KRONKOSKY CHARITABLE FOUNDATION

RESEARCH BRIEF

November 2011

PRENATAL CARE

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. Ideally, planning for a healthy pregnancy begins before conception with proper nutrition and a healthy lifestyle. "Preconception care" refers to health promotion, screening, and intervention for women of reproductive age to help prevent complications that might arise during pregnancy (The National Women's Health Information Center [NWHIC], 2010a). While it is strongly recommended that women seek preconception care, nearly half of all pregnancies each year are unplanned and many women are unable to benefit from the health care provisions of preconception care (NWHIC, 2010b).

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 Foundation, 2011). 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 (NWHIC, 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-midwifes. 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 (NWHIC, 2009).

The first prenatal visit is usually the most extensive and therefore the longest. 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, 2011a). 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 establishes 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 (NWHIC, 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, 2011b).

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, 2010).

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 [CDC], 2011a). Nearly 13% of women who become pregnant every year are not insured, resulting in inadequate prenatal care (American Pregnancy Association, 2011). 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 (NWHIC, 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 20% of all infant deaths (March of Dimes Foundation, 2010). In 2008, nearly 19,000 children were born in Texas with a birth defect (Texas Department of State Health Services, 2011).

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 2007, roughly 12% of all United States women included in the National Center for Health Statistic's yearly health survey admitted to smoking during pregnancy. These rates were highest in 18-19 year old women, 19.4% of whom reported being smokers. Smoking during pregnancy increases an infant's risk of being LBW. In 2007, smokers were almost twice as likely as nonsmokers to give birth to LBW babies (National Center for Health Statistics, 2010).

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 regularly meeting with a doctor, women can play an active role in preventing the incidence of birth defects and disorders (NWHIC, 2009).

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 2007, 57.1% of African American and 56.1% of Hispanic or Latina women in the United States received prenatal care during the first trimester, compared to 74.9% of white women (National Center for Health Statistics, 2010).

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. The shortcomings of prenatal care originate from the fact that the current system does not sufficiently address racial and ethnic disparities in women's health. Minority women experience 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 (CDC, 2011b).

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. Nearly forty percent of teens who have a child before age 18 do not graduate from high school (National Campaign to Prevent Teen Pregnancy [NCPTP], 2010).

The health risks associated with teen pregnancy are serious. Babies born to adolescent mothers are more likely to have LBW, thereby increasing the likelihood of infant death, blindness, deafness, chronic respiratory problems, mental retardation, mental illness, cerebral palsy, dyslexia, hyperactivity, and other disabilities (NCPTP, 2010). 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 (NCPTP, 2010).

Birth and Prenatal Care Statistics in Bexar County

During 2006-2008 the average birth rate in Bexar County was 78.2 live births per 1,000 for women aged 15-44 years. Among 15-19 year old women, the birth rate was 64.3 live births per 1,000 (March of Dimes Foundation, 2011b).

Prenatal care is unevenly distributed in Texas according to age and race/ethnicity. From 2006-2008, the rate of late or no prenatal care among births to women under age 20 (18.1%) was higher than any other age group. Although only 9.5% of *all* mothers with live births in Bexar County had late or no prenatal care, 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 Foundation, 2011b).

Prenatal Care Services in San Antonio

Several different agencies in San Antonio offer prenatal care and parenting education.

Planned Parenthood Trust of San Antonio and South Texas operates 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, 2011).

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, 2011).

San Antonio Birth Doulas 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 (San Antonio Doula Service, n.d.).

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