

August 2016 | Fact Sheet

Emergency Contraception

Emergency contraception (EC), sometimes referred to as “the morning-after pill,” is a form of backup birth control that can be taken up to several days *after* unprotected intercourse or contraceptive failure and still prevent a pregnancy. In 1999, Plan B® was the first oral product approved for use in the U.S. as an EC by the Food and Drug Administration (FDA). Since then, more EC products have been approved, and there has been debate over access to EC, particularly over-the-counter availability for teenagers.^{1,2} Many have confused EC with the “abortion pill,” but EC does not cause abortion, since it works by delaying or inhibiting ovulation and will not work if the woman is already pregnant.³ This fact sheet reviews the methods of EC, known mechanisms of action, women’s awareness of EC, and current national and state policies affecting EC access.

WHAT IS EC?

Emergency contraception is used as a back-up birth control method to prevent unintended pregnancy after sex in the event of unprotected sex, sexual assault, or a contraceptive failure, such as a condom breaking.⁴ There are several methods of EC that are available in the U.S. including progestin-based pills, ulipristal acetate, and copper IUDs (**Table 1**). Unlike the copper IUD, EC pills are not intended for use as a regular contraceptive method. ECs do not terminate a pregnancy.

Table 1: Major Methods of Emergency Contraception (EC), Availability and Policy in the U.S.

Brand Name	Efficacy ^a	Timing after intercourse	Availability in the U.S.
Plan B® One-Step Next Choice One Dose® Levonorgestrel Tablet 1.5mg® Fallback Solo® Afters® AfterPill™ EContra EZ® My Way® Take Action™	81 - 90% reduced pregnancy risk ^b	Within 72 hours	One dose versions approved for availability “over the counter” to individuals, without age restrictions.
ella®	2.1% failure rate; reduced pregnancy risk is 65% lower than when using progestin-only pills ^b	Within 120 hours	Prescription only
Combined pills (estrogen and progestin): 28 brands ^c	75% reduced pregnancy risk	Within 120 hours	Prescription only
Paragard®, Copper intrauterine device (IUD)	99% reduced pregnancy risk	Within 120 hours	Requires clinician visit

a. All percentages presented are approximations.

b. Conflicting research on efficacy for women who are overweight and/or obese

c. For a complete listing, go to <http://ec.princeton.edu/questions/dose.html>

SOURCE: U.S. Food and Drug Administration, FDA News Release: FDA approves Plan B One-Step emergency contraceptive without a prescription for women 15 years of age and older, April 2013. Planned Parenthood, IUD; Trussell J, Raymond E, Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy, Office of Population Research at Princeton University; U.S. Food and Drug Administration, FDA Briefing Information, Ulipristal Acetate, for the June 17, 2010 Meeting of the Advisory Committee for Reproductive Health Drugs, June 2010; Wertheimer RE, Emergency Postcoital Contraception, American Family Physician 2000;62:2287-92. Office of Population at Princeton University. [Types of Emergency Contraception](#). March 2016.

PROGESTIN-BASED PILLS

- Plan B® was the first oral form of EC to be made available in the U.S. as a pre-packaged dose of pills containing the progestin, levonorgestrel. Progestin-based EC pills use the same hormones found in daily oral contraceptives and are the most widely used form of EC. EC pills are marketed today under the brand name Plan B® and generic names (**Table 1**).
- Progestin-based EC pills do not interrupt or adversely impact an established pregnancy, nor are they medical abortion drugs like mifepristone or methotrexate that end an established pregnancy. Plan B® and the generics prevent pregnancy by inhibiting or delaying ovulation or by making it harder for sperm to reach an egg.^{5, 6}
- Progestin-based EC is to be taken within 72 hours of unprotected sex in order to be most effective⁷ and reduce the likelihood of pregnancy by 81% to 90% when taken in this timeframe.⁸
- There are no known serious side effects associated with progestin-based EC; 50% of women experience nausea and 20% vomiting.^{9,10}
- While there have not been any studies that specifically examine the long-term effects of EC pills on established pregnancies, there are not any known long-term negative effects for women taking high-dose birth control pills, which contain the same hormones as EC pills, while in the early stages of pregnancy. Studies of women who inadvertently continued to take their daily birth control pills during the early weeks of pregnancy have shown no evidence of negative effects on the fetus.^{11, 12}
- Some research has suggested that efficacy of progestin-based EC is lower among women with Body Mass Index (BMI) levels greater than 25.^{13, 14} However, in May 2016 the FDA announced that it had reviewed the available scientific data regarding the effectiveness of EC pills in overweight and obese women, and that the data are inconclusive and did not recommend a labeling change.¹⁵

