



## POLICY STATEMENT

# Addendum—Adolescent Pregnancy: Current Trends and Issues

## INTRODUCTION

The purpose of this addendum is to update pediatricians and other professionals on recent research and data regarding adolescent sexuality, contraceptive use, and childbearing since publication of the original 2005 clinical report, “Adolescent Pregnancy: Current Trends and Issues.”<sup>1</sup> There has been a trend of decreasing sexual activity and teen births and pregnancies since 1991, except between the years of 2005 and 2007, when there was a 5% increase in birth rates. Currently, teen birth rates in the United States are at a record low secondary to increased use of contraception at first intercourse and use of dual methods of condoms and hormonal contraception among sexually active teenagers.<sup>2</sup> Despite these data, the United States continues to lead other industrialized countries in having unacceptably high rates of adolescent pregnancy, with over 700 000 pregnancies per year, the direct health consequence of unprotected intercourse.<sup>3</sup> Importantly, the 2006–2010 National Survey of Family Growth (NSFG) revealed that less than one-third of 15- to 19-year-old female subjects consistently used contraceptive methods at last intercourse.<sup>4</sup>

## TRENDS IN ADOLESCENT CHILDBEARING TRENDS

Most pregnancies among adolescents in the United States are unintended (unwanted or mis-timed). In fact, 88% of births to teenagers 15 to 17 years of age were the result of unintended pregnancies.<sup>5</sup> Births to 15- to 19-year-old female subjects peaked in 1991 at 61.8 per 1000 female subjects; subsequently, the rate decreased annually, except for a slight increase in 2005–2007, to reach its nadir at 39.1 per 1000 female subjects in 2011.<sup>6</sup> Birth rate statistics are not the same as pregnancy rate statistics. Birth rate statistics underestimate actual adolescent pregnancy rates. The birth rate numerator includes the number of actual births per 1000 individuals in that age group, but the pregnancy rate includes actual births, abortions, and best estimates of fetal loss per 1000 adolescents in that age group.<sup>7</sup>

The abortion rate among adolescents 15 to 19 years of age was 14.3 per 1000 female subjects and accounted for 16.2% of all abortions in 2008.<sup>8</sup> During the decade 1999 to 2008, the abortion rate decreased by 20.7% among adolescents 15 to 19 years of age, with a 5.8% decrease noted from 2004 to 2008.

## COMMITTEE ON ADOLESCENCE

### KEY WORDS

adolescent health/medicine, teen pregnancy

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[www.pediatrics.org/cgi/doi/10.1542/peds.2014-0450](http://www.pediatrics.org/cgi/doi/10.1542/peds.2014-0450)

doi:10.1542/peds.2014-0450

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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## SEXUAL ACTIVITY AMONG ADOLESCENTS IN THE UNITED STATES

In the 2011 Youth Risk Behavior Survey (YRBS), 47% of both female and male high school students reported “ever having had sexual intercourse.”<sup>9</sup> Similar data are found in the 2006–2010 NSFG, in which the proportion of female subjects 15 to 19 years of age who ever had sexual intercourse continued to decline from 51% in 1988 to 43%.<sup>4</sup> The proportion of male subjects who ever had sexual intercourse decreased from 60% to 42%.<sup>4</sup> The decrease in adolescents who ever had sex was most notable in non-Hispanic black female subjects, declining from 60% to 46%, compared with Hispanic female subjects, in whom the proportion decreased from 46% to 42%. Rates of ever being sexually active among non-Hispanic black male subjects decreased from 81% to 58% and, among Hispanic male subjects, it decreased from 60% to 46%.

