

# Turning the Ship Toward the Life Course Theory for Equity in Birth Outcomes

Patrice M. Onheiber, M.P.A. Director, Equity in Birth Outcomes Stephanie Kroll, M.P.H. Population Health Service Fellow Division of Public Health July 21, 2015



# Outline



### **Equity in birth outcomes**

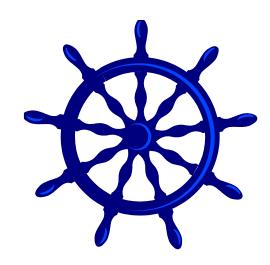
The Wisconsin story



### Life course theory to action:

- Improving birth outcomes
- Improving women's health
- Collaborative Improvement and Innovation Network (CollN) to reduce infant mortality





### Equity in Birth Outcomes: The Wisconsin Story



# In an average week in Wisconsin...

- 1,280 babies are born.
- 128 babies are born preterm.

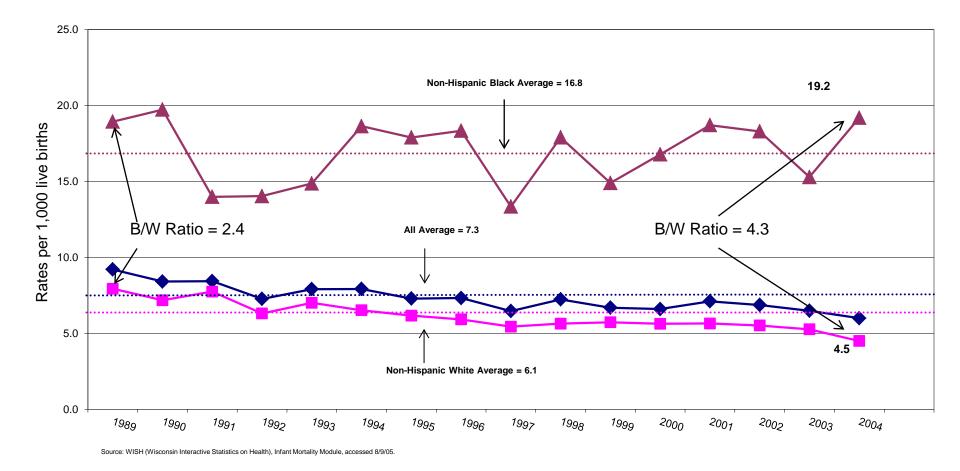
African American rate 1.6 times white rate

- 90 babies are born with low birth weight.
   African American rate 2.2 times white rate
- 8 babies die before reaching their first birthday.
   African American rate 2.7 times white rate

WISH. 2013 counts, 2011–2013 rates (2011–2012 for infant mortality).

