

# Meeting the Contraceptive Needs of a Community: Increasing Access to Long-Acting Reversible Contraception

by Colleen McNicholas, DO & Tessa Madden, MD

**The contraceptive and family planning needs of our patients are diverse, but with attention to reducing barriers to the most highly effective contraceptive methods, we can better help women plan and space their pregnancies.**

## Abstract

To control their reproductive lives, women must have access to all contraceptive methods including the most effective reversible methods, intrauterine devices, and implants. The Contraceptive CHOICE Project, a study of 9,256 women in St. Louis, showed that when barriers to contraception are removed, many women choose intrauterine devices and implants, substantially reducing rates of unintended pregnancy and abortion. This article discusses strategies we learned from the CHOICE Project to improve uptake of the most effective contraceptive methods.

## The Public Health Challenge of Unintended Pregnancy

The United States has the highest unintended pregnancy rates among developed nations: more than 45% of pregnancies are unintended nationally.<sup>1</sup> In Missouri in 2010, 51% of all pregnancies were unintended with a public cost of \$518 million.<sup>1</sup> Approximately one in three women will undergo an abortion during their lifetimes.<sup>2</sup> Unintended and teen pregnancy can result in reduced educational or

employment attainment as well as increased risk of poverty and poor health outcomes. Although the U.S. has made significant strides in reducing teen pregnancy, it still leads developed nations with a teen pregnancy rate of 52.4 pregnancies per 1,000 15-19 year-olds.<sup>3</sup> In surveys, U.S. women report that their ideal family includes just two children,<sup>4</sup> meaning that women spend nearly three decades of their reproductive lives trying to avoid or prevent pregnancy. Additionally, regardless of desired family size, most women and families report that timing and spacing of their pregnancies is important, citing a variety of medical, social, and economic reasons.<sup>5-7</sup> The inconsistency between the actual rates of unintended pregnancy and women's ideal reproductive life plans suggests that women are not receiving the contraceptive care they want and need.

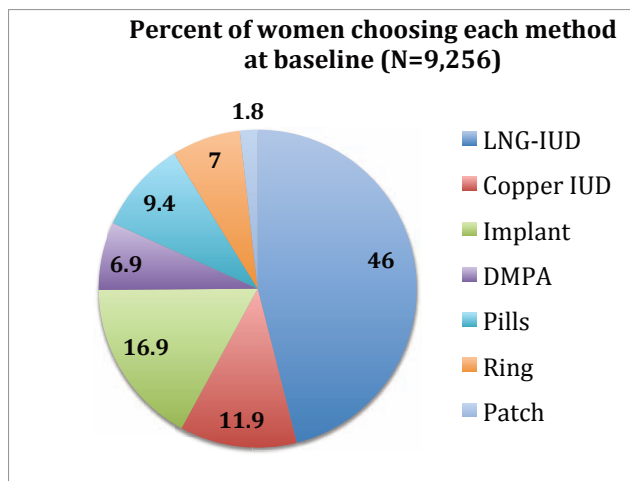
## Delivery of Contraceptive Care

The provision of contraceptive care has long been the role of the obstetrician-gynecologist and the family medicine practitioner. However, assessing family planning needs is the responsibility of all medical professionals, especially those treating reproductive-age



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Figure 1: Distribution of Contraceptive Method Choice at Baseline in the Contraceptive CHOICE Project.



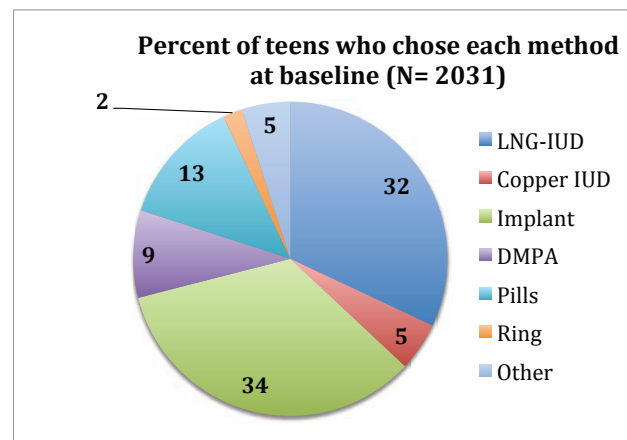
DMPA, depot medroxyprogesterone acetate injection; IUD, intrauterine device; implant, levonorgestrel implant; pills, oral contraceptive pills; ring, vaginal ring

women with chronic medical conditions. Historically, both women and clinicians have chosen oral contraceptive pills (OCPs), with little discussion about the appropriateness of the methods or discussion of other options. Because OCPs require daily compliance, the failure rate can be as high as 9% with typical use. In contrast, the most effective reversible methods, long-acting reversible contraceptives (LARCs), including intrauterine devices (IUDs) and the contraceptive implant, are “forgettable” and have typical use failure rates of less than 1%. Although use of LARCs has increased from 2.6% to 11.7% over the last few years, OCPs, female sterilization, and male condoms remain the most frequently used methods in the U.S. at 25.9%, 25.1%, and 15.3% respectively.<sup>8</sup> Increased awareness about and access to LARCs can increase the use of these methods.