ELLA®

- Ulipristal acetate, marketed as ella®, was approved by the FDA in 2010 for sale and use in the U.S. This EC product is classified as a selective progesterone-receptor modulator.^{16, 17}
- Ella® is a single-dose pill that is effective in preventing pregnancy up to five days after unprotected intercourse, giving women a longer timeframe to prevent unintended pregnancy than Plan B®.¹⁸ Its mechanism of action is similar to that of progestin-based EC.¹⁹
- Study findings show that side effects for ella® are comparable to those for Plan B®²⁰ and that its effectiveness appears to diminish at BMI thresholds above 35.²¹

COMBINED PILLS

- Certain daily oral contraceptive pills can also act as EC when taken in doses four or five times higher than the daily dose, although they are not specifically sold as emergency contraception. Daily birth control pills contain progestin and estrogen and are taken in two doses 12 hours apart to be effective as EC.²²
- Combined pills have been found to be safe and effective for preventing pregnancy within 5 days of intercourse.

PARAGARD® COPPER-T IUD

- Available to women since the 1970s, Copper-T IUDs are the most effective forms of EC, reducing the risk of pregnancy by more than 99% when inserted within 5 days of unprotected intercourse.²³ These medical devices are inserted into the uterus by a health care provider and require a visit to a clinic or health care provider's office. They also can be used to effectively prevent subsequent pregnancy for up to 12 years.

- The hormone-free Copper-T IUD works by interfering with egg fertilization by preventing sperm from reaching the egg. Previous research suggests the copper IUD inhibits implantation of a fertilized egg, but this mechanism of action has not been conclusively proven.²⁴

- Efficacy of copper IUDs does not diminish in women who are overweight or obese.²⁵

- Progestin-based hormone IUDs, such as Mirena and Skyla, are not effective as EC.

