Department of Health Services

The Wisconsin PRAMS African-American Oversample:

A Unique State, Academic, and Community Partnership to Enhance Data Collection

Sarah Blackwell, M.P.H.
PRAMS Project Director and MCH Epidemiologist
Wisconsin Division of Public Health

CSTE 2016 MCH Symposium

June 19, 2016

Outline

- What is PRAMS?
- Background
  - Racial disparities in infant mortality in Wisconsin
  - Wisconsin Lifecourse Initiative for Healthy Families (LIHF)
- Methods
  - LIHF and PRAMS partnership
- Results
  - Sample size and response rates
  - PRAMS data uses for addressing racial and ethnic disparities
- Conclusions, lessons learned, and next steps

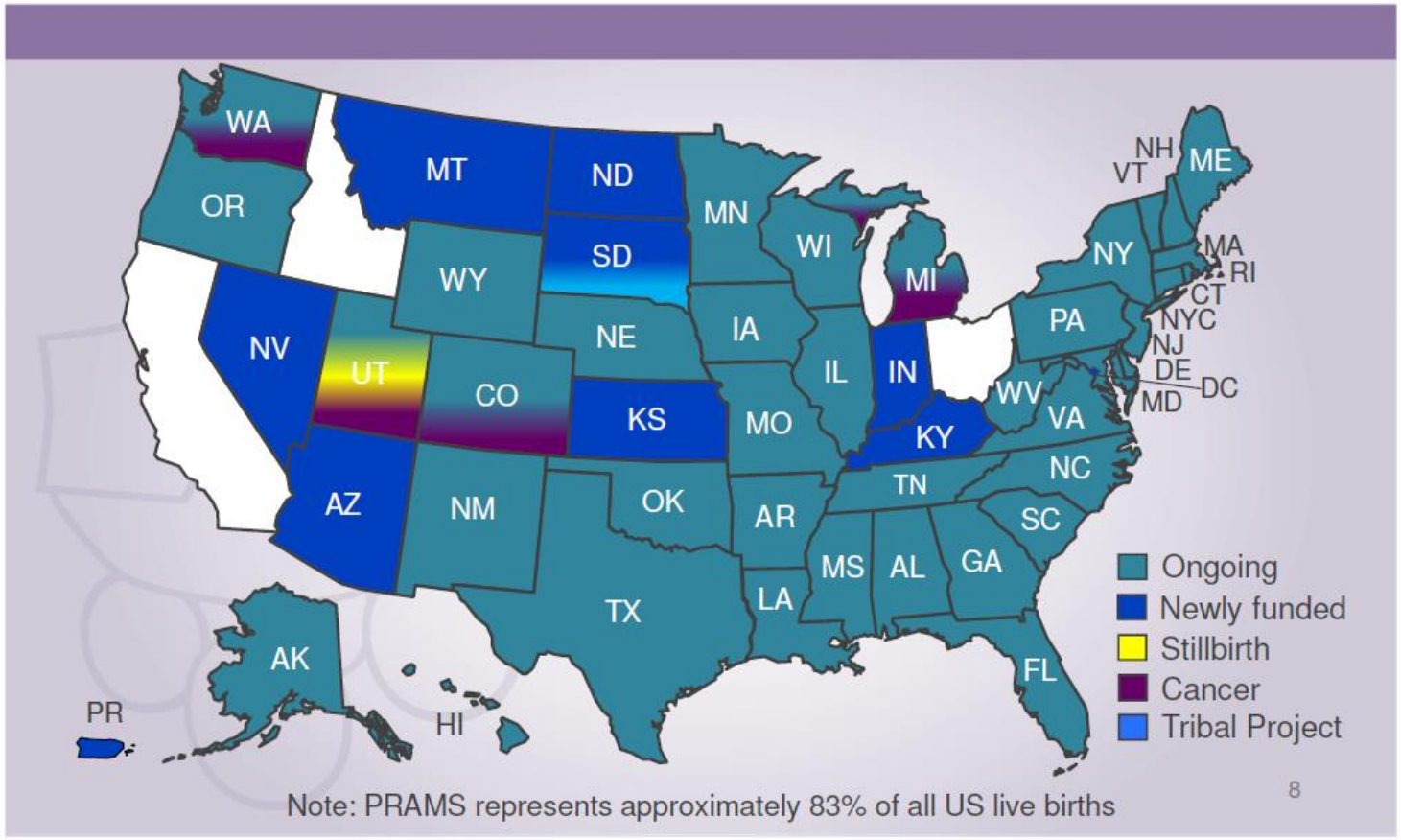
What is PRAMS?

