The rate of unintended pregnancy in the United States is high (roughly 50 percent) and has remained so for more than 20 years.\textsuperscript{1,2} The costs of unintended pregnancy to the individual and to society are substantial. Women with unintended pregnancies are less likely to seek prenatal care in the first trimester, and more likely to use alcohol and tobacco, therefore putting themselves at higher risk of poor pregnancy outcomes. They are also more likely to suffer physical abuse during pregnancy and the year prior to conception.\textsuperscript{3}

Arkansas has the highest teen birthrate in the country, 43.5 births per 1,000 girls ages 15–19, compared to the national average of 26 births. The rate almost doubles to 83 births for ages 18–19. The Arkansas Medicaid Quality outreach team, together with Arkansas Department of Medicaid Services, are joining forces with the Arkansas Department of Health and March of Dimes to increase education and awareness of the long-acting reversible contraception (LARC) methods, and decrease preterm birth and unintended pregnancies.

Unintended pregnancy is lowest in women who use the most reliable forms of contraception such as LARC options. LARC methods include intrauterine devices (IUD) and etonogestrel implants. The failure rate of these methods is less than 1 percent. The continuation rate for LARC is higher than other methods, including among women ages 14 to 19.\textsuperscript{4} Unfortunately, only 10 percent of patients use LARC; the adoption rate is even lower in adolescents.\textsuperscript{5} Return to fertility is rapid upon discontinuation of LARC methods.

The efficacy of reversible contraceptive methods:
- Least effective: spermicide, fertility awareness, sponge, cervical cap, female or male condom
- More effective: diaphragm, pill, patch, ring, injection
- Most effective: IUD, implant

Compliance, continuation, fecundity and the timing of coitus all influence contraceptives’ efficacy. Continuation and compliance rates are high with LARC methods because they only require attention once every three to 10 years.\textsuperscript{6}

**BARRIERS TO USING LARC**

Barriers to use include women’s knowledge of and attitudes towards LARC, provider practice patterns and high initial cost. Healthcare providers can increase women’s knowledge and dispel myths surrounding LARC methods and adopt best practices. We should advocate for better coverage for LARC methods by health insurance providers because LARC is more clinically effective and more cost efficient.

Removing the usage barriers of cost and lack of information increases the rate of LARC use. In a study of 10,000 women, they were offered thorough education regarding contraception options. They received coverage of their selected method if they were not currently using a contraceptive method or were open to changing methods. When offered the contraceptive of their choice, more than 75 percent chose LARC.\textsuperscript{7}

The failure rate of Tier 2 contraception (pill, patch or ring) in a typical use population is 9 percent. For women under age 21, the rate averages 20 percent.

The American College of Obstetricians and Gynecologists recommend that LARC methods be included in contraceptive counseling. Consideration of LARC methods should be encouraged for all appropriate candidates including nulliparous women and adolescents.\textsuperscript{6} Other candidates include women seeking contraception immediately after miscarriage or abortion, immediately postpartum, decreasing unintended pregnancy with LARC.
emergency contraception (copper IUD) and for most women with coexisting medical problems (see U.S. Medical Eligibility Criteria for Contraceptive Use at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5904a1.htm?s_cid=rr5904a1_e).

**LARC MYTHS DISPELLED**

IUDs do not cause abortions. The mechanism of action for the copper IUD is the inflammatory reaction in the uterus that is toxic to sperm. The levonorgestrel IUD works by increasing cervical mucous and suppressing the endometrium. Studies looking for “chemical pregnancies” (positive urine or serum human chorionic gonadotropin) have had negative results.¹⁰

IUDs do not increase the rate of pelvic inflammatory disease (PID). There is a potential elevated risk of PID immediately following IUD insertion. This is why it is important to screen for gonorrhea and chlamydia infections at the time of IUD insertion. Treatment of gonorrhea or chlamydia detected at time of IUD insertion without removal of the device is highly effective. Requiring a patient to wait for a negative cervical culture puts an undue burden on the patient.

LARC methods do not cause ectopic pregnancy. In the very unlikely event of a LARC method failure (particularly IUDs), the percentage of resulting pregnancies that are ectopic is higher than the baseline rate of ectopic pregnancy. Because the number of IUD failures is so small, the overall risk of ectopic pregnancy in IUD users is much lower than that of the general population. The risk of ectopic pregnancy in users of the etonogestrel implant is similar to the risk in the general population.

Best practices for LARC include:

- Same-day insertion when requested, if pregnancy can be ruled out
- Offer LARC methods at time of delivery, abortion or surgically treated miscarriage
- Screen for sexually transmitted infections (STIs) at time of IUD insertion, with treatment of positive results while leaving the IUD in place
- Offer copper IUD as the most effective emergency contraception method⁶

**TYPES OF LARC**

The three types of LARC methods are hormonal IUD, non-hormonal IUD and the hormonal implant. There are currently three hormonal IUDs available in the United States that all release levonorgestrel. The Mirena IUD is effective for five years. The Skyla and Liletta IUDs are effective for three years. The only non-hormonal IUD currently available in the United States is the ParaGard IUD that contains a small amount of copper. It is effective for 10 years. The only hormonal implant available in the United States is Nexplanon. It is a 4 cm × 2 mm hormone-containing (etonogestrel) rod that is placed subdermally. It is effective for three years. Attendance at a Clinical Training Program is required before health care providers can purchase the implant.

Possible complications of IUDs include perforation (2.2 per 1,000) and a slight increase of PID in the first 20 days after insertion. Overall risk of PID in IUD users is low. Possible complications with implant use are deep insertion (theoretically less likely with revised insertion device), pain and bruising at the insertion site (unusual and almost always brief in duration.) Concerns have been expressed about potential increase in STI risk due to decreased use of condoms. Providers should strongly encourage condom use in LARC users who are at risk for STI.

LARC methods are covered by Arkansas Medicaid. Plans in the Health Insurance Marketplace must cover all contraceptive methods and counseling for all women, as prescribed by a health care provider. Plans must cover these services without charging a copayment or co-insurance even if the patient has not met her deductible. Some religious employers do not cover any form of contraception. ▲

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**REFERENCES**