Most adolescents conveyed that they were “going steady” with whom they had their first sexual intercourse experience. This “going steady” relationship was reported among 70% of female subjects and 56% of male subjects. However, the earlier the age of sexual debut, the less likely the first sexual partner was a regular partner and more likely to be just a friend or someone they recently met.<sup>4</sup> Furthermore, as documented in the 2002 NSFG, the majority of adolescent female subjects had a partner who was 1 to 3 years older, and those younger than 14 years were also more likely than those aged between 15 and 19 years to have partners who were 4 or more years older. This age disparity creates the potential for more non-consensual sexual encounters, increasing the risk of pregnancy and sexually transmitted diseases.<sup>10</sup> Both the 2011 YRBS and the 2006–2010

NSFG reported that approximately one-third of adolescents (YRBS: 34% of females, 33% of males; NSFG: 31% of females, 28% of males) described having had sex with at least 1 person during the previous 3 months.<sup>4,9</sup> Nearly 14% had 4 or more lifetime partners, increasing the risk of sexually transmitted diseases.<sup>5,9</sup> The number of partners increases as the age at first intercourse declines.<sup>10</sup>

The 2011 YRBS data demonstrated that more 12th graders (51% female, 44% male) were sexually active than ninth graders (19% female, 24% male).<sup>9</sup> Sexual activity is not always consensual, as indicated by YRBS data in which 8% of youth (11.8% of female subjects, 4.5% of male subjects) reported ever having been forced to have sexual intercourse. Unwanted first sexual encounters were reported in the NSFG among 11% of female subjects 18 to 24 years of age who had first intercourse before age 20 years.<sup>4</sup> Teenagers who report first sex at 14 years of age and younger are more likely to report that it was nonvoluntary, compared with those who were aged 17 to 19 years at sexual debut.<sup>10</sup> Unwanted encounters may include dating violence, stranger assaults, and intra-familial sexual abuse/incest. Screening for sexual violence and unwanted sexual encounters should occur during evaluation of all sexually active adolescents.

## CONTRACEPTIVE USE AND EFFICACY AMONG ADOLESCENTS

It is not only the use of a contraceptive method but the type of method used that can significantly affect rates of unintended pregnancy. A study published in 2012 found that the failure rate for the short-acting methods of the contraceptive pill, patch, or ring was 4.55 per 100 participant-years compared with the long-acting reversible contraceptive methods of the implant or intrauterine device, which

had a failure rate of 0.27 per 100 participant-years.<sup>11</sup> This study also found an age differential in which women younger than 21 years were twice as likely to have an unintended pregnancy when using short-acting methods, while having the same pregnancy rates (as cited earlier) when using long-acting methods. Long-acting reversible contraception is an important contraceptive option for the adolescent that has the clear potential to reduce unintended pregnancies.

The 2006–2010 NSFG reported that only 78% of adolescent female subjects and 85% of adolescent male subjects 15 to 19 years of age used a contraceptive method for first sexual intercourse, and 86% of female subjects and 93% of male subjects used a method at last intercourse over the previous 3 months.<sup>4</sup> These percentages are not significantly different compared with those from 2002. There was, however, an increase in condom use by male subjects at first intercourse as well as in dual contraceptive use (simultaneous use of condoms and hormonal contraceptives) at both first and last intercourse by female subjects.<sup>4</sup>

Although NSFG data revealed that the condom was the most common method used by adolescents, among 15- to 19-year-old female subjects, 56% used oral contraceptive pills, 20% used an injectable method (depot medroxyprogesterone acetate), 10% used the contraceptive patch, and 5% used the contraceptive ring. The much less reliable method of withdrawal was used by 57% of adolescent female subjects and was essentially unchanged from 2002 (55%). Emergency contraception use increased from 8% to 14% from 2002.

With respect to specific data on contraceptive use at last sexual intercourse, data from the 2006–2010 NSFG report revealed that only one-third of

15- to 19-year-old female subjects used oral contraceptive pills, 12% used other hormonal methods (depot medroxyprogesterone acetate, hormonal implant, contraceptive patch or ring, and emergency contraception), 52% used condoms, and 11% used other methods (withdrawal, sterilization, intrauterine device, female condom, diaphragm, cervical cap, spermicides [foam, jelly, cream, or suppository], sponge, or calendar/rhythm method).<sup>4</sup> Similarly, the 2011 YRBS demonstrated that as few as 23% of currently sexually active female students were taking birth control pills at the time of their most recent sexual intercourse.<sup>9</sup> Use of the birth control pill according to age and race/ethnicity ranged from 8% to 30% and was highest among white female subjects and 12th graders. The last time depot medroxyprogesterone acetate use was specifically reported as an individual category was in the 2009 YRBS, in which use was reported by 4% of high school female subjects, with the highest rate among black students.<sup>12</sup> Differential use according to race/ethnicity was also demonstrated in the 2006–2010 NSFG report, which showed that non-Hispanic black students were 3 times less likely to use oral contraceptive pills compared with non-Hispanic white students.<sup>4</sup> Further information about contraception use among male subjects and gay, lesbian, bisexual, and transgender youth is available in other American Academy of Pediatrics publications.<sup>13,14</sup>

