

OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

LONG ACTING REVERSIBLE CONTRACEPTIVES: LARCS TAKE FLIGHT!!

Teen pregnancy and birth rates have declined both nationally and in Oregon over the past five years. The rate of pregnancy among Oregon females aged 15–19 years fell from 48 per 1,000 in 2008 to 29 in 2013, paralleling national trends.¹ This decline can be attributed in part to improved contraceptive use. Nonetheless, in 2013, 2,595 Oregon teens aged 15–19 years gave birth, and most of these were likely unintended. This issue of the *CD Summary* presents data on the use of Long Acting Reversible Contraceptives (LARCs) in young women in Oregon, and discusses their use as a safe and effective, but underutilized, option for preventing unintended pregnancies.

BE UP WITH THE LARC

The term “LARC” includes both intrauterine devices (IUDs) and contraceptive implants. While their mechanisms of action differ, LARCs share some very important characteristics: 1) they’re highly effective (>99%) at preventing pregnancy; 2) they’re long-lasting (from 3 to 10 years); 3) they’re generally not prone to user error; 4) they’re covered by Medicaid and private health insurance without cost-sharing; and 5) they’re generally safe for use in women seeking contraception, irrespective of age or pregnancy history.

LARCS AVAILABLE IN THE U.S.

Intrauterine devices (IUDs):

- *Copper IUD:* ParaGard is the non-hormonal, copper IUD available in the U.S. ParaGard prevents pregnancy through continuous release of copper into the uterine cavity, which is thought to produce a sterile inflammatory reaction and enzymatic changes that interfere with sperm movement and fertilization of an egg; it may also prevent implantation. ParaGard can be used for up to 10 years.
- *Hormonal IUDs:* also called intrauterine systems or IUSs, are marketed

under the brand names Mirena, Skyla and Liletta. Hormonal IUDs release the progestin levonorgestrel into the uterine lining. They prevent pregnancy by some combination of thickening cervical mucus, inhibiting sperm movement, reducing sperm survival, and thinning the lining of the uterus (which may prevent implantation). Mirena can be used up to 5 years; Skyla and Liletta are currently approved for up to 3 years.

Contraceptive implants:

- Contraceptive implants (marketed under brand names Implanon and Nexplanon) are inserted under a woman’s skin in the upper arm, and are about the size of a matchstick. Implants release the progestin etonogestrel, which prevents pregnancy by preventing ovulation, thickening the cervical mucous, and changing the lining of the uterus. Implants are effective for up to 3 years.

RECOMMENDING LARCS

Both the American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) recommend LARCs as a first-line contraceptive choice for adolescents and young female adults.² These recommendations are based on research demonstrating that LARCs are safe for females of all ages.

Despite these recommendations, one study found that only 46% of providers in the California State family planning program considered nulliparous women eligible for an IUD; even fewer considered teens (39%) or post-partum women (33%) eligible. Concerns that limited the recommendation of IUDs included: perceived risk of infection, impact on future fertility, difficulty of insertion and IUD expulsion.³

Some misconceptions about the safety of modern IUDs are rooted in the past. In the 1970s, the Dalkon Shield IUD was removed from the market due to an ill-designed removal string that wicked bacteria into the uterus, facilitating pelvic inflammato-

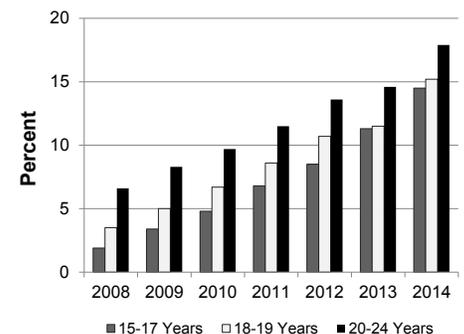
ry disease (PID) and possible infertility, if left untreated. Modern IUDs use monofilament tail strings and have not been associated with increased infection risks from long-term use. The risk of PID is highest in the first 20 days after IUD insertion (about 10 per 1,000 woman-years), and is rare thereafter (1.4 per 1,000).⁴ Untreated sexually transmitted infections are still the leading cause of PID.⁵

IUDs do not impact future fertility among users², including adolescents and nulliparous women; there is little evidence that insertion of an IUD is any more difficult in adolescents versus older women. Expulsion rates are higher among younger and nulliparous patients; however, prior expulsion should not be considered a contraindication for a patient receiving another IUD, if desired.²

LARCS ASCENDING

Despite all the potential obstacles, LARC use is increasing in Oregon, paralleling national trends.¹ From 2008 through 2014, family planning clinics in Oregon receiving public funding (from Title X or other sources) saw LARC use increase from 2% to 15% among females aged 15–17 years, and from 7% to 18% among females aged 20–24 years (Figure 1). In 2013 (the last year comparable data are available), Oregon was among the

