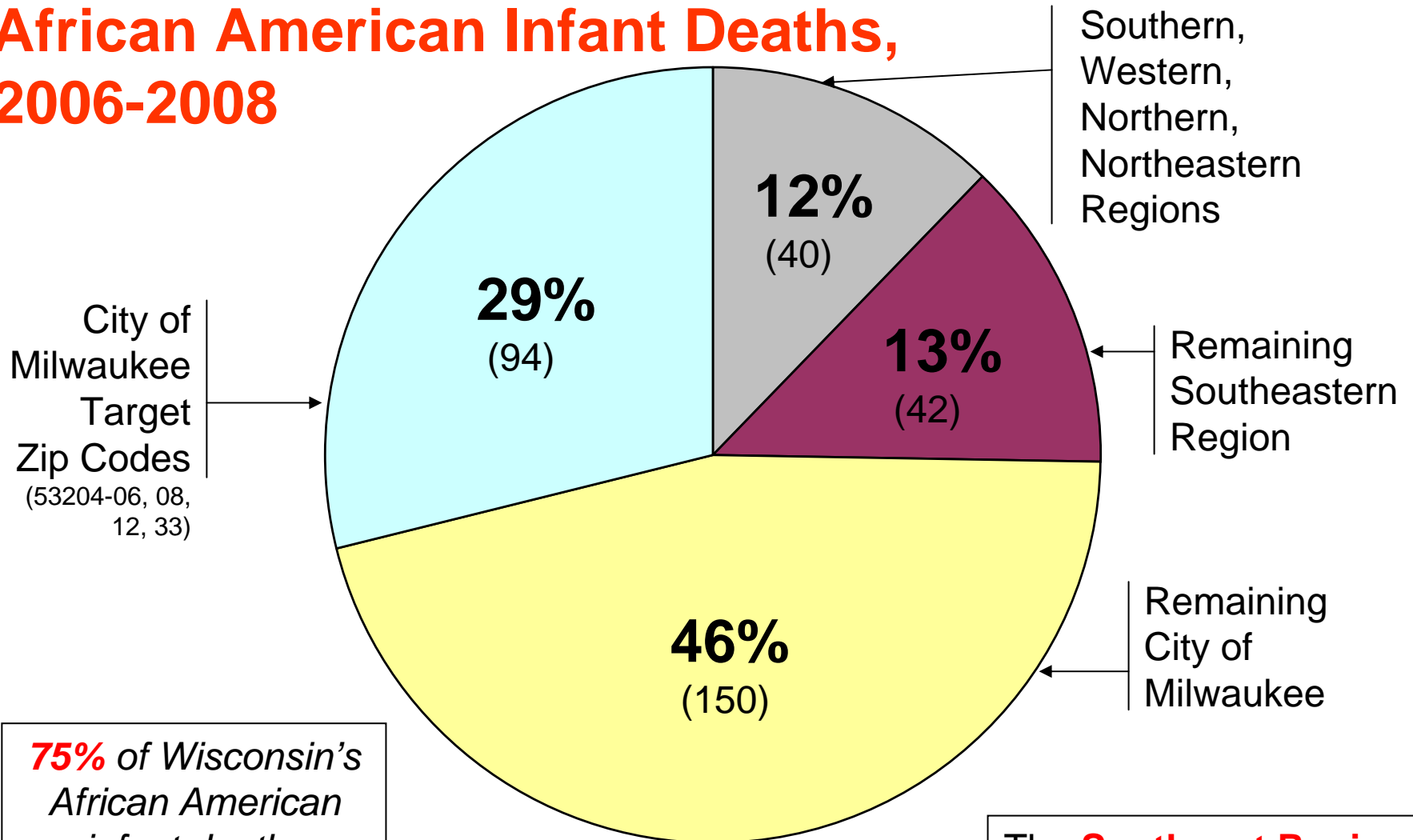
## Selected counties/cities

| State/County<br>City | White | Black | Hispanic | B/W Ratio |
|----------------------|-------|-------|----------|-----------|
| <b>Dane</b>          | 4.1   | 7.5   | 5.5      | 1.8       |
| Madison              | 4.1   | 8.9   | 5.2      | 2.2       |
| <b>Kenosha</b>       | 4.8   | 15.1  | 4.6      | 3.1       |
| Kenosha City         | 4.3   | 14.7  | 5.0      | 3.4       |
| <b>Milwaukee</b>     | 5.7   | 16.0  | 7.1      | 2.8       |
| Milwaukee City       | 6.6   | 16.0  | 6.8      | 2.4       |
| <b>Racine</b>        | 6.5   | 22.9  | 10.1     | 3.5       |
| Racine City          | 6.0   | 22.3  | 8.6      | 3.7       |
| <b>Rock</b>          | 5.1   | 17.7  | 4.5      | 3.5       |
| Beloit               | 7.5   | 16.8  | 4.6      | 2.2       |
| <b>Wisconsin</b>     | 5.2   | 15.9  | 6.3      | 3.0       |

WISH (Wisconsin Interactive Statistics on Health), Infant Mortality Module, accessed 11/30/09.

Note: 'X' denotes less than 5 events and is not reported.

# Geographical Contribution of African American Infant Deaths, 2006-2008



**75%** of Wisconsin's African American infant deaths occurred in the City of **Milwaukee** from 2006-2008

(Wisconsin Total N=326)

The **Southeast Region** accounts for **88%** of African American infant deaths.



# Infant Mortality Rates, by country, 2007

| Rank  | Country                | IMR         |
|-------|------------------------|-------------|
| 1     | Singapore              | 2.30        |
| 2     | Sweden                 | 2.76        |
| 3     | Japan                  | 2.80        |
| 4     | Hong Kong              | 2.94        |
| 5     | Macau                  | 3.25        |
| 6     | Iceland                | 3.27        |
| 7     | France                 | 3.38        |
| 8     | Finland                | 3.52        |
| 9     | Norway                 | 3.64        |
| 10    | Malta                  | 3.82        |
| ----- |                        |             |
| 26    | New Zealand            | 5.22        |
| 27    | Canada                 | 5.27        |
| 28    | Ireland                | 5.22        |
|       | <i>Wisconsin White</i> | <i>5.27</i> |
| 29    | Greece                 | 5.34        |
| 30    | Taiwan                 | 5.54        |
| 31    | Italy                  | 5.72        |
| 32    | Cuba                   | 6.04        |
| 33    | <i>United States</i>   | <i>6.42</i> |
| 34    | Croatia                | 6.60        |
| 35    | Belarus                | 6.63        |