Pregnancy
Risk
Assessment
Monitoring
System

Centers for Disease Control and Prevention (CDC) surveillance system started in 1987.

PRAMS Expansion in 2016

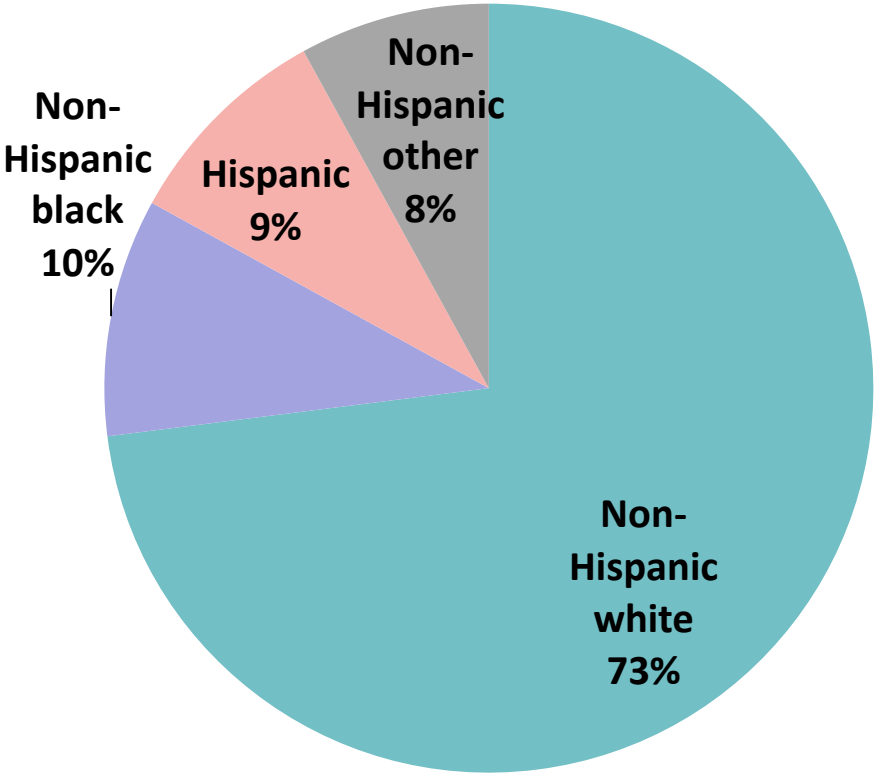
PRAMS Grantees, 2016



Background

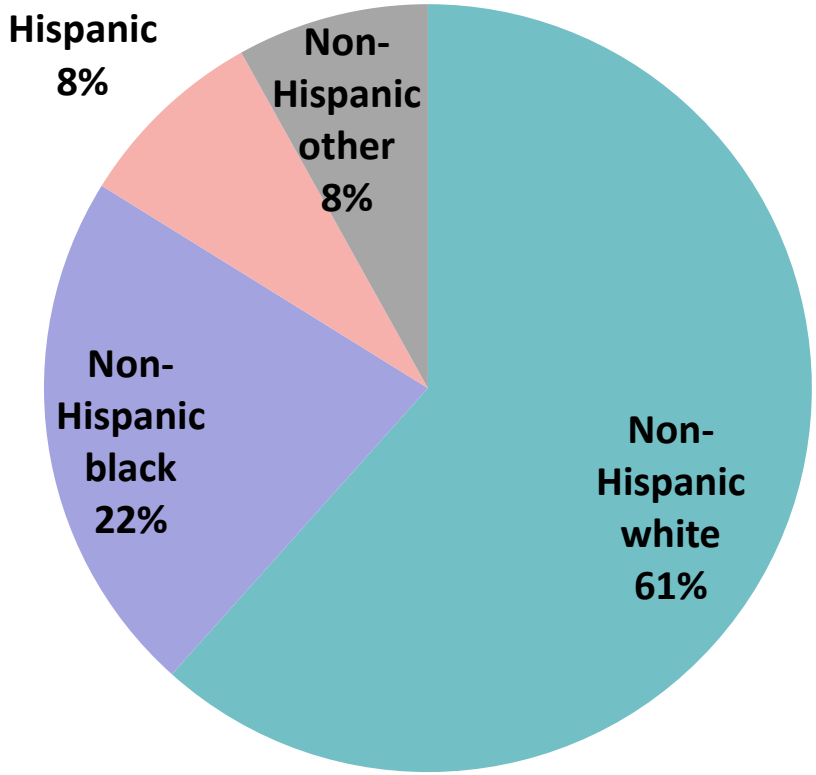
Wisconsin Interactive Statistics on Health, 2010–2014

Live births



About 67,000 annually

Infant deaths



About 400 annually

Non-Hispanic Black (NHB) Infant Mortality Rates (IMR), 2011–2013

Rank	State	NHB IMR
1	Massachusetts	7.66
2	Oregon	8.29
3	Washington	8.75
4	Minnesota	8.85
5	New York	8.95
6	California	9.35
7	Rhode Island	9.45
8	Nevada	9.52
9	Colorado	9.59
10	Kentucky	9.78
11	Nebraska	9.92
12	Georgia	10.02
13	Connecticut	10.24
14	New Jersey	10.34
15	Texas	10.73

