

# Access to Prenatal and Preconception Care

## Summary

**Early and continuous prenatal care has long been seen as an important way to improve the health of mothers and to prevent adverse birth outcomes. Recently, public health and maternal-fetal health experts have called for better integrated health care over a woman's lifespan. Data are not yet available to assess this goal, and so this chapter relies on the initiation of prenatal care to measure women's access to care.**

**In 2003, Washington implemented the new U.S. standard birth certificate, which has made it more difficult to measure trends in access to prenatal care. As a result, more prenatal care data are missing. In 2006, 13% of birth certificates were missing prenatal care data. Of those pregnant women for whom information on prenatal care was available, 79% began care during the first trimester of pregnancy. Women enrolled in Medicaid, American Indian and Alaska Native women, women of Hispanic origin, black women, and women younger than 20 are more likely to initiate prenatal care after the first trimester.**

**Interventions to increase women's access to care include removing financial obstacles and promoting culturally competent care.**

## Introduction

Early and continuous prenatal care has long been seen as an important way to improve the health of mothers and to prevent adverse birth outcomes. Since 1990, both first trimester and continuous prenatal care have increased nationally overall and for population sub-groups, in part because of Medicaid expansions.<sup>1</sup> Over the past decade, low birth weight and preterm delivery rates have increased even when

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**Definition:** Prenatal care is comprehensive medical care provided during pregnancy, labor and delivery, and postpartum. Services include screening for medical and behavioral conditions known to increase the risk of poor birth outcomes and treatment for those conditions. Preconception care is comprehensive medical care provided prior to pregnancy or between pregnancies to help women optimize their health status by reducing risk factors that might affect future pregnancies. Prenatal care is monitored by the proportion of women initiating prenatal care in the first three months of pregnancy (first trimester). Currently, there is no standard measure of preconception care.

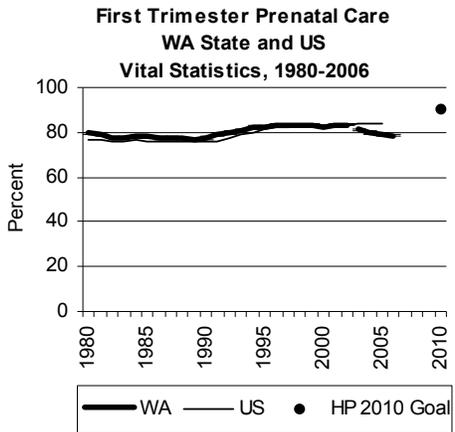
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restricted to singleton (one-baby) births. This contradiction has led public health professionals to reconsider the role of prenatal care alone in improving adverse birth outcomes.<sup>2</sup> Increasingly, women are overweight or obese and have chronic conditions when they become pregnant. These factors pose risks for poor pregnancy outcomes.<sup>3,4,5</sup> Prenatal care might occur too late to change risk behaviors and chronic health conditions or to reverse their potential negative effects. Public health and maternal-fetal health experts are calling for better integration of preconception and interconception health care across women's lifespans.<sup>6</sup> This recommendation is new, and few population-based data are currently available to assess its effectiveness. Thus the data in this chapter focus on the initiation of prenatal care.

## Time Trends

In Washington, the proportion of women entering prenatal care in the first trimester increased from 80% in 1980 to 84% in 2002, similar to national trends. In 2003, Washington adopted the new U.S. standard birth certificate which made prenatal care information more difficult to collect. The proportion of birth certificates missing prenatal care information in Washington increased dramatically with this change. Prenatal care data collected in Washington since 2003 are not comparable to data collected before then. Washington data since 2003 are also not comparable to US data since 2003. Although the share of birth certificates with missing prenatal care is improving, it remains high (13% in 2006). Caution should be used in interpreting trend data.

Among women with prenatal care information, the first trimester care rate was 81% in 2003, 80% in 2004, 79% in 2005, and 79% in 2006. First trimester care rates appear to have fallen, but both the reporting change and high proportion of missing data make interpreting trends difficult.