**Milwaukee White 6.6**

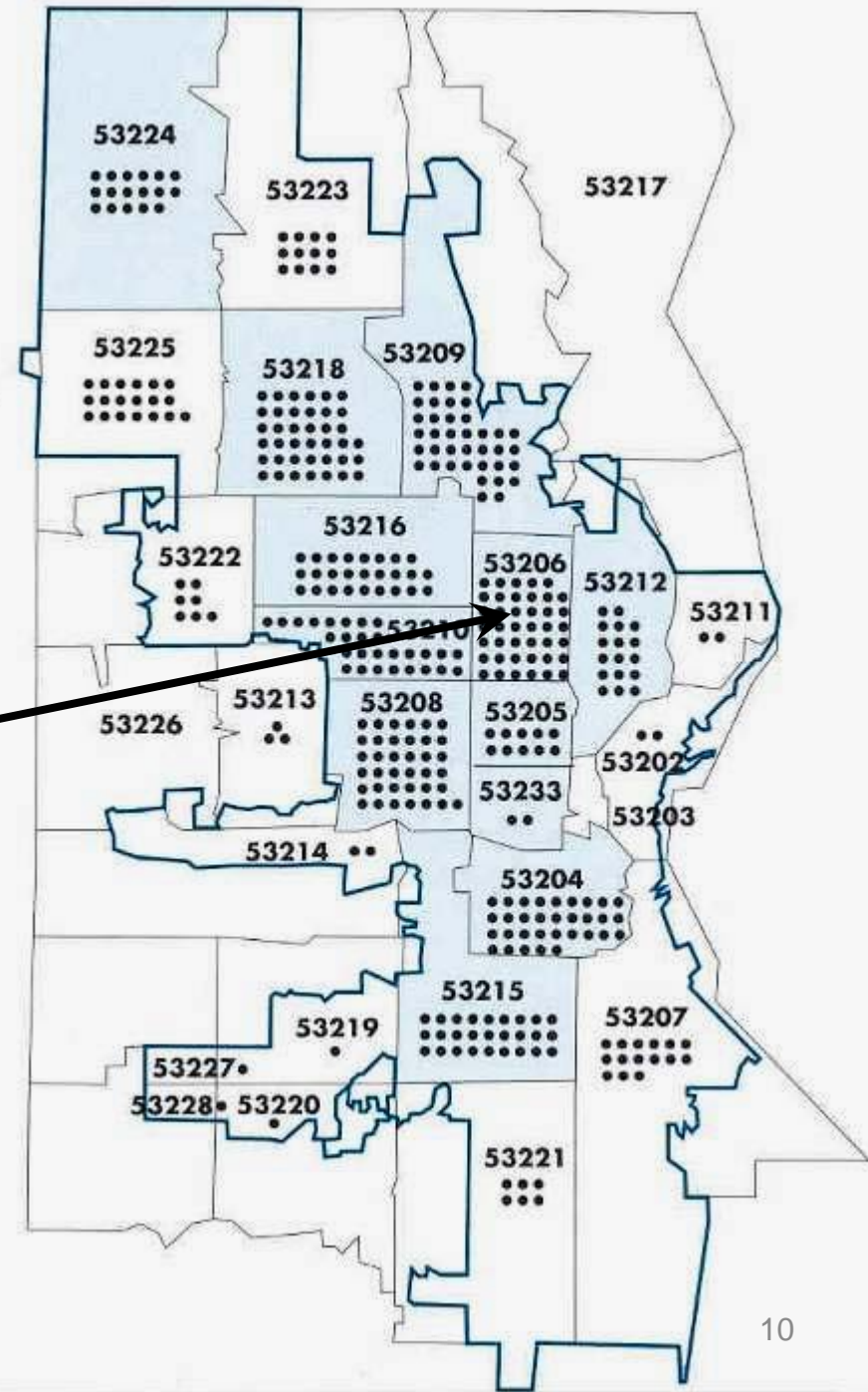
| Rank | Country                | IMR          |
|------|------------------------|--------------|
| 50   | Macedonia              | 9.53         |
| 51   | Bosnia/Herzegovina     | 9.58         |
| 52   | Montenegro             | 10.61        |
| 53   | Russia                 | 11.06        |
| 54   | Uruguay                | 12.02        |
| 55   | Argentina              | 12.13        |
| 56   | Fiji                   | 12.19        |
| 57   | Saudi Arabia           | 12.33        |
| 58   | Mauritius              | 12.93        |
| 59   | Brunei                 | 13.12        |
| 60   | Barbados               | 13.20        |
| 61   | Qatar                  | 13.88        |
| 62   | United Arab Emirates   | 13.88        |
| 63   | Moldova                | 13.88        |
| 64   | Panama                 | 14.19        |
| 65   | Botswana               | 14.30        |
|      | <i>Wisconsin Black</i> | <i>15.60</i> |
| 66   | Jamaica                | 15.86        |
| 67   | Jordan                 | 16.16        |
| 68   | Bahrain                | 16.18        |
| 69   | Malaysia               | 16.92        |
| 70   | West Bank              | 17.10        |

**Milwaukee Black 16.4**

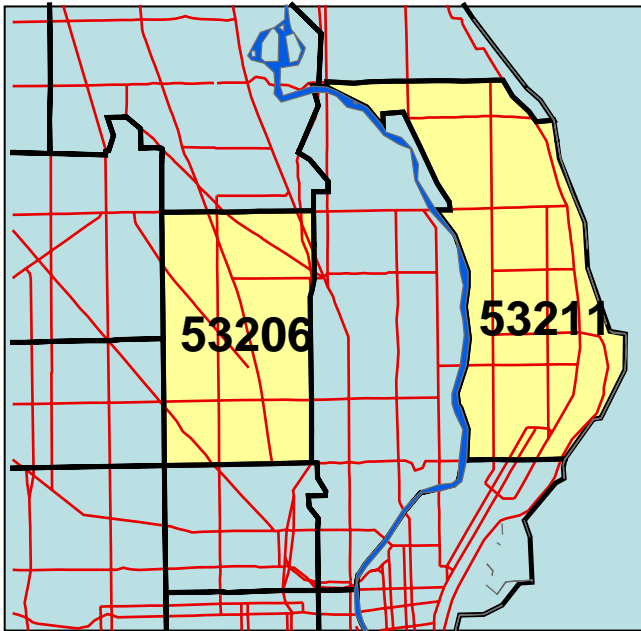
# Map of Milwaukee Infant Deaths 2002-2004 (N = 389)