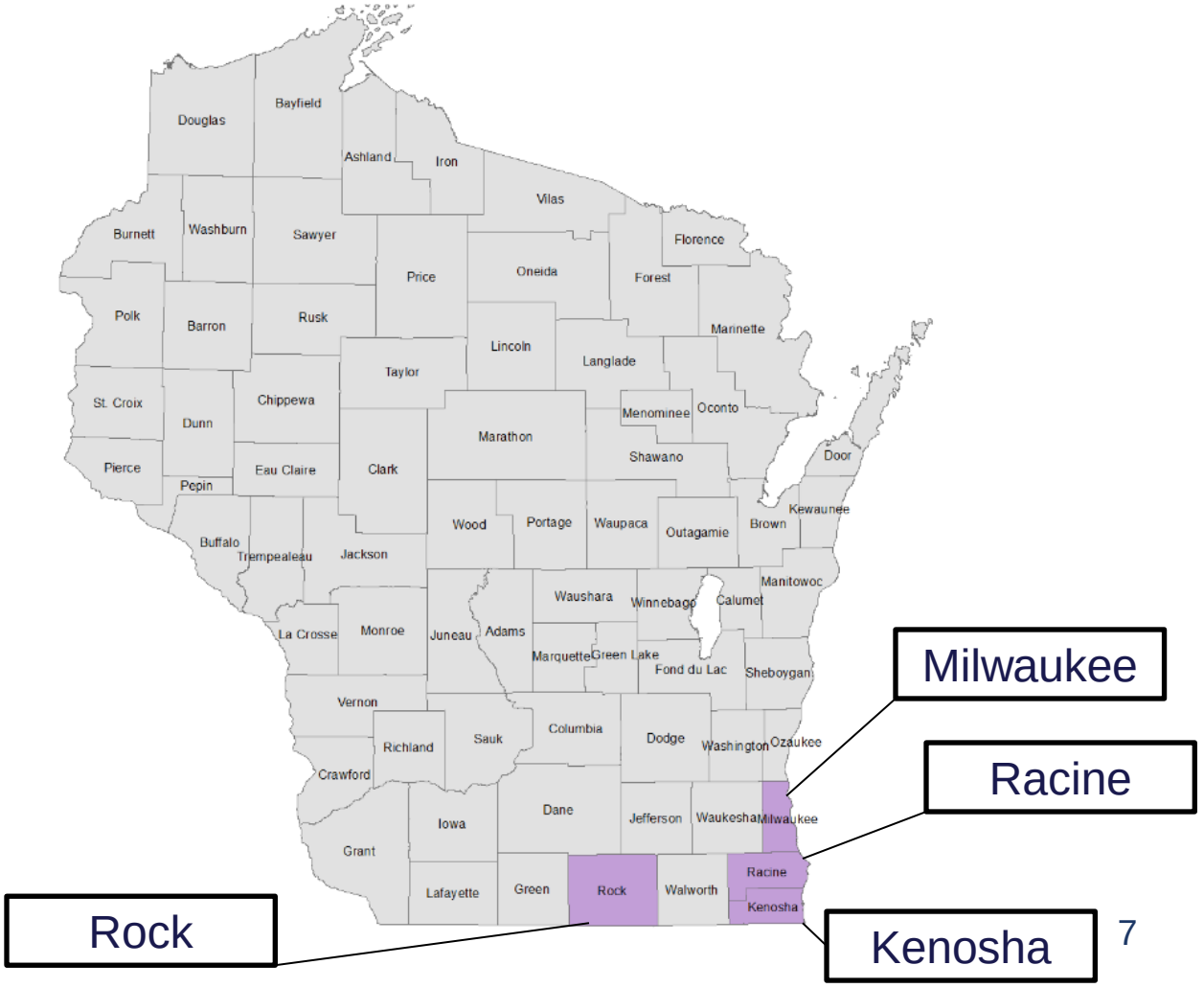
Rank	State	AA IMR
16	Iowa	10.74
17	Florida	10.79
18	Arkansas	10.89
19	Arizona	11.05
20	Maryland	11.06
21	D.C.	11.12
22	S. Carolina	11.48
23	Tennessee	11.73
24	Virginia	11.74
25	W. Virginia	12.01
26	Louisiana	12.02
27	Missouri	12.18
28	Mississippi	12.41
29	Oklahoma	12.50
30	N. Carolina	12.57

Rank	State	AA IMR
31	Pennsylvania	12.66
32	Delaware	12.82
33	Indiana	12.87
34	Utah	12.89
35	Alabama	12.90
36	Illinois	12.93
37	Michigan	13.13
38	Ohio	13.57
39	**Wisconsin**	**14.00**
40	Kansas	14.18

Mathews TJ, MacDorman MF. (2015) Infant mortality statistics from the 2013 period linked birth/infant death data set. National vital statistics reports; Vol. 64 no 9. Hyattsville, MD: National Center for Health Statistics.

Geographic Focus

Four counties are home to 85% of non-Hispanic black live births and 89% of non-Hispanic black infant deaths in Wisconsin.



LIHF Funding and Goals

- Wisconsin Partnership Program (WPP)
  - University of Wisconsin School of Medicine and Public Health.
  - Endowment funded by 2004 conversion of Blue Cross/Blue Shield United of Wisconsin.
- Lifecourse Initiative for Healthy Families
  - Multi-year, multi-million-dollar initiative to improve birth outcomes and reduce infant mortality disparities in cities of Beloit, Kenosha, Milwaukee, and Racine.
  - Guided by the life-course perspective.

Wisconsin Partnership Program
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

LIHF Lifecourse Initiative for Healthy Families

LIHF Collaboratives

- Phase 1
  - Develop broad-based collaboratives in each target community, including stakeholders, partner organizations, and community members.
  - Develop Community Action Plans (CAP).
- Phase 2
  - WPP offers grants to address CAP priorities, enhance existing capacity, implement evidence-based strategies, and build on (and evaluate) promising practices.

