

December 2009

To ensure the health of mothers and their newborn children, it is essential that women and their health care providers follow a series of steps during pregnancy. Planning for a healthy pregnancy ideally begins before conception with proper nutrition and a healthy lifestyle.

“Preconception care” refers to the health promotion, screening, and intervention for women of reproductive age to help prevent complications that might arise during pregnancies (Centers for Disease Prevention and Control, 2006b). While it is strongly recommended that women seek preconception care, high rates of unplanned pregnancies mean that many women are unable to benefit from the health care provisions of preconception care. Approximately half of all pregnancies in the United States each year are unintended (Finer & Henshaw, 2006).

In contrast with preconception care, **prenatal care** is the medical attention a woman receives *during* her pregnancy. The purpose of prenatal care is “to monitor the progress of a pregnancy and to identify potential problems before they become serious for either mom or baby” (March of Dimes Birth Defects Foundation, 2008). It is crucial that women receive prenatal care early and regularly. During the first six months of pregnancy, an expectant mother should see her doctor once a month; during the seventh and eighth months of pregnancy she should visit her doctor every two weeks. Once a woman begins the ninth month of her pregnancy, she should see her doctor every week until the child is born (Nemours Foundation, 2007; National Women’s Health Information Center, 2009).

Prenatal care is usually performed by one of four different types of health care providers: obstetricians, obstetricians/gynecologists (OB/GYNs), family practitioners, or certified

nurse-midwives. A pregnant woman might also be referred to a specialist if she exhibits any of the predictive factors for high-risk pregnancies. Age (35 years and older) and chronic, pre-existing conditions such as heart disease and diabetes are examples of some of the characteristics commonly associated with high-risk pregnancies (Nemours Foundation, 2007).

The first prenatal visit is usually the most extensive and therefore the longest. It should take place during the first six to eight weeks of a woman’s pregnancy, or when her menstrual period is between two and four weeks late (Nemours Foundation, 2007). The doctor or nurse begins by establishing a record of the personal and family health history of the patient. The next step involves a full physical exam, including rectal and pelvic examinations. A blood sample is taken and sent to a lab where it is typed and used to perform the following tests: a complete blood cell count (CBC); Rh antibody levels; the presence of various STDs, including gonorrhea, syphilis, chlamydia, and HIV; signs of previous exposure to chickenpox, measles, mumps, or German measles; cystic fibrosis; and sickle cell anemia (Nemours Foundation, 2007). Patients can also expect to provide a urine sample and a Pap smear test for cervical cancer. After completing this series of tests and examinations, the prenatal care provider ascertains the woman’s expected due date and answers any questions she might have. Later prenatal visits consist mainly of basic checkups on both the mother’s and the growing baby’s health. Typically, the doctor checks the baby’s heart rate and development and the mother’s blood pressure. S/he also measures the mother’s weight gain and examines her urine for signs of diabetes (National Women’s Health Information Center, 2009).

Prenatal health care providers may advise some expectant mothers to undergo one or several non-routine prenatal tests. For example, women who are older than age 35, have a family history of genetic disorders, and/or have a previous child with a birth defect are sometimes given the option of an amniocentesis test. This exam is administered during the later stages of pregnancy and is designed to detect signs of Down syndrome, structural defects, and inherited metabolic disorders. Other non-routine prenatal tests include chorionic villus sampling (CVS), the nonstress test (NST), and percutaneous umbilical blood sampling (PUBS) (Nemours Foundation, 2008).

Prenatal care is not limited to medical care; it also includes education and counseling about how to handle several different aspects of pregnancy, such as nutrition and physical activity, what to expect from and how to prepare for the birth experience itself, and basic parenting skills (National Institute of Child Health & Human Development, 2006).

Consequences of Inadequate or No Prenatal Care

Deficient prenatal care has been linked to increased risk for low infant birth weight (LBW), premature birth, neonatal mortality, infant mortality, and maternal mortality (Centers for Disease Control and Prevention, 2006a). Every year in the United States nearly one million women deliver babies without receiving adequate medical care (Maternal and Child Health Bureau, n.d.). The children of mothers who do not receive prenatal care are three times more likely to have a low birth weight and five times more likely to die than infants born to mothers who do receive care (National Women's Health Information Center, 2009).

Inadequate or no prenatal care is also linked to the incidence of debilitating and sometimes fatal birth defects. Approximately one in every 33 babies is born with a birth defect in the United States each year. Birth defects are the leading cause of infant mortality, accounting for more than 20% of all infant deaths (Centers for Disease Prevention and Control, n.d.). In 2005, birth defects were responsible for the majority of infant deaths in Texas with a rate of 143.4 per 100,000 live births. During the same year, Bexar County's infant

mortality rate due to birth defects was 149.9 infant deaths per 100,000 live births, which accounted for 21.5% of all infant deaths in Bexar County (March of Dimes Birth Defects Foundation, 2009).