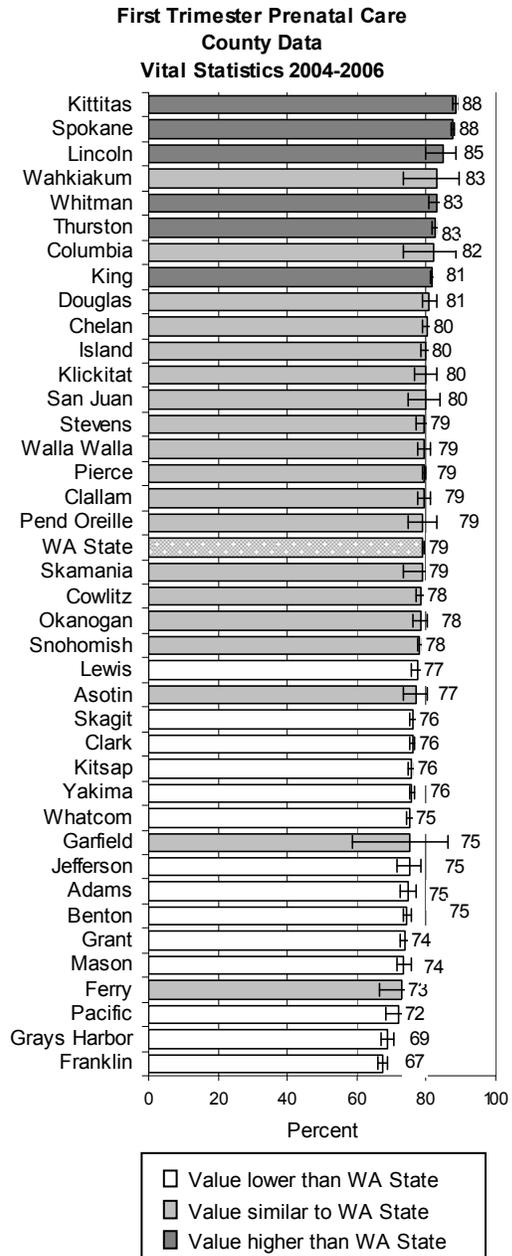


### Year 2010 Goals

The *Healthy People 2010* target is that 90% of pregnant women receive prenatal care beginning in the first trimester. It does not appear that Washington will meet this target.

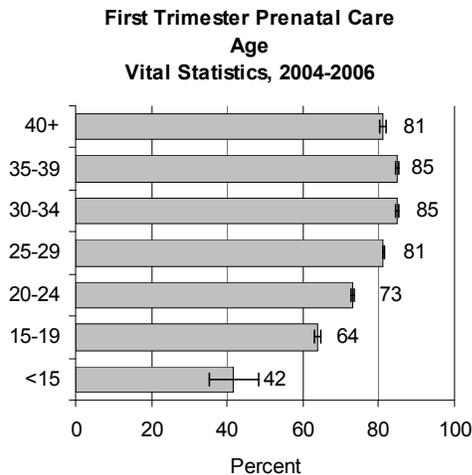
### Geographic Variation

Six Washington counties had significantly higher proportions of women receiving first trimester prenatal care during 2004–2006 than the state average, which was 79% during this period. The counties were Kittitas, Spokane, Lincoln, Whitman, Thurston, and King. Fourteen counties had significantly lower proportions of women receiving first trimester prenatal care than the state average. They were Lewis, Skagit, Clark, Kitsap, Yakima, Whatcom, Jefferson, Adams, Benton, Grant, Mason, Pacific, Grays Harbor, and Franklin counties.



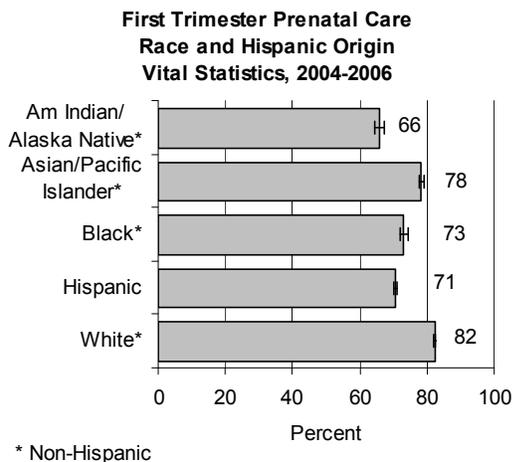
### Maternal Age

Younger women, especially those younger than 20, are less likely to receive first trimester care. This pattern occurs among mothers of all races and Hispanic origin as well as among mothers at all socioeconomic levels.