WOMEN'S KNOWLEDGE AND USE OF EC

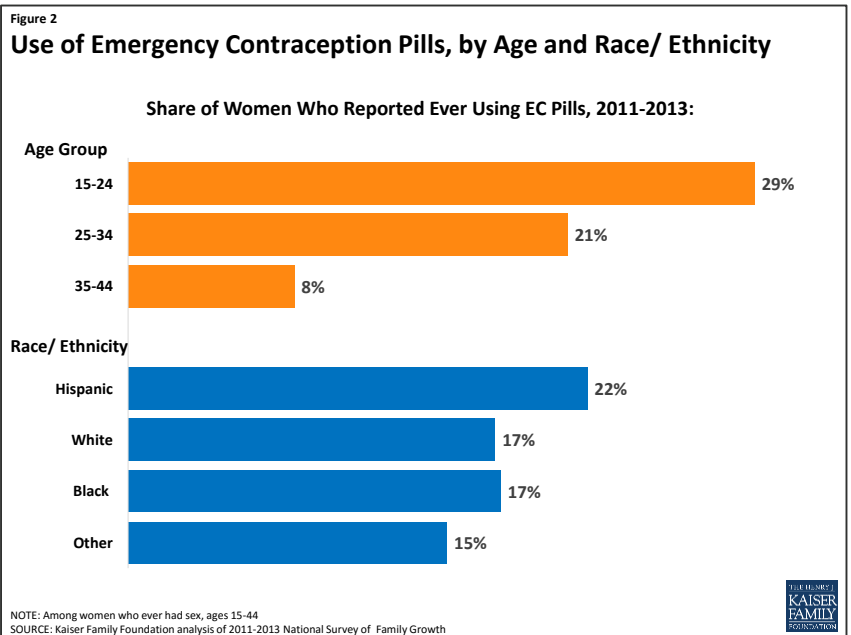
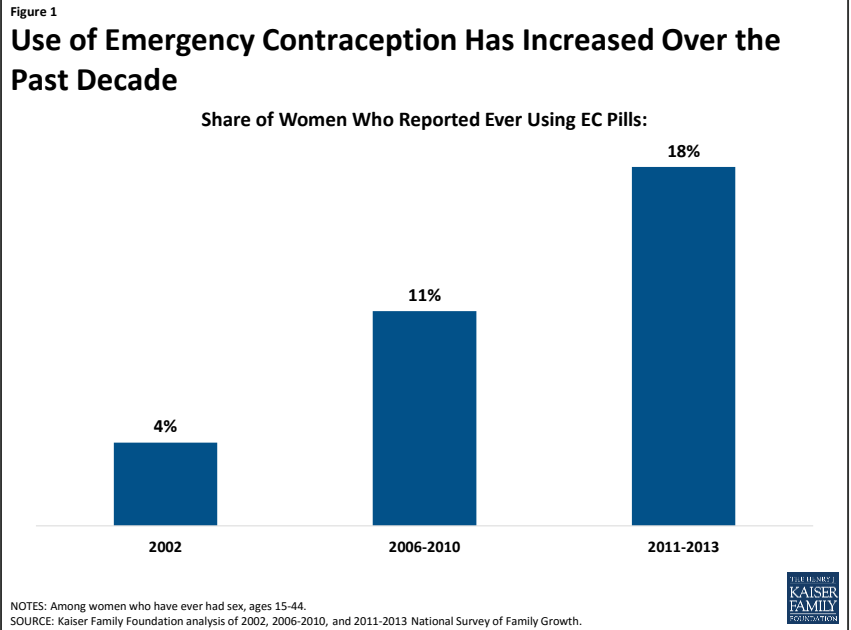
There have been numerous public health and educational initiatives to increase awareness and use of EC.

- Use of EC has been on the rise. Between 2011 and 2013, 18% of women ages 15 to 44 who have ever had sex reported they had used EC pills at least once in their lives, an increase from 4% in 2002 (Figure 1).²⁶

- Younger women are more likely to report that they have ever used EC (Figure 2).

Nearly three in ten (29%) women ages 15 to 24 who have ever had sex say they have taken EC pills, compared to 8% of women ages 35-44. Approximately one in five Hispanic women (22%) and 18% of White and Black women report ever taking EC.²⁷

- Research suggests that advance provision of EC has the potential to increase utilization, but studies have not demonstrated decreased unintended pregnancy rates.²⁸ Studies have found that women who have an advance prescription or supply of EC are not more likely than women without an advance prescription to have unprotected sex or to use EC repeatedly.^{29, 30}



ACCESS AND AVAILABILITY

At least one form of oral EC has been available in the U.S. for over a decade and there have been a number of efforts to broaden women's access to EC, particularly since its effectiveness window is time-limited.

OVER THE COUNTER ACCESS OF EC PILLS

- Prior to 2006, a prescription was needed for all individuals seeking EC pills. Between 2006 and February 2014, Plan B® and its generic equivalent were available without a prescription for men and women 17 and older, but adolescents under 17 needed a prescription.
- In 2014, the FDA removed point-of-sale age requirements for EC pills and began to make generic versions available over the counter (OTC).³¹ Currently the generic EC pills Next Choice One Dose, My Way, Fall Back Solo, Take Action, Levonorgestrel Tablet, and Aftera are available OTC to women of all ages.³²
- A prescription is still required for ella® for women of all ages.

