Adolescent Pregnancy, Contraception, and Sexual Activity

ABSTRACT: In 2015, the birth rate among U.S. adolescents and young adults (aged 15–19 years) reached a historic low at 22.3 per 1,000 women. Despite positive trends, the United States continues to have the highest adolescent pregnancy rate among industrialized countries with data. Racial and ethnic disparities in adolescent pregnancy rates continue to exist, as do state-based differences in pregnancy, birth, and abortion rates. The American College of Obstetricians and Gynecologists supports access for adolescents to all contraceptive methods approved by the U.S. Food and Drug Administration. In the absence of contraindications, patient choice should be the principal factor in prescribing one method of contraception over another. Dual method use—the use of condoms in combination with more effective contraceptive methods to protect against sexually transmitted infections and unwanted pregnancy—is the ideal contraceptive practice for adolescents. Just as adolescents should have access to the full range of contraceptives, including long-acting reversible contraceptive methods, they should be able to decline and discontinue any method on their own, without barriers. A reproductive justice framework for contraceptive counseling and access is essential to providing equitable health care, accessing and having coverage for contraceptive methods, and resisting potential coercion by health care providers. Successful programs that resulted in measurable changes in adolescent contraceptive practices and sexual behavior have been described, but not implemented uniformly nor supported by policy improvements. More research is needed to determine which programs are most effective and which programs do not work. Continued efforts are integral to further advance positive trends.

Recommendations and Conclusions

The American College of Obstetricians and Gynecologists (the College) makes the following recommendations and conclusions:

- In 2015, the birth rate among U.S. adolescents and young adults (aged 15–19 years) reached a historic low. Pregnancy in adolescents has decreased largely because adolescents are becoming more effective contraceptive users.
- A reproductive justice framework for contraceptive counseling and access is essential to providing equitable health care, accessing and having coverage for contraceptive methods, and resisting potential coercion by health care providers.
- The College supports access for adolescents and young adults to all contraceptive methods approved by the U.S. Food and Drug Administration (FDA).
- Because of the safety and effectiveness of long-acting reversible contraceptive (LARC) methods, the College and the American Academy of Pediatrics (AAP) endorse the use of intrauterine devices (IUDs) and implants as contraceptive options for adolescents.
- The College, the Centers for Disease Control and Prevention (CDC), and AAP also recommend that LARC methods be discussed with pregnant adolescents.
- For adolescents who choose a LARC method, initiation should be offered immediately after delivery, pregnancy loss, or abortion.
Factors are thought to have contributed to the remarkable decrease in adolescent pregnancy rates over the past several decades. Two factors stand out: contraceptive use and the social determinants of health. Contraceptive use in adolescents has increased dramatically, with more effective methods leading to a reduction in unintended pregnancies. Social determinants, including economic status, education, and supportive environments, have also played a pivotal role in reducing adolescent childbearing rates. In 2010, births among adolescents cost an estimated $9.4 billion more than if they had occurred to women aged 20–21 years.

**Background**

In 2015, the birth rate among U.S. adolescents and young adults (aged 15–19 years) reached a historic low at 22.3 per 1,000 women (1). Decreases have been dramatic: between 2007 and 2015, birth rates fell 54% for females aged 15–17 years and 43% for women aged 18–19 years (1). Adolescent pregnancy rates have decreased in all 50 states and across all racial and ethnic groups. Despite decreases, racial and ethnic disparities persist, with higher rates of birth and abortion among black and Hispanic adolescents compared with non-Hispanic white adolescents (2). The CDC (www.cdc.gov/teenpregnancy) and the Guttmacher Institute (www.guttmacher.org/united-states/teens) publish up-to-date adolescent pregnancy, birth, and abortion rates.

Despite decreases, the United States continues to have the highest adolescent pregnancy and birth rates among developed countries with available data (3). Childbearing is more likely among socioeconomically disadvantaged adolescents and contributes to continued socioeconomic effects for the mother, her family, and society. Adolescent childbearing is a complex issue; although it is associated with socioeconomic disadvantage, social determinants of health likely play a more causal role. Thus, reducing adolescent childbearing will not fully address the socioeconomic disadvantage that exists for many adolescents. Sixty percent of adolescent mothers do not graduate from high school and only 2% complete college by the age of 30 years (4). Of all births among adolescents, 17% are repeat births (5), compounding the educational and economic consequences of adolescent childbearing. Adolescents who bear a second or third child are less likely to complete high school or return to work than those with one child (6, 7). In 2010, births among adolescents cost an estimated $9.4 billion more than if they had occurred to women aged 20–21 years (8).

