



Reproductive Health in Maryland

Focus on Adolescents' Use of Long-Acting Reversible Contraception (LARC)

September 2014

Long-Acting Reversible Contraceptives (LARCs) are contraceptive methods used by women to prevent pregnancy from three to twelve years depending on the method. There are two main types of LARCs: hormonal implants and intra-uterine contraception.¹

The American College of Obstetricians and Gynecologists (ACOG) recommends long-acting reversible contraceptives as safe and appropriate methods for most women and adolescents. They are effective with pregnancy rates of less than 1% per year with typical use and have the highest rates of satisfaction and continuation of all reversible contraceptive methods.²

In the United States, 42% of adolescents aged 15-19 years have had sexual intercourse. Almost all sexually active adolescents report having used some form of contraception during their lifetime, but they rarely choose the most effective methods. Adolescents commonly use contraceptive methods associated with relatively high failure rates such as oral contraceptives, condoms, and withdrawal. These methods have lower continuation and higher pregnancy rates than LARC methods.²

Hormonal Implants³

Hormonal Implants are thin plastic rods that contain progestins, hormones related to progesterone often found in birth control pills. The rod is placed under the skin of the upper arm by a health care provider. A steady amount of progestin is slowly released over time, preventing pregnancy by keeping the ovaries from releasing an egg and by thickening cervical mucus, which keeps sperm from meeting with an egg and fertilizing it. Insertion is done in the health care provider's office and only takes a few minutes. The implant will work to prevent pregnancy for three years. A health care provider can remove the implant at any time should the woman decide she wants to become pregnant, to implant another rod, or to allow the woman to use another form of contraception. Fertility will return to normal after removal of the implant.

The advantages of an implant are:

- 1) It is 99% effective in preventing pregnancy;
- 2) Its use does not require the consent of a partner;
- 3) It is safe and effective in preventing pregnancy;
- 4) It works for three years; and
- 5) If a woman wants to get pregnant, the implant can be removed very easily by a health care provider.

The disadvantages of an implant are:

- 1) The implantation and removal requires a visit to a health care provider;
- 2) It provides no protection against sexually transmitted infections (STIs); and
- 3) It may cause bleeding or changes in a woman's period, and some women gain weight, get stomach aches or headaches.

Intrauterine Contraception⁴

Intrauterine Contraception (IUC), or intrauterine device (IUD), is a small t-shaped device made of soft, flexible plastic. There are two types in the United States:

1. An Intrauterine Copper Contraceptive, also known as the Copper T IUD, prevents pregnancy by inhibiting sperm motility³ and blocking sperm from meeting and fertilizing an egg.
2. Intrauterine System (IUS), also known as LNG-IUS, prevents pregnancy by releasing a small amount of the hormone progestin over time that prevents the ovaries from releasing an egg.

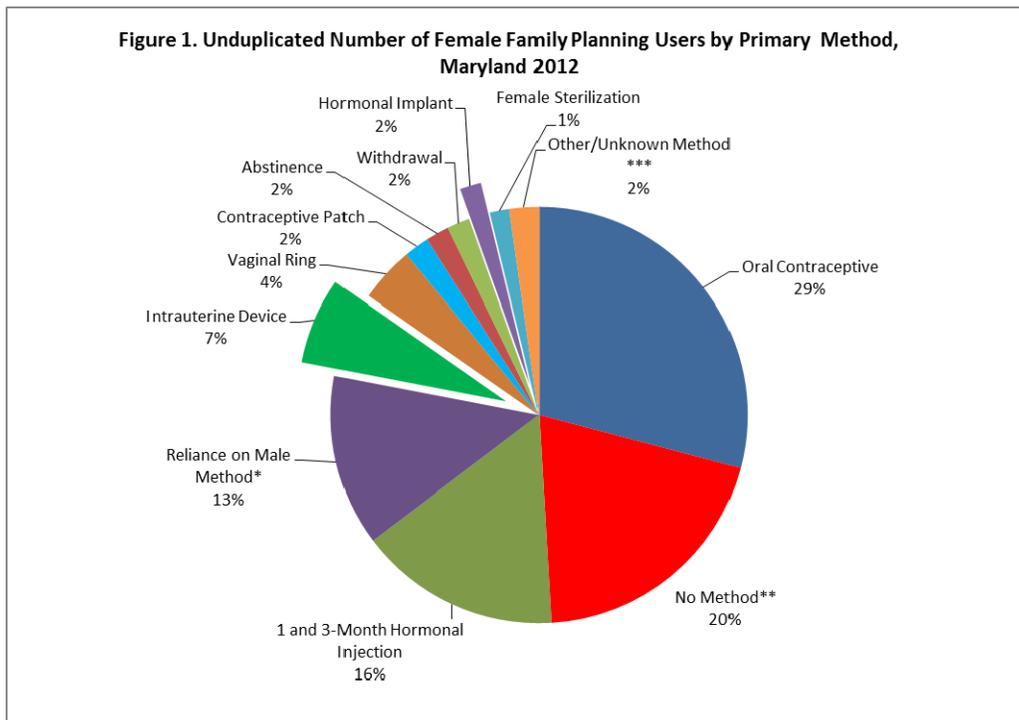
Intrauterine contraceptive devices are inserted into the uterus by a trained medical provider. Insertion can be done in the provider's office or a clinic. Medical providers can remove the device at any time. Fertility will return to normal after the device is removed.