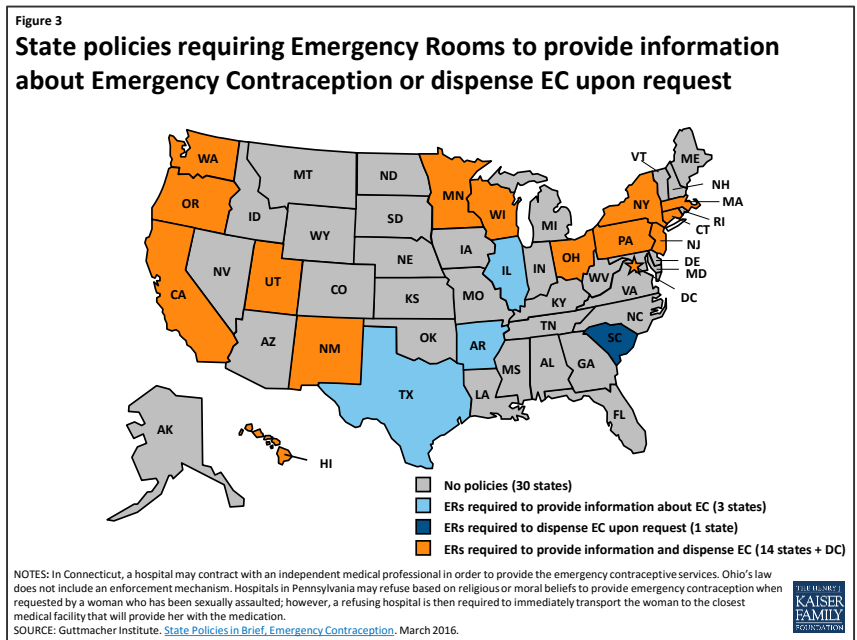
COST AND COVERAGE

- The Affordable Care Act (ACA) requires most new private health plans to cover without cost-sharing all FDA-approved contraceptive drugs and devices as prescribed, including ella®.³³
- Family planning services is a required benefit under Medicaid. The coverage requirements under Medicaid are different for states that have expanded eligibility under the ACA. These programs must cover all prescribed FDA approved contraceptives for women with a prescription, meaning that they must cover ella® and Plan B® only if a woman has a prescription.³⁴ States have discretion in deciding whether they include EC in their traditional full scope Medicaid programs or family planning expansion programs.
- Copper-T IUDs have historically had high up-front costs, ranging between \$500 and \$1,000 for the device, insertion, and follow up visits.³⁵ Under the ACA, private insurance plans and state Medicaid expansion programs must now cover the cost of IUDs, as well as services related to insertion, follow up and removal, without cost-sharing.
- Without a prescription, women in most states accessing EC over the counter must pay the retail price. Plan B® pills and the generic versions sell for between \$35 and \$60 when purchased over the counter.³⁶
- Starting in January 2017 and January 2018 respectively, Illinois and Maryland will require health insurance plans to cover over-the-counter and prescription birth control without any cost-sharing, including EC.³⁷

THE PROVISION OF EC IN HEALTH CARE SETTINGS

- Several major medical and public health organizations, such as the American Academy of Pediatrics, American College of Obstetricians and Gynecologists, American Medical Association, American Nurses Association, and the American Public Health Association, endorse the use of EC and advocate for broader access to EC.^{38,39}

- Counseling and coverage of EC is included as a standard of care in the federal recommendations for providing Quality Family Planning Services (QFP). Providers are encouraged to discuss EC with their patients, inform them of its availability, and provide them with an advanced supply of EC pills if the patient requests them.⁴⁰
- There have been ongoing efforts to make EC more readily available to survivors of sexual assault. Currently, 14 states and the District of Columbia require that emergency room staff provide EC to women after sexual assault (**Figure 3**).⁴¹