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**



# A tale of two zip codes



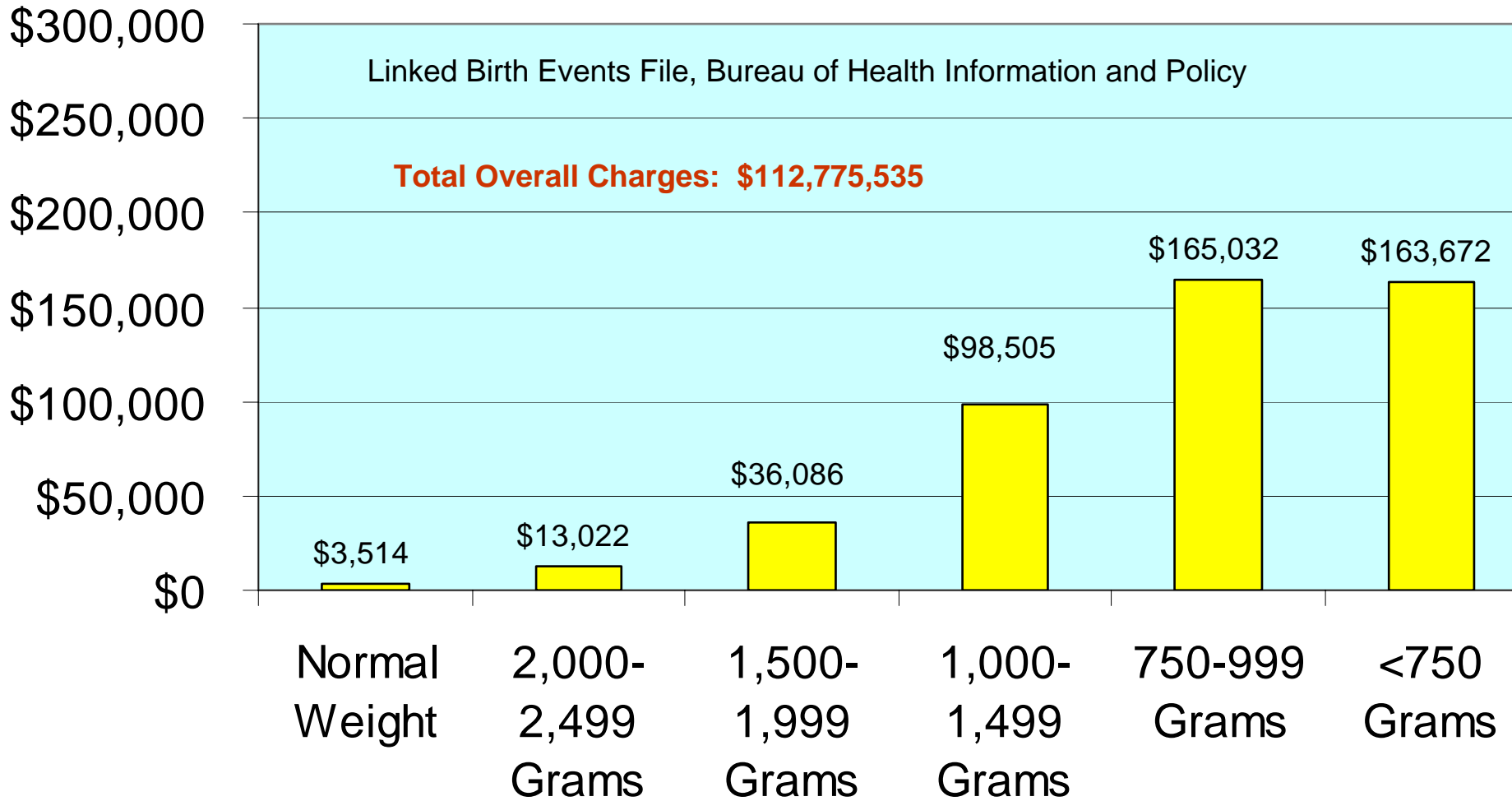
|  | <b><u>53206</u></b> | <b><u>53211</u></b> |
|--|---------------------|---------------------|
| Population*                            | 32,868              | 35,225              |
| Median age*                            | 25.8                | 29.9                |
| African American*                      | <b>96.1%</b>        | 2.5%                |
| High school graduate (25+ yrs of age)* | <b>57.6%</b>        | 95.7%               |
| Disabled (21-64 yrs of age)*           | <b>37.0%</b>        | 9.3%                |
| Median family income*                  | <b>\$21,867</b>     | \$70,704            |
| Families below poverty level*          | <b>35.0%</b>        | 3.6%                |
| Teen birth rate 2004**                 | <b>111</b>          | 3                   |
| HIV rate 2004***                       | <b>47</b>           | 9                   |
| STD rate (15-19 yrs of age)***         | <b>22,795</b>       | 1,070               |