Women with unintended pregnancies are less likely to seek prenatal care during the first trimester and more likely to use alcohol and tobacco during pregnancy. Cigarette smoking is one of the most preventable risk factors for poor birth outcomes. In 2005, nearly 11% of all United States women included in the National Center for Health Statistic's yearly health survey (2009) admitted to smoking during pregnancy. These rates were highest in 18-19 year old women, 17.6% of whom reported being smokers. Smoking during pregnancy increases an infant's risk of being LBW. In 2005, smokers were almost twice as likely as nonsmokers to give birth to LBW babies (National Center for Health Statistics, 2009).

The promotion of awareness and education is one of the most effective ways to prevent birth defects. By maintaining preconception and pregnancy health, avoiding activities that could potentially lead to birth defects (e.g. drinking alcohol, smoking, excessive caffeine intake), and having annual gynecological and wellness exams, women can play an active role in preventing the incidence of birth defects and disorders (American Pregnancy Association, 2006).

Distribution of Prenatal Care

The number of women beginning care in the first trimester declined from 2005 to 2006. In 2006, 68.3% of all mothers reported receiving first trimester prenatal care, compared to 70.2% of women in 2005. The incidence of women beginning prenatal care in the third trimester or having no prenatal care at all increased from 7.7% in 2005 to 8.2% in 2006 (Martin et al., 2009).

Despite recent improvements in the timing of prenatal care across each of the largest racial and ethnic groups, there continues to be a large disparity between races and ethnicities. In 2005, 76.3% of African American and 74.4% of Hispanic or Latino women in the United States received prenatal care during the first trimester, compared to 85.0% of white women (National Center for Health Statistics, 2009).

Although *access* to timely prenatal care has increased significantly for Hispanic and African American women over the past fifteen years, research shows that minorities continue to experience disproportionately high rates of miscarriage and newborn mortality. Studies conducted by the American College of Obstetricians and Gynecologists (ACOG) (2006) suggest that the shortcomings of prenatal care derive from the fact that the current system does not sufficiently address racial and ethnic disparities in women's health. All minority women surveyed experienced significantly more perinatal mortality than white women, with African Americans demonstrating the highest rate of perinatal mortality. Minority women were more likely to smoke and suffer from pre-existing health conditions such as diabetes. Moreover, they experienced higher rates of pregnancy complications such as preterm birth and cesarean delivery. These findings underline the need to develop new prenatal care strategies that specifically address the risks and difficulties to which minority women are predisposed (ACOG, 2006).

Prenatal Care and Teen Pregnancy

The United States has the highest rate of teen pregnancy in the fully industrialized world. Although teen pregnancy rates have declined significantly since the 1990s, approximately 30% of girls in the U.S. become pregnant before they turn 20. Teen pregnancy potentially poses a number of negative consequences for both the mother and her child. Forty percent of teens who have a child before age 18 do not graduate from high school. Among those who do earn a high school degree, fewer than 2% earn a college degree by age 30 (National Campaign to Prevent Teen Pregnancy, 2009).

The health risks associated with teen pregnancy are serious. For the mother, these may include poor weight gain, hypertension, anemia, STDs, and cephalopelvic disproportion. Babies born to adolescent mothers are more likely to have low birth weight, thereby increasing the likelihood of infant death, blindness, deafness, chronic respiratory problems, mental retardation, mental illness, cerebral palsy, dyslexia, hyperactivity, and other disabilities (National Campaign to Prevent Teen Pregnancy, 2009). These complications are

compounded by the fact that teen mothers are the least likely to seek and receive prenatal care.

Children born to teen mothers are at higher risk for poor parenting because their parent(s) are unable to meet the child's emotional and physical needs. Teen mothers and fathers often do not have the knowledge, maturity, and/or means to provide the kind of environment and stimulation that their children need for optimal development. The youngest mothers (those 17 and under) are twice as likely as mothers in their twenties to have been investigated for abuse or neglect. Mothers who are 17 and younger are also 2.2 times more likely to have their children placed into foster care than those who wait to have children in their twenties (National Campaign to Prevent Teen Pregnancy, 2009).

Birth and Prenatal Care Statistics in Bexar County

In 2006, the birth rate in Bexar County was 77.3 live births per 1,000 for women aged 15-44 years. Among 15-19 year old women, the birth rate was 64.5 live births per 1,000 (March of Dimes Birth Defects Foundation, 2009).

Prenatal care is unevenly distributed in Texas according to age and race/ethnicity. From 2002-2004, mothers under age 20 had the highest average rate (7.5%) of late or no prenatal care compared to all other maternal age categories. This rate was also highest in Bexar County, with 4.4% of children born to adolescent mothers receiving late or no prenatal care during 2002-2004. Although the same was true for only 2.7% of *all* live births in Bexar County, African American and Hispanic mothers were considerably more likely than their white counterparts to give birth having received untimely or no prenatal care (March of Dimes Birth Defects Foundation, 2009).

