ASSESSING PROVIDER PRACTICE AND EDUCATIONAL NEEDS TO INCREASE LONG ACTING REVERSIBLE CONTRACEPTION IN VERMONT

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EXECUTIVE SUMMARY

The purpose of this project is to increase the utilization of long-acting reversible contraception (LARC) before and between pregnancies in order to decrease unintended pregnancies and poor birth outcomes. The project aims to identify gaps between the latest guidelines and recommendations on LARC and current knowledge and practice around the state, and to narrow this gap by educating Vermont health care providers about these contraceptive methods. The Vermont Child Health Improvement Program (VCHIP), funded by and in partnership with the March of Dimes (MOD) and the Vermont Department of Health (VDH), will provide state-wide outreach and education to increase providers' knowledge of LARC options and guidelines, and provide training on educating and counseling patients to increase utilization of LARC in Vermont. This will be accomplished by identifying the population of providers that care for women of childbearing age, conducting a needs assessment survey to ascertain current practices and educational needs around the use of LARC, and utilizing the results of the needs assessment to design and conduct three webinars and two in-person training sessions.

The Vermont LARC needs assessment was developed through an iterative process by a small working group and sent to providers in June 2015. Complete responses were received from 126 health care providers across the state; however four were not currently in clinical practice and did not answer subsequent survey questions. A variety specialties were represented including 31 responses from OB/GYN or Women's Health specialists, 43 from Family Medicine, 36 Pediatric, 9 Internal Medicine or Adult specialists, 5 from other specialties, and 2 who gave no response.

Respondents reported a fairly high level of knowledge around LARC methods with moderate or high knowledge about efficacy reported by 91% for copper IUD, 95% for levonorgestrel IUD and 88% for the implant. Moderate or high knowledge of side effects was reported by 84% for copper IUD, 89% for

levonorgestrel IUD, and 80% for the implant, and moderate or high knowledge of insertion and removal was reported by 59% for copper IUD, 65% for levonorgestrel IUD and 59% for the implant. Respondents were asked about their comfort level in counseling on LARC methods; most stated that they were comfortable or very comfortable counseling on each method (83% copper IUD, 88% levonorgestrel IUD, 84% implant). They also overwhelmingly felt that both the IUD (99%) and the implant (97%) were safe for adult women, and for adolescents (88% for IUDs and 93% for implant.)

Most (89%) of the providers surveyed provide contraceptive counseling to their patients, and one in three (35%) always recommend LARCs, either intrauterine device (IUD) or implant, as first-line contraception. Of the respondents, 39% report inserting IUDs, and 30% insert implants. Of those providers who do not insert IUDs, 83% refer to another provider for this service, and 85% of providers who do not insert implants refer out for this service.

The most frequently cited barriers to increasing LARC use in practice were patient preference, problems with insurance preauthorization, and cost of method. The most frequently mentioned barriers to starting to insert LARCs in a practice were lack of provider knowledge and training, lack of comfort with insertion, lack of support at practice for insertion, not enough need or desire in my patient population, and problems with insurance.

Respondents were asked about their interest in further training on LARC methods. For providers who do not currently insert LARC, 49% said they would consider inserting IUDs if they had more training, and 55% said they would consider inserting implants with more training. A little over half of all providers are interested in additional training on LARC counseling, slightly less than one third are interested in training on LARC referral, and about a third are interested in training on IUD insertion, with a higher number (43%) interested in training on implant insertion.

Next steps for this project will include presenting the results of the needs assessment to stakeholders, determining the content of the three webinars and two in-person trainings, and developing the curricula for each session. As a result of these trainings, we anticipate that providers will be able to offer their patients a wider range of highly effective contraception to increase their ability to plan and space pregnancies.