\* Source: 2000 U.S. Census data

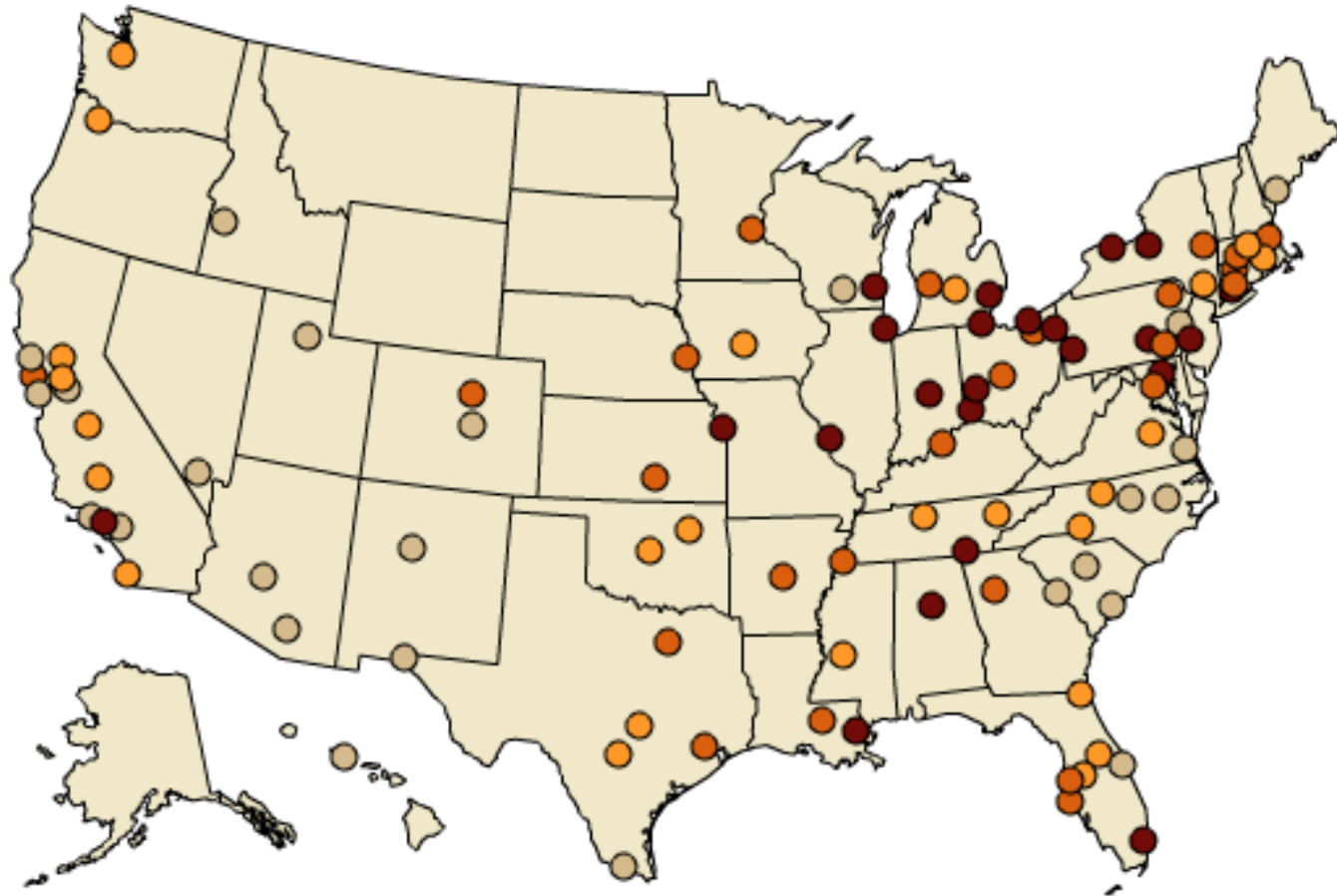
\*\* Per 1,000 population

\*\*\* Per 100,000 population

**Birth Weight and Infant Hospitalization Average Charges  
During the First Year of Life  
2005 Medicaid Births in Selected Counties  
(Dane, Kenosha, Milwaukee, Racine, and Rock Counties)**

