

EVIDENCE-STATEMENT:

CONTRACEPTIVE USE (Counseling and Preventive Interventions)

Why This Chapter is Important for Employers: An Overview

- Unintended pregnancy is a significant problem in the United States. Approximately 3 million unintended pregnancies occur each year¹ and roughly half of all pregnancies and 31% of all live births are unintended.²
- During the course of a single menstrual cycle (28 days) a fertile couple has a 25% chance of pregnancy with repeated unprotected sexual intercourse.¹ Among women ages 19 to 26 (when fertility is at its peak) the chance of pregnancy following a *single* act of unprotected intercourse around the time of ovulation is approximately 50%.¹
- Contraceptives, when consistently and appropriately used, effectively prevent pregnancy.
- Approximately 50% of all unintended pregnancies occur among women who do not use contraception.³
- Contraception counseling increases the consistent and correct use of contraceptives, which in turn leads to lower rates of unintended pregnancy, fewer induced abortions, and better pregnancy outcomes.^{4,5} In fact, it is estimated that halving the number of women *not* using contraception would reduce the number of unintended pregnancies (per year) by one-third. The reduction in unintended pregnancies would in turn reduce the number of abortions by 500,000 per year.⁶
- Comprehensive contraceptive coverage is relatively inexpensive. The average cost of adding coverage for all reversible methods of contraception is \$25.31 per employee, per year.⁷
- Researchers estimate that over a 5-year period, employers can save \$9,000 to \$14,000 (in year 1993 dollars) by providing comprehensive contraceptive coverage.⁸ Experts suggest that employers may begin to see some savings in the first year of coverage.⁸

Clinical Preventive Service Recommendations

U.S. Preventive Services Task Force Recommendation

In 1996, the U.S. Preventive Services Task Force (USPSTF) recommended that clinicians counsel all men and women at risk for unintended pregnancy on effective contraceptive methods. This recommendation is archived and is no longer active.

Evidence-Based Recommendations American Academy of Family Physicians (AAFP)

The American Academy of Family Physicians (AAFP) recommends that primary care providers obtain a history of sexual practices and provide counseling on the prevention of unintended pregnancy and contraceptive options to all sexually active women who do not want to become pregnant and men who do not want to have a child.⁹

Evidence Rating: R (Recommended)

Although evidence exists which demonstrates the net benefit of counseling to prevent unintended pregnancy, either the benefit is only moderate in magnitude or the evidence supporting a substantial benefit is only fair. The intervention is perceived to be cost-effective and acceptable to most patients.⁹

American College of Obstetricians and Gynecologists (ACOG)

The American College of Obstetricians and Gynecologists (ACOG) strongly recommends that combination or progestin-only oral contraceptives for emergency contraception should be offered to women who have had unprotected sexual intercourse within 72 hours of intercourse.¹⁰

Evidence Rating: A
(Recommended/
Good Evidence)

ACOG found good and consistent scientific evidence to support their recommendation of emergency contraception following unprotected intercourse.¹⁰

Other Recommended Guidance
American Academy of Pediatrics (AAP)

The American Academy of Pediatrics (AAP) notes that the comprehensive health care of adolescents should include counseling on the prevention of sexually transmitted infections (STIs), education on contraceptive methods, and family planning services for the sexually active patient.¹¹ Specifically:

1. Adolescents should be strongly encouraged to postpone the initiation of sexual intercourse.
2. For patients already engaged in sexual intercourse or who are contemplating having sexual intercourse, a discussion of contraceptive methods and prevention of sexually transmitted infections (STIs) (including HIV) is essential.
3. The pediatrician should support compliance, manage side effects, change the method of contraception as circumstances require, and provide referrals and frequent follow-up with periodic screening for STIs.

Evidence Rating:

Not Specified

American College of Obstetricians and Gynecologists (ACOG)

ACOG recommends that when a woman is prescribed emergency contraception, she should be counseled about effective contraceptive methods, sexually transmitted infections, and safe-sex practices.¹⁰

Evidence Rating: C
(Recommended/
Evidence from Expert
Opinion)

ACOG's recommendation that women receive contraceptive counseling post emergency contraception use is based on consensus and expert opinion.¹⁰

American Medical Association (AMA)

The American Medical Association (AMA) recommends that healthcare professionals¹²:

1. Help women plan for pregnancy.
2. Support age-appropriate education in esteem building, decision-making and family life, ultimately introducing the concept of planning for childbearing into the educational process.