Figure 1. Use of LARCS as a percent of all contraceptive methods among 15–24 year olds, Oregon reproductive health clinics, 2008–2014





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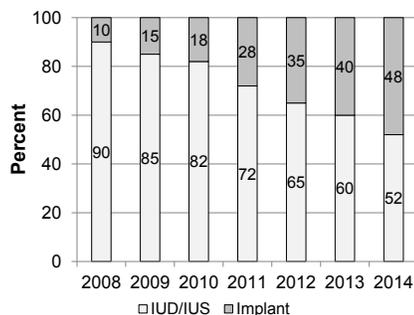
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states with the highest rate of LARC use by females aged 15–19 years receiving services at Title X-funded clinics.⁶

Among LARC users aged 15–24 years, contraceptive implants have steadily increased, from 9% in 2008 to 48% in 2014 (Figure 2). This increasing use of implants has driven increased LARC use among adolescents and young women overall. At the same time, it may reflect some hesitancy among healthcare providers to recommend IUDs. While the contraceptive efficacy of implants and IUDs is very similar, IUDs have some potential advantages over implants, including possible longer use (3, 5, or 10 years for IUDs compared to 3 years for implants), and the option of zero hormone exposure.

Figure 2. Distribution of LARC methods among 15–24 year olds in Oregon family planning clinics, 2008–2014



STRATEGIES

Achieving optimal reproductive health outcomes is possible through use of some or all of the following strategies:

- Ask about pregnancy intentions as a part of an initial health risk assessment in order to connect women with preconception care

or contraceptive services. Multiple tools, such as One Key Question*, are available to assist providers in screening for pregnancy intention.

- Improve availability and uptake of LARCs
 - ◊ Have enough LARCs on hand to meet patient demand or partner with health centers that do.
 - ◊ Insert LARCs on the day of the clinic visit, if possible.
 - ◊ Increase LARC use among postpartum women. IUDs can be inserted 10–15 minutes after delivery of the placenta. Implants can be placed 4 weeks after delivery for breastfeeding women and 3 to 4 weeks post-partum for non-breastfeeding women.
- Provide patient-centered counseling about the effectiveness of various methods of contraception and which one will be the best fit for the patient's pregnancy intentions and lifestyle.
 - ◊ Provide a year's supply for those who use pills and patches, when possible. This practice has been shown to decrease the likelihood of unintended pregnancy by 30% compared to women who received a one-month or three-month supply. With the passage of HB 3343, Oregon became the first state in the nation to require insurers to cover 12-month supplies of birth control.
 - ◊ Promote use of both LARCs and condoms as an optimal choice for preventing unintended pregnancy and sexually transmitted infections.

* The one key question being: "Would you like to become pregnant in the next year?" See: www.onekeyquestion.org

- Respect potential patient hesitation to use LARCs
- ◊ Healthcare providers should enable LARC use for all women who are interested, but support patients' priorities regarding the best contraceptive method. This may be particularly relevant for women from cultural or socioeconomic backgrounds that have historically limited women's reproductive autonomy.⁷

REFERENCES

1. Centers for Disease Control and Prevention. Trends in use of Long-Acting Reversible Contraception among teens aged 15–19 years seeking contraceptive services — United States, 2005–2013. *MMWR* 2015;64:363–9. Available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6413a6.htm?s_cid=mm6413a6_w
2. Congress of Obstetricians and Gynecologists: Committee on Adolescent Health Care Long-Acting Reversible Contraception Working Group. Adolescents and long-acting reversible contraception: implants and intrauterine devices. *Committee Opinion* (2012). Available at: www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Adolescent-Health-Care/Adolescents-and-Long-Acting-Reversible-Contraception.
3. Harper, CC, Blum, M, Theil de Bocanegra H, et al. Challenges in translating evidence into practice: The provision of intrauterine contraception. *Obstet Gynecol* 2008;111:1359–69.
4. Farley TM, Rosenberg MJ, Rowe PJ, et al. Intrauterine devices and pelvic inflammatory disease: An international perspective. *Lancet* 1992;339:785.
5. Centers for Disease Control and Prevention. Pelvic inflammatory disease (PID) – CDC Fact Sheet. Available at: www.cdc.gov/std/pid/stdfact-pid.htm.
6. Fowler, C. I., Gable, J., & Wang, J. (2014, November). *Family Planning Annual Report: 2013 national summary*. Research Triangle Park, NC: RTI International. www.hhs.gov/opa/pdfs/fpar-2013-national-summary.pdf
7. Roberts DE. *Killing the black body: Race, reproduction, and the meaning of liberty*. Vintage Books. New York: 1999.