BACKGROUND

The Vermont Collaborative Improvement and Innovation Network (CoIIN) to Reduce Infant Mortality formed this past year to develop and implement a state-wide plan to reduce infant mortality. One of the strategic priorities of this group is to enhance the quality of care for women before and between pregnancies and reduce unintended pregnancies by increasing the use of long-acting reversible contraception (LARC) in Vermont. A state-wide committee of stakeholders has come together to work on this initiative, including members from the Vermont Department of Health (VDH), the March of Dimes (MOD), the Department of Vermont Health Access (DVHA), University of Vermont Medical Center (UVMMC), Planned Parenthood of Northern New England (PPNNE), and the Vermont Child Health Improvement Program (VCHIP).

Unintended pregnancies are a state-wide concern. In Vermont, about 50% of all pregnancies are unintended.[1] This number is much higher for young women, with an unintended pregnancy rate of 81% for teenagers and 67% for women ages 20-24. LARCs, which include intrauterine devices (IUDs) and implants, are among the most effective birth control methods available[2], and use of these methods has been shown to reduce unintended pregnancies, especially in teenagers.[3] Unintended pregnancies have a

[1] Vermont Department of Health (2015). Data source: PRAMS and Vital Statistics.
[2] Winner, B., et al. (2012). "Effectiveness of long-acting reversible contraception." N Engl J Med **366**(21): 1998-2007.

[3] McNicholas, C., et al. (2014). "The contraceptive CHOICE project round up: what we did and what we learned." Clin Obstet Gynecol **57**(4): 635-643.

statistically significant higher risk for low birth weight and preterm birth[4], so by reducing unintended pregnancies poor birth outcomes and infant mortality should decline.

The current use of LARC methods by Vermont health care providers is not known. This project seeks to identify gaps between the latest guidelines and recommendations on LARC and current knowledge and practice around the state. A Vermont-specific needs assessment was used to gather information on knowledge, current practice, attitudes, barriers to use, and educational needs of Vermont health care providers around LARC methods. Using the results of this survey, VCHIP will narrow this gap by educating Vermont providers about these contraceptive methods. Through webinars and in-person training sessions, participants will receive up-to-date research and guidelines around LARC, as well as information on counseling women on efficacy, side effects and insertion procedures. As a result of these trainings, we anticipate that providers will be able to offer their patients a wider range of highly effective contraception to increase their ability to plan and space pregnancies. Throughout the project, VCHIP will work closely with the Vermont CoIIN team and interested stakeholders to inform and guide the activities, aid in publicizing the trainings, and to disseminate the results and lessons learned.

[4] Shah, P. S., et al. (2011). "Intention to become pregnant and low birth weight and preterm birth: a systematic review." Matern Child Health J **15**(2): 205-216.

METHODS

The Vermont LARC needs assessment survey was created by a small working group drawn from the larger Vermont CoIIN team and included members from VCHIP, VDH, and UVMMC. The working group expanded to include a University of Vermont Nurse Practitioner student who was doing her thesis on provider knowledge of LARC methods in order to collaborate and distribute one comprehensive LARC survey to health care providers. The working group identified categories of questions that needed to be included in the survey in order to gain the information vital to developing curricula for the training sessions. These categories include health care providers': demographics, knowledge, current practice and barriers, attitudes, and educational needs (Appendix 1). The working group performed a literature search to look for existing needs assessment surveys, and were unable to find any that fit our needs, so the group developed their own. Several questions were adapted (with permission) from the 2008 National Pregnancy & HIV/STI Prevention Survey done at the Bixby Center for Reproductive Health Research and Policy at University of California San Francisco. The survey was revised several times with drafts circulated among the working group. The final draft of the survey was shared with a larger team of stakeholders and recommended changes were incorporated into the final instrument. Once complete, the needs assessment was re-created in an electronic survey tool, Lime Survey, for ease of distribution and data collection. The study was approved by the University of Vermont's Institutional Review Board Committee on Human Research in the Behavioral and Social Sciences.