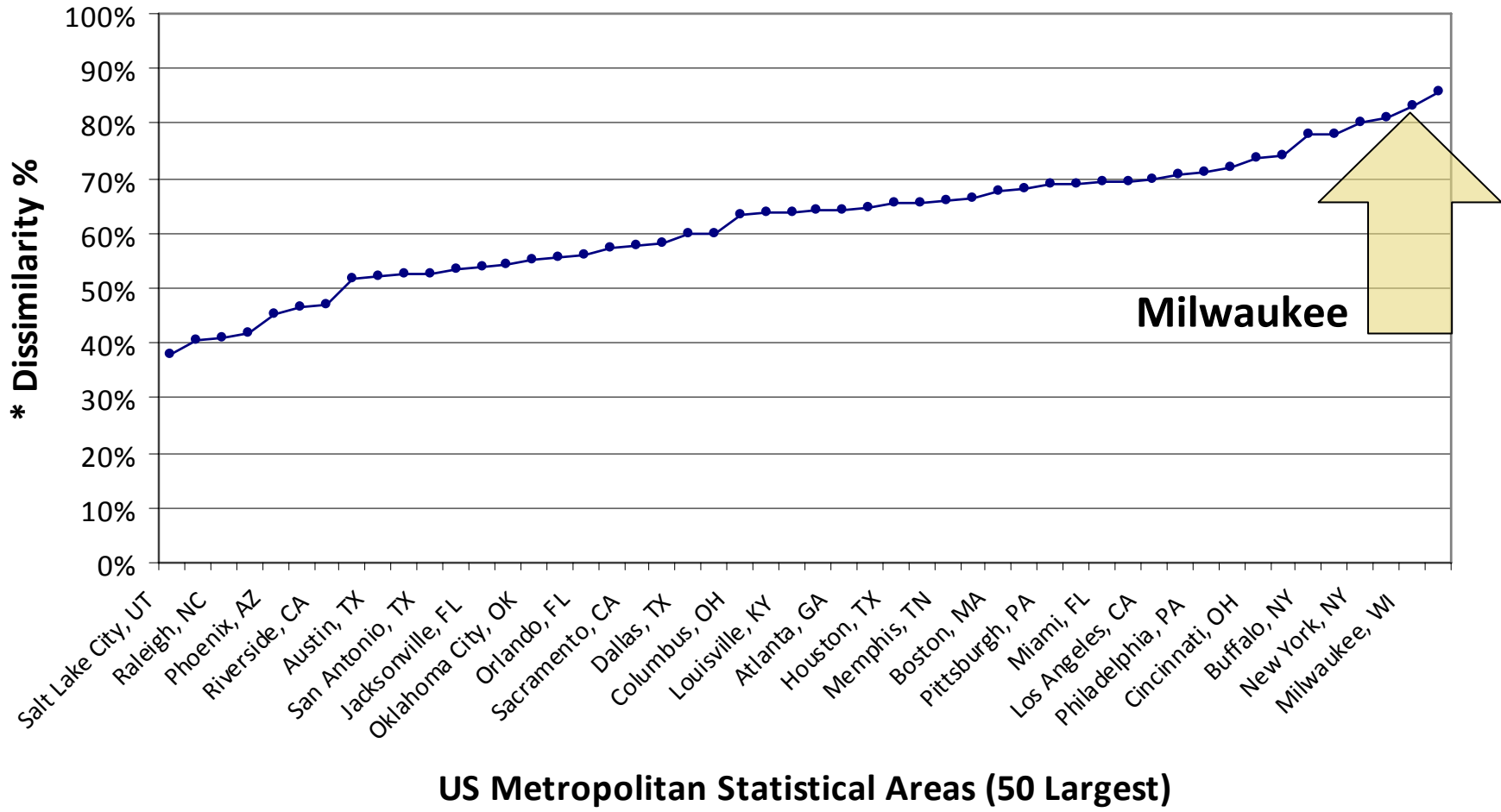


# Segregation



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

# Segregation

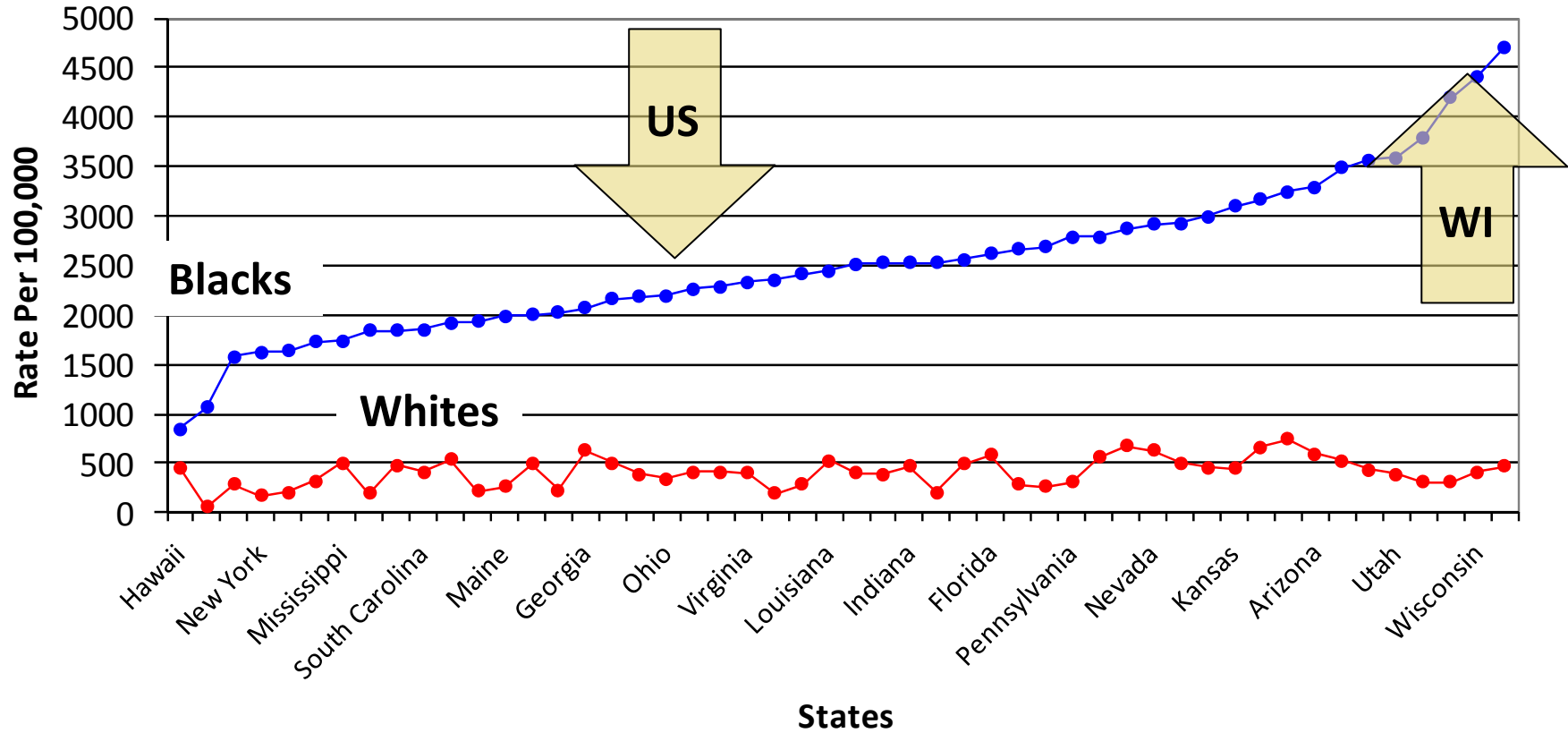


US Metropolitan Statistical Areas (50 Largest)

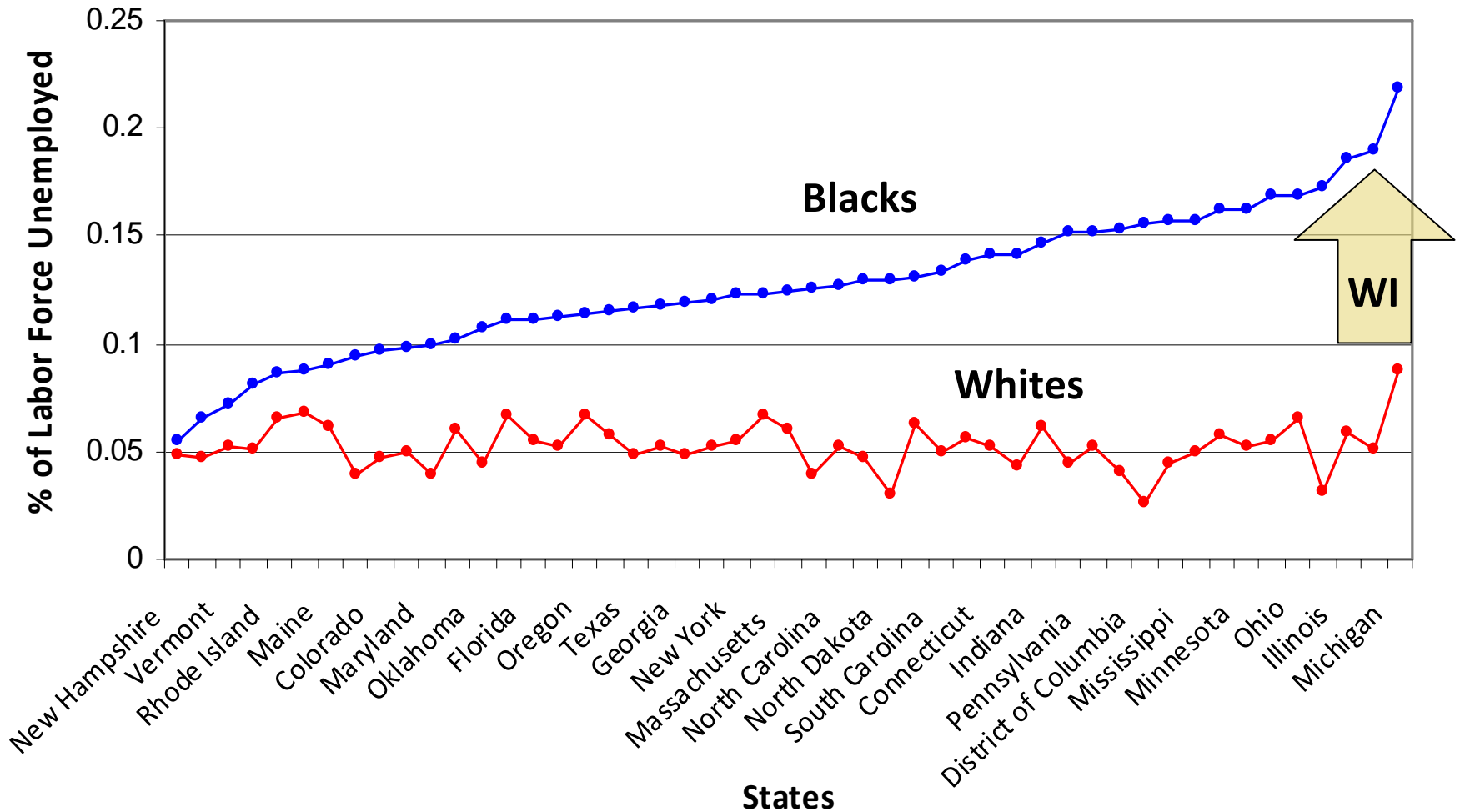
\* 0% = absolute integration; 100% = absolute segregation

Source: U.S. Census Bureau, 2000 Census

# 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)

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

**Postpartum Depression**

Postpartum depression affects 10-15% of women and can appear at any time in the first year after delivery. Untreated postpartum depression can be debilitating for the mother and have long-lasting effects for her newborn, resulting in increased use of health care services. Most cases of postpartum depression can be successfully treated when identified early.