**Decreases in Adolescent Pregnancy Rates**

In adolescents, two factors, 1) contraceptive use and 2) sexual activity, can affect the pregnancy rate. Both factors are thought to have contributed to the notable decrease in the adolescent pregnancy rate since the adolescent pregnancy rate peaked in 1990 (2, 9). Between 1995 and 2002, a small proportion of the decrease in adolescent pregnancy can be attributed to an increase in the age at first intercourse and a decrease in the number of adolescents who reported ever having sex (9, 10). Between 2003 and 2011, the number of adolescents ever having sex (45.6–47.7%) did not change (9, 10). The most rapid decrease in adolescent pregnancy occurred from 2008 to 2011 (11). Data suggest that changes in sexual activity are unlikely to have contributed significantly to this rapid decrease (12, 13).

Pregnancy in adolescents has decreased largely because adolescents are becoming more effective contraceptive users (9, 13). Use of LARC methods in contraceptive users who were 15–19 years of age increased from 1.5% in 2006–2008 (14) to 4.3% in 2009–2012 (15). Although modest, this increase represents a tripling in the use of LARC methods among adolescents. Between 2007 and 2012, significant increases in the use of any method at last sexual experience in the prior 3 months (78–86%, *P*=.046) and the use of multiple methods (25–37%, *P*=.046) were noted. Data from 2011 to 2013 demonstrate that more adolescents used contraception at the time of first intercourse; nearly 80% of females used a birth control method the first time they had sex compared with approximately one half of females before 1985 (12, 16). The social and behavioral factors that motivated adolescents to become more effective contraceptive users and less sexually active are unclear. Involvement in school activities, educational and career aspirations, mentoring programs, economic fluctuations, childbearing norms, contraceptive coverage under the Affordable Care Act, and the availability of health information through the Internet and television all have been hypothesized to play a role.

**Contraceptive Use in Adolescents**

The College supports access for adolescents to all contraceptive methods approved by the FDA. In the absence of contraindications (17), patient choice should be the principal factor in prescribing one method of contraception over another. To help the patient make this choice, the obstetrician–gynecologist should do the following:

- Elicit the patient’s reproductive goals and values and support her ability to honor those goals and values with her contraceptive decisions
- Identify structural inequalities that affect an adolescent’s reproductive health and autonomy
- Discuss contraceptive efficacy and failure rates
- Fully explain potential adverse effects and risks of all methods
- Describe ease of use and noncontraceptive benefits
- Explain the use of barrier methods to reduce the risk of STI transmission when nonbarrier contraceptive methods are used

The College supports the use of evidence-based, medically accurate, age-appropriate sexuality education as an integral part of health education. Where allowed, obstetrician–gynecologists should provide adolescents the opportunity to discuss their reproductive goals and contraceptive needs without a parent or guardian present for at least part of the visit.

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When engaging in shared decision making regarding contraceptive use, obstetrician–gynecologists should be aware of and address their own biases, work to empower patients, and strive for equitable outcomes for all patients regardless of age, race or ethnicity, class, or socioeconomic status (18). A reproductive justice framework for contraceptive counseling and access is essential to providing equitable health care, accessing and having coverage for contraceptive methods, and resisting potential coercion by health care providers. The framework of reproductive justice connects family planning and other aspects of sexual and reproductive health with the disparities and complexities that affect patients’ lives. Furthermore, it encourages gynecologic health care providers to examine issues of bias and coercion and advocate for equitable access and change (19).

Adolescents face unique barriers in accessing contraceptive services, including concerns about confidentiality and cost. Adolescents’ legal rights to confidential contraceptive services vary by state and change over time. Where allowed, obstetrician–gynecologists should provide adolescents the opportunity to discuss their reproductive goals and contraceptive needs without a parent or guardian present for at least part of the visit. Additionally, obstetrician–gynecologists may refer patients to Title-X-funded clinics for confidential contraceptive services if they are unable to provide confidential care (20). The Guttmacher Institute provides up-to-date individual state-level information on consent laws, confidentiality of minors’ health information, and minors’ access to contraceptive services at www.guttmacher.org/united-states/teens/state-policies-teens.