Still, some local studies have documented that a sizable share of hospitals do not routinely offer counseling, referral, or dispensation of EC to sexual assault survivors.^{42, 43}

AVAILABILITY AND ACCESS IN PHARMACIES

- A recent study found progestin-based EC pills are not consistently stocked on store shelves, and are sometimes kept behind the counter or a locked display due to the high cost of the product.⁴⁴ This report also documented misinformation regarding age and ID requirements among pharmacy staff and costumers.
- A 2014 report found that Native American women lacked consistent access to OTC EC pills through Indian Health Services (IHS). The study found that 9% of IHS clinics did not stock Plan B®, 11% required a prescription to dispense and 72% of clinics improperly imposed an age restriction for Plan B®.⁴⁵ In October 2015, IHS clarified its policy that women do not need a prescription or age verification to access Plan B®.⁴⁶
- Ten states – AK, CA, HI, MA, ME, NH, NM, TN, VT, WA – have laws that allow pharmacists to directly prescribe progestin based EC to women of all ages without obtaining a physician’s prescription.^{47,48} AK, CA, HI, ME, MA, NH, NM, TN, VT, and WA also allow pharmacists to prescribe ella® to women.^{49,50} This enables women with private insurance to obtain them directly from the pharmacy without paying any cost-sharing, as is required by the contraceptive coverage provisions of the Affordable Care Act.⁵¹
- At least five states – CA, IL, NJ, WA, WI – have measures that require pharmacies or pharmacists to fill all valid prescriptions.⁵² These policies have been enacted, in part, as responses to reports of pharmacists refusing to fill prescriptions for EC pills because they oppose its use on moral or religious grounds.⁵³
- Seven states – AR, AZ, GA, ID, IL, MS, SD – have laws allowing pharmacies and/or pharmacists to refuse to dispense EC pills on the basis of moral or ethical objections.⁵⁴

Since EC first came to market in the U.S., awareness among women of EC pills has risen and availability has expanded as a result of the FDA granting over-the-counter status for progestin based EC pills. A relatively small share of women say they have used EC pills, but use has risen since it was first introduced in the U.S. Fifteen years after EC pills were first approved by the FDA, access to EC is still debated heavily by policymakers at both the state and federal levels and will likely continue to be a focus of policy discussions in the years to come.