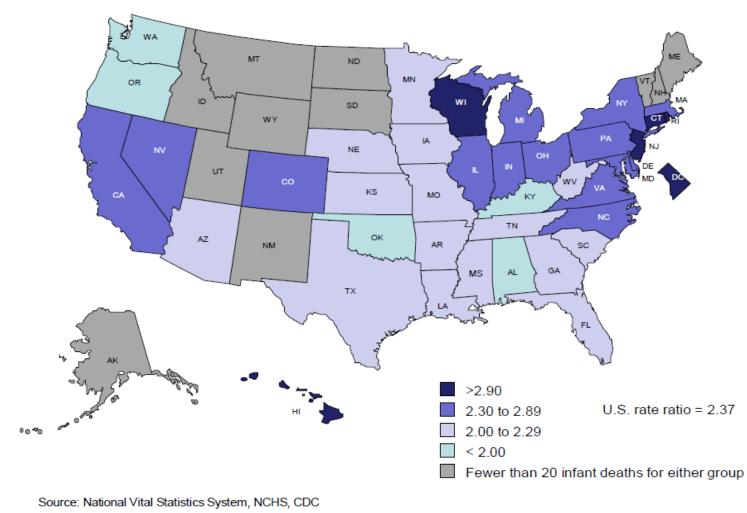


# Infant Mortality Rates: Total, White, and African American, Wisconsin 1989–2004, New





#### Infant mortality rate ratio of non-Hispanic black to non-Hispanic white by state, 2005–2007



#### African American Infant Mortality Rates, Reporting States and District of Columbia, 2006–2008

Rank	State	AA IMR	Rank	State	AA IMR	Rank	State	AA IMR
1	Washington	7.66	16	S. Carolina	12.97	30	N. Carolina	14.62
2	Oregon	10.16	17	Maryland	12.98	32	Michigan	14.70
3	Rhode Island	10.56	17	Nebraska	12.98	33	Arizona	14.85
4	California	10.72	19	Connecticut	13.11	34	W. Virginia	14.93
5	Mass.	10.90	20	Virginia	13.40	35	Ohio	15.03
6	Iowa	11.10	21	Illinois	13.45	36	Wisconsin	15.14
7	New York	11.29	22	Delaware	13.46	37	Indiana	15.36
8	Minnesota	11.33	23	Arkansas	13.53	37	Tennessee	15.36
9	Texas	11.69	24	Alabama	13.73	39	District of	17.68
10	Colorado	11.97	25	Mississippi	13.82		Columbia	
11	New Jersey	12.06	26	Louisiana	13.88	40	Hawaii	18.54
12	Kentucky	12.13	27	Oklahoma	13.91			
13	Nevada	12.54	28	Pennsylvania	14.14	Mathews TJ, MacDorman MF. (2011) Infant mortality statistics from the 2008 period linked birth/infant		
14	Georgia	12.70	29	Missouri	14.49	death data s	set. National vital statistic ville, MD: National Cente	s reports; vol 60
15	Florida	12.83	30	Kansas	14.62	Statistics.		



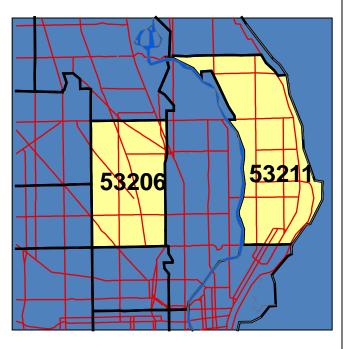
#### Infant Mortality Rates, 2006–2010 Selected Counties and Cities

State/County City	White	Black	Hispanic	B/W Ratio
Dane	4.1	12.2	4.2	3.0
Madison	5.2	14.5	3.2	2.8
Kenosha	5.3	8.2	4.4	1.5
Kenosha City	4.8	7.6	4.8	1.6
Milwaukee	5.4	15.0	7.2	2.8
Milwaukee City	5.8	15.0	7.2	2.6
Racine	6.5	18.1	8.8	2.8
Racine City	6.3	18.4	8.0	2.9
Rock	6.2	17.0	6.8	2.7
Beloit	8.8	13.8	4.5	1.6
Wisconsin	5.2	14.7	5.9	2.8

WISH (Wisconsin Interactive Statistics on Health), Infant Mortality Module, accessed 08/22/12. Wisconsin Department of Health Services, Division of Public Health