Adolescents who discuss sexuality and contraception with a parent or guardian are more likely to use contraception consistently and are less likely to become pregnant (21, 22). Although parental involvement should be encouraged when a supportive parent or guardian is available, pregnancy intention and the decision to start or stop contraception are highly individual and complex. Just as adolescents should have access to the full range of contraceptives, including LARC methods, they should be able to decline and discontinue any method on their own, without barriers.

Fear of a pelvic examination may prevent adolescents from seeking contraception (23). A pelvic examination is seldom necessary, except for IUD insertion (24). Whether recent changes in practice guidelines regarding pelvic examination in adolescents have diminished concerns in this population is currently unknown. National data indicate a decrease in the number of young women who have had a pelvic examination who are using effective contraception (eg, oral contraceptive pills [OCPs], depot medroxyprogesterone acetate [DMPA], the patch, or the ring) (25).

The College supports access for adolescents and young adults to all contraceptive methods approved by the FDA. These methods include IUDs, implants, DMPA, combined hormonal contraceptives, as well as condoms.

Long-Acting Reversible Contraception

Because of the safety and effectiveness of LARC methods, the College and the AAP endorse the use of IUDs and implants as contraceptive options for adolescents (26, 27). Satisfaction with and continuation of LARC methods are high among adolescents. Continuation at 12 months was 81% for LARC methods (75.6% for the copper IUD, 80.6% for the levonorgestrel IUD, 82.2% for the implant) compared with 44% for non-LARC methods (47.3% for DMPA, 46.7% for OCPs, 40.9% for the patch, 31.0% for the ring) among 15–19 year olds (28).

The College, CDC, and AAP also recommend that LARC methods be discussed with pregnant adolescents. For adolescents who choose a LARC method, initiation should be offered immediately after delivery, pregnancy loss, or abortion (26, 27, 29). As contraindications to immediate placement are uncommon, obstetrician–gynecologists should counsel women about the convenience and effectiveness of immediate post-pregnancy LARC, as well as the benefits of lengthening interpregnancy intervals. Additional College guidance offers strategies to improve access to LARC methods and to all contraceptives under the Affordable Care Act (30) and to immediate postpartum insertion of IUDs and implants (31).

Patient and health care provider misconceptions about LARCs continue to pose a barrier to LARC methods. Although most clinicians consider LARC methods to be safe, some still do not provide these methods to adolescents. Adolescents themselves have only a modest awareness of LARC methods. Counseling by an obstetrician–gynecologist or other qualified health care professional is critical in increasing access to LARC methods, particularly because 85% of young women (aged 18–29 years) reported they trusted a clinician, other health care provider, or other professional source the most for birth control information (32). Contraceptive counseling programs that engage adolescents in shared decision making show high levels of LARC method selection (27, 33). The College’s clinical guidance, practice resources, and educational resources on LARC can be found at www.acog.org/About-ACOG/ACOG-Departments/Long-Acting-Reversible-Contraception. Guidelines from the CDC on providing quality family planning services can be found at www.acog.org/More-Info/AdolescentPregnancy (34). See For More Information for additional relevant resources.

Depot Medroxyprogesterone Acetate

Injectable contraception (DMPA) has a convenient dosage schedule, which makes it a good method for many adolescents. When cost and access barriers are eliminated, women who received repeat injections of DMPA within the recommended 3-month period had very low.
their parents or guardians regarding expected bleeding to provide anticipatory guidance for adolescents and children. Obstetrician–gynecologists should be able to address adolescents’ questions and concerns regarding the "black box" warning of DMPA (36).