**Is It Just the Baby Blues?**

Typically, the baby blues occur within the first days of delivery and go away within a few days of a week, without intervention. Your postpartum depression may start any time in the first year after delivery. Symptoms are more severe than the blues and last for a longer period of time.

**Symptoms of postpartum depression:**

- Loss of appetite
- Excessive crying and anger
- Insomnia or oversleeping/naping
- Loss of interest in baby's 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:**

- Mental health during pregnancy
- Pregnancy-related stressors
- Personal life
- Family life
- Alcohol and drug use

**Wisconsin PRAMS**  
Pregnancy Risk Assessment Monitoring System

Please call 1-800-752-4739  
To receive the survey by phone  
or receive information about PRAMS

For more information  
Please contact us at 1-800-752-4739  
Visit us online at [www.wisconsinprams.org](http://www.wisconsinprams.org)  
Visit us on Facebook at [www.facebook.com/wisconsinprams](http://www.facebook.com/wisconsinprams)

**Wisconsin PRAMS**  
Pregnancy Risk Assessment Monitoring System

Please call 1-800-752-4739 to see how  
participating centers about the survey.  
Thank you for your help!



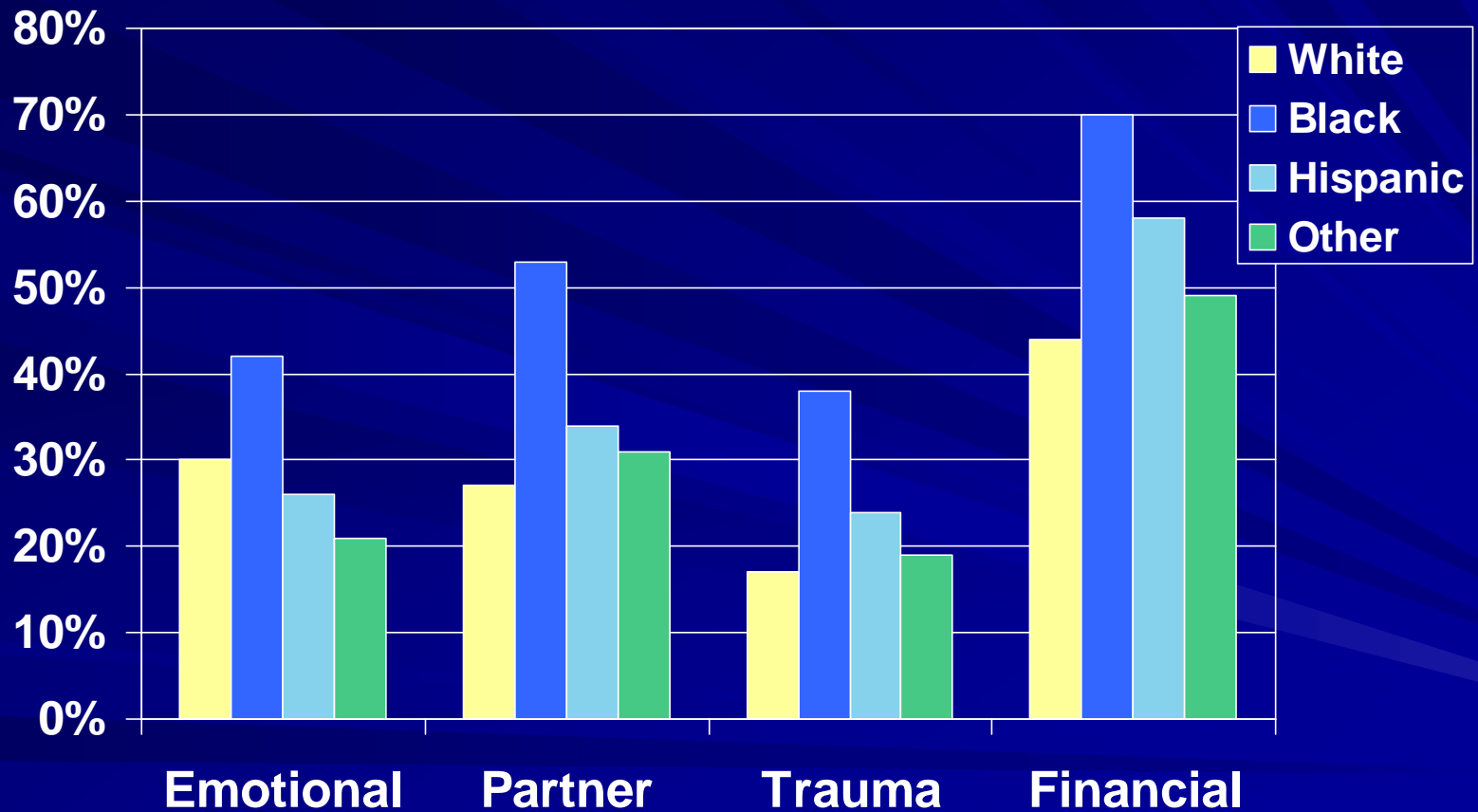
# Data Highlights

## 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





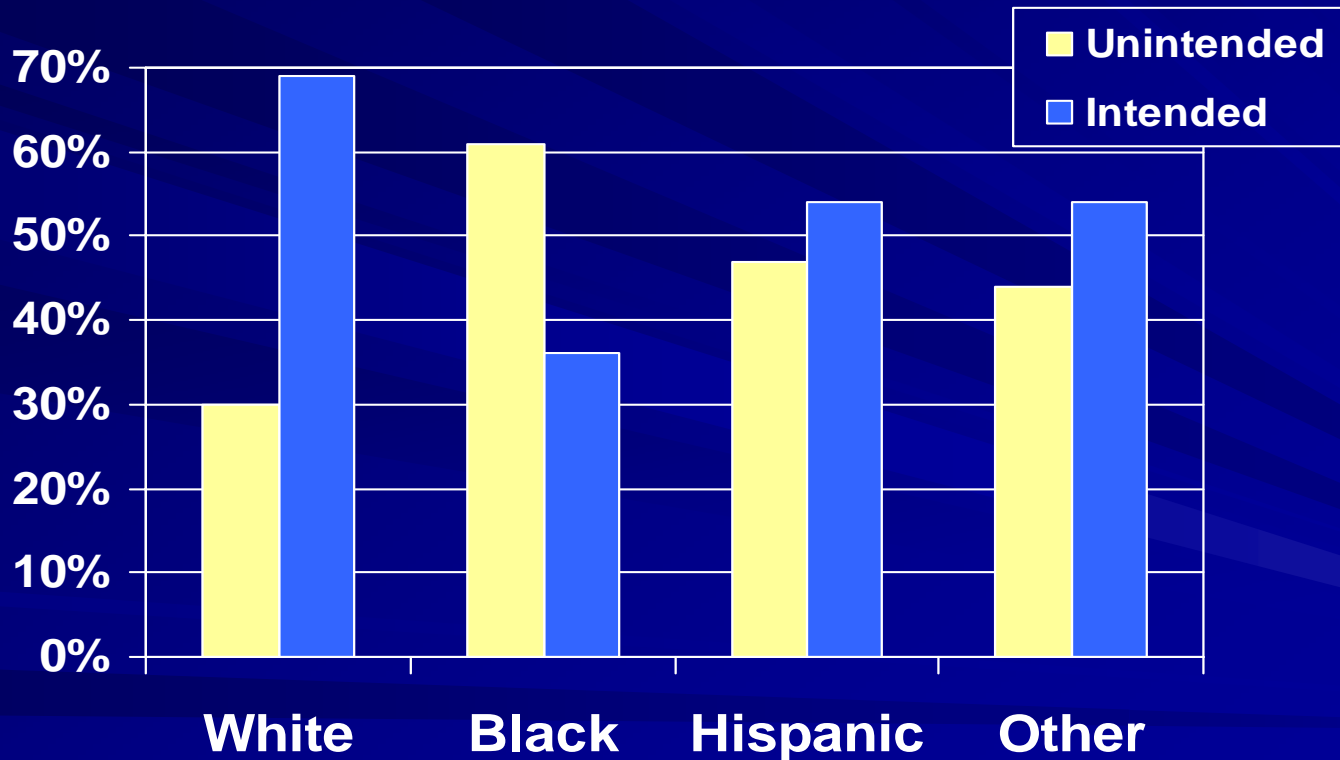
## Total Household Income before Taxes

| <u>Race/ethnicity</u> | <u>Less than<br/>\$10,000</u> | <u>More than<br/>\$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

# From the FIMR Mothers

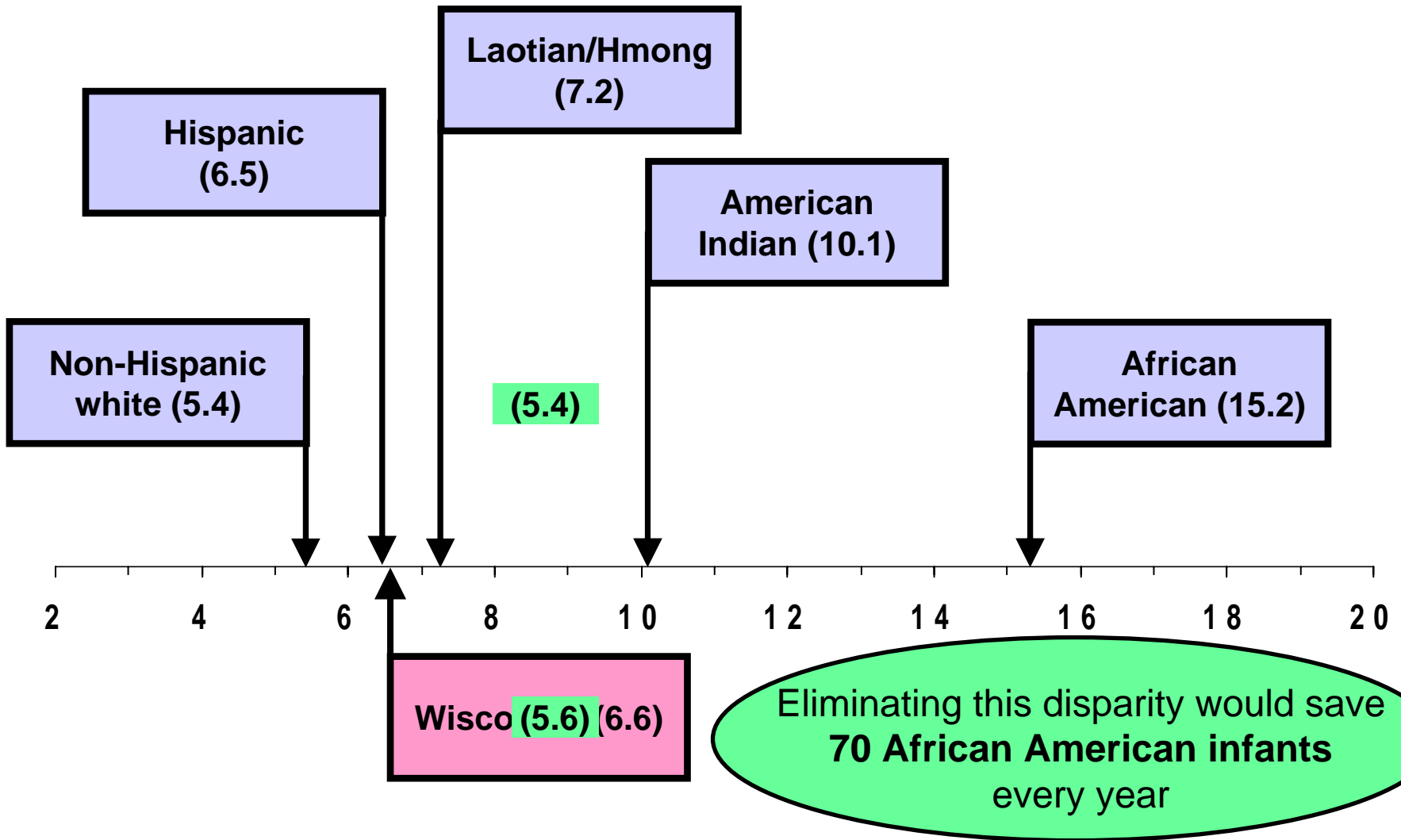
“I wish I’d have been told more about contractions and signs of labor,” replied one mother. **Symptoms of preterm labor (PTL) were experienced by 42% of interviewed mothers, but nearly 16% of them didn’t recognize them as signs of PTL.** One mother said, “I didn’t call my doctor right away because I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

