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POPULATION HEALTH INSTITUTE
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Issue Brief

Adolescent Pregnancy: Assessing the Evidence on Abstinence-Based Interventions

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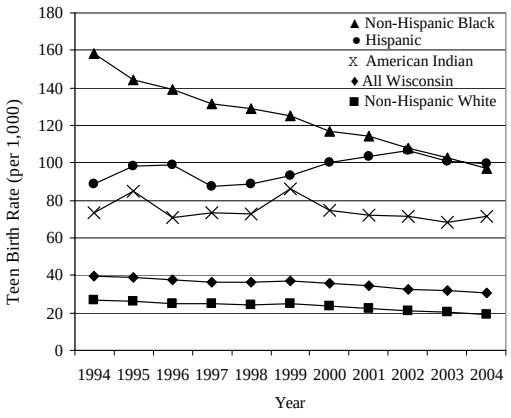
October 2006
Volume 7 Number 2A

Introduction

The past few decades have brought a wide range of strategies to reduce the rate of unintended teen pregnancy.[1] Although the overall teen birth rate has decreased from 39.8 births per 1,000 females in 1994 to 30.5 births per 1,000 females in 2005, there remains room for further improvement.[2] Disparities across racial and ethnic groups remain an important challenge, as Wisconsin's minority groups have higher rates of unintended pregnancy (Figure 1), adolescent birth, sexually transmitted diseases (STDs), and HIV/AIDS.[2] The City of Milwaukee, in particular, has one of the highest teen birth rates in the state. While the statewide rate is below the national average, the rate in Milwaukee County remains well above the national average, at twice Wisconsin's overall rate.[3]

The Department of Health and Family Services (DHFS) currently supports a two-pronged strategy for reducing adolescent pregnancy including the Wisconsin Abstinence Initiative for Youth (WAIY) which promotes abstinence, and the Wisconsin Family Planning Reproductive Health Program, which aims to reduce barriers to access to contraceptives and reproductive health services.[4] In addition, over the past four years, funding for abstinence-only education in Wisconsin and at the Federal level has increased substantially.[5] This Issue Brief will examine evidence on the effectiveness of abstinence-based interventions that aim to reduce the number of teen births.

Figure 1: Teen birth rates by race/ethnicity in Wisconsin, 1994-2004.[2]



Public Health Burden in Wisconsin

Adolescent pregnancy represents a significant public health burden for Wisconsin. Pregnant teens and teen mothers are more likely to experience social and health problems following their pregnancy, including a highly increased risk of acquiring STDs, repeat pregnancy within two years of having their first child,[6] and lower likelihood of completing school.[7] The child born to a teen mother is more likely to be a victim of infanticide or child abuse in later years,[8] and is much more likely to have low birth weight,[9] known to be associated with various adverse health consequences including cognitive deficiencies and behavioral disorders.[10] This year alone, more than 6,000 15-19 year old girls will give birth.[2] Furthermore, the birth rate in black teens in Wisconsin is one of the highest in the United States, while the United States, in turn, has one of the highest teen birth rates in the developed world.[11]

Beyond the adverse health outcomes and life events for teen parents and their children, there are additional downstream costs associated with teen pregnancy, including welfare programs such as Wisconsin Works (W-2) programs, Temporary Assistance to Needy Families (TANF) programs, food and nutrition assistance programs, adoption and foster care programs, and a myriad number of other social services. A conservative estimate from the Urban Institute placesthe national cost of teen childbearing to taxpayers at $3,200 per teen birth, or more than $7 billion a year.[12]

Abstinence-Based Interventions

The two general types of abstinence-based interventions are "abstinence-only" and "abstinence-plus" interventions. While abstinence-only interventions focus solely on abstinence until marriage, attempt to build self-esteem, enhance decision-making, and increase ability to withstand peer pressure, abstinence-plus interventions incorporate additional topics such as the anatomy and physiology of the reproductive organs, STDs, fertility awareness, and contraception. Another way of categorizing abstinence-based interventions in contrast to sex education is that abstinence-based interventions attempt to reduce the level of sexual activity, while sex education attempts to reduce the number of pregnancies. Some observers argue that the only way to make abstinence-only interventions effective is to include information about contraception in an abstinence-plus format.[1] Others assert that abstinence-plus programs could be more accurately called comprehensive sex education programs, or safe sex programs, due to the perceived lack of focus on abstinence.[13] The difference between comprehensive sex education and abstinence-plus interventions is not readily clear, although abstinence-plus interventions are required to maintain a focus on abstinence, and comprehensive sex education programs have a much broader focus.