**Combined Hormonal Contraceptives**

Combined hormonal contraceptives contain estrogen and progestin and include OCPs, the patch, and the ring. Although they have a higher failure rate than LARC methods or DMPA, combined hormonal contraceptives have a beneficial effect on a number of conditions that can affect an adolescent’s quality of life, including dysmenorrhea, benign breast disease, iron deficiency anemia, acne, and menstrual irregularity. Oral contraceptive pills are a popular method among adolescents with 54% of sexually active 15–19 year olds reporting that they used this method for a time (12). One-year continuation rates for OCPs are 32.7 per 100 woman-years, 10.9 per 100 woman-years for the patch, and 29.4 per 100 woman-years for the ring. Difficulties with use, in addition to adverse effects, are two of the most common reasons adolescents discontinue combined hormonal methods (37).

**“Quick Start” Initiation**

Because delays in contraceptive method initiation may be a barrier to contraception for adolescents, same day initiation ("quick start") should be considered when appropriate. All contraceptive methods (including LARC methods) can be started anytime, including on the day of the visit, if there is reasonable certainty that the patient is not pregnant. Risk of pregnancy can be assessed using patient history (eg, less than or equal to 7 days after the start of normal menses or has not had sexual intercourse since the start of last normal menses) and urine pregnancy tests (24). When there is uncertainty about pregnancy, the benefits of starting the implant, DMPA, combined hormonal contraceptives, and progestin-only pills likely exceed any risk. Thus, starting a contraceptive method should be considered at any time, and a pregnancy test should be repeated in 2–4 weeks. If there is uncertainty about pregnancy, an IUD should not be inserted until the healthcare provider is reasonably certain that the patient is not pregnant. Additional information about initiating specific contraceptive methods and use of “back up” contraception is available in the CDC’s U.S. Selected Practice Recommendations for Contraceptive Use (24). Obstetrician–gynecologists should be able to provide anticipatory guidance for adolescents and their parents or guardians regarding expected bleeding effects and possible menstrual changes with various methods.

**Adherence**

Strategies to promote adherence to the pill, patch, ring, and DMPA include cell phone or electronic reminders and online programs that provide the user with daily, weekly, monthly, or quarterly text messages (www.bedside.org/reminders/new). Given the familiarity of adolescents with online programs and text messaging, these strategies have the potential to increase adherence. However, more high-quality studies are needed to establish the effectiveness of these programs (38).

**Examples of Effective Contraceptive Programs**

The public health benefit of improved access to contraception was demonstrated in the Contraceptive CHOICE project (www.choiceproject.wustl.edu). When provided with structured counseling in which the most effective methods were discussed first and access to all methods was provided at no cost, 71.5% of adolescents in the CHOICE cohort selected a LARC method (39). Overall, sexually active adolescents had a pregnancy rate of 34.0, birth rate of 19.4, and abortion rate of 9.7 per 1,000, all of which are lower than national averages (39). Unintended pregnancy was 22 times higher among non-LARC users compared with LARC users (35).

The Office of Adolescent Health, Office of Population Affairs, and the CDC have identified evidence-based community programs to prevent adolescent pregnancy. Obstetrician–gynecologists and other women's health care providers are encouraged to participate in such programs in their communities. The National Campaign to Prevent Teen and Unplanned Pregnancy also maintains a database of effective adolescent pregnancy prevention programs at www.thenationalcampaign.org/resource/effective-programs-database.

Title X of the Public Health Service Act is a federal program that provides infrastructure funding to community-based family planning centers, as well as funds for direct client services. Each dollar spent on Title X services saves an estimated $7 in taxpayer costs (40). In 2014, 3.7 million female clients were served by Title X, which resulted in the avoidance of 904,000 unintended pregnancies, 439,000 unplanned births, and 326,000 abortions (41). When the Colorado Family Planning Initiative focused its Title X program on increasing LARC provision through health care provider training and increased financing for LARC, use of LARC methods increased from 5% in 2009 to 19% in 2011, and substantial changes in adolescent pregnancy rates occurred (42). Among low-income residents who lived in counties with a Title X clinic, the observed adolescent birth rate was nearly one-third lower than the projected rate and the number of high-risk births decreased, presumably because of prevention of unintended pregnancy.
Promoting Condom Use and Dual Method Use Among Adolescents

In 2011–2013, 97% of sexually active female adolescents and young adults aged 15–19 years had their partners use the male condom at least once (12). The high typical-use failure rate of male (18%) and female (21%) condoms make them less effective contraceptive methods (43), although they also provide protection against STIs. Condom use requires the ability to communicate and negotiate with a partner, admit to the risk of STI acquisition, and initiate use at time of coitus, which can be challenging for adolescents (44). Dual method use—pairing condoms with more effective contraceptive methods—to protect against STIs and unwanted pregnancy is the ideal contraceptive practice for adolescents. The rate of dual use among adolescents is 22.8% and is lowest among LARC users (45). When adolescents initiate highly effective methods, the obstetrician–gynecologist should reinforce the role of condoms in preventing STI acquisition. Few behavioral intervention trials have demonstrated success in increasing dual use, which suggests the need for additional strategies (46).