### Race and Hispanic Origin

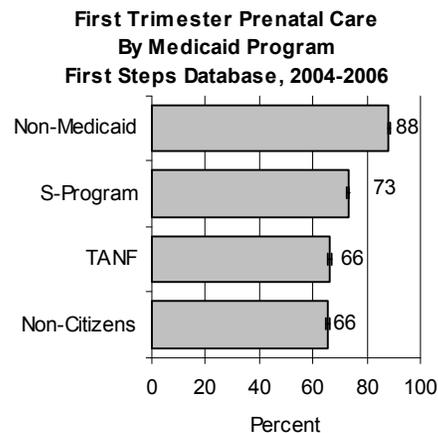
Disparities persist across racial and ethnic groups for initiation of prenatal care. During 2004–2006, white women (82%) were significantly more likely to receive first trimester prenatal care than Asian and Pacific Islander women (78%), black women (73%), women of Hispanic origin (71%), and American Indian and Alaska Native women (66%). Some of this difference is due to differences in socioeconomic status.



### Income

Receipt of Medicaid-paid health services is one measure of low income. In Washington from 2004–2006, women receiving Medicaid-paid prenatal or delivery services were less likely to receive first trimester prenatal care than other women.

Women receiving Medicaid and cash assistance through the Temporary Assistance to Needy Families (TANF) Program and women who were not U.S. citizens had the lowest rates of first trimester prenatal care (66% for both groups). Women receiving TANF had household incomes generally less than 50% of the Federal Poverty Level (FPL).<sup>7</sup> Women, who received Medicaid but not cash assistance (S-Program), with household incomes up to 185% of FPL, had a higher first trimester prenatal care rate, 73%. Mothers whose care was not covered by Medicaid had the highest incomes and the highest rates of first trimester prenatal care, 88%.



This pattern was similar across race and Hispanic origin groups, with the exception of white and Asian and Pacific Islander non-citizens. White non-citizens had much lower first trimester prenatal care rates than white women receiving TANF. Asian and Pacific Islander non-citizens had higher first trimester prenatal care rates than Asian and Pacific Islander women receiving TANF. The pattern also did not hold for mothers younger than 20 years.

### Other Measures of Impact and Burden

Appropriate prenatal care is associated with improved nutrition status and increased weight gain, length of pregnancy, and infant birth weight.<sup>8</sup> Prenatal care facilitates management of medical conditions such as preterm labor, hypertension, and infection as well as screening and intervention against intimate partner violence, substance abuse, and smoking. Women who begin prenatal care after the first trimester are at risk for poor pregnancy outcomes.<sup>9</sup> The later women begin care, the less time practitioners have to intervene. During 2004–2006, 16.2% of pregnant women in Washington initiated prenatal care in the second trimester (more than half in their fourth month of pregnancy), 3.7% of

women initiated care in the third trimester, and 1.1% did not receive any prenatal care. American Indian and Alaska Native women, teens younger than 20 years old, and women with Medicaid-covered prenatal and/or delivery care were more likely to begin prenatal care in the third trimester or not to receive it at all.<sup>10</sup>

## Risk and Protective Factors

Data from Washington's [Pregnancy Risk Assessment Monitoring System](#) (PRAMS) from 2004–2006 show that 20% ( $\pm 2\%$ ) of women with information on prenatal care began their care after the first trimester. Thirty-eight percent ( $\pm 5\%$ ) of these women reported they could not get into prenatal care as early as they wanted. Barriers to receiving early prenatal care included the following:

**Financial and economic.** Financial constraints can prevent women from obtaining early prenatal care. Lower income, measured by Medicaid eligibility, is associated with later entry into prenatal care.<sup>10</sup> Based on 2004–2006 PRAMS data, 41% ( $\pm 9\%$ ) of Washington women who began care after the first trimester and did not receive prenatal care as early as they wanted reported that not having enough money or lacking health insurance was a barrier to obtaining care.

**System.** Based on 2004–2006 PRAMS data, 36% ( $\pm 8\%$ ) of women receiving late care and reporting barriers to early prenatal care said they couldn't get an appointment when they wanted one, and 13% ( $\pm 7\%$ ) reported the doctor or their health plan would not start care as early as they wanted.