### Condoms

Condoms are still the most common contraceptive method used by adolescent female and male subjects according to both the YRBS and NSFG.<sup>4,9</sup> Condom use remained essentially unchanged for 10th through 12th graders between 2007 and 2011 but decreased from 69% to 64% among ninth graders.<sup>4</sup> Condom use at last sexual intercourse

was described by 61% of sexually active students, with a race/ethnicity breakdown of 63% of white, 62% of black, and 55% of Hispanic students. More white female (56%) students reported that their partners used condoms than Hispanic female (48.0%) students. The group with the highest rate of condom use (73%) was black male students.<sup>8</sup> Similar data were found in the 2006–2010 NSFG.<sup>4</sup>

### Pregnancy Risk Assessment Monitoring System Data

Recent data from the 2004–2008 Centers for Disease Control and Prevention (CDC) Pregnancy Risk Assessment Monitoring System describe rates of pre-pregnancy contraceptive use among 15- to 19-year-old adolescent female subjects who subsequently gave birth in 5 of 19 states that had specific data about contraceptive use.<sup>15</sup> The findings revealed that approximately 50% of non-Hispanic white, Hispanic, and non-Hispanic black teenagers were not using contraception before becoming pregnant.

Reasons for not using contraception included not thinking they could get pregnant (31%), the partner refusing to use contraception (24%), and not being concerned about becoming pregnant (22%). All of these factors have huge implications to the pediatrician regarding the provision of anticipatory guidance and health education to adolescents in their practices.

### Adolescent Pregnancy Prevention

A Cochrane Review containing 41 randomized controlled trials ranging from health education, counseling, skills-building, contraception, contraception education, and faith-based group or individual counseling (including abstinence promotion) was completed in 2009.<sup>16</sup> It showed that a combination of educational and contraceptive

interventions lowered the rate of unintended pregnancy among adolescents. However, on the basis of this review, there was no conclusive evidence that any specific intervention program had effects on initiation of sexual intercourse, use of birth control methods, or abortion.

In fiscal year 2010 appropriations, Congress funded the President's new Teen Pregnancy Prevention Initiative. Of the funds made available, \$75 million funded the replication of medically accurate and age-appropriate programs that reduce teen pregnancy, and \$25 million was allocated to develop and test additional models and innovative strategies.<sup>15</sup> As part of this effort, the CDC is supporting a 5-year (2010–2015) multicomponent demonstration project to reduce the rates of pregnancies and births to youth by 10% in targeted communities. These demonstration projects are designed to increase linkage between teen pregnancy prevention programs and community-based clinical services, increase youth access to teen pregnancy prevention programs that are evidence based and/or evidence informed, and educate stakeholders about relevant evidence-based and evidence-informed strategies to reduce teen pregnancy. The needs and resources in the targeted communities are also identified.<sup>17</sup>

### CONCLUSIONS

Although there are decreasing numbers of teenagers who become pregnant, the issue remains an important concern, particularly because the United States still has among the highest teen pregnancy rates in the industrialized world. Fortunately, there are many tools available to combat teen pregnancy, and the CDC effort is one example of renewed interest and distribution of resources for this important issue.