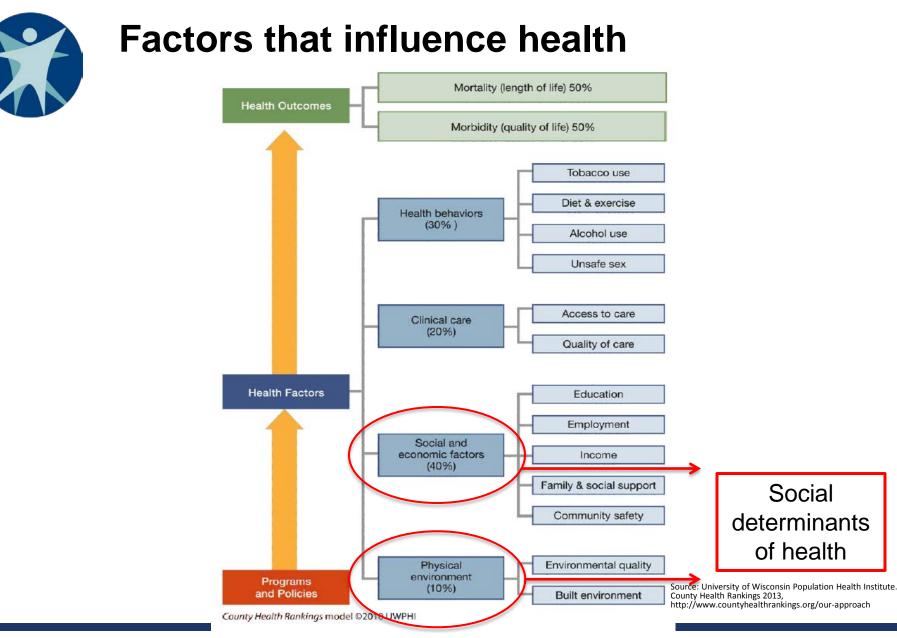


# A Tale of Two ZIP Codes



Population*	<u>53206</u> 32,868	<u><b>53211</b></u> 35,225
Median age*	25.8	29.9
African American*	<b>96.1%</b>	2.5%
High school graduate (25+ years of age)*	<b>57.6%</b>	95.7%
Disabled (21–64 years of age)*	37.0%	9.3%
Median family income*	\$21,867	\$70,704
Families below poverty level*	35.0%	3.6%
Teen birth rate 2004**	111	3
HIV rate 2004***	47	9
STD rate (15–19 years. of age)***	22,795	1,070
<ul> <li>* Source: 2000 U.S. Census data</li> <li>** Per 1,000 population</li> <li>*** Per 100,000 population</li> </ul>		

Hoxie, N





### Infant Mortality Rate by Race/Ethnicity and Education, Wisconsin 2008–2010

Education	Total	African American	White	B/W Disparity
Less than High School	10	16	10	1.6
High School Graduate	7	12	6	1.9
More than High School	5	14	4	3.3

WISH (Wisconsin Interactive Statistics on Health), Infant Mortality Module.



### High School Graduation Ranking of States by Black High School Graduation Rate

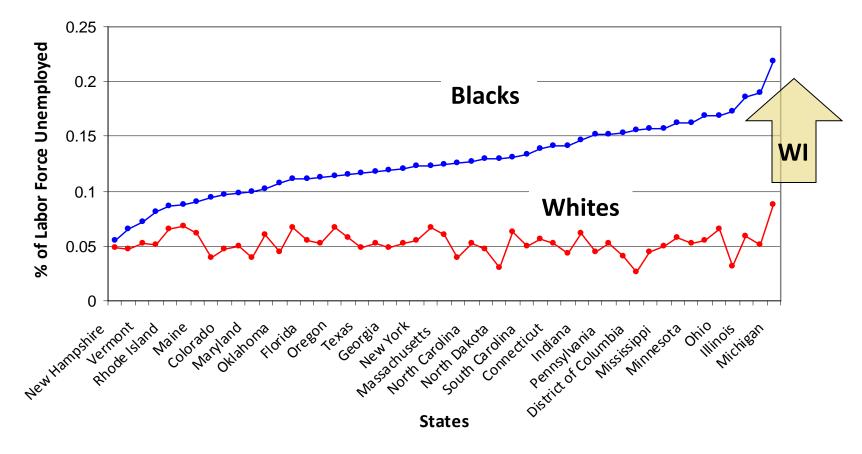
Rank	State	Black Graduation Rat
1 2 3 4 5 6 7 8 9 10	New Mexico West Virginia Arkansas Maryland Oklahoma Massachusetts Virginia Alaska Rhode Island Louisiana	73% 70% 69% 66% 65% 64% 64% 63% 62%
11 12 13 14 15 16 17 18 19 20	Texas Mississippi Alabama California Missouri Iowa Delaware Pennsylvania Colorado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