Evidence Rating:

Not Specified

Jacobs Institute of Women's Health

Due to the side-effect profile of some medications and devices, the difference in permanence and reversibility of contraceptives, and women's personal preferences, employers/health plans should [cover] the full range of Food and Drug

Administration (FDA) approved contraceptive methods including, but not limited to⁷:

- Hormonal medications (e.g., pills and patches) including emergency contraceptives
- Contraceptive devices (e.g., IUD, diaphragms, vaginal rings)
- Sterilization (e.g., vasectomy, tubal ligation)

Evidence Rating:

Not Specified

Information Sources

The recommendations and supporting information contained in this document came from several sources, including the:

- American Academy of Family Physicians (AAFP)
- American Academy of Pediatrics (AAP)
- American College of Obstetricians and Gynecologists (ACOG)
- American Medical Association (AMA)
- Centers for Disease Control and Prevention (CDC)
- Employee Benefits Institute
- Food and Drug Administration (FDA)
- *Healthy People 2010*, U.S. Department of Health and Human Services
- Institute of Medicine (IOM)
- Internal Revenue Service (IRS), Department of Treasury
- Jacobs Institute of Women's Health
- March of Dimes
- Peer-reviewed research

The background and supporting information contained in this document is a compilation of research findings. All information presented in this document should be attributed to its referenced source and should not be considered a reflection of other organizations cited in the text.

Condition/Disease Specific Information

Epidemiology of Condition/Disease

Unintended pregnancy is a significant problem in the United States. Approximately 3 million unintended pregnancies occur each year¹ and roughly half of all pregnancies and 31% of all live births are unintended.²

The risk of pregnancy (unintended or intended) is high. Women in the United States, on average, are fertile from ages 15 to 44.¹³ During the course of a single menstrual cycle (28 days) a fertile couple has a 25% chance of pregnancy with repeated unprotected intercourse.¹ Among women ages 19-26 (when fertility is at its peak) the chance of pregnancy following a *single* act of unprotected intercourse around the time of ovulation is 50%.¹ Approximately 50% of all unintended pregnancies occur among women who do not use contraception. It is estimated that the overall rate of unintended pregnancy could be cut in half if these women were to use a highly effective method of contraception.³

A wide range of effective contraceptives are available. They include reversible methods (e.g., hormonal pills and patches, IUDs, condoms, etc.) and irreversible methods (e.g., vasectomy, tubal ligation). Nearly all women (98%) who have had sexual intercourse have, at some point, used contraception to either avoid or delay pregnancy. Approximately 82% of women have used the oral contraceptive pill and about 90% have had a partner use the male condom.⁴ The birth control pill, which is used by 11.6 million women, is the most common form of birth control in the United States.¹⁴

Despite the availability and effectiveness of contraception, women continue to experience unintended pregnancies. Most unintended pregnancies occur as a result of contraceptive nonuse, misuse, or a noticeable contraceptive failure (i.e., condom breaks).¹ In 2001, 5% of women of reproductive age experienced an unintended pregnancy.¹⁵ Contrary to popular belief, unintended pregnancy is not only a problem of adolescence: women of all ages experience unintended pregnancies.⁸

Healthy People 2010, the national health agenda, has set the following goals for reducing the rate of unintended pregnancy in the United States⁶:

1. To increase the proportion of pregnancies that are intended to 70%.
2. To reduce the proportion of births occurring within 24 months of a previous birth to 6%.
3. To increase to 100% the proportion of females at risk of unintended pregnancy (and their partners) who use contraception.
4. To reduce the proportion of females that get pregnant despite using a reversible contraceptive method.
5. To increase male involvement in pregnancy prevention and family planning efforts.