Wisconsin Partnership Program
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

LIHF Lifecourse Initiative for Healthy Families

LIHF Evaluation Needs

- LIHF needed county-level data on MCH issues for formative and intermediate outcome evaluation.
- LIHF approached DHS because PRAMS:
  - Is an ongoing data system with a standardized protocol;
  - Has unique, well-validated primary data from target population not available from other sources;
  - Includes a link to (de-identified) birth certificate information;
  - Can be compared to state- and national-level data;
  - Topics align with several underlying concepts of LIHF and strategies of the local collaboratives.

WI PRAMS Sample Design Prior to 2011

2007–2010 PRAMS Sample Design					
	Annual births*	**Sampling fraction**	**Sample size***	**Response rates***	**Responses***
Non-Hispanic white	49,966	1/83	602	72.3%	432
Non-Hispanic black	**6,952**	**1/11**	**632**	**35.8%**	**213**
Other, including Hispanic	10,745	2/35	614	54.4%	323
Total	**67,663**		**1,848**	**52.3%**	**968**

- Original oversample enabled examination of racial and ethnic disparities at the state level.
- Sample was too small for reliable county-level analysis by year and race/ethnicity.
- Non-Hispanic black response rates were very low.

*Averages calculated across 2007–2010

Methods: Collaborative Planning

- Formed the LIHF Communications and Public Awareness Workgroup, which included:
  - Coordinators and members of local collaboratives
  - WPP program staff and evaluators
  - Wisconsin PRAMS and public health staff
- Generated outreach and response rate ideas, such as:
  - Billboards
  - Provider outreach
  - Health fairs
  - Call in to complete
  - Collaborative outreach
  - Attractive mailing

Methods: PRAMS Partnership with WPP/LIHF

Goals of the PRAMS and WPP/LIHF partnership:

- Oversample non-Hispanic black mothers.
- Increase response rates for non-Hispanic black mothers.
  - $5 cash incentive
  - Purple envelope

- Fund an oversample specialist to assist with oversample data collection.
- Provide additional PRAMS data for analysis of racial disparities and program planning and evaluation.

Methods: WI PRAMS and LIHF Oversample Design, 2011–2015

2011–2015 PRAMS Sample Design

	Annual births*	Sampling fraction	Sample size*	Response rates*	Responses*
Non-Hispanic white	45,484	1/83	548	67.2%	368
Non-Hispanic black (Kenosha, Racine, Rock counties)	**731**	**1/1**	**731**	**48.6%**	**355**
Non-Hispanic black (Milwaukee and rest of state)	**5,802**	**1/6**	**967**	**48.7%**	**471**
Other, including Hispanic	10,535	2/35	602	58.6%	353
Total	**62,552**		**2,848**	**54.3%**	**1,547**