Scientific Evidence

Some evaluation studies of programs intended to reduce teen pregnancy measure outcomes in terms of pregnancy rates, while others report measures of sexual activity, including age of initiation, number of partners, and frequency of intercourse.

Impact on pregnancy rates: To date, many of the studies that have shown reduced adolescent pregnancy rates associated with abstinence-only interventions have been observational studies, [14] which may be subject to biases avoided by randomized controlled trials (RCTs), the most rigorous form of scientific study design. A review of 22 RCTs reports that abstinence-only interventions are either unsuccessful or inconclusive in reducing teen pregnancy.[15] The few studies that have found evidence for the effectiveness of an abstinence-based intervention have been through abstinence-plus interventions.[16] A recent report of a RCT of an abstinence-plus intervention conducted in Chile showed a significant difference in pregnancy rates between the control and intervention groups (22.6% vs. 4.4%) at the end of four years.[17]

Impact on sexual activity: Studies of abstinence-only and abstinence-plus interventions are often limited to analyzing measures of sexual activity rather than assessing the direct impact on pregnancy rates. A comprehensive meta-analysis of 16 RCTs showed that neither abstinence-only nor abstinence-plus programs had a significant impact on reducing sexual activity.[18]

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Impact on other outcomes: Although there is little evidence to support the impact of either abstinence-only or abstinence-plus interventions on pregnancy rates or sexual activity, this does not mean that there are no measurable effects. While perhaps not reducing sexual activity, there is evidence that abstinence-plus interventions do increase student knowledge and proper use of contraception,[19] which can provide long-term reductions in unintended pregnancy. Conversely, one program that used "virginity pledges," asking participants to abstain from sex until marriage, found that participants delayed intercourse for 18 months on average, but were less likely to use contraceptives once they did have intercourse, potentially placing them at a higher risk for STDs and pregnancy.[20]

Some proponents of abstinence-based interventions remain concerned that teaching contraception and sex education condones sexual activity and will encourage sexual behavior among adolescents.[13] Research demonstrates otherwise: interventions in a comprehensive sex education format, including both abstinence and contraception education, have been shown to have a significant impact on sexual activity by raising the age of initiation of sexual activity, and lowering the frequency of intercourse and number of partners.[1] A World Health Organization (WHO) study found that of 35 comprehensive sex education programs examined, the most effective programs in reducing risky sexual behaviors, such as having unprotected sex, were programs that covered abstinence, contraception, and STDs.[19] The Joint United Nations Program on HIV/AIDS (UNAIDS) reaffirmed these findings through a review of 22 HIV prevention and comprehensive sex education programs that showed these programs reduced sexual activity, as well as pregnancy and STD rates.[21]

Future Directions

While evidence from RCTs provides little to no support for the effectiveness of abstinence-only interventions in reducing teen pregnancy, funding for these programs continues to increase. The Federal government proposed to increase the budget for abstinence-only interventions to $270 million in fiscal year 2005, up from $80 million in 2001. In total, major federal initiatives provided approximately $167 million for abstinence-only education in fiscal year 2004.[12] However, some states have embraced alternatives. Maine, California, and Pennsylvania have all rejected federal funding for abstinence-only education to explore alternatives[22] beyond school-based curricula, such as after-school programs and comprehensive sex education.

Proponents of abstinence-only interventions assert that public opinion in the United States strongly supports abstinence-only interventions, citing research showing that at least 90% of parents want teens to abstain from sex until after high school.[23] Meanwhile, a similar study shows that while 100% of parents of children in 7th through 12th grade believe their children should be taught about abstinence, 85% also believe education about condoms should be included, and 84% believe other forms of birth control should also be covered.[24]

The mainstream scientific and medical community has expressed consensus on ways to reduce teen pregnancy. The American Academy of Pediatrics has issued statements about adolescent pregnancy and contraception, publicly supports sexual education, and advocates contraception as a measure to prevent pregnancy.[25] In addition, the Institute of Medicine, American Academy of Family Physicians, and American College of Obstetricians and Gynecologists have also pledged their support for combining contraception education with abstinence education to reduce adolescent pregnancy.[18]

Conclusion

Healthiest Wisconsin 2010, which details the State's public health goals, outlines several objectives related to reductions in adolescent sexual activity, unintended pregnancies, and other results of high risk sexual behavior.[26] Such ambitious reductions depend on investments in evidence-based interventions that transcend ideology or politics. Success in reducing unintended teen pregnancy will require active engagement and education of parents, youth, school boards, other elected officials, and community members, all of whom share a common goal in promoting the future health and economic well-being of Wisconsin's youth.

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