In June 2015, the needs assessment survey was send to relevant health care providers throughout Vermont using professional organization listservs. An introduction to the study, along with a link to the survey was sent by the Vermont chapters of the Academy of Family Physicians, the American Academy of Pediatrics and the American Congress of Obstetrics and Gynecologists to their members.

The Vermont Medical Society sent an e-mail with the introduction and link to the needs assessment to Internists in the state, and the Vermont Nurse Practitioner Association and the Physician Assistant Academy of Vermont sent the survey to their providers as well. The survey was available to the providers for three weeks, and weekly reminders were e-mailed out to potential participants. Participation was incentivized by offering respondents entry into a raffle of an iPad Mini.

The responses were downloaded from Lime Survey into IBM SPSS Statistics 23, and analyzed using descriptive statistics.

RESULTS

Survey Respondents & Demographics

VCHIP received 141 responses to the needs assessment survey, of which 126 were complete. Respondents included: 83 Attending Physicians, 7 Fellow/Residents, 22 Nurse Practitioners, 11 Physician Assistants, 2 medical students, and 1 with no response. Results indicated that 35 respondents have been in practice five years or less, 17 have been practicing 6-10 years, 12 have been in practice 11-15 years, 17 for 16-20 years, and 44 for 21 or more years. There was a wide range of specialties represented in the survey results. VCHIP received 31 responses from OB/GYN or Women's Health specialists, 43 from Family Medicine, 36 Pediatric, 9 Internal Medicine or Adult specialists, 5 from other specialties and 2 with no answer. Most respondents work either at a University Medical Center or clinic (41) or a private office or clinic (39); however, 22 work at a community hospital or clinic, 10 at a Federally Qualified Health Center (FQHC), 3 at a Rural Health Center (RHC), and 6 at a family planning clinic (see Appendix 2, Figures 1-4). In addition, seven providers practice out of state (five in NH, one in MA and one in ME) and two respondents did not enter their zip code. Of the 117 practicing in Vermont, nearly half (67) practice in Chittenden County, 11 practice in Washington County, 7 in Windsor County, 6 in both Lamoille and Bennington Counties, 5 in Franklin County, 4 in both Addison and Orange Counties, 2 in both Orleans and Caledonia Counties and 1 in Grand Isle, Rutland and Windham Counties.

Of the 126 respondents, four do not currently provide direct patient care and were therefore not asked to complete the subsequent survey questions. Their demographic information was provided for comparison purposes, however the total respondents for the results below are limited to the 122 providers in active clinical practice.

Current Practice

Contraceptive Counseling:

Most (89%) of the providers who were surveyed provide contraceptive counseling to their patients and the majority of those (91%) usually or always discuss the IUD with patients seeking contraception. For the implant, four out of five providers usually or always discuss this option with their patients seeking contraception. Among providers who counsel their reproductive age women on contraceptive options, half (54%) report using a patient-directed approach to counseling and one third (32%) use the tiered counseling approach, discussing options in order from most to least *effective* methods. About 4% discuss the most to least *commonly used* methods, and about 10% don't have a specific approach or have on that is not listed above. One in three (35%) respondents always recommend LARCs, either IUD or implant, as first-line contraception, in contrast, 1% of respondents never recommend LARCs as first-line contraception. See Figures 5 and 6 in Appendix 2.

LARC Insertion and Referrals:

Of the 109 respondents who provide contraceptive counseling, 39% reported inserting IUDs. Among these providers, levonorgestrel IUDs are inserted more frequently than copper IUDs, with 42% inserting levonorgestrel-releasing IUDs at least once a week, compared to 21% inserting copper IUDs with the same frequency. All providers who insert IUDs inserted levonorgestrel-releasing IUDs, however about 9% of these providers never insert copper IUDs. For 74% of providers who insert IUDs (N=43), counseling and insertion of this method involves two or more patient visits. The main reasons cited for the need for more than one visit are insurance barriers (N=27), a need to get all the information across (N=16), a requirement to order the device (N =13), work flow in the practice (N=13), and to make sure the patient really wants the method (N=10).