### The Contraceptive CHOICE Project

The Contraceptive CHOICE Project, a prospective cohort study of 9,256 reproductive-age women in the St. Louis area, illustrated a model of contraceptive care that can help women achieve their reproductive life goals. The project was designed to evaluate the impact of eliminating common barriers such as education, access, and cost on the uptake of LARCs. The CHOICE Project enrolled a racially and economically diverse group of women aged 14–45. Participants underwent a standardized contraceptive

Figure 2: Distribution of Contraceptive Method Choice at Baseline for Teen in the Contraceptive CHOICE Project.



counseling session with a trained non-clinician in which all available reversible methods were discussed in decreasing order of effectiveness (e.g., IUD and implants first and condoms last). Participants chose and received their desired method on the day of enrollment at no out-of-pocket cost. We followed participants for two to three years depending on the time of enrollment. Participants were allowed to switch methods if they were dissatisfied with their initial chosen method. Study outcomes included method choice, continuation, satisfaction, and rates of unintended pregnancy and abortion.

Among the 9,256 women enrolled, 75% chose a LARC method at enrollment; 46% of women chose the levonorgestrel IUD, 12% chose the copper IUD, and 17% chose the etonogestrel implant (see Figure 1).<sup>9</sup> Women chose LARC methods at over 10 times the rate of the general U.S. population, and LARC users reported higher rates of continuation and satisfaction than non-LARC users.<sup>10</sup> Additionally, similar to adult women in our cohort, more than 70% of adolescent girls chose a LARC method (see Figure 2), and their rates of continuation and satisfaction were similar to older women.<sup>11,12</sup> This finding should reassure clinicians that when young women choose a long-acting method, they are likely to be satisfied with and continue use of the method.

The CHOICE Project validated the superior effectiveness of LARC; users of shorter-acting methods such as OCPs, the contraceptive patch, and the vaginal ring were 22 times more likely to experience an unintended pregnancy than IUD and implant users.<sup>13</sup>

Although we found no difference in unintended pregnancy by age among LARC users, we found that OCP, contraceptive patch, and vaginal ring users under the age of 21 were twice as likely as adult women to experience an unintended pregnancy.<sup>13</sup>

The potential population impacts of our intervention are profound. We found that rates of abortion amongst CHOICE participants were less than half of the regional and national rates.<sup>9</sup> These findings were consistent across age demographics. Most notably, compared to teens nationwide, CHOICE teens had 75% lower rates of pregnancy, birth, and abortion.<sup>11</sup>

### Strategies to Improve Contraceptive Care

The CHOICE Project was designed to address multiple barriers to reversible contraception. We argue that many of the strategies from the CHOICE Project can be implemented or adapted to improve contraceptive care in everyday practice. We highlight three key barriers to contraceptive care that CHOICE addressed: cost, education, and access.

#### Cost

The CHOICE Project eliminated the cost of the contraceptive method by providing all methods free of charge to participants. The public health community, including the Institute of Medicine, the Centers for Disease Control and Prevention (CDC), and the American College of Obstetricians and Gynecologists, have identified contraception as an essential part of preventive care. As such, these institutions have advocated for contraception to be a covered benefit of all health insurance without cost sharing. Although the Affordable Care Act included this provision, implementation has become entangled in political discourse. As a result, many women still struggle to secure affordable access to their desired contraceptive method. The CHOICE Project team continues to advocate on the local, regional, and national levels for equitable and affordable access to contraceptive care for all women.

#### Education

Early in the CHOICE Project, we found that most women had limited knowledge about available

methods; participants generally underestimated the effectiveness of LARC and overestimated the effectiveness of OCPs, the patch, and the ring.<sup>14</sup> To address this knowledge gap effectively, we delivered education on all reversible methods in a standardized fashion beginning with the most effective methods.<sup>15</sup> This structured approach to counseling may allow women to more accurately consider the risk of method failure while deciding which method is best for them. In addition, the CHOICE model used trained non-clinician educators. This helped remove the time constraints of a clinician's schedule and allowed the patient adequate time for counseling. Other practice settings have adapted this model and trained medical assistants or nurses for this role.

Education barriers are not limited to patients, and many myths surrounding LARC still exist amongst practicing clinicians. To best serve our patients and their contraceptive needs, we must be vigilant in providing evidence-based care.