No more detailed data are available from PRAMS to explore these findings further. System-related barriers to early prenatal care in the literature include negative provider attitudes and cultural insensitivity, long clinic wait times, inadequate health care coverage, and lack of a regular source of health care.<sup>11,12,13,14</sup>

Problems with the enrollment process can also cause prenatal care delay. In Washington from 2004–2006, 40% ( $\pm 10\%$ ) of women enrolled in Medicaid who began care after the first trimester and reported barriers to care cited not having a Medicaid card, Healthy Options card, or medical coupon as reasons for not receiving care sooner.

Anecdotal reports and preliminary analysis suggest that barriers to women on Medicaid

obtaining first-trimester obstetric care could include provider-related issues, such as provider shortages, cost of malpractice insurance, and reimbursement rates.

The 2004–2006 PRAMS data also show that 17% ( $\pm 6\%$ ) of women who received care after the first trimester and reported barriers to early prenatal care said that they had no way to get to the clinic or doctor's office, and 15% ( $\pm 7\%$ ) said they had no one to care for their children.

**Alcohol and substance use.** An analysis of the 2005 Medicaid population in Washington found that 53% of women diagnosed as substance abusers began prenatal care in the first trimester compared with 70% of women not diagnosed as substance abusers.<sup>15</sup> Issues that can deter a chemically dependent woman from early entry to care include punitive attitudes of providers, guilt regarding potential damage to the infant, and lack of drug treatment for pregnant women.<sup>16,12</sup>

**Social and attitudinal.** Personal and cultural beliefs and situations influence when women seek prenatal care as well. Women may enter care after the first trimester because they did not intend to be pregnant or were not aware of their pregnancies. Washington PRAMS data for 2004–2006 show that women whose pregnancies were unintended were more likely to begin prenatal care after the first trimester (27%  $\pm 4\%$ ) than women who intended to get pregnant (15%  $\pm 2\%$ ). Moreover, earlier data, from 2002–2003, show that 32% ( $\pm 11\%$ ) of women reporting barriers to early prenatal care said not knowing they were pregnant kept them from getting prenatal care sooner. Ambivalent feelings, bad experiences with the system, denial, lack of awareness of pregnancy symptoms, and not knowing the importance of prenatal care can delay initiation of care.<sup>12,13,17,18</sup> Women cite fear and reluctance toward pelvic exams, blood tests, and other prenatal procedures as other reasons they do not seek prenatal care.<sup>13</sup>

Among protective factors, women who participate in family planning clinics or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) generally receive prenatal care earlier.<sup>19,20</sup> No published studies have explored these effects since the expansion of Medicaid services for pregnant women in the late 1980s and 1990s. Women with supportive partners or families tend to seek care earlier, and women with a primary care provider are more likely to initiate early prenatal care.<sup>14</sup> The strongest personal motivators for obtaining care were found by some researchers to be strong social support and encouragement from

family and friends.<sup>17,18</sup> Recent evidence suggests that providing prenatal care to groups of women might increase the continuity of care.<sup>21</sup>

### **Intervention Strategies**

Programs that remove financial obstacles increase women's access to early prenatal care. For example, access to prenatal care improved dramatically for low-income women on Medicaid after Washington's maternity care access program, First Steps, began in 1989. In 1990, 59% of women receiving Medicaid-covered prenatal or delivery care began prenatal care in the first trimester. By 1994, this proportion had increased to 71%.<sup>22</sup>

Pregnant women in Washington come from diverse racial and Hispanic origin groups. Sensitive and comfortable clinical environments might increase early entry into care. Because Hispanic, American Indian and Alaska Native, and black women have the lowest rates of early entry to care, strategies should address barriers specific to these populations. Prenatal care that is culturally appropriate might be better utilized, allowing opportunities to optimize outcome and decrease racial and ethnic disparities.

The wider availability of first trimester prenatal care has not decreased adverse pregnancy outcomes.<sup>23</sup> More women are entering pregnancy with chronic conditions and risky behaviors that contribute to poor birth outcomes. These include obesity, cardiovascular disease, asthma, diabetes, and exposures to tobacco, alcohol, and drugs.<sup>24</sup> It might be too late, once women begin prenatal care treatment, to reverse potential negative effects of complex behaviors and chronic diseases.

The U.S. Centers for Disease Control and Prevention (CDC) and other public health experts are calling for changes in health care for women. The CDC, the American College of Obstetricians and Gynecologists, and other national organizations have developed preconception health care guidelines and recommendations.<sup>24,25</sup> Interventions are needed to address provider time constraints, insurance coverage, and professional guidelines for content of care.<sup>24</sup>

No data currently support the concept that providing comprehensive health care to women prior to pregnancy will improve birth outcomes.