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**REFERENCES**

- Klein JD; American Academy of Pediatrics Committee on Adolescence. Adolescent pregnancy: current trends and issues. *Pediatrics*. 2005;116(1):281–286
- Hamilton BE, Ventura SJ; Centers for Disease Control and Prevention, National Center for Health Statistics. Birth rates for US teenagers reach historic lows for all age and ethnic groups. *NCHS Data Brief*. 2012;89:1–7
- United Nations. Statistics Division. Live births by age of mother and sex of child, general and age-specific fertility rates: latest available year, 2002–2011. In: *Demographic Yearbook*. New York, NY: United Nations, Statistics Division; 2012. Available at: <http://unstats.un.org/unsd/demographic/products/dyb/dyb2011/Table10.pdf>
- Centers for Disease Control and Prevention, National Center for Health Statistics. Teenagers in the United States: sexual activity, contraceptive use and childbearing. 2006-2010 National Survey of Family Growth. *Natl Vital Health Stat*. 2011;23(31):1–35
- Finer LB, Zolna MR. Unintended pregnancy in the United States: incidence and disparities, 2006. *Contraception*. 2011;84(5):478–485
- Hamilton BE, Martin JA, Ventura SJ. Births: preliminary data Preliminary Data for 2011. *Natl Vital Stat Rep*. 2012;61(5):1–18 Available at [www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_05.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_05.pdf). Accessed January 29, 2013
- Finer LB. Unintended pregnancy among U.S. adolescents: accounting for sexual activity. *J Adolesc Health*. 2010;47(3):312–314
- Pazol K, Zane SB, Parker WY, Hall LR, Berg C, Cook DA; Centers for Disease Control and Prevention (CDC). Abortion surveillance—United States, 2008. *MMWR Surveill Summ*. 2011;60(15):1–41
- Eaton DK, Kann L, Kinchen S, et al; Centers for Disease Control and Prevention (CDC). Youth risk behavior surveillance—surveillance - United States, 2011. *MMWR Surveill Summ*. 2012;61(4):1–162
- Abma JC, Martinez GM, Mosher WD, Dawson BS. Teenagers in the United States: sexual activity, contraceptive use, and childbearing, 2002. *Vital Health Stat*. 2004;(24):1–48
- Winner B, Peipert JF, Zhao Q, et al. Effectiveness of long-acting reversible contraception. *N Engl J Med*. 2012;366(21):1998–2007
- Eaton DK, Kann L, Kinchen S, et al; Centers for Disease Control and Prevention (CDC). Youth risk behavior surveillance—surveillance - United States, 2009. *MMWR Surveill Summ*. 2010;59(55):1–142
- Marcell AV, Wibbelsman C, Seigel WM; Committee on Adolescence. Male adolescent sexual and reproductive health care. *Pediatrics*. 2011;128(6). Available at: [www.pediatrics.org/cgi/content/full/128/6:e1658](http://www.pediatrics.org/cgi/content/full/128/6:e1658)
- Frankowski BL; American Academy of Pediatrics Committee on Adolescence. Sexual orientation and adolescents. *Pediatrics*. 2004;113(6):1827–1832
- Centers for Disease Control and Prevention (CDC). Prepregnancy contraceptive use among teens with unintended pregnancies resulting in live births - Pregnancy Risk Assessment Monitoring System (PRAMS), 2004–2008. *MMWR Morb Mortal Wkly Rep*. 2012;61(2):25–29
- Oringanje C, Meremikwu MM, Eko H, Esu E, Meremikwu A, Ehiri JE. Interventions for preventing unintended pregnancies among adolescents. *Cochrane Database Syst Rev*. 2009;(4):CD005215
- US Department of Health and Human Services, Office of Adolescent Health Teen Pregnancy Prevention Initiative. Available at: [www.hhs.gov/ash/oah/index.html](http://www.hhs.gov/ash/oah/index.html). Accessed January 29, 2013

**Addendum—Adolescent Pregnancy: Current Trends and Issues**  
COMMITTEE ON ADOLESCENCE

*Pediatrics* 2014;133;954

DOI: 10.1542/peds.2014-0450 originally published online April 28, 2014;

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COMMITTEE ON ADOLESCENCE

*Pediatrics* 2014;133;954

DOI: 10.1542/peds.2014-0450 originally published online April 28, 2014;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/133/5/954>

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