Of those providers who do not insert IUDs (N=66), most (83%) refer to another provider or practice for IUD insertion. The frequency of referrals varies with 40% referring women less than once a

month, 23% referring once a month, 32% referring a few times a month, and 6% referring women for IUD inserts at least once a week. The top places to which women are referred for IUD inserts are an OB/GYN practice (59%), a family planning clinic or Planned Parenthood (19%), and to another provider in the same practice (19%). Outside of Chittenden County providers usually (73%) refer to an OB/GYN practice for IUD insert, whereas within Chittenden County 43% refer to an OB/GYN practice, and 29% refer to another provider in their practice.

The needs assessment survey results identified that fewer providers insert implants than IUDs. Out of the 109 providing contraceptive counseling, 33 (30%) providers reported inserting implants. About 46% of these providers insert implants less than once a month, 15% insert them once a month, 27% insert implants a few times a month, and only 12% insert them at least once a week. Among providers inserting implants, one third (33%) typically perform counseling and insertion in one visit, whereas the majority (67%) typically take two or more patient visits. The most commonly cited reasons for multiple visits are: insurance barriers (N=19), requirement to order the device before insertion (N=15), to get all the information across to the patient (N=10), workflow in the practice (N=9), and to make sure the patient really wants the method (N=9).

Of the providers who do not insert implants (N=71), about 85% refer to another provider or practice for implant insertion, however, these referrals are infrequent: 3% refer at least once a week, 7% refer women a few times a month, 19% refer women once a month, and the other 71% refer women for implant insertion less than once a month. The main referral locations for implant insertion are: an OB/GYN practice (39%), family planning clinic or Planned Parenthood (32%), and another provider in their practice (22%). Referrals to an OB/GYN practice are more common outside of Chittenden County (52%) than within Chittenden County (26%), and referrals to a family planning clinic or Planned Parenthood were much more common in Chittenden County (37%) than outside Chittenden County (7%).

Patient Preferences

Respondents were asked to identify and rank the top three contraception methods chosen by their female patients among 12 possible birth control types. Oral contraceptives were ranked as the top method chosen, followed by levonorgestrel IUD, and condoms. Seventy-eight providers (74%) identified the oral contraceptive pill as their patients' most frequently selected method, followed by levonorgestrel IUD (N=18, 17%), and condoms (N=6, 6%). Forty health care providers ranked condoms as a top three preference among their patients, compared to 27 providers who ranked implants among their patient's top three preferences.

Barriers

Barriers to Increasing the Use of LARCs

Providers who already insert LARCs were asked about barriers that prevent them from increasing the use of LARC in their practice. The most common barriers (i.e. strongly or somewhat agree) for increasing IUD use are problems with insurance preauthorization (60%), patient preference (59%), and cost of method (50%) (see Table 1, Appendix 2). Similar barriers were seen for increasing the use of the implant in practice. Patient preference was the most commonly cited barrier, with 78% somewhat or strongly agreeing that this is a barrier. Problems with insurance preauthorization (56%), and cost of method (41%) are the other main barriers for providers to increase implant use (see Table 2, Appendix 2).

Barriers to Starting to Insert LARCs

Among those providers who do not currently insert IUDs, barriers (i.e. strongly or somewhat agree) that prevent them from starting to insert IUDs in their practice include: lack of provider knowledge and training (73%), lack of comfort with insertion (68%), lack of support at practice for insertion (48%), not enough need or desire in my patient population (44%), and problems with insurance preauthorization (43%) (see Table 3, Appendix 2). Among providers who do not currently insert

implants, the barriers identified are similar: 69% report lack of provider knowledge and training, 67% report lack of comfort with insertion technique, 51% report lack of need/desire in their patient population, and 42% report both lack of comfort with contraceptive method and lack of support at practice (see Table 4, Appendix 2).