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

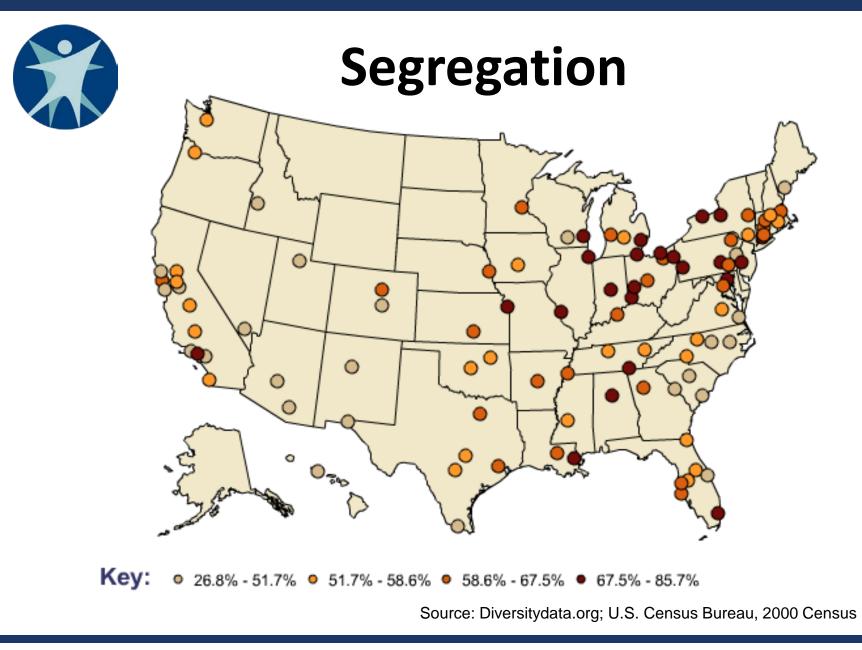
Source: 2003 Data from the U.S. Department of Education, Manhattan Institute Report



### **Unemployment Rates**

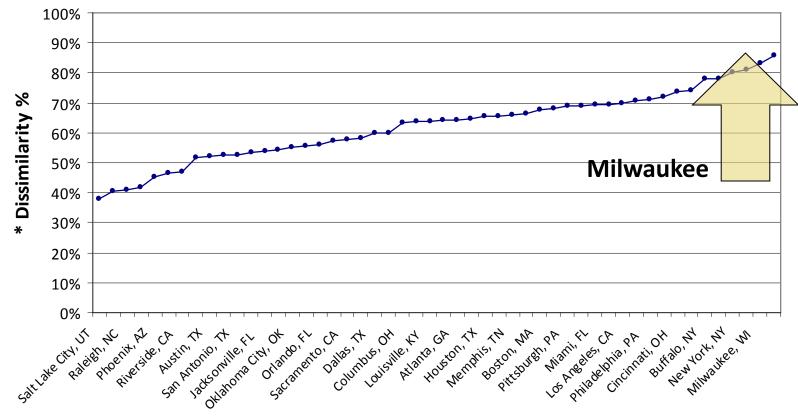


Source: U.S. Census Bureau American Community Survey 2006-2008





# Segregation



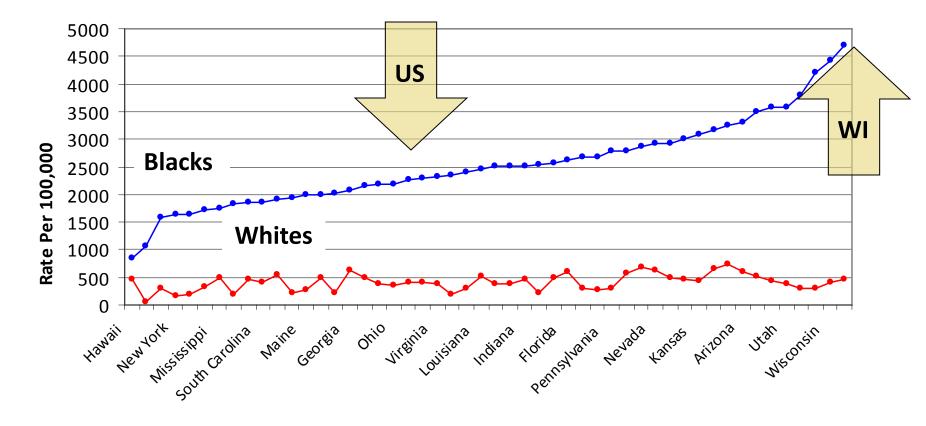
**US Metropolitan Statistical Areas (50 Largest)** 