#### Access – Same-day Initiation

One of the most important ways that the CHOICE Project reduced barriers to contraception, particularly LARC methods, was by providing same-day initiation when medically appropriate. Data from other studies clearly demonstrate that any delay in delivery of a desired method increases the patient burden, increases the risk that the woman will become pregnant before returning for care, and decreases the likelihood that the patient will actually receive a contraceptive method.<sup>16,17</sup> LARC methods are often not inserted on the same day they are chosen for a multitude of reasons. One of the most common reasons cited is concern about the possibility of a luteal-phase pregnancy. To reasonably rule out a pregnancy, clinicians can make use of the simple checklist provided by the CDC Selected Practice Recommendations<sup>18</sup> (see Table 1). In the CHOICE Project, only 0.5% of women were diagnosed with a luteal-phase pregnancy following enrollment, suggesting that the overall risk is very low.<sup>19</sup> Another reason some providers are unwilling to place a same-day LARC method is concern about infection. The CDC's Medical Eligibility Criteria for Contraceptive Use provides evidence-based indications

Table 1: How to be reasonably certain a woman is not pregnant

<p>How to be reasonably certain a woman is not pregnant</p> <p>If a patient has no symptoms or signs of pregnancy and meets <u>any one</u> of the following criteria:</p> <ul style="list-style-type: none"> <li>• is <math>\leq 7</math> days after the start of normal menses</li> <li>• has not had sexual intercourse since the start of last normal menses</li> <li>• has been correctly and consistently using a reliable method of contraception</li> <li>• is <math>\leq 7</math> days after spontaneous or induced abortion</li> <li>• is within 4 weeks postpartum</li> <li>• is fully or nearly fully breastfeeding (exclusively or the vast majority [<math>\geq 85\%</math>] of feeds are breastfeeds), amenorrheic, and <math>&lt; 6</math> months postpartum</li> </ul>
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Adapted from CDC Select Practice Recommendations.  
<http://www.cdc.gov/reproductivehealth/contraception/usspr.htm>

for contraceptive use.<sup>20</sup> The most recent publication supports following CDC recommendations for *Chlamydia trachomatis* and *Neisseria gonorrhoea* screening and placing the LARC method, including IUDs, at the time of screening. Women with positive tests should be treated as soon as possible but do not need to have their IUDs removed. Although other sexually transmitted infections are not a contraindication to LARC placement, a history of pelvic inflammatory disease and post-partum or post-abortion endometritis within the past three months is a contraindication to IUD insertion.

A final potential barrier to same-day LARC insertion is the concern that an unscheduled insertion will delay clinic flow. Health centers can use several strategies to help maximize the efficiency of visits, keeping in mind that every visit should be viewed as an opportunity to address a woman's reproductive life plan and thus an opportunity to reassess contraceptive use. First, if all members of the health care team are knowledgeable about contraception, including LARC methods, they can counsel patients, thereby freeing up clinician time. Second, use of decision aids or informational videos in the waiting room can help patients identify factors that are important to them in choosing a contraceptive method. Finally, creating instrument packs containing all required supplies for LARC insertion can help streamline procedures.

### Access – Immediate Postpartum LARC Placement

Another strategy to increase access to LARC methods is to provide IUDs and implants in the immediate postpartum setting, as recommended by the American College of Obstetricians and Gynecologists.<sup>21</sup> This is important because up to 45% of women report having unprotected intercourse before the

routine six-week postpartum visit, putting them at risk for rapid repeat pregnancy.<sup>22</sup> Provision of LARC methods in the immediate postpartum period can reduce this risk, and there are few contraindications to providing these methods in this setting. Twenty-one state Medicaid programs, including Missouri's, reimburse for IUDs and implants in the postpartum hospital setting. Although rates of IUD expulsion are higher after immediate postpartum insertion than at other times (10–27% vs. 2–10%),<sup>23</sup> this risk is likely offset by the low rates of postpartum follow-up among women at highest risk for rapid repeat pregnancy.

### Access – Special Populations

We highlight four populations in which LARC methods are often not used but in which use could increase. First, women receiving emergency contraception most commonly receive oral levonorgestrel or ulipristal acetate. However, the copper IUD has been shown to be the most effective form of emergency contraception, greater than 99% effective within 120 hours of unprotected sexual intercourse. The copper IUD has the added benefit of providing “forgettable” contraception, thus nearly eliminating the chance that a woman will need emergency contraception again. Second, LARC methods are appropriate for and acceptable to adolescents. Although some providers have been reluctant to provide LARC methods to teens, this practice is supported by both the American

Academy of Pediatrics and the American College of Obstetricians and Gynecologists.<sup>24, 25</sup> Third, with the increasing epidemic of obesity, consideration of effectiveness of methods in women of varying body mass index is relevant. Importantly, data from CHOICE demonstrated that LARC methods are equally effective regardless of body mass index.<sup>26</sup> Finally, women who have been using the 52 mg letonorgestrel-IUD or the etonogestrel implant for their FDA-approved durations can continue to use these methods for at least one more year without fearing any loss of effectiveness.<sup>27-28</sup>

## Thoughts and Conclusion

The contraceptive and family planning needs of our patients are diverse, but with attention to reducing barriers to the most highly effective contraceptive methods, we can better help women plan and space their pregnancies. Preventing unintended pregnancy is an important way to reduce maternal and neonatal morbidity and mortality and help our patients reach their education, career, and life goals.

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## Disclosure

None reported.

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