Training, Knowledge, and Attitudes

Training

The needs assessment survey also asked providers about their prior LARC training and 76% reported having received training to provide IUD counseling. Most of this training occurred within the past 5 years, and providers considered this to be their knowledge to be intermediate or in-depth. Most providers received this training in residency, fellowship or clinical training. Half (53%) of providers reported receiving training on IUD insertion; however responses were divided among providers receiving training in the past five years versus training occurring >20 years ago. Most providers indicated the training was in-depth and that it occurred in residency, fellowship or clinical training, or in practice.

Regarding implants, 60% of respondents reported receiving training to provide implant counseling. Almost all of this training occurred in the past five years, and most providers considered the training to be intermediate or in-depth. There was little distinction in the setting for implant training with providers reporting it occurred at a conference or other CME activity, in residency, fellowship or clinical practice, and in practice. Less than 40% of providers reported having received any training to provide implant insertion. Almost all of this training occurred less than 5 years ago and was in-depth. Most of the implant insertion training occurred either at a conference or other CME activity, or in practice.

Knowledge and Comfort

Providers were asked to rate their knowledge of various LARC methods in terms of efficacy, side effects and insertion and removal process. For the copper IUD, 91% of respondents reported moderate or high knowledge about efficacy of the method, 84% reported moderate or high knowledge of side effects, and 59% reported moderate or high knowledge of the insertion and removal process. For the levonorgestrel IUD, 95% of providers responded that they have moderate or high knowledge of the efficacy of this method, 89% have moderate or high knowledge of the side effects, and 65% have moderate or high knowledge of the insertion and removal procedure. For the implant, about 88% reported moderate or high knowledge of the efficacy, about 80% reported moderate or high knowledge of the side effects, and 59% reported moderate or high knowledge of the insertion and removal process.

Respondents were asked about their comfort level in counseling on LARC methods; most stated that they were comfortable or very comfortable counseling on each method (83% copper IUD, 88% levonorgestrel IUD, 84% implant).

Attitudes

The survey asked providers if they would recommend LARC methods for women with various medical concerns. Most respondents would recommend the levonorgestrel IUD and the implant for women with any of the medical conditions, however most would not recommend a copper IUD for women with menorrhagia, dysmenorrhea, fibroids and iron-deficiency anemia. A number of the respondents were uncertain as to whether or not they would recommend the implant in various circumstances, as over one quarter answered “uncertain” for six out of the nine conditions. For a full table of the responses for LARC recommendations and medical conditions, see Table 5 in Appendix 2.

Respondents were asked whether or not they considered LARC methods safe for adult women and adolescents. Overwhelmingly providers felt that both the IUD (99%) and the implant (97%) were safe for adult women. In terms of adolescents, 88% felt IUDs were safe, with about 8% being uncertain

and 3% feeling that they were not safe for adolescents. Ninety-three percent considered the implant safe for adolescents, with 5% being uncertain and 2% considering them unsafe.

Providers were also asked if they considered patients with certain medical conditions eligible for an IUD. Most respondents considered nulliparous women, non-monogamous women, women immediately post-partum or post-abortion, and adolescents eligible for an IUD. The majority also felt that women with a history of a sexually transmitted infection and a history of pelvic inflammatory disease were eligible to have an IUD, but a patient with current symptomatic or asymptomatic gonorrhea or chlamydia infection or current pelvic inflammatory disease were not (see Table 6, Appendix 2).

The survey asked providers about concerns they may have that could prevent them from recommending an IUD. Most respondents stated that concerns about uterine perforation at insertion, expulsion, discomfort during insertion, infertility, changes in bleeding patterns, adolescence, multiple partners and interference with breastfeeding never prevented them from recommending an IUD. Over 50% stated that sexually transmitted infections and pelvic inflammatory disease sometimes, usually or always prevented them from recommending an IUD (see Table 7, Appendix 2).