Source: U.S. Census Bureau, 2000 Census

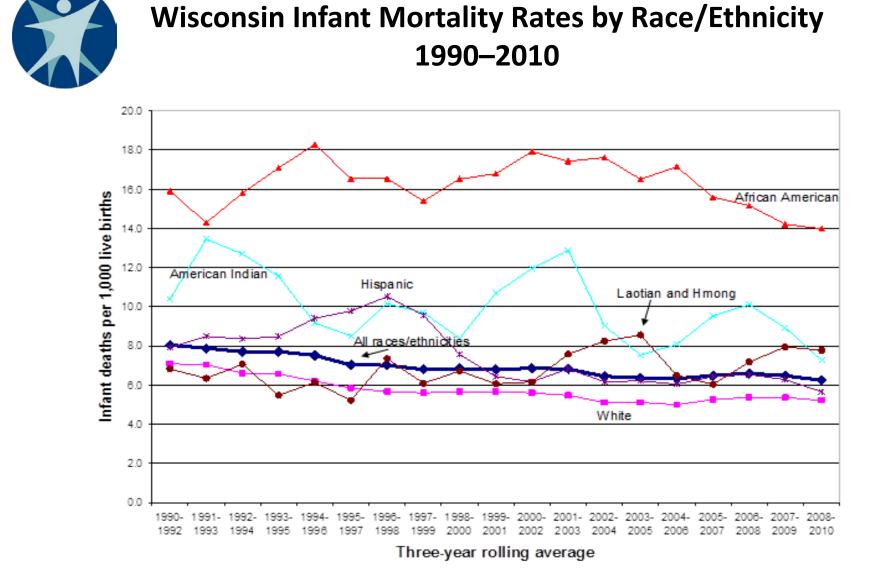
\* 0% = absolute integration; 100% = absolute segregation



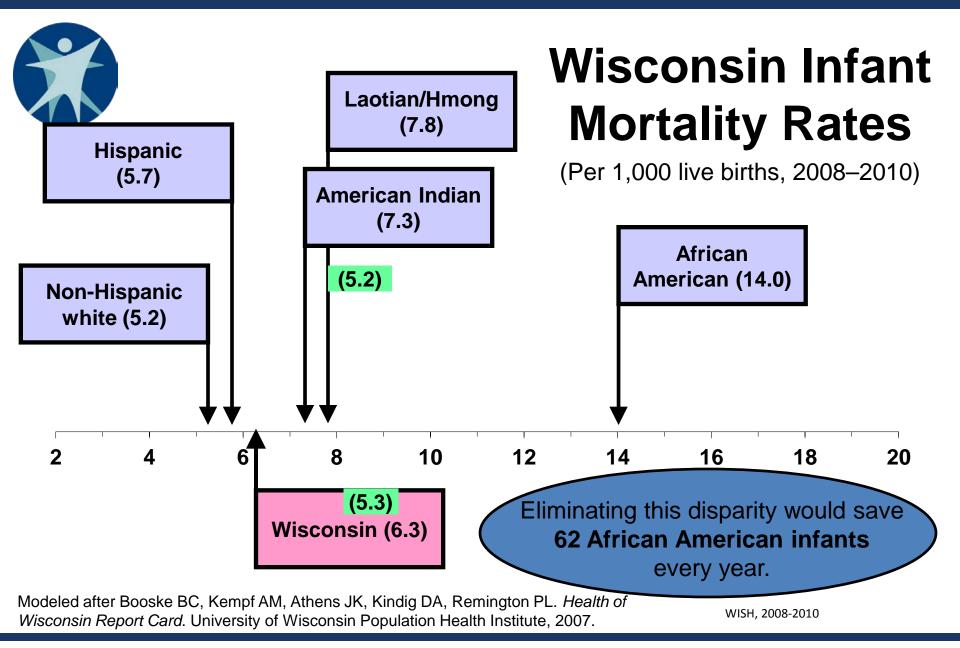
# **Jail and Prison Incarceration Rates**



**States** Source: Bureau of Justice Statistics, Prison and Jail Inmates at Midyear 2005



Wisconsin Births and Infant Deaths, 2010.