*Averages calculated across 2011–2015

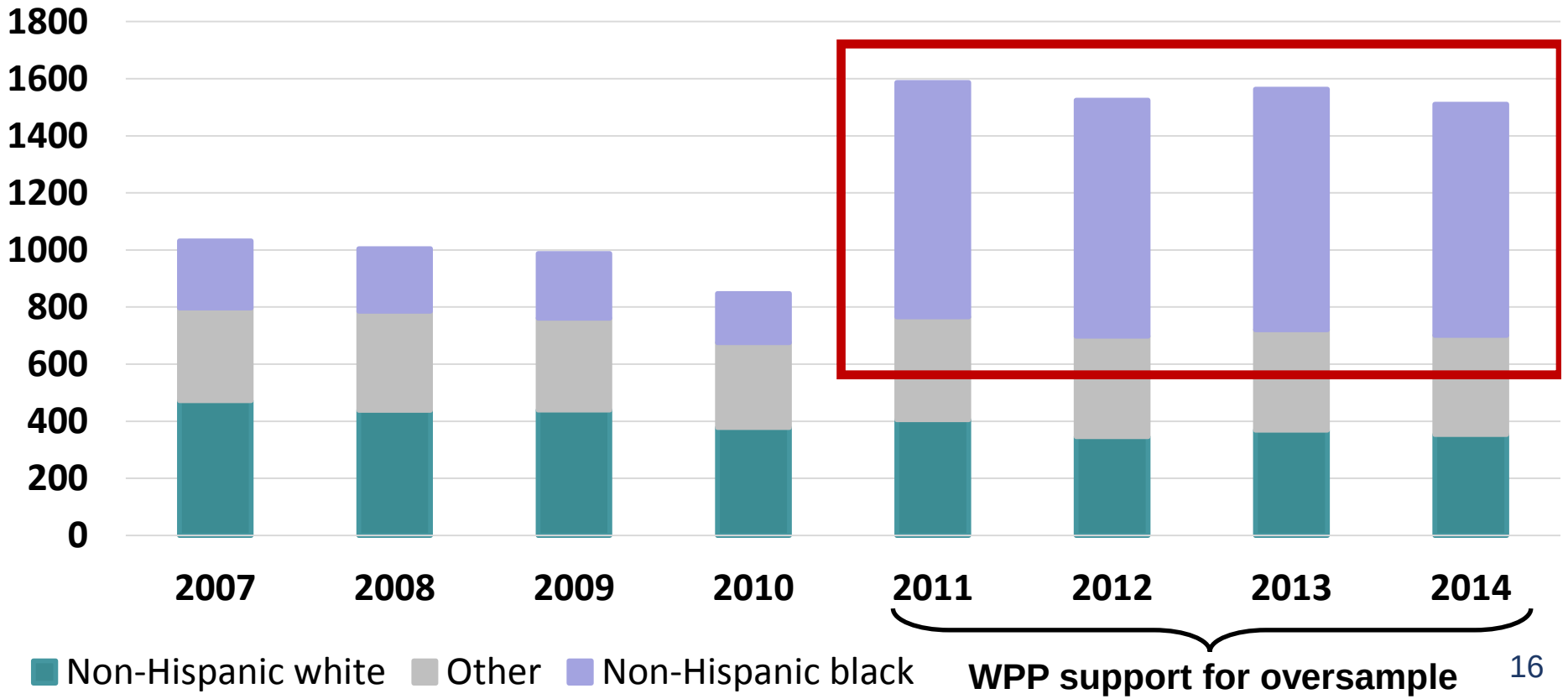
Results

Sample and Response Rate Increase in First Year of Oversample

	Sample size		Response rates		Responses	
	2010	**2011**	**2010**	**2011**	**2010**	**2011**
Non-Hispanic white	579	566	67.2%	71.6%	378	405
Non-Hispanic black	**603 → 1584**		**36.1% → 51.8%**		**172 → 821**	
Other, including Hispanic	592	611	55.5%	59.1%	297	361
Total	**1774 → 2761**		**47.7% → 57.5%**		**847 → 1587**	

Results

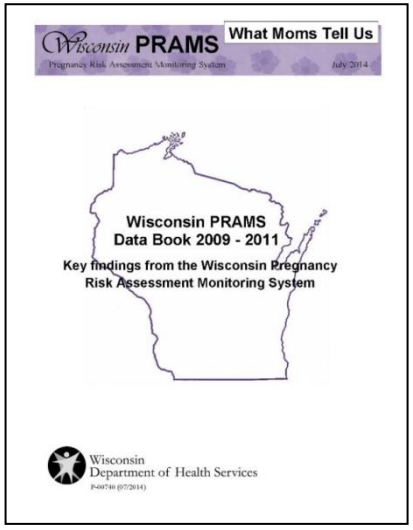
Number of Wisconsin PRAMS Respondents by Race/Ethnicity

