MI PRAMS DELIVERY

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Points of Interest

- Healthy People 2010 aims to have 90% of women receiving prenatal care in the first trimester; in Michigan, approximately 80% of PRAMS respondents reported receiving care in their first trimester.
- Non-Hispanic black women in Michigan are at nearly 2.5 times greater risk of late or no prenatal care compared to non-Hispanic white women.
- Nearly 90% of Michigan's PRAMS respondents who reported being married received prenatal care in the first trimester versus only 64% of those who reported being unmarried.
- The risk of receiving late or no prenatal care was eightfold greater among women with less than a high school education compared to those with a college education.

RACIAL DISPARITIES IN PRENATAL CARE

Early prenatal care is crucial for the detection and monitoring of medical/behavioral risk factors associated with poor birth outcomes and typically involves both screening and treatment.[1] The adequacy of prenatal care can be measured in many ways, although timing of prenatal care and the number of visits adjusted for the infant's gestational age are the most commonly used indicators.[1]

The elimination of racial disparities in healthcare, particularly in regard to prenatal care, has long been an objective of Michigan and the greater United States as indicated in the Healthy People 2010 goals. Specifically, Healthy People 2010 aims to increase the rate of prenatal care in the first trimester to 90% of all live births.[2] Based on the latest U.S. data, on average, early prenatal care was least common among non-Hispanic black women (76.1%) and most common among non-Hispanic white women (88.9%) from 2002 through 2004.[3] Racial disparity in timing of prenatal care is more significant in Michigan; early prenatal care was utilized by PRAMS respondents, on average, by 64.2% of non-Hispanic black women versus 83.1% of non-Hispanic white women residing in Michigan during those same years.

Inadequate prenatal care poses a significant problem as pregnancy is a critical time for healthcare providers to address preventable risks that can harm the mother and/or the infant.[4]

TIMING OF PRENATAL CARE

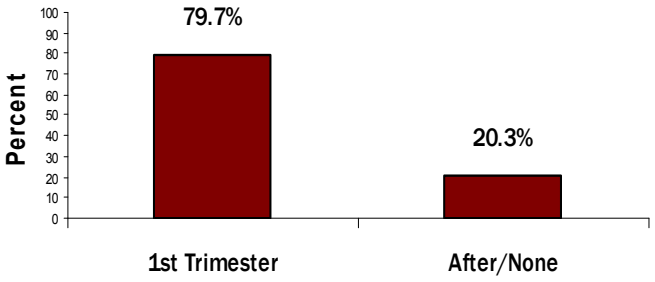


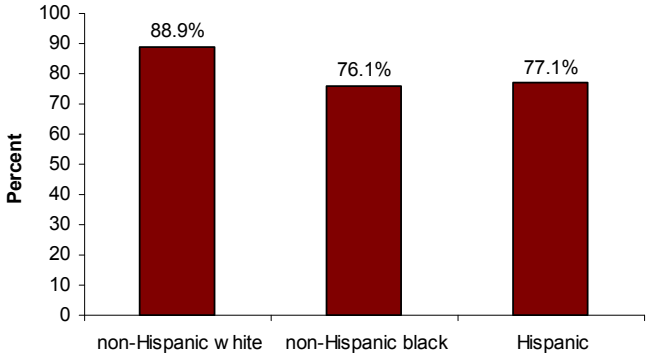
Figure 1. Overall prevalence of timing of prenatal care among PRAMS respondents, 2006

Prenatal Care Trends

"Variations in the access and utilization of prenatal care reside along patient demographic, economic, and racial lines."[5]

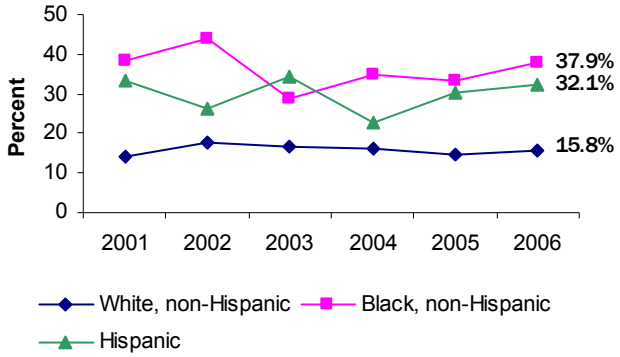
Compared to the U.S. average from 2000 through 2002 (right), the rate of first trimester prenatal care in Michigan is significantly lower, particularly among non-Hispanic blacks. Since 2002, the rate of first trimester prenatal care has remained relatively constant for non-Hispanic white women (Figure 3). According to Michigan PRAMS data, there has been a slow decrease in late/no prenatal care among whites. The rate of late/no prenatal care increased among Hispanics from 2004 through 2006. Non-Hispanic blacks have consistently had the highest rate of late/no prenatal care since 2003, reaching 38% in 2006.

Figure 2. First trimester prenatal care in the U.S., 2002-2004 average



*National Center for Health Statistics, Health, United States, 2007.