Endnotes

- ¹ U.S. Food and Drug Administration, FDA News Release. [FDA approves ella tablets for prescription emergency contraception](#). August 2010.
- ² Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#), May 2016.
- ³ Office of Population Research at Princeton University. [How Emergency Contraception Works: Does emergency contraception cause an abortion?](#). March 2016.
- ⁴ Office of Women's Health. Emergency Contraception Fact Sheet. May 2009.
- ⁵ Gemzell-Danielsson K. (2010). [Mechanism of Action of Emergency Contraception](#). *Contraception*; 82(5), 404-409.
- ⁶ Ortiz ME & Croxatto HB. (2007). [Copper-T intrauterine device and levonorgestrel intrauterine system: biological bases of their mechanism of action](#). *Contraception*; 75(6), s16-s30.
- ⁷ Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#). March 2016.
- ⁸ Rodrigues I, Grou F, & Joly J. (2001). [Effectiveness of emergency contraceptive pills between 72 and 120 hours after unprotected sexual intercourse](#). *American Journal of Obstetrics & Gynecology*; 184(4), 531-537.
- ⁹ Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#). March 2016
- ¹⁰ Task Force on Postovulatory Methods of Fertility Regulation. (1998). [Randomized controlled trial of levonorgestrel versus the Yuzpe regimen of combined oral contraceptives for emergency contraception](#). *The Lancet*; 352(9126), 428-433.
- ¹¹ Raman-Wilms L, Tseng AL, Wighardt S, Einarson TR, & Koren G. (1995). [Fetal genital effects of first-trimester sex hormone exposure: a meta-analysis](#). *Obstetrics & Gynecology*; 85(1), 141-149.
- ¹² Zhang L, Chen J, Wang Y, Ren F, Yu W, & Cheng L. (2009). [Pregnancy Outcome After Levonorgestrel-only Emergency Contraception Failure: A Prospective Cohort Study](#). *Human Reproduction*; 24(7), 1605-1611.
- ¹³ Glasier A, Cameron ST, Blithe D, Scherrer B, Mathe H, Levy D, Gainer E, & Ulmann A. (2011). [Can we identify women at risk of pregnancy despite using emergency contraception? Data from randomized trials of ulipristal acetate and levonorgestrel](#). *Contraception*; 84(4), 363-367.
- ¹⁴ Office of Population Research at Princeton University. [Effectiveness: Are emergency contraceptive pills effective for overweight or obese women](#). May 2016.
- ¹⁵ U.S. Food and Drug Administration. [FDA communication on levonorgestrel emergency contraceptive effectiveness and weight](#). May 2016.
- ¹⁶ U.S. Food and Drug Administration, FDA News Release. [FDA approves ella tablets for prescription emergency contraception](#). August 2010.
- ¹⁷ Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#). Office of Population Research at Princeton University. May 2016.
- ¹⁸ Reproductive Health Technologies Project. [A New Option for Emergency Contraception: The Facts on Ulipristal Acetate](#). June 2010.
- ¹⁹ Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#). Office of Population Research at Princeton University. May 2016
- ²⁰ Glasier A, Cameron ST, Fine PM, Logan SJS, Casale W, Van Horn J, Sogor L, Blith DL, Scherrer B, Mathe H, Jaspert A, Ulmann A, & Gainer E. (2010). [Ulipristal acetate versus levonorgestrel for emergency contraception: a randomized non-inferiority trial and meta-analysis](#). *The Lancet*; 375, 555-562.
- ²¹ Moreau C & Trussell J. (2012). [Results from pooled Phase III studies of ulipristal acetate for emergency contraception](#). *Contraception*; 86(6), 673-680.
- ²² Office of Population Research at Princeton University. [Combined Emergency Contraceptive Pills](#). March 2016.
- ²³ Office of Population Research at Princeton University. [Copper-T IUD as Emergency Contraception](#). March 2016.
- ²⁴ Ortiz ME & Croxatto HB. (2007). [Copper-T intrauterine device and levonorgestrel intrauterine system: biological bases of their mechanism of action](#). *Contraception*; 75(6), s16-s30.
- ²⁵ Trussell J, Raymond EG, & Cleland K. [Emergency Contraception: A Last Chance to Prevent Unintended Pregnancy](#). Office of Population Research at Princeton University. May 2016
- ²⁶ Kaiser Family Foundation analysis of 2002, 2006-2010, and 2011-2013 National Survey of Family Growth.