**Condition/Disease
Risk Factors**

All women who are aged 13 to 44, are sexually active and fertile, and who are not trying to become pregnant are at risk of an unintended pregnancy.² Approximately 10.7% of women in the United States who are at risk for an unintended pregnancy do not use contraception.² Certain groups are at an elevated risk for unintended pregnancy, they include: teenagers and young women age 20 to 24, women age 40 years and older, black women, women with lower levels of education, unmarried women, and women with low incomes.²

Value of Prevention

**Economic Burden of
Condition/Disease**

The economic burden of unintended pregnancy is substantial, both to employers and the society at large. The economic cost of an unintended pregnancy to an employer includes either A) the cost of termination *or* B) the cost of prenatal, delivery, and postpartum care for the woman *and* the cost of continuing medical care for the infant as long as s/he remains a beneficiary.

Unplanned pregnancies, compared to planned pregnancies, often result in higher total medical claims costs and lost productivity costs because women whose

	<p>pregnancies are unintended are less likely to have proper folic acid intake, are less likely to breastfeed, and are more likely to continue smoking during pregnancy.¹⁶ The adverse health outcomes associated with these behaviors lead to higher obstetric medical claims.¹⁴</p>
<p>Workplace Burden of Condition/Disease</p>	<p>Unintended pregnancies result in substantial excess direct medical claims costs¹⁷ and indirect costs such as disability, employee replacement costs, lost productivity, and presenteeism.¹⁴</p>
<p>Economic Benefit of Preventive Intervention</p>	<p>Providing coverage for contraceptive counseling and contraceptive medications and devices improves access and use, thereby avoiding the substantial direct and indirect costs associated with unintended pregnancies, abortions, and unwanted births. The average cost of a 1-year supply of prescription birth control pills is \$240 to \$300 (in year 2005 dollars) and the cost of a single prescription of emergency contraception is \$20 to \$150. These costs are lower than the “treatment” costs for an unintended pregnancy.⁷ For example, the average cost to employers of:</p> <ul style="list-style-type: none"> • A first term abortion is approximately \$468 (in year 2003 dollars).⁷ • A normal vaginal delivery (without complications) is \$7,340 (in year 2005 dollars).⁷ • A cesarean delivery (without complications) is \$12,257 (in year 2005 dollars).⁷ • The delivery and first year care of a premature infant is \$41,610 (in year 2001 dollars).¹⁸
<p>Estimated Cost of Preventive Intervention</p>	<p>Comprehensive contraceptive coverage is relatively inexpensive. The average total cost (including administrative costs) of adding coverage for all reversible methods of contraception is \$25.31 per employee, per year.⁷ The added cost to employers of providing contraception coverage (assuming 20% employee cost sharing) is \$1.69 per employee, per month (all figures from 1998, adjusted to year 2005 dollars using the NASA Inflation Calculator).⁷</p> <p>In 2004, the private-sector cost of preventive medicine evaluation and management averaged \$107 per session; approximately 95% of paid claims fell within the range of \$45 to \$165 per session.¹⁹</p>
<p>Estimated Cost of Treatment</p>	<p>Treatment costs of an unintended pregnancy include the cost of termination (\$428)⁷ or the cost of prenatal, delivery, and postpartum care and the ongoing cost of care for the infant. The cost of labor and delivery alone ranges from \$7,340⁶ to \$41,610 (figures in year 2003, 2005, 2001 dollars, respectively).¹⁸ The cost of prenatal care and ongoing infant/child care varies substantially, but it can be assumed to be significant if the child remains a beneficiary until 18 to 25 years of age.</p>
<p>Cost-Effectiveness and/or Cost-Benefit Analysis of Preventive Intervention</p>	<p>Researchers estimate that over a 5-year period, employers can save \$9,000 to \$14,000 (in year 1993 dollars) by providing comprehensive contraceptive coverage.⁸ Experts suggest that employers may begin to see some savings in the first year of coverage.⁸</p>