The advantages of Intrauterine Contraception are:

- 1) It is 99% effective at preventing pregnancy;
- 2) It does not require the consent of the female's partner;
- 3) It is safe and effective in preventing pregnancy;
- 4) The copper IUD can also be used as emergency contraception to prevent pregnancy if inserted within five days after unprotected sex; and
- 5) An IUD works for 5-10 years, depending on method.

The disadvantages of Intrauterine Contraception are:

- 1) It requires a visit to a medical provider for insertion;
- 2) It provides no protection against sexually transmitted infections, (STIs);
- 3) It may cause side effects like cramping and bleeding;
- 4) While uncommon, pelvic infections may occur, most often within three weeks after insertion; and
- 5) In less than one per 1,000 insertions, IUDs may perforate the uterus.¹



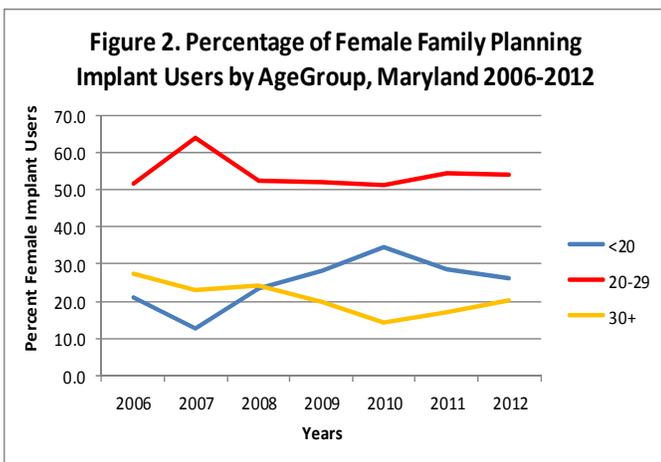
Source: Maryland Title X Family Planning Annual Report, 2012

* Reliance on Male Method includes Vasectomy and Male Condoms

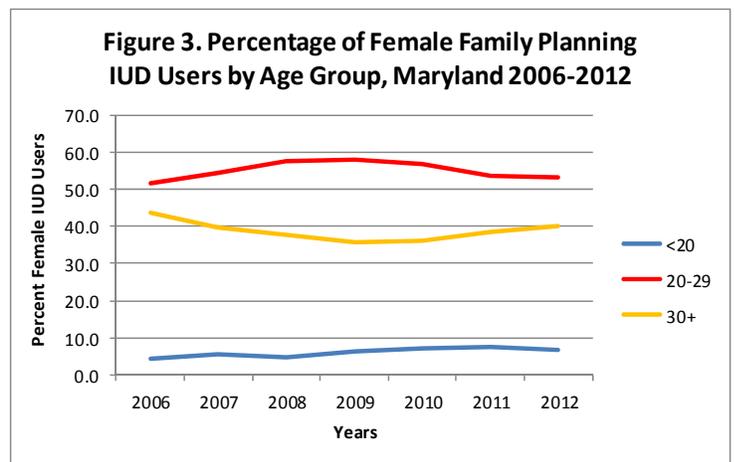
** No Method includes Pregnant or Seeking Pregnancy, or Other Reasons

***Other/Unknown include Cervical Cap, Contraceptive Sponge, Female Condom, Spermicide (alone), and Fertility Awareness

LARC methods are becoming more popular, with usage among all U.S. women using contraception increasing from 2.4% in 2002 to 8.5% in 2009. In the United States, approximately 4.5% of women 15 – 19 years of age are currently using a LARC method, with most using an IUD.² In Maryland, between 2006 and 2012 there has been no substantial change in LARC method use (Figures 2. and 3.). Figures 4 and 5 show the greatest LARC method use was in the 20-29 year old age group in 2012.