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- ²⁷ Kaiser Family Foundation analysis of 2011-2013 National Survey of Family Growth.
- ²⁸ Rodriguez MI, Curtis KM, Gaffield ML, Jackson E & Kapp N. (2013). [Advance Supply of Emergency Contraception: A Systematic Review](#). *Contraception*; 87(5), 590-601.
- ²⁹ Raine T, Haper CC, Rocca CH, Fischer R, Padian N, Klausner JD, & Darney PD. (2005). [Direct access to emergency contraception through pharmacies and effect on unintended pregnancy and STIs: a randomized controlled trial](#). *Journal of the American Medical Association*; 293(1), 54-62.
- ³⁰ Marston C, Meltzer H, & Majeed A. (2005). [Impact of Contraceptive Practice of Making Emergency Hormonal Contraception Available Over the Counter in Great Britain: Repeated Cross-Sectional Surveys](#). *British Medical Journal*.
- ³¹ U.S. Department of Health and Human Services, Food and Drug Administration. [Letter to NDA/ANDA applicant](#). February 25, 2014.
- ³² Ibid.
- ³³ Some employers are exempt from this requirement. For more information, see Kaiser Family Foundation, [How Does Where You Work Affect Your Contraceptive Coverage?](#)
- ³⁴ Kaiser Family Foundation. [Health Reform: Implications for Women's Access to Coverage and Care](#). August 2013.
- ³⁵ Planned Parenthood. [IUD](#). Accessed June 28, 2016.
- ³⁶ Office of Population Research at Princeton University. [How to Get Emergency Contraception: How much do emergency contraceptive pills cost?](#). June 27, 2016.
- ³⁷ Maryland House Bill 1005, [Health Insurance Contraceptive Equity Act](#), 2016 Regular Session. Illinois House Bill 5576, [Illinois Contraceptive Coverage Act](#), 99th General Assembly.
- ³⁸ Agency for Healthcare Research and Quality, National Guideline Clearinghouse, Updated 5 July 2010.
- ³⁹ American Congress of Obstetricians and Gynecologists. [Letter to President Obama](#). June 7, 2013.
- ⁴⁰ Centers for Disease Control and Prevention. [Providing Quality Family Planning Services: Recommendations of CDC and the U.S. Office of Population Affairs](#). MMRW. *Morbidity and Mortality Weekly Reports*; 63(RR04), 1-29. April 2014.
- ⁴¹ Guttmacher Institute. [State Laws and Policies: Emergency Contraception](#). As of July 1, 2016.
- ⁴² Patel A, Simons R, Piotrowski ZH, Shulman L, & Petraitis C. (2004). [Under-use of Emergency Contraception of Victims of Sexual Assault](#). *International Journal of Fertility and Women's Health*; 49(6), 269-273.
- ⁴³ Polis C, Schaffer K, & Harrison T. (2005). [Accessibility of Emergency Contraception in California's Catholic Hospitals](#). *Women's Health Issues*; 15(4), 174-178.
- ⁴⁴ American Society for Emergency Contraception. [Inching Towards Progress: ASEC's 2015 Pharmacy Access Study](#). December 2015.
- ⁴⁵ The Native American Women's Health Education Resource Center. [Indian Health Service Survey of Plan B Availability](#). 2014.
- ⁴⁶ U.S. Department of Health and Human Services, Indian Health Service. [Indian Health Manual, Chapter 15 – Emergency Contraception](#). Accessed May 27, 2016.
- ⁴⁷ Guttmacher Institute. [State Laws and Policies: Emergency Contraception](#). As of July 1, 2016.
- ⁴⁸ State of Tennessee, [Public Chapter No. 942, Senate Bill No. 1677](#). Vermont Secretary of State, [Administrative Rules of the Board of Pharmacy](#), effective September 15, 2015.
- ⁴⁹ EllaNow. [Locations](#). Accessed June 28, 2016.
- ⁵⁰ State of Tennessee, [Public Chapter No. 942, Senate Bill No. 1677](#). Vermont Secretary of State, [Administrative Rules of the Board of Pharmacy](#), effective September 15, 2015.
- ⁵¹ U.S. Department of Health and Human Services, Health Resources and Services Administration. [Women's Preventive Services Guidelines](#). Accessed June 28, 2016.
- ⁵² Guttmacher Institute. [State Laws and Policies: Emergency Contraception](#). As of July 1, 2016.
- ⁵³ Davison LA, Pettis CT, Joiner AJ, Cook DM, & Klugman CM. (2010). [Religion and conscientious objection: a survey of pharmacists' willingness to dispense medications](#). *Social Science Medicine*; 71(1), 161-165.
- ⁵⁴ Guttmacher Institute. [State Laws and Policies: Emergency Contraception](#). As of July 1, 2016.