Preventive Intervention Information	
Preventive Intervention: Purpose of Counseling	Contraceptive counseling is a key component of family planning. The purpose of contraceptive counseling is to educate at-risk men and women about ways of effectively preventing an unintended pregnancy.
Purpose of Preventive Intervention	Contraceptive medications and devices reduce the occurrence of pregnancy. This allows women and their partners to avoid, limit, or delay pregnancy.
Benefits and Risks of Intervention	<p>There are several documented benefits of contraceptive use. First, women/couples who use contraceptives and engage in family planning have lower rates of induced abortion. It is estimated that halving the number of women <i>not</i> using contraception would reduce the number of unintended pregnancies (per year) by one-third. The reduction in unintended pregnancies would in turn reduce the number of abortions by 500,000 per year.⁶ Second, planned and properly spaced pregnancies are associated with improved maternal and infant health outcomes: women who wait 18 to 23 months between delivery and subsequent conception lower their risk of adverse perinatal outcomes, including low birth weight, preterm birth, and small for size gestational age.⁴⁻⁵ Finally, women who are able to limit their fertility have improved opportunities to seek education and thus higher earning employment. This improves individual, family, and societal economic status.⁴</p> <p>Contraceptives are effective and safe when used as directed (see discussion of side effects below). Immediate use of an emergency contraceptive following unprotected sex or a contraceptive failure can reduce the risk of unintended pregnancy to 1% to 2%.¹</p> <p>Risks associated with family planning counseling have not been well documented, but may include partner discord. There are a number of side effects associated with contraceptives. Vaginal irritation is the most common side effect associated with cervical condoms, caps, diaphragms, shields, spermicides, and sponges. Other <i>rare</i> side effects may include urinary tract infections, vaginal infections, and toxic shock syndrome (with prolonged use). Side effects associated with birth control pills include headaches, breast tenderness, nausea, vomiting, bloating, decreased sex drive (libido), and depression. Women who take birth control pills, especially those who smoke, are also at an increased risk of heart disease, high blood pressure, and blood clots. The major side effects of intrauterine devices (IUDs) are abnormal vaginal bleeding and pelvic infection.²⁰</p>
Initiation, Cessation, and Interval of Counseling	<p>According to the American Academy of Family Physicians (AAFP) and the American College of Obstetricians and Gynecologists (ACOG):</p> <ul style="list-style-type: none"> • Clinicians should regularly ask all patients of reproductive age (men and women) about contraception needs, even at office visits initiated for other reasons.⁹⁻¹⁰ • Clinicians should offer emergency contraception to all women who have had

unprotected sexual intercourse within 72 hours of intercourse or as otherwise indicated.⁹⁻¹⁰ Emergency contraception should be offered in advance of need (as a back-up method) to all women, particularly those using barrier methods of contraception.¹⁰

Intervention Process Counseling

Counseling should target both men and women and be inclusive of natural and artificial, permanent and reversible techniques. Contraceptive methods recommended by a clinician should be suited to the needs and lifestyle of patients.

Specific counseling methods are left to the discretion of the clinician. The American Academy of Family Physicians (AAFP) recommends that clinicians⁹:

- Use a patient-centered strategy to help patients choose a contraceptive method, acknowledging concerns that can interfere with adherence.
- Inform patients about efficacy rates for different methods and recommend use of high-efficacy options.
- Encourage patients to call or return to the office if they experience problems with the method chosen.

The American Academy of Pediatrics (AAP) notes that the comprehensive health care of adolescents should include counseling on the prevention of sexually transmitted infections (STIs), education on contraceptive methods, and family planning services for the sexually active patient.¹¹ Adolescents should be strongly encouraged to postpone the initiation of sexual intercourse. For patients already engaged in sexual intercourse or who are contemplating having sexual intercourse, a discussion of contraceptive methods and prevention of sexually transmitted infections (STIs) (including HIV) is essential. For these patients the pediatrician should support compliance, manage side effects, change the method of contraception as circumstances require, and provide referrals and frequent follow-up with periodic screening for STIs.¹¹

Preventive Interventions

Clinicians should prescribe contraceptive medications (e.g., birth control pill) or devices (e.g., IUDs) or provide the appropriate surgery or intervention (e.g., vasectomy) to men and women who wish to limit their fertility. Because research indicates that women and couples are more likely to use contraception successfully if given their contraceptive method of choice,²¹⁻²² coverage of a wide range of contraceptive options is optimal. Employers are therefore encouraged to provide coverage for the full range of Food and Drug Administration (FDA) approved methods of contraception including, but not limited to⁷:

