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The Impact of Barriers to Prenatal Care
In Rural and Urban Teenage Pregnancies

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Teenage pregnancy is an epidemic that has long lasting repercussions for the parents, child, and society in general. Understanding the dynamics that surround teenage pregnancy will help shape healthcare interventions, education, finance, and public policy for the good of all affected parties. It is estimated that unplanned teenage pregnancies cost taxpayers in excess of seven billion dollars each year (Teenpregnancy.org, 2004). In addition, the teenage parent risks being stigmatized, isolated from their peer group, and sentenced to a life of poverty. Perhaps the most important consideration of teenage pregnancy is the impact it has on the unplanned child. In reviewing mortality data for 2002, the Centers for Disease Control and Prevention found that factors such as maternal complications, low birth weight infants, short gestational periods, and an increase in the occurrence of congenital birth defects have resulted in the first increase in the infant mortality rate since 1958 (Kochanek & Smith, 2004). Modern prenatal care and screening can often identify and treat many of these factors to improve birth outcomes. Teenagers, however, face many barriers to obtaining adequate prenatal care. Lee and Estes state that “The major determinants of high infant mortality are those associated with poverty of material conditions: lack of sanitation; malnutrition; low-quality housing and overcrowding; and lack of medical care including care before , during, and after childbirth” (2003). By educating oneself on the scope and nature of the problem of teenage pregnancy and the associated high rates of infant mortality, many of these barriers can be identified and addressed toward the ultimate goal of reducing teenage pregnancy rates and decreasing infant mortality in this high-risk population.

“Infant mortality traditionally has been viewed as the measure of health...that is most sensitive to poverty” (Lee & Estes, 2003). Poverty proves to be a primary barrier to

obtaining prenatal services for both rural and urban teens. Rural incomes tend to be lower and jobs less plentiful than that which is found in the urban environment. Rural employers also tend to be smaller and often provide little or no health insurance coverage as a benefit of employment. This leads to higher rates of uninsured or underinsured amongst the rural population as compared to the general population (Peck & Alexander, 2003)(McGlaun, 2003). Peck and Alexander also describe distances to care, transportation problems, and relocation of obstetrics services to more densely populated areas as factors that preclude early and adequate prenatal care. Rural teens, instead, rely on advice from their social network which often proves to be inaccurate and potentially harmful. Social networks can, however, be useful in decreasing rural teen pregnancy rates along with rural infant mortality rates if utilized properly. The appropriate use of social capital can leverage the traditionally sparse assets that are available to combat teen pregnancy and decrease infant mortality in both rural and urban populations by providing access to social services, private and parochial services, transportation resources, and nutritional education and support. Urban teens often have greater access to prenatal care through clinics and convenient obstetrics services, though high rates of unemployment or underemployment within the family system leads to comparable rates of uninsurance and underinsurance within this population. This environment of poverty and lack of education provide barriers to obtaining prenatal care.

Additional determinants of the health of pregnant rural and urban teens and their babies include the lingering social stigma of teen pregnancy, society's tendency to "punish" teens for their misbehavior, the lack of developed coping skills of the pregnant teen and/or new parent, and the conflicting messages that the teens receive regarding the

appropriateness of teenage pregnancy. In American culture, there exists a long-standing contempt for out-of-wedlock pregnancy which has softened over the last 30 years, although teenage pregnancy still carries much of that stigma today. Often this leads to the alienation of the pregnant teen by their families, concealment of the pregnancy from others, or maltreatment of the pregnant teen. These behaviors are not conducive to maintaining or improving maternal and fetal health and provide significant barriers to seeking early prenatal care.

In recognizing the importance of culture as a determinant of health, the American College of Obstetrics and Gynecologists (ACOG) have identified cultural competency as key to providing appropriate care to the increasingly diverse population. “The racial and ethnic composition of the United States’ population has changed significantly during the past two decades” and we need to “become sensitive to the many and varied cultural factors that influence health” (Goldstein, 2004). Communication between providers and minorities is especially challenging in light of the rapid rate of change we have witnessed. “Currently, most women in rural areas identify themselves as non-Hispanic white. However, population shifts throughout the last decade have involved changes in many communities’ racial and ethnic makeup” (McGlaun, 2003). Minority populations, which tend to settle in urban and rural locations due to the relative low cost of living, have unfamiliar health practices and beliefs that they will likely continue here. Finding ways to access their social networks would likely remove or reduce barriers to addressing teen pregnancy and infant mortality in these newly settled populations.

With regard to risk factors for high infant mortality rates, rural teens tend to reside in low income households with lower average levels of education (Peck & Alexander,

2003). Peck, et al. noted the tendency of rural versus urban women to delay prenatal care and the case of “receiving less adequate care when available.” They also described lack of transportation (including public transportation), geographical isolation from providers, and the flight of providers away from rural obstetrics practice due to the malpractice risk associated with the higher rural versus urban infant mortality rates (McGlaun, 2003).

Both rural and urban teens, however, share the same challenges faced when living in a situation of material deprivation. Often, food is sparse and/or of poor quality, and hot and cold water, electricity, and clean living conditions may not be available reliably. When teens do elect to receive medical care for pregnancies (emergency contraception, prenatal care, abortions), they often face legal barriers related to being a minor and unable to consent to care, though many states now have legislation in place to address this barrier. Frequent relocation is not uncommon, making it difficult to find or remain in contact with trusted healthcare providers. Transience is especially notable in ethnic minority populations who may have to migrate with the seasons for work or to make contact with extended family members.