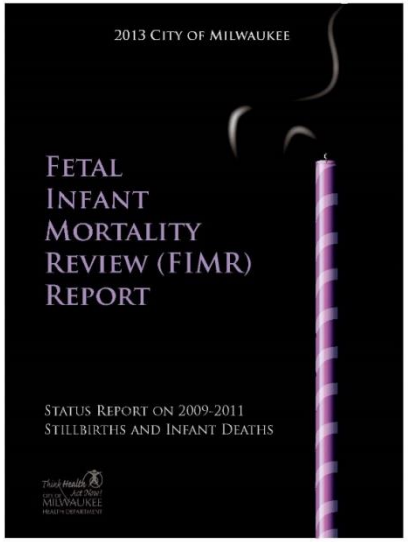


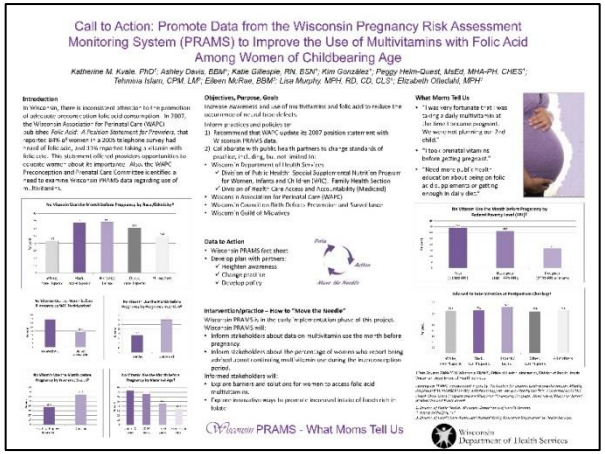
Results: Oversample Data Uses

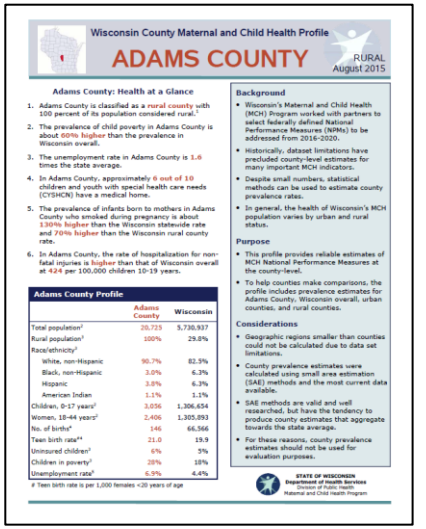
- LIHF evaluation
- LIHF community profiles and reports
- Fetal and Infant Mortality Review
- Maternal and Child Health Title V Block Grant
  - Needs assessment
  - Performance and strategy measures
- Health Resources Services Administration Collaborative Improvement and Innovation Network to reduce infant mortality
- Presentations to diverse partners

