

## PROJECT BRIEF

### **Influence of Socioeconomic Factors and Race on Birth Outcomes in Urban Milwaukee**

#### **Background**

Infant mortality and poor birth outcomes are major public health issues in the United States that disproportionately affect African American families. Among 42 reporting states for the years 2003 to 2005, Wisconsin had the second highest African-American infant mortality rate at 16.4 deaths per 1,000 live births, approximately 3 times the rate for Wisconsin whites.<sup>1</sup> The City of Milwaukee, home for over half (63%) of the African-American population in Wisconsin, experiences similar racial disparities.<sup>2</sup> Between 2003 and 2007, Milwaukee's African-American infants were 3 times more likely to die within their first year of life than white infants, with infant mortality rates of 16.2 and 5.1, respectively.<sup>2</sup> These racial disparities have remained consistent over the past 15 years.<sup>3</sup> In 2007, the leading cause of African-American infant deaths in the City of Milwaukee was disorders related to low birth weight and preterm birth.<sup>2</sup> From 1993 to 2006, African-American women were 3 times more likely to have low birth weight and preterm infants than white women.<sup>3</sup> In a study examining health outcomes in the City of Milwaukee by socioeconomic status (SES), the authors found that health disparities existed among all SES groups; in particular, the Lower SES group was 1.9 times more at risk than the Upper SES group of experiencing an infant death, with IMRs of 14.5 and 7.7, respectively.<sup>4</sup>

#### **Objective**

To examine the influence of socioeconomic status (SES) and race on birth outcomes in the City of Milwaukee.

#### **Methods**

Milwaukee ZIP codes were stratified into lower, middle, and upper SES groups. Infant mortality rate, low birth weight, and preterm birth rates by race were analyzed by SES group for the years 2003 to 2007.

#### **Findings**

For all outcomes, African-American infants born in the upper SES group fared the same or worse than white infants born in the lower SES group. Although higher SES appeared to have a protective effect for whites in Milwaukee, it did not have the same protective effect for African-Americans.

#### **Project Dissemination**

Salm Ward, T.C., Mori, N., Patrick, T.B., Madsen, M.K., Cisler, R.A. (2010). Influence of Socioeconomic Factors and Race on Poor Birth Outcomes in Urban Milwaukee. *Wisconsin Medical Journal*, 109(5), 17-23.

Salm Ward, T.C., Patrick, T., Mori, N., Madsen, M.K. (2009). Racial and Socioeconomic Disparities in Birth Outcomes in the City of Milwaukee. Poster presentation. *Population Health Sciences in Wisconsin and Beyond – Providing Evidence for Clinical Practice and Public Health*, Madison, WI (August 27-28).

Salm Ward, T.C., Mori, N., Patrick, T.B. (2009). The Effects of Socioeconomic Status and Race on Poor Birth Outcomes in Milwaukee, Wisconsin. Oral presentation. *Aurora Scientific Day*, Milwaukee, WI (May 28).

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Salm Ward, T.C., Mori, N., Patrick, T.B. (2009). The Effects of Socioeconomic Status and Race on Poor Birth Outcomes in Milwaukee, Wisconsin. Poster presentation. *University of Wisconsin-Milwaukee College of Health Sciences Research Symposium*, Milwaukee, WI (April 17).

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Center for Urban Population Health

### Project Partners

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<sup>1</sup> Mathews TJ, MacDorman MF. Infant mortality statistics from the 2005 period linked birth/infant death data set. *National Vital Statistics Reports*. 2008;57(2). Available from: [http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57\\_02.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_02.pdf).

<sup>2</sup> Wisconsin Interactive Statistics on Health (WISH) data query system. Madison (WI): Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy. c2008 – [cited 2009 Oct 1]. Available from: <http://dhs.wisconsin.gov/wish/>.

<sup>3</sup> Ngui E, Cortright A, Blair K. An Investigation of Racial and Ethnic Disparities in Birth Outcomes in Milwaukee, Wisconsin. *Proceedings of the American Public Health Association 136<sup>th</sup> Meeting*; 2008 Oct 25-29; San Diego, CA. Washington, DC: American Public Health Association; 2008.

<sup>4</sup> Vila PM, Swain GR, Baumgardner, DJ, Halsmer, SE, Remington, PL, Cisler, RA. Health Disparities in Milwaukee by Socioeconomic Status. *WMJ*. 2007;106(7):366-72.