Rural teens tend to be primarily white non-Hispanic as described above by McGlaun, however increasing Asian and Hispanic populations were noted. Urban teens tend to represent all ethnic groups in ratios similar to the general population, though it should be noted that a survey of the available statistics does indicate some shifting regional variation as ethnic groups settle in certain distinct sections of the country (Examples include the Cuban population in South Florida, the Hmong Population in Wisconsin, and the large Arabic population in Michigan). Local and Regional efforts to

reduce infant mortality will have to take into consideration the cultural differences of the target population.

Epidemiological data regarding teenage pregnancy rates is sobering.

Teenpregnancy.org states “The United States has the highest rates of teen pregnancy and births in the western industrialized world” (Teenpregnancy.org, 2004). They further state that 34% of women become pregnant before they reach the age of 20. While teen birth rates have been declining since the early 90’s, Blacks and Hispanic teens still have the highest rates amongst all teen ethnicities (Teenpregnancy.org, 2004). “National data from 1996 through 1998... [demonstrate] infant mortality rates for nonmetropolitan counties appear similar to metropolitan counties” though “state-based studies have found increased rates of infant mortality among rural residents” (Peck, et al., 2003). Research conducted by the Alan Guttmacher Institute found that “1/3 of pregnant teens receive inadequate prenatal care; babies born to young mothers are more likely to be low-birth-weight, to have childhood health problems and to be hospitalized than are those born to older mothers.”

Table 1

Infant Mortality Rates by Maternal Race, 2000

Infant Mortality	All races	White	Black
<20 yrs maternal age	9.9/1000	8.5/1000	13.8/1000
<1500 grams Birthweight	244.3/1000	232.7/1000	266.9/1000
<32 weeks gestation	180.9/1000	170.2/1000	203.7/1000

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Rates shown per 1000 births, Adapted from CDC National Vital Statistics Report Vol 50(12)

The most current infant mortality rate (2002) for teenage pregnancies is 9.9/1000 for births to mothers less than 20 yrs of age which declines markedly to 7.6/1000 for mothers age 20-24. The infant mortality rate for all women who had no prenatal care is 33.8/1000 versus 6.1/1000 for mothers who had prenatal care starting in the first trimester. The other main identified risk factors was very-low-birth-weight (244.3/1000) and less than 32 weeks gestation (180.9/1000) (Centers for Disease Control, 2000). This is especially alarming because the CDC also found that “among women with singleton deliveries in 2002, the youngest and the oldest were the most likely to give birth preterm (21 percent of mothers under the age of 15 years compared with 17 percent of mothers aged 45 years and over)” (CDC, 2003)

The significant reduction noted in infant mortality demonstrated by the above mentioned findings suggest that prenatal care, when initiated early in pregnancy, can have a significant reduction in the infant mortality rates of teens. It is assumed that factors contributing to preterm and low-birth-weight deliveries would be positively influenced by effective prenatal care and screening and would contribute to an overall reduction in the currently experienced rates of infant mortality.

Many of the interventions aimed at decreasing infant mortality originate with federal, state, and local governments. Several large foundations and private organizations also work to reduce teenage pregnancy and decrease infant mortality. The March of

Dimes, the Anna E. Casey Foundation, the Alan Guttmacher Foundation, and The National Campaign to Prevent Teen Pregnancy all work to address these important issues at an individual level by making information available to anyone with access to the internet, providing teaching information to healthcare providers, and promoting effective policy making at the governmental level. Much of the program design occurs at the state and local level owing to the cultural and demographic variation that exists across the country. Examples of successes in reducing teenage pregnancy and infant mortality include legislated mandatory sex education and HIV education. Early sexual education teaching should focus abstinence, contraception, and recognition of the symptoms of pregnancy as well as dispelling common myths associated with pregnancy. Public financial assistance has also been utilized in such a way as to provide for a safety net for the poor and uninsured to ensure adequate prenatal care is within reach from a cost standpoint. Subsidizing rural healthcare seems meet with mixed success, as providing obstetric care in a rural setting has met with mixed success owing to high malpractice costs, low patient volumes, and financial challenges.

Advanced Practice Nurses are in an excellent position to address the challenges of rural and urban women's care. Nurses are very skilled at inter personnel communications, accustomed to providing care at a cost-effective price, more approachable than a physician would be (especially to someone of lower educational or socio-economic status), and often a member of the same community where they work. Federally funded programs employing nurses could accomplish many tasks that a physician alone would not likely perform. These include such tasks as prenatal teaching,

reliable follow-up care, and getting in touch with the community networks to take advantage of social capital.

There are many challenges faced by rural and urban teens both in avoiding and managing pregnancy, but they do not have to face the challenges alone. Public health leadership needs to be cultivated in each community to ensure that everything is done to continue the trend of declining infant mortality. Nurse's and community leaders should join together to address this often occult problem through in-school education programs, advertising campaigns that reveal the risks of sexual behavior and the consequences of an unintended pregnancy. The key to defeating this challenge is to remove the barriers to prenatal care and screening by creating a community, state, and national dialog that leads to coordinated action to reduce infant mortality to rates comparable with the rest of the developed world or perhaps become the model by which other countries reduce their infant mortality.

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