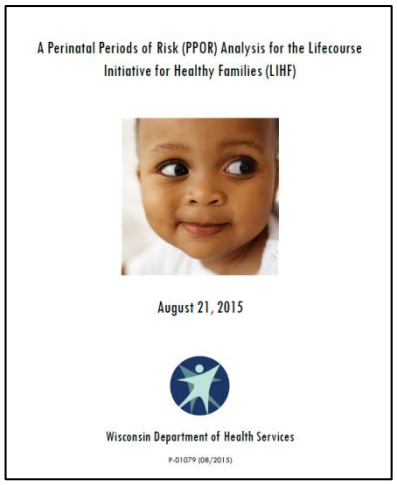
Results: Oversample Data Uses

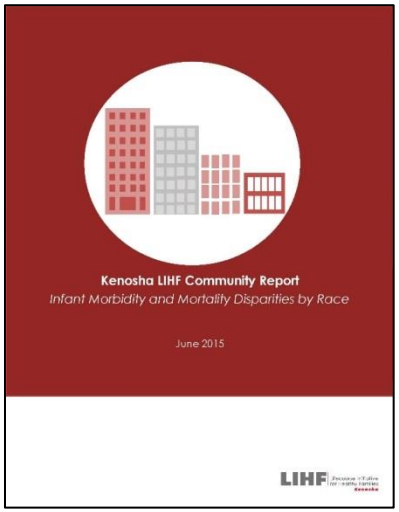


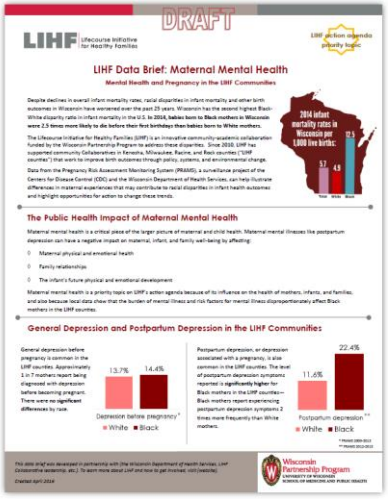












Conclusions and Lessons Learned

- The PRAMS and LIHF oversample provides invaluable data for identifying and evaluating strategies to reduce racial and ethnic disparities in birth outcomes in Wisconsin.
- Incorporating community ideas into a protocol-driven, national project requires open dialogue and patient communication.
- State, academic, and community partnerships require clear expectations and assurances as well as ongoing communication and outreach to be successful.

Future of the Collaboration

- Conduct oversample through 2017 data collection under current agreement.
- Provide LIHF Evaluation Team with timely data.
- Meet monthly to collaborate on analysis and reporting.
- Continue to involve LIHF in survey revision processes to ensure alignment between community priorities and the PRAMS survey.
- Develop plan for sustaining oversample if LIHF funding does not continue.

The Wisconsin PRAMS Team

- **Sarah Blackwell**, M.P.H., principal investigator and project director, Department of Health Services (DHS), Bureau of Community Health Promotion (BCHP)
- **Christopher Huard**, data manager, DHS, Office of Health Informatics (OHI)
- **Stephanie Hartwig**, research specialist, University of Wisconsin (UW) Survey Center, UW-Madison
- **Angela Rohan**, Ph.D., senior MCH epidemiologist, CDC assignee, DHS, BCHP

The Lifecourse Initiative for Healthy Families (LIHF) Team

- **Dr. Deborah Ehrenthal,** M.D., M.P.H. LIHF faculty director, associate professor, UW-Madison Departments of Obstetrics and Gynecology (OB/GYN) and Population Health Sciences (PHS)
- **Amy Godecker,** Ph.D., LIHF evaluation lead, UW-Madison Population Health Institute (PHI)
- **Elizabeth Smulian,** M.P.H., C.H.E.S., LIHF researcher, UW-Madison OB/GYN
- **Renee Kramer,** M.P.H., LIHF project assistant, UW-Madison OB/GYN and PHS

The Lifecourse Initiative for Healthy Families Team

- **Daphne Kuo,** Ph.D., LIHF researcher, UW-Madison PHI
- **Alyn McCarty,** Ph.D., postdoctoral fellow in health disparities research, UW-Madison OB/GYN
- **Christine McWilliams,** M.P.H., LIHF project assistant, Ph.D. candidate, UW-Madison PHS
- **Yousra Ali Mohamoud,** M.Sc., Ph.D. candidate, UW-Madison PHS
- **Amy Williamson,** M.P.P., LIHF administrative director, UW-Madison OB/GYN

Acknowledgements

Funding for PRAMS is provided by the Cooperative Agreement 5U01DP003123 from the **U.S. Centers for Disease Control and Prevention (CDC)**.

Additional support is provided by the **Title V Maternal and Child Health Block Grant Program**.

The **Wisconsin Partnership Program**, University of Wisconsin School of Medicine and Public Health, provides invaluable support for PRAMS by funding an oversample of non-Hispanic black mothers in key counties with community collaboratives supported by the **UW Lifecourse Initiative for Healthy Families**.

Questions?

Contact

Sarah Blackwell, M.P.H.
PRAMS Project Director
Wisconsin Division of Public Health
Sarah.Blackwell@wisconsin.gov
608-267-3727