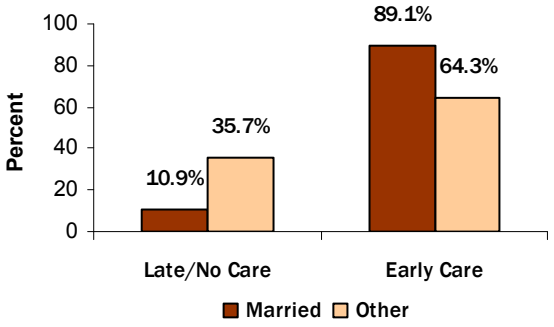
Figure 3. Prevalence of prenatal care after the first trimester or not at all by race/ethnicity, MI PRAMS 2001-2006



Demographics

Michigan PRAMS analyses indicate that women who are married are much more likely than their unmarried counterparts to receive prenatal care in the first trimester (Figure 4). Maternal educational attainment was also directly proportional to the timing of prenatal care. Women with a college degree or higher surpassed the Healthy People 2010 goal of 90% receiving pre-

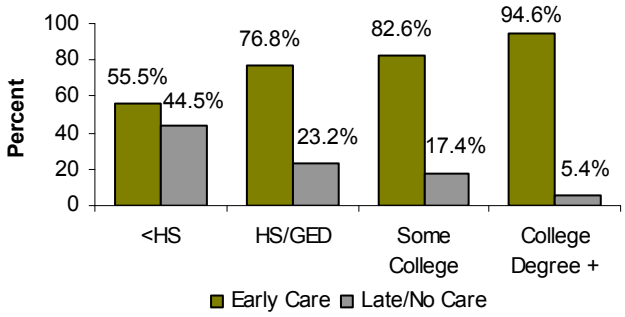
Figure 4. Timing of prenatal care by marital status, PRAMS 2006



DEMOGRAPHICS

natal care in the first trimester while only 55.5% of women with less than a high school education reported receiving care in the first trimester (Figure 4).

Figure 4. Timing of prenatal care by maternal education, PRAMS 2006



RISK FACTORS FOR LATE/NO PRENATAL CARE, MI PRAMS 2006

After adjustment for potential confounders, the increased risk for late/no prenatal care was attenuated among most races/ethnicities. Maternal education less than high school was the strongest predictor among the predictors/correlates for late/no prenatal care with almost a six-fold increase in risk compared to women with a college education or higher (Table 1.) Non-Hispanic black women were the only racial group to remain at statistically significant risk of late/no prenatal care compared to non-Hispanic white women. The risk of late/no prenatal care was nearly 90% greater among non-Hispanic black women compared to non-Hispanic white women. This analysis was limited to information collected by PRAMS and indicates that factors related to socioeconomic status do not fully explain the timing of prenatal care. Other factors may be more reflective of prenatal care access /utilization during the first trimester of pregnancy. Further research is needed to reveal other potential barriers to first trimester prenatal care, particularly among minority populations.

Table 1. Odds ratios (OR) of association of risk factors with late or no prenatal care, PRAMS 2006

Variable	*Crude*	*Adjusted*	
	OR	OR	95% CI
Maternal Race			
Non-Hispanic white	Ref	Ref	
Non-Hispanic black	3.26	1.89	(1.36, 2.64)
Hispanic	2.52	1.65	(0.73, 3.73)
Asian/PI	1.06	2.44	(0.90, 6.66)
American Indian	1.68	0.70	(0.07, 6.80)
Not Married vs. Married		1.83	(1.21, 2.77)
Maternal Education			
College or beyond		Ref	
HS/GED or Some College		2.85	(1.56, 5.21)
<HS		5.78	(2.92, 11.40)
Pre-Pregnancy Insurance			
Private/HMO		Ref	
Medicaid		1.43	(0.91, 2.25)
Uninsured		2.54	(1.60, 3.77)

*results of logistic regression analysis

Recommendations:

Further education targeting young women, particularly those with less than a high school diploma/GED, on recognizing the early signs of pregnancy may increase the number of women getting timely prenatal care. Also, further collaboration between public health professionals and healthcare providers to increase access to care for women without private health insurance is needed.

References:

1. National Center for Health Statistics, final natality data. Retrieved August 12, 2008, from www.marchofdimes/peristats.

2. Healthy Michigan 2010: A health status report, www.michigan.gov/documents/Executive_Summary__2_88116_7.pdf - 2004-12-11).

3. National Center for Health Statistics. Health, United States, 2007 With Chartbook on Trends in the Health of Americans. Hyattsville, MD: 2007

4. Herzig et al; Seizing the 9-month moment: Addressing behavioral risks in prenatal patients. Patient Education and Counseling 2006; 61(2): 228-35.

5. Ryan GM Jr, Sweeney PJ, Solola AS. Prenatal care and pregnancy outcome. Am J Obstet Gynecol 1980; 137:876-81.

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Past and current editions of the MI PRAMS Delivery are available electronically at: http://www.michigan.gov/prams

About Michigan PRAMS

The Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based survey, is a CDC initiative to reduce infant mortality and low birthweight births. It is a combination mail/telephone survey designed to monitor selected self-reported maternal behaviors and experiences that occur before and during pregnancy, as well as early-postpartum periods of women who delivered a live infant in Michigan. Information regarding the health of the infant is also collected for analysis. Annually, over 2,000 mothers are selected at random to participate from a frame of eligible birth certificates. Women who delivered a low birth-weight infant were over-sampled to ensure adequate representation. The results are weighted to represent the entire cohort of women who delivered a live infant during that time.

Suggested Citation

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