### Wisconsin Pregnancy Risk Assessment Monitoring System (PRAMS)

	Wisconsin PRAMS	What Moms Tell Us
	Postpartum Depression Postparte investor addet XX si di access ante appe di aggine di aggine di aggine di aggine di aggine trattato aggine di aggine di aggine di aggine trattato aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine di aggine restato di aggine di aggine di aggine di aggine di aggine di aggine di aggine restato di aggine d	Typicals. Her bailty blancincur within these days of promotion and an ensure within a line days or a
- Damas - Damas - Damas - Damas - Damas	Mannatoring Systems Incode of Mathematica Incode of Mathematica I	<section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></section-header>
	Preversible Lancement Ma	El sura Social



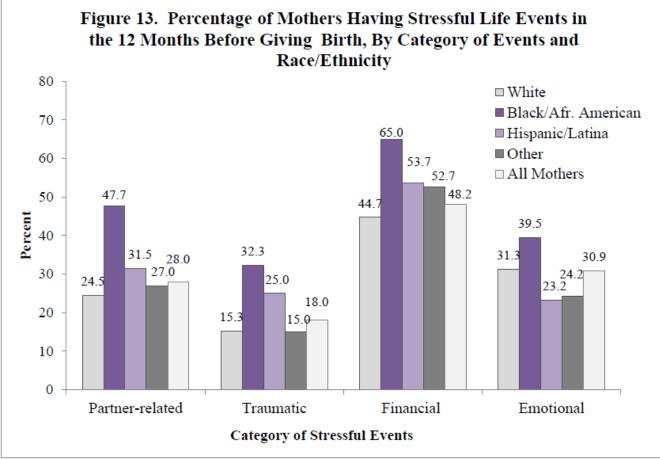


# What Is PRAMS?

- Survey of new mothers
- Mothers contacted by mail and phone
- Asks about experiences before, during, and after pregnancy
- Topics include:
  - o Prenatal care
  - o Health behaviors
  - o Violence
  - o Stress



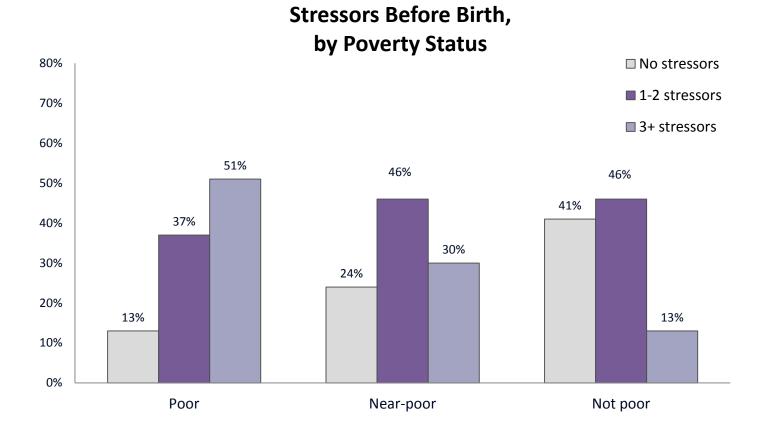
### **Stressful Events**



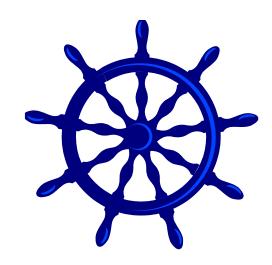
Source: 2009-2011 Wisconsin PRAMS, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services. Note: Percentages do not add to 100; categories are not mutually exclusive; n=3,437.



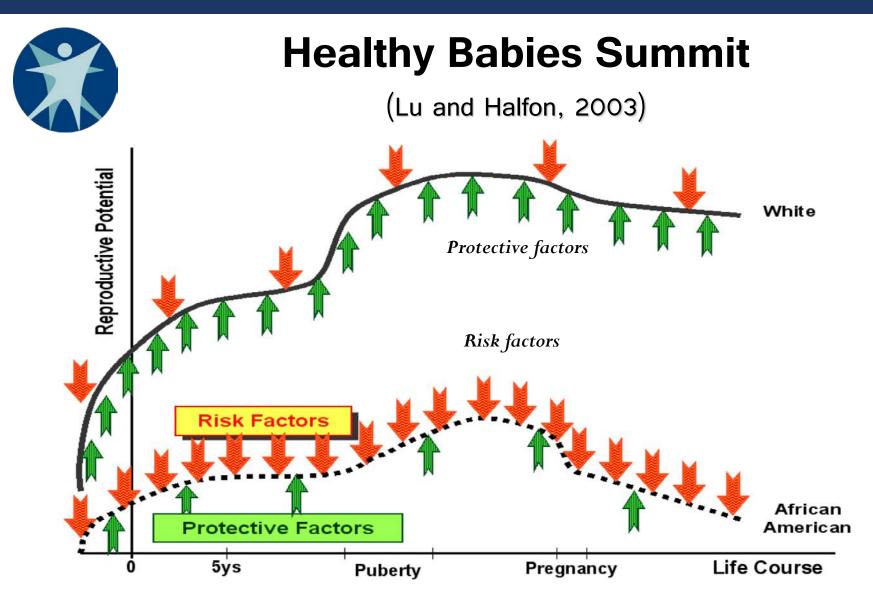
### What Moms Tell Us About Social Determinants