Source: Maryland Family Planning Annual Reports 2006-2012

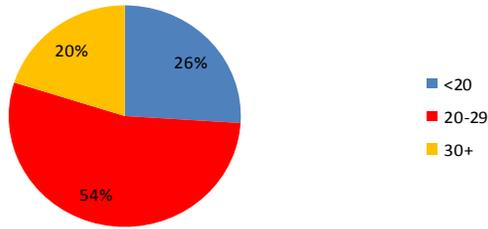


Source: Maryland Family Planning Annual Reports 2006-2012

LARC Use for Adolescents and Young Women

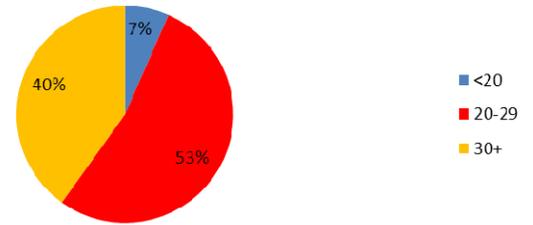
Oral contraceptives have been the most frequently used contraceptive method among sexually active adolescents, with approximately 56% of females having used them. Despite their popularity, up to 60% of adolescents discontinue use of oral contraceptives within a year of starting their use. Even adolescents who continue to use the pill report frequently missing pills. Adherence to correct, consistent, and continued use of a contraceptive method impacts its effectiveness. These challenges are reflected in ‘perfect use’ versus ‘typical use’ failure rates for oral contraceptives.⁵ LARCs are easier to use correctly and consistently, they don’t show differences in ‘perfect use’ and ‘typical use’ failure rates, and they are effective for longer periods of time.

Figure 4. Percentage of Female Family Planning Implant Users by Age Group, Maryland 2012



Source: Maryland Family Planning Annual Report 2012

Figure 5. Percentage of Female Family Planning IUD Users by Age Group, Maryland 2012



Source: Maryland Family Planning Annual Report 2012

Barriers to Use of LARC Methods:

1) Lack of Awareness of LARC Methods

Education of adolescents and young women is important to make them aware of the safety, ease of use, and effectiveness of LARC methods. The National Campaign to Prevent Teen and Unplanned Pregnancies has an innovative website to review contraceptive methods for 18-25 year olds (<http://www.bedsider.org>). The site has a Method Explorer that provides helpful and accurate information on contraceptive methods, a Fact or Fiction section, frequently asked questions, information on where to get contraception, reminders, and more.⁵

2) Cost and Confidentiality of LARC Method Use

While the upfront costs of LARC methods may be high, the cost over the period of use is more affordable than other reversible contraception methods. Also, the Affordable Care Act requires the costs of all FDA-approved contraceptives to be covered. Federal regulations allow teens to obtain contraception from Medicaid and Title X Family Planning programs without parental consent.⁶

3) Concerns about Sexually Transmitted Infections

Current IUDs do not have the type of string used in older IUDs that increased a woman's risk of pelvic infection.⁷ To reduce the risk of infection, women getting IUDs should be tested for STIs and treated after insertion if necessary. LARC methods do not prevent sexually transmitted infections, so women also need to be counseled to use condoms consistently.⁸

4) Attitudes toward LARC Methods:

A barrier to the use of LARC methods can be negative attitudes such as the fear of pain on insertion and continued use of the device. Adolescents using LARC methods should be fully counseled on the process of insertion and given information on the pain of insertion and continued use. Usually, pain decreases over time with continued use of the device.⁷

5) Myths and Misconceptions about LARC Methods

Adolescent women get their information from a variety of sources, some more accurate than others. Having correct information about LARC methods is very important in the choice and continued use of a contraceptive method. Counseling of young women considering the use of LARC methods should address hearsay, inaccurate information, myths, and misconceptions they may have about these methods.