Educational Needs

Providers who do not currently insert IUDs were asked if they would consider providing IUDs to women if they received additional training: 49% said that they would, 31% said that they would not, and 20% were uncertain. For providers who do not currently insert implants, about 55% said that they would consider inserting them if given additional training, 24% said that they would not, and 21% were uncertain.

All survey respondents were asked about their interest in different types of training and half of all respondents said that they would be interested in training on counseling for LARC methods: 53% said

yes for copper IUD, 51% for levonorgestrel IUD, and 54% for implant counseling. Fewer providers were interested in training on how and where to refer women for LARC insertion. Less than one-third (29%) of providers indicated they were interested in training on referrals for any of the LARC methods. Regarding insertion, 30% of respondents are interested in training on copper IUD insertion, 33% are interested in training on levonorgestrel IUD insertion, and 43% are interested in training on implant insertion.

SUMMARY & NEXT STEPS

Summary

The Vermont LARC needs assessment survey found that providers consider themselves to be knowledgeable about LARC methods. Over 80% consider themselves moderately or highly knowledgeable about the efficacy and side effects of LARC, however only one in three (35%) always recommend LARCs as first-line contraception. While providers are highly knowledgeable about LARC methods, this doesn't necessarily translate into practice. The oral contraceptive pill is the method most commonly chosen by patients, followed by levonorgestrel IUD and condoms. Condoms, one of the least effective contraceptives, is more likely to be chosen by patients as a primary method of contraception than two of the most effective contraceptives – copper IUDs and implants.

Many of the barriers that providers feel prevent them from either starting to insert LARC or to increasing their use of LARC fall into the categories of insurance concerns, patient preference and provider training. These barriers can be addressed through training by correcting misconceptions, strengthening current knowledge, and teaching new contraceptive counseling skills.

While providers stated a high level of knowledge about LARC methods and a high comfort level in counseling on these methods, there was a sizeable amount of uncertainty in LARC eligibility. This discordance is especially high for the implant, as there was a higher amount of uncertainty in recommending that method for women with various medical conditions. There is also discordance between stated knowledge of LARC methods, and stated eligibility of women with certain characteristics for an IUD. Respondents felt that LARC methods are overwhelmingly safe for adult women (99% for IUD and 97% for implant), but only 88% felt the IUD was safe for adolescents, and one third (30%) stated that adolescence was a concern that sometimes, usually or always prevented them from recommending an IUD.

Of the respondents who do not currently insert LARC, about half indicated they would consider starting to insert them if they were given training, with an additional 20% stating they remain uncertain. Slightly over half of all respondents are interested in training on counseling for LARC methods, one in three providers are interested in training to insert IUDs, and about 40% are interested in training to insert implants.

Next Steps

VCHIP plans to reconvene the large working group of stakeholders to review the results of the needs assessment survey. These results will help to inform the development of three webinars to occur this coming winter, and two in-person trainings to take place next spring. VCHIP with work with partners to identify relevant themes for each session, locate speakers/trainers, and coordinate the curriculum development for each session. The webinars are intended to have broad appeal and will focus on the educational needs of Vermont providers, including education on guidelines and effective LARC counseling techniques. They will also address barriers to LARCs identified in the needs assessment process (such as insurance and cost issues). The in-person trainings will be more in-depth and likely target increasing utilization of specific LARC methods.

APPENDIX 1: NEEDS ASSESSMENT SURVEY INSTRUMENT

VCHIP LARC Needs Assessment Survey

Demographics

1. How many years have you been in practice (post-training)? Choose one of the following answers

❑ 0-5
❑ 6-10
❑ 11-15
❑ 16-20
❑ 21 or more

2. What are your professional qualifications? Choose one of the following answers

❑ Attending physician
❑ Fellow/resident
❑ Nurse Practitioner
❑ Midwife
❑ Physician Assistant
❑ Other _____

3. What is your specialty? Choose one of the following answers

❑ OB/GYN or Women's Health
❑ Internal Medicine/Adult
❑ Family Medicine
❑ Pediatrics
❑ Midwifery
❑ Other _____