### Life Course Theory to Action: Improving Birth Outcomes





# The Life Course Perspective

Health outcomes: Depend on biological, psychological, behavioral, and social protective factors and risk factors over a person's entire life span

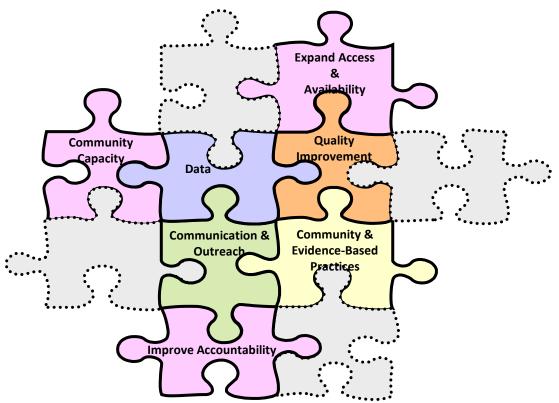
**Birth outcomes:** The end product of not only the nine months of pregnancy, but **the entire life course of the mother leading up to the pregnancy** 





#### A Framework for Action to Eliminate Racial and Ethnic Disparities in Birth Outcomes Wisconsin 2008–2011

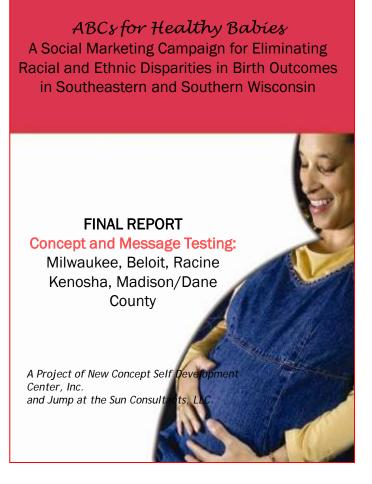
http://www.dhs.wisconsin.gov/healthybirths/





# **ABCs for Healthy Babies**

- Focus group research, conducted in 2008
- Milwaukee, Racine, Kenosha, Beloit, Madison
- 18 groups; 180 African American mothers, fathers, and grandmothers
- State Minority Health and Tobacco funds





# **ABCs for Healthy Families**



### HRSA First Time Motherhood/

#### **New Parents Initiative**

- Improve birth outcomes for African American infants in Wisconsin.
- Increase integration of life course perspective into preconception/interconception care.
- Link to health and support services in Milwaukee and Racine.
- Increase father involvement and support couples transitioning to roles as parents.



#### **TECHNICAL ADVISORY GROUP**

Michael Lu, M.D., M.P.H., associate professor, obstetrics, gynecology, and public health, University of California, Los Angeles (UCLA)

Mario Drummonds, M.S., L.C.S.W., M.B.A., executive director, CEO, Northern Manhattan Perinatal Partnership, Harlem, NY

Fleda Mask Jackson, Ph.D., member of the National Advisory Committee on Health Disparities for the Centers for Disease Control and Prevention

James Collins, M.D., M.P.H., attending physician, neonatology; professor of pediatrics, Northwestern University's Feinberg School of Medicine

Kumea Shorter-Gooden, Ph.D., full professor and system-wide director of international-multicultural initiatives, Alliant International University, Alhambra, California













# **Community Advisory Board**

#### **Purpose:**

To provide a forum for community and family members to participate in the planning, implementation, and evaluation of *ABCs for Healthy Families* 

#### **Composition:**

- Social services agencies
- o Health providers
- o Community advocates
- Mothers, fathers, students, parents, retired nurses, etc.