The availability of condoms in retail stores and pharmacies without a prescription does not always translate to ready access for adolescents. Condoms kept behind a counter and requiring assistance from a store clerk are deterrents to adolescents. Obstetrician–gynecologists are encouraged to provide condoms within their offices, teach adolescents how to properly use condoms, and support availability within their communities. See For More Information for relevant resources.

The College and AAP support school-based condom availability programs (47). The effect of school availability programs on condom use is mixed. Some studies show increased use of condoms but others report nonsignificant changes (48, 49). Studies of school-based condom availability programs have found increased condom use when adolescents can obtain condoms in school through counselors, nurses, teachers, vending machines, or baskets (50, 51). Concern that these programs will hasten initiation of sex and increase sexual activity are unfounded (50–52).

Education for Adolescent Pregnancy Prevention

Comprehensive sexuality education programs, clinic-based programs, school-based health centers, and condom availability programs have all been cited as potential contributors to the decreases in adolescent pregnancy, although none has been implemented on a large enough scale in the United States to be solely responsible for decreases in adolescent pregnancy. See the College’s Committee Opinion 678, Comprehensive Sex Education, for more information (53).

Adolescents who participate in comprehensive sexuality education delay the initiation of sex and have increased condom and contraceptive use (54). Comparatively, abstinence-only programs are ineffective at delaying sexual initiation (54, 55). Most students who have taken abstinence pledges have sex before marriage (56). Those who do have sex before marriage are less likely than similar nonpledgers to use condoms or contraceptives consistently and are more likely to experience nonmarital pregnancy and acquire human papillomavirus infection (56, 57). The College and AAP support the use of evidence-based, medically accurate, age-appropriate sexuality education as an integral part of health education (53, 58). Fewer than one half of all states mandate sexuality education and even in states that do have a mandate, the content varies significantly by county and school. Up-to-date state-level policy information can be found at Guttmacher’s State Center (www.guttmacher.org/geography/united-states/).

Clinic-based programs provide comprehensive sexuality education specifically targeted to adolescents in a clinic setting. Most programs involve fewer than 10 contact hours with adolescents and physicians or health educators (59). Most studies of clinic-based programs targeted female-only or male-only participants, although some included both. Clinic-based programs can be one-on-one encounters or may incorporate group sessions. Evaluation of different programs reported variable effects. Although no programs found a delay of sexual initiation, many reported decreased sexual frequency, decreased number of partners, increased condom use, increased contraceptive use, decreased STI acquisition, and decreased pregnancies or births (59). School-based health centers that also supply contraceptives are well-situated to provide convenient, confidential care to males and females. Studies show that such centers do not increase student sexual activity and may increase the use of contraception among students (48, 60).

Looking Forward

Despite positive trends, the United States continues to have the highest adolescent pregnancy rate among industrialized countries with data. Racial and ethnic disparities in adolescent pregnancy rates continue to exist, as do state-based differences in pregnancy, birth, and abortion rates. Successful programs that resulted in measurable changes in adolescent contraceptive practices and sexual behavior have been described, but not implemented uniformly nor supported by policy improvements. More research is needed to determine which programs are most effective and which programs do not work. Continued efforts are integral to further advance positive trends.

For More Information

The American College of Obstetricians and Gynecologists has identified additional resources on topics related to this document that may be helpful for ob-gyns,
other health care providers, and patients. You may view these resources at www.acog.org/More-Info/AdolescentPregnancy.

These resources are for information only and are not meant to be comprehensive. Referral to these resources does not imply the American College of Obstetricians and Gynecologists’ endorsement of the organization, the organization’s website, or the content of the resource. The resources may change without notice.

References


Committee Opinion No. 699


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