Data are needed to assess continuity of care for women, especially those with chronic conditions.

In the 2004 Kaiser Women's Health Survey, 84% of women of childbearing age reported a health care visit during the previous year, and slightly more than half the women of reproductive age had seen an obstetrician or gynecologist in the previous year.<sup>26</sup> Such visits are opportunities to deliver preconception care.<sup>24</sup>

**See Related Chapters:** [Singleton Low Birth Weight, Adolescent Pregnancy and Childbearing, Unintended Pregnancy, Infant Mortality](#)

**Data Sources** (For additional detail, see [Appendix B.](#))

Washington State Birth Certificate Data: Washington State Department of Health, Vital Registration System Annual Statistical Files, Births 1980–2006, released December 2007  
Pregnancy Risk Assessment Monitoring System (PRAMS), Washington State Department of Health, Office of Maternal and Child Health Assessment, 2003–2006

Washington State Department of Social and Health Services, Research and Data Analysis Division, First Steps Database, 1990–2006

Martin, J. A., Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., & Kirmeyer, S. (2006). Births: Final Data for 2004. *National Vital Statistics Reports*, 55(1). Hyattsville, MD: National Center for Health Statistics.

National Center for Health Statistics. (2006). *Health, United States, 2005 Chartbook*. Hyattsville, MD.

### ***For More Information***

Washington Department of Health, Division of Community and Family Health, Maternal and Infant Health Program. (360) 236-3505

### ***Technical Notes***

In 2003 Washington State began using the 2003 Revision of the US Standard Certificate of Live birth. Prior to this revision, prenatal care information was collected as the month prenatal care began and the number of visits. With the 2003 US Standard, the exact date of the first prenatal care visit, exact date of the last prenatal care visit and total number of prenatal visits were collected. In order to collect the exact date of prenatal care, hospitals need access to prenatal care records which are not always available at the hospital at the time of delivery. Washington was one of two states who began using the 2003 US Standard certificate in 2003. Thirteen states had implemented the revised birth certificate prior to January 1, 2006.<sup>27</sup>

## Endnotes

<sup>1</sup> Martin, J. A., Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., & Kirmeyer, S. (2006). Births: Final Data for 2004. *National Vital Statistics Reports*, 55(1). Hyattsville, MD: National Center for Health Statistics.

<sup>2</sup> Korenbrot, C. C., Steinberg, A., Bender, C., & Newberry, S. (2002). Preconception Care: A Systematic Review. *Maternal and Child Health Journal*, 6(2), 75-88.

<sup>3</sup> The American College of Obstetricians and Gynecologists. (2005, September). Obesity in Pregnancy. ACOG Committee Opinion Number 315. *Obstetrics & Gynecology*, 106(3), 671-675.

<sup>4</sup> Cunningham, F. G., Hauth, J. C., Leveno, K. J., Gilstrap III, L., Bloom, S. L., & Wenstrom, K. D. (2005). *Chronic Hypertension*. In Williams Obstetrics (22<sup>nd</sup> ed., pp. 1043-1054.). New York: McGraw-Hill Professional.

<sup>5</sup> Cunningham, F. G., Hauth, J. C., Leveno, K. J., Gilstrap III, L., Bloom, S. L., & Wenstrom, K. D. (2005). *Diabetes*. In Williams Obstetrics (22<sup>nd</sup> ed., pp. 1169-1188). New York: McGraw-Hill Professional.

<sup>6</sup> Atrash, H. K., Johnson, K., Adams, M., Cordero, J. F., & Howse, J. (2006, September). Preconception care for improving perinatal outcomes: The time to act. *Maternal and Child Health Journal*, 10(5 Suppl.), 3-11.

<sup>7</sup> This estimate is a simplification of TANF eligibility requirements.

<sup>8</sup> Kotch, J. B., Blakeley, C. H., Brown, S. S., & Wong, F. Y. (Eds.). (1992). *A Pound of Prevention: The Case for Universal Maternity Care in the U.S.* Washington, DC: American Public Health Association.

<sup>9</sup> Entry into Prenatal Care—United States, 1989–1997. (2000, May 12). *Morbidity and Mortality Weekly Report*, 49(18), 393-398.