### Billboard



text "NoStress" to 32075

myspace.com/JourneyofaLifetime



text4baby<sup>™</sup>

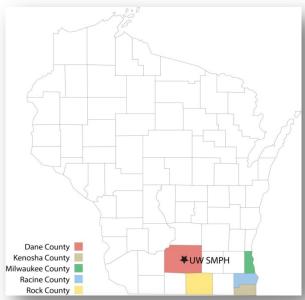
- Free service for pregnancy and baby's first year
- ~15,000 Wisconsin mothers have enrolled since 2010 launch
- 31 Wisconsin users per 1,000 estimated pregnancies and live births



# Lifecourse Initiative for Healthy Families General Overview

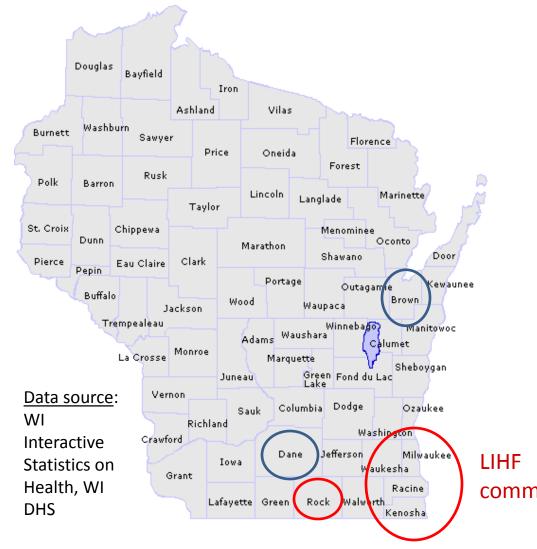
AND PUBLIC HEALTH

- The Wisconsin Partnership Program's regional effort to support partnerships with communities to address high infant mortality among African Americans in Wisconsin.
- Emphasis on sustainable health impact, social determinants of health, and widespread improvements.
- Invest in community-academic partnerships, education, research, and evaluation.
   University of Wisconsin SCHOOL OF MEDICINE



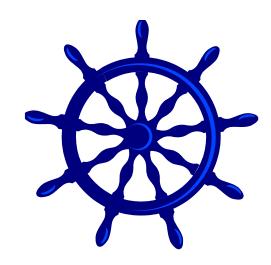


#### African American Births, Deaths, and Infant Mortality Rates in Wisconsin, 2006–2010



	% AA	IM
County	births	rate
Brown	2%	15.8
Dane	7%	12.2
Kenosha	3%	8.2
Milw.	76%	15
Racine	6%	18.1
Rock	2%	17
Total WI	35,612	14.7
nunities		





### Life Course Theory to Action: Improving Women's Health

#### WISCONSIN'S STATEWIDE FRAMEWORK FOR IMPROVING WOMEN'S HEALTH



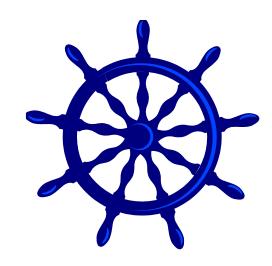
http://www.dhs.wisconsin.gov/healthybirths/



# Everywomanwisconsin.org







#### Life Course Theory to Action:

# Collaborative Improvement and Innovation Network (CollN) to Reduce Infant Mortality



# Wisconsin CollN Topics 2014–2016

**Wisconsin CollN** 

Enhancement of Preconception Health and Interconception Care

Promotion of Safe Sleep and Prevention of Sudden Unexplained Infant Deaths (SUID)

Addressing Social Determinants of Health



- Three active teams since March 2014.
- More than 50 statewide and local partners.
- Region V transitioned to national effort in 2015.
- Reports to Statewide Maternal and Child Health Advisory Committee three times a year.
- Integration into ongoing MCH Program strategies.



# Wisconsin CollN Examples of strategies

#### Preconception and Interconception Care

- Improved provider communication with adolescents
- Medicaid managed care medical homes

#### Safe Sleep and SUID

- Advancing hospital policies
- Training home visitors

#### Social Determinants of Health

- Action plan with leadership team and community input
- Addressing domains of criminal justice reform and income/employment



### **Thank You!**

#### Patrice.onheiber@dhs.wisconsin.gov

### Stephanie.kroll@dhs.wisconsin.gov