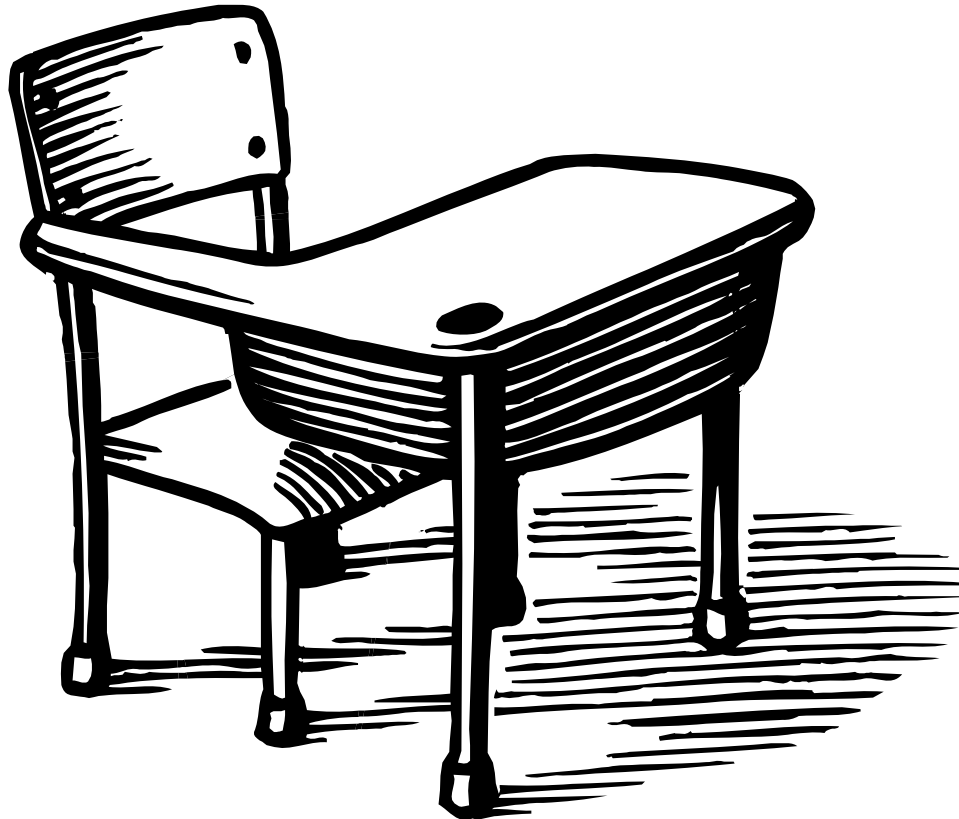
(Per 1,000 live births, 2006-2008)



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        |
| <i>20</i> | <i>Wisconsin</i> | <i>6.34</i> |
| 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 |



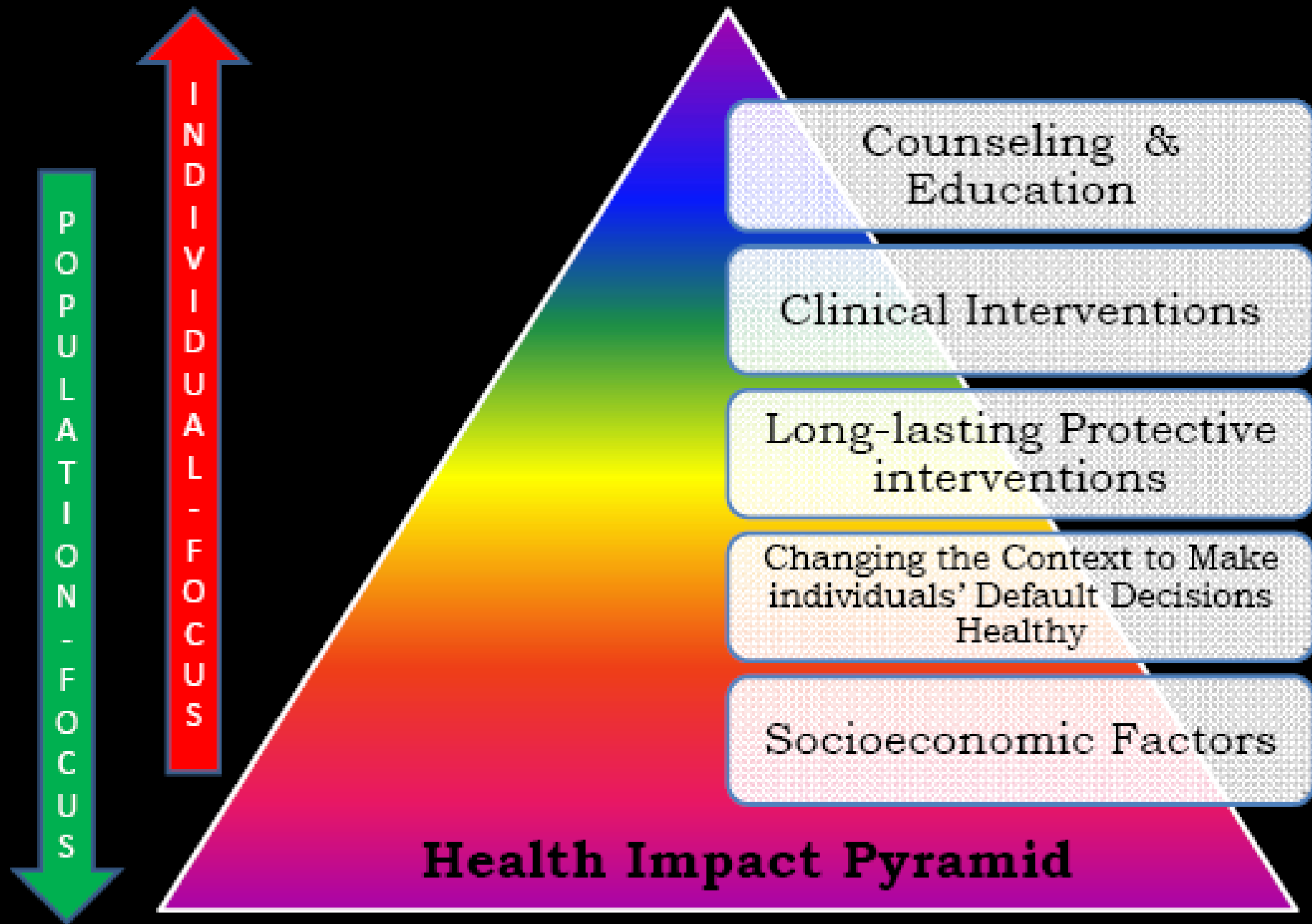
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| 5    | California       | 5.22        |
| 6    | <i>Wisconsin</i> | <i>5.29</i> |
| 7    | Washington       | 5.39        |
| 8    | Iowa             | 5.40        |
| 9    | New Jersey       | 5.44        |
| 10   | Connecticut      | 5.53        |
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| 14   | Nebraska         | 5.89        |
| 15   | New York         | 6.02        |
| 16   | Idaho            | 6.12        |
| 17   | New Mexico       | 6.13        |

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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        |

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

|    |                |       |
|----|----------------|-------|
| 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 |



**GOAL:**

**Equity in Birth Outcomes**