- Hormonal medications (e.g., pills and patches) including emergency contraceptives
- Contraceptive devices (e.g., IUD, diaphragms, vaginal rings)
- Sterilization (e.g., vasectomy, tubal ligation)

Note: Condoms play an important role in unintended pregnancy prevention and STI prevention. Because condoms do not require a prescription they are not

typically covered in employer-sponsored health insurance plans. While condoms are not addressed in the 2005 IRS²³ statement of qualified medical expenses for flexible spending arrangements (FSAs), some flexible spending administrators do consider condoms a qualified medical expense.²⁴ Birth control pills and sterilization are designated as qualified medical expenses by the IRS.²³ Employers who offer FSAs should alert beneficiaries to their administrator's rules and regulations regarding birth control, condoms, and sterilization.

Treatment Information

Treatment for an unintended pregnancy may include either prenatal, delivery, and postpartum care or abortion.

Strength of Evidence for the Clinical Preventive Service

The level of evidence supporting the recommendations contained in this chapter is described below.

Evidence-Based Research:

The American Academy of Family Physicians (AAFP)

Strength of Evidence: R (Recommended)

- AAFP recommends that primary care providers obtain a history of sexual practices and provide counseling on the prevention of unintended pregnancy and contraceptive options to all sexually active women who do not want to become pregnant and men who do not want to have a child. Counseling should also be provided regarding high-risk sexual behavior and the prevention of sexually transmitted diseases and human immunodeficiency virus (HIV) infection.⁹ Although evidence exists which demonstrates the net benefit of counseling to prevent unintended pregnancy, either the benefit is only moderate in magnitude or the evidence supporting a substantial benefit is only fair. The intervention is perceived to be cost-effective and acceptable to most patients.⁹

The American College of Obstetricians and Gynecologists (ACOG)

Strength of Evidence: A (Recommended/Good Evidence)

- ACOG found good and consistent scientific evidence to support the provision of emergency contraception following unprotected intercourse.¹⁰

Recommended Guidance:

The American Academy of Pediatrics (AAP)

Strength of Evidence: Not Specified

- The American Academy of Pediatrics (AAP) notes that the comprehensive health care of adolescents should include counseling on the prevention of sexually transmitted infections (STIs), education on contraceptive methods, and family planning services for the sexually active patient.¹¹ Adolescents should be strongly encouraged to postpone the initiation of sexual intercourse. For patients already engaged in sexual intercourse or who are contemplating having sexual intercourse, a discussion of contraceptive methods and prevention of sexually transmitted infections (STIs) (including HIV) is essential. For these

patients the pediatrician should support compliance, manage side effects, change the method of contraception as circumstances require, and provide referrals and frequent follow-up with periodic screening for STIs.¹¹

American College of Obstetricians and Gynecologists (ACOG)
Strength of Evidence: C (Evidence Based on Expert Opinion)

- ACOG recommends that when a woman is prescribed emergency contraception, she should be counseled about effective contraceptive methods, sexually transmitted diseases, and safe-sex practices.¹⁰

American Medical Association (AMA)
Strength of Evidence: Not Specified

- The AMA recommends that healthcare professionals:
 1. Help women plan for pregnancy.
 2. Support age-appropriate education in esteem building, decision-making and family life, ultimately introducing the concept of planning for childbearing into the educational process.¹²

Jacobs Institute of Women's Health
Strength of Evidence: Not Specified

- Due to the side effect profile of some medications and devices, the difference in permanence and reversibility of contraceptives, and women's personal preferences, employers/health plans should [cover] the full range of Food and Drug Administration (FDA) approved contraceptive methods including, but not limited to⁷:
 - Hormonal medications (e.g., pills and patches)
 - Contraceptive devices (e.g., IUD, diaphragms, vaginal rings, condoms)
 - Sterilization (e.g., vasectomy, tubal ligation)

Authored by:

Campbell KP. Contraceptive use evidence-statement: counseling and preventive intervention. In: Campbell KP, Lanza A, Dixon R, Chattopadhyay S, Molinari N, Finch RA, editors. *A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage*. Washington, DC: National Business Group on Health; 2006.

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