Prenatal Care Services in San Antonio

Several different agencies in San Antonio offer prenatal care and parenting education. The Planned Parenthood Trust of San Antonio and South Central Texas has seven clinics throughout San Antonio offering family planning and sexual health care. Their services include but are not limited to the following: birth control, pregnancy testing, gynecological exams, Pap tests and evaluations, pelvic exams and clinical breast exams, referral for prenatal care consultations, and

a series of reproductive and parenting educational programs (Planned Parenthood, 2009). San Antonio Healthy Start works to decrease the incidence of infant mortality and low birth weight by helping pregnant women to get adequate and early prenatal care. Healthy Start strives to achieve this aim through case management, outreach, health education, and the support of maternal mental health services (City of San Antonio Health Department, 2007). The San Antonio Birth Doula is an organization that nurtures and educates teenage and low-income women by providing each client with her own birth “doula” who supports and advises her throughout her pregnancy. Other San Antonio organizations providing prenatal care and/or education include the Agape Pregnancy Help Center, the local chapter of March of Dimes, the San Antonio Metropolitan Health District, and The Expanded Nutrition Program of Texas Cooperative Extension in Bexar County (Schattenberg, 2005).

References

- American College of Obstetricians and Gynecologists (ACOG). (2006). *Early access to prenatal care: Implications for racial disparity in perinatal mortality*. Retrieved September 16, 2009, from <http://www.kalhd.org/attachments/wysiwyg/5/EPNCoutcome.pdf>
- American Pregnancy Association. (2006). *Tips for preventing birth defects*. Retrieved September 14, 2009, from <http://www.americanpregnancy.org/birthdefects/communitybirthdefectsprevention.htm>
- Centers for Disease Control and Prevention. (2006a). *From data to action: Prenatal care*. Retrieved September 14, 2009, from http://www.cdc.gov/PRAMS/dataAct2002/prenatal_care.htm
- Centers for Disease Control and Prevention. (2006b). *Preconception care*. Retrieved September 15, 2009, from <http://www.cdc.gov/ncbddd/preconception/QandA.htm>
- Centers for Disease Control and Prevention. (n.d.). *Birth defects*. Retrieved September 14, 2009, from <http://www.cdc.gov/node.do/id/0900f3ec8000dfffe>
- City of San Antonio Health Department. (2007). *San Antonio Healthy Start*. Retrieved September 14, 2009, from <http://www.sanantonio.gov/HEALTH/Healthystart-mainpage.html>
- Finer, L. B., & Henshaw, S. K. (2006). *Disparities in rates of unintended pregnancies in the United States: 1994 and 2001*. Retrieved September 17, 2009, from <http://www.guttmacher.org/pubs/psrh/full/3809006.pdf>
- March of Dimes. (2008). *Prenatal care*. Retrieved September 17, 2009, from http://www.marchofdimes.com/pnhec/159_513.asp
- March of Dimes Birth Defects Foundation. (2009). *Texas*. Retrieved September 14, 2009, from <http://www.marchofdimes.com/peristats/alldata.aspx?reg=48&dv=es>
- Martin, J.A., Hamilton, B.E., Sutton, P.D., Ventura, S.J., et al. (2009). *Births: Final data for 2006*. National vital statistics reports: vol 57 no 7. Retrieved from the National center for health statistics Web site on September 16, 2009, from http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_07.pdf
- Maternal and Child Health Care Bureau. (n.d.). *A healthy start: Begin before baby's born*. Retrieved September 14, 2009, from <http://mchb.hrsa.gov/programs/womeninfants/prenatal.htm>
- National Campaign to Prevent Teen Pregnancy. (2009). *Why it matters: Teen pregnancy*. Retrieved September 16, 2009, from http://www.thenationalcampaign.org/why-it-matters/wim_teens.aspx
- National Center for Health Statistics. (2009). *Health, United States, 2008*. DHHS Publication No. 2009-1232. Retrieved September 16, 2009, from <http://www.cdc.gov/nchs/data/hus/08/08.pdf#007>
- National Institute of Child Health & Human Development. (2006). *Care before and during pregnancy: Prenatal care*. Retrieved September 14, 2009, from http://www.nichd.nih.gov/womenshealth/research/preg_birthe/prenatal_care.cfm
- National Women's Health Information Center. (2009). *Prenatal care*. Retrieved September 14, 2009, from <http://www.4woman.gov/faq/prenatal.htm#a>
- Nemours Foundation. (2007). *Medical care during pregnancy*. Retrieved September 14, 2009, from http://kidshealth.org/parent/pregnancy_newborn/pregnancy/medical_care_pregnancy.html
- Nemours Foundation. (2008). *Prenatal tests*. Retrieved September 14, 2009, from http://kidshealth.org/parent/system/medical/prenatal_tests.html
- Planned Parenthood Trust of San Antonio and South Central Texas. (2009). *FAQs about Planned Parenthood*. Retrieved September 14, 2009, from <http://www.ppsctx.org/cgi-bin/faqs.cgi?topic=30>
- Schattenberg, P. (2005, June 23). “Commencendo bien” good start for prenatal care, nutrition. *AgNews*. Retrieved September 16, 2009, from http://agnewsarchive.tamu.edu/dailynews/stories/CFA_M/Jun2305a.htm