4. What type of setting is your main clinical practice? Choose one of the following answers

❑ Community hospital/clinic
❑ University medical center/clinic
❑ Private office or clinic
❑ Family planning clinic
❑ Federally Qualified Health Center (FQHC)
❑ Rural Health Center (RHC)
❑ University/College Health Center
❑ School-based health center
❑ Other _____

5. What is the age range of your patients? Check any that apply

❑ 10-18 years
❑ 18-24 years
❑ 25-49 years

6. What is the zip code of your main practice site? _____

7.

Do you provide direct patient care?	❑ Yes	❑ No

If No – hard stop, survey complete

Knowledge

8.

Have you received any training to provide IUD counseling?	❑ Yes	❑ No

If yes to 8 – 8a, 9, 10. Check any that apply

How long ago was this training?	❑ 0-5 years	❑ 6-10 years	❑ 11-15 years	❑ 16-20 years	❑ >20 years
How would you describe this training?	❑ Introductory		❑ Intermediate		❑ In-depth
Where did you receive this training?	❑ In school	❑ In residency/ fellowship/ clinical training		❑ In practice	❑ Other (CME, conference)

11.

Have you received any training to provide IUD insertion?	❑ Yes	❑ No

If yes to 11 – 11a, 12, 13. Check any that apply

How long ago was this training?	❑ 0-5 years	❑ 6-10 years	❑ 11-15 years	❑ 16-20 years	❑ >20 years
How would you describe this training?	❑ Introductory		❑ Intermediate		❑ In-depth
Where did you receive this training?	❑ In school	❑ In residency/ fellowship/ clinical training		❑ In practice	❑ Other (CME, conference)

14.

Have you received any training to provide Implant counseling?	❑ Yes	❑ No

If yes to 14 – 14a, 15, 16. Check any that apply

How long ago was this training?	❑ 0-5 years	❑ 6-10 years	❑ 11-15 years	❑ 16-20 years	❑ >20 years
How would you describe this training?	❑ Introductory		❑ Intermediate		❑ In-depth
Where did you receive this training?	❑ In school	❑ In residency/ fellowship/ clinical training		❑ In practice	❑ Other (CME, conference)

17.

Have you received any training to provide Implant insertion?	❑ Yes	❑ No

If yes to 17 – 17a, 18, 19. Check any that apply

How long ago was this training?	❑ 0-5 years	❑ 6-10 years	❑ 11-15 years	❑ 16-20 years	❑ >20 years
How would you describe this training?		❑ Introductory		❑ Intermediate	❑ In-depth
Where did you receive this training?	❑ In school	❑ In residency/ fellowship/ clinical training		❑ In practice	❑ Other (CME, conference)

20. How would you rate your knowledge of the Copper T IUD

	High	Moderate	Low	None
Contraceptive efficacy	❑	❑	❑	❑
Side effects	❑	❑	❑	❑
Insertion/removal procedure	❑	❑	❑	❑

21. How would you rate your knowledge of the Levonorgestrel-releasing IUD

	High	Moderate	Low	None
Contraceptive efficacy	❑	❑	❑	❑
Side effects	❑	❑	❑	❑
Insertion/removal procedure	❑	❑	❑	❑

22. How would you rate your knowledge of the Implant

	High	Moderate	Low	None
Contraceptive efficacy	❑	❑	❑	❑
Side effects	❑	❑	❑	❑
Insertion/removal procedure	❑	❑	❑	❑

23. How comfortable do you feel counseling a woman about:

	Very Comfortable	Comfortable	Uncomfortable	Very Uncomfortable
Copper T IUD	❑	❑	❑	❑
Levonorgestrel-releasing IUD	❑	❑	❑	❑
Implant	❑	❑	❑	❑