<sup>10</sup> Cawthon, L. (2006, November 16). *Selected Measures by Medicaid Status for Live Births and for all Mothers with Deliveries (regardless of liveborn status) Washington State 2003-2005 (2001–2003 for Infant Mortality)*. First Steps Database. Olympia, WA: Washington State Department of Social and Health Services.

<sup>11</sup> Frisbie, W. P., Echevarria, S., & Hummer, R. A. (2001). Prenatal Care Utilization Among Non-Hispanic Whites, African Americans, and Mexican Americans. *Maternal and Child Health Journal*, 5(1), 21-33.

<sup>12</sup> Milligan, R., Wingrove, B. K., Richards, L., Rodan, M., Monroe-Lord, L., Jackson, V., et al. (2002). Perceptions about prenatal care: views of urban vulnerable groups. *BMC Public Health*, 2(1), 25.

<sup>13</sup> Fuller, C. A., & Gallagher, R. (1999, December). What's happening: perceived benefits and barriers of prenatal care in low income women. *Journal of the American Academy of Nurse Practitioners*, 11(12), 527-532.

<sup>14</sup> Braveman, P., Marchi, K., Egarter, S., Pearl, M., & Neuhaus, J. (2000, June). Barriers to timely prenatal care among pregnant women with insurance: the importance of prepregnancy factors. *Obstetrics and Gynecology*, 95(6), 874-880.

<sup>15</sup> Cawthon, L. (2007, January 10). *Characteristics of Washington State Medicaid Substance Abusing Women Who Gave Birth*. First Steps Database. Olympia, WA: Washington State Department of Social and Health Services.

<sup>16</sup> Brady, T. M., Visscher, W., Feder, M., & Burns, A. M. (2003). Maternal Drug Use and The Timing of Prenatal Care. *Journal of Health Care for the Poor and Underserved*, 14(4), 588-607.

<sup>17</sup> Daniels, P., Fuji Noe, G., & Mayberry, R. (2006). Barriers to Prenatal Care Among Black Women of Low Socioeconomic Status. *American Journal of Health Behavior*, 30(2), 188-198.

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<sup>19</sup> Jamieson, D. J., & Buescher, P. A. (1992). The effect of family planning participation on prenatal care use and low birth weight. *Family Planning Perspectives*, 24(5), 214-218.

<sup>20</sup> Rush, D., Alvir, J. M., Kenny, D. A., Johnson, S. S., & Horvitz, D. G. (1988). The National WIC Evaluation: evaluation of the Special Supplemental Food Program for Women, Infants, and Children. III. Historical study of pregnancy outcomes. *The American Journal of Clinical Nutrition*, 48(2 Suppl.), 412-428.

<sup>21</sup> Grady, M. A., & Bloom, K. C. (2004). Pregnancy Outcomes of Adolescents Enrolled in a CenteringPregnancy Program. *Journal of Midwifery & Women's Health*, 49(5), 412-420.

<sup>22</sup> Cawthon, L. (2006, October 31). *Characteristics of Washington State Medicaid Women Who Gave Birth*. First Steps Database. Olympia, WA: Washington State Department of Social and Health Services.

<sup>23</sup> Misra, D. P., Guyer, B., & Allston, A. (2003). Integrated Perinatal Health Framework: A Multiple Determinants Model with a Life Span Approach. *American Journal of Preventive Medicine*, 25(1), 65-75.

<sup>24</sup> U.S. Centers for Disease Control and Prevention. (2006). Recommendations to Improve Preconception Health and Health Care—United States: A Report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *Morbidity and Mortality Weekly Report*, 55(RR-6), 1-23.

<sup>25</sup> The American College of Obstetricians and Gynecologists. (2005, September). The Importance of Preconception Care in the Continuum of Women's Health Care. ACOG Committee Opinion Number 313. *Obstetrics & Gynecology*, 106(3), 665-666.

<sup>26</sup> Salganicoff, A., Ranji, U. R., & Wyn, R. (2005, July). *Women and Health Care: A National Profile. Key Findings from the Kaiser Women's Health Survey*. Washington, DC: The Henry J. Kaiser Family Foundation.

<sup>27</sup> Martin, J. A., Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., Kirmeyer, S., & Munson, M. L. (2007). Births: Final Data for 2005. *National Vital Statistics Reports*, 56(6). Hyattsville, MD: National Center for Health Statistics.