6) Medical Providers' Concerns about Safety and Use in Women Who Have Not Had a Child

Despite improvements in IUDs and hormonal implants, many providers do not consider LARC methods as a first choice for young women. In 2007, ACOG published a Committee opinion, reaffirmed in 2011, that intrauterine devices and hormonal implants should be considered as first-line choices for adolescent women who have had children and those who have not.⁹

Discussion:

Repeat pregnancy within two years of a previous birth or abortion occurs in approximately 35% of recently pregnant female adolescents. The majority of these pregnancies are classified as unintended, with about half resulting in births and the remainder in abortions. Adolescents who do not use a LARC method have up to 35 times increased risk of rapid repeat pregnancy compared with their peers using LARC.¹⁰ The Centers for Disease Control and Prevention's *Vital Signs on Repeat Births Among Teens-United States, 2007-2010* states that teen childbearing has potential negative health, economic, and social consequences for both mother and child, and repeat childbearing further constrains the mother's education and employment possibilities.¹¹ To prevent these consequences, ACOG recommends that adolescents should be encouraged to consider LARC methods. These methods are the best reversible methods for preventing unintended pregnancy, rapid repeat pregnancy, and abortion in young women.²

Limitations of Data:

Primary contraceptive methods data are from clients' self-report.

Methodology:

Non-named client data on client visits seen in Title X funded Maryland Family Planning clinics are submitted to the Maryland Family Planning Data system on a quarterly basis and are summarized in the Title X Family Planning Annual Report.

Resources:

1. Young Women and Long-Acting Reversible Contraception. Advocates for Youth, October 2012.
<http://www.advocatesforyouth.org/publications/publications-a-z/2084-young-women-and-long-acting-reversible-contraception>
2. Adolescents and Long-Acting Reversible Contraception: Implants and intrauterine Devices. The American College of Obstetricians and Gynecologists, Number 539, October 2012.
http://www.acog.org/Resources_And_Publications/Committee_Opinions/Committee_on_Adolescent_Health_Care/Adolescents_and_Long-Acting_Reversible_Contraception
3. Implantable Rods Fact Sheet. Office of Population Affairs.
<http://www.hhs.gov/opa/reproductive-health/contraception/implantable-rods->
4. Intrauterine Contraception (IUD) Fact Sheet. Office of Population Affairs.
<http://www.hhs.gov/opa/reproducvtive-health/contraception/iud/>
5. What Is LARC? And Why Does It Matter for Adolescents and Young Adults? Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S1-S5, April, 2013.
[http://www.jahonline.org/article/S1054-139x\(13\)00061-x/fulltext](http://www.jahonline.org/article/S1054-139x(13)00061-x/fulltext)
6. Cost as a Barrier to Long-Acting Reversible Contraceptive (LARC) Use in Adolescents. Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S59-S63, April 2013.
[http://www.jahonline.org/article/S1054-139x\(13\)0054-2/fulltext](http://www.jahonline.org/article/S1054-139x(13)0054-2/fulltext)
7. Myths and Misconceptions About Long-Acting reversible Contraception (LARC). Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S14-S21, April 2013.
[http://www.jahonline.org/article/S1054-139x\(13\)00063-3/fulltext](http://www.jahonline.org/article/S1054-139x(13)00063-3/fulltext)
8. Intrauterine Devices and Pelvic Inflammatory Disease Among Adolescents. Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S22-S28, April 2013.
[http://www.jahonline.org/article/S1054-139x\(13\)00059-1/fulltext](http://www.jahonline.org/article/S1054-139x(13)00059-1/fulltext)
9. Practical Tips for intrauterine Devices in Adolescents. Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S40-S46, April 2013.
[http://www.jahonline.org/article/S1054-139x\(12\)00418-1/fulltext](http://www.jahonline.org/article/S1054-139x(12)00418-1/fulltext)
10. The Effect of Long-Acting Reversible Contraception on Rapid Repeat Pregnancy in Adolescents: A Review. Journal of Adolescent Health, Volume 52, Issue 4, Supplement, Pages S47-S53, April 2013.
[http://www.jah.org/article/S1054-139x\(12\)00715-x/fulltext](http://www.jah.org/article/S1054-139x(12)00715-x/fulltext)
11. Vital Signs: Repeat Births Among Teens – United States, 2007-2010, CDC, Morbidity and Mortality Weekly Report (MMWR), 62 (13), 249-255, April 5, 2013.

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