24. Would you recommend an IUD for women with the following?

	Copper T IUD			Levonorgestrel-releasing IUD			Implant (Nexplanon®)		
	Yes	Uncertain	No	Yes	Uncertain	No	Yes	No	Unsure
Menorrhagia	❑	❑	❑	❑	❑	❑	❑	❑	❑
Dysmenorrhea	❑	❑	❑	❑	❑	❑	❑	❑	❑

Fibroids	❑	❑	❑	❑	❑	❑	❑	❑	❑
Diabetes	❑	❑	❑	❑	❑	❑	❑	❑	❑
Obesity	❑	❑	❑	❑	❑	❑	❑	❑	❑
Smoker	❑	❑	❑	❑	❑	❑	❑	❑	❑
History of HTN	❑	❑	❑	❑	❑	❑	❑	❑	❑
Iron-deficiency anemia	❑	❑	❑	❑	❑	❑	❑	❑	❑
Breastfeeding immediately postpartum	❑	❑	❑	❑	❑	❑	❑	❑	❑

24a. Would you recommend an Implant for women with the following?

	Implant (Nexplanon®)		
	Yes	No	Unsure
Menorrhagia	❑	❑	❑
Dysmenorrhea	❑	❑	❑
Fibroids	❑	❑	❑
Diabetes	❑	❑	❑
Obesity	❑	❑	❑
Smoker	❑	❑	❑
History of HTN	❑	❑	❑
Iron-deficiency anemia	❑	❑	❑
Breastfeeding immediately postpartum	❑	❑	❑

Current Practice

25.

Do you provide contraception counseling to your patients?	❑ Yes	❑ No

If no skip to **Attitudes – question 51**

If yes to 25 answer 26-31

26.

Among your female patients seeking contraception, how frequently do you discuss the IUD? Choose one of the following answers	❑ Never	❑ Sometimes	❑ Usually	❑ Always

27.

Among your female patients seeking contraception, how frequently do you discuss the Implant? Choose one of the following answers	❑ Never	❑ Sometimes	❑ Usually	❑ Always

28. What is your **primary** approach to contraceptive counseling? Choose one of the following answers

❑ Patient-directed

❑ Tiered approach (most to least effective)
❑ Most commonly used to least commonly used
❑ Personal provider preference
❑ Don't have a specific approach
❑ Other not listed

29. What method of contraception do your female patients choose most often as their primary method? Rank the top three.

❑ Condom	❑ Diaphragm	❑ Oral contraceptive pill
❑ Vaginal ring	❑ Patch	❑ Injection
❑ Implant (Nexplanon®)	❑ IUD – Levonorgestrel-releasing (Mirena®, Skyla® or Liletta™)	❑ IUD – Copper T (Paragard®)
❑ Sterilization	❑ Emergency contraception	❑ Other

30.

How often do you recommend IUDs or Implants as first-line contraception? Choose one of the following answers	❑ Never	❑ Sometimes	❑ Usually	❑ Always

31.

Do you insert IUDs?	❑ Yes	❑ No

If yes to 31 answer 32,33,35

32. How often do you insert the following IUDs?

Copper T IUD	❑ At least once a week	❑ A few times a month	❑ Once a month	❑ Less than once a month	❑ Never
Levonorgestrel-releasing IUD	❑ At least once a week	❑ A few times a month	❑ Once a month	❑ Less than once a month	❑ Never

33.

In your practice, how many visits are typically needed to counsel and insert an IUD?	❑ 1	❑ 2 or more

If 2 or more in 33:

34. If more than one visit is needed, what is the reason? Check any that apply

❑ To get all the information across
❑ To make sure the woman is not pregnant
❑ To make sure the patient really wants the method

❑ Insurance barriers
❑ Because guidelines recommend this
❑ Work flow in practice
❑ Clinic policy
❑ Requirement to order device before insertion
❑ Patient is mid-cycle, not actively menstruating
❑ Other _____

35. The following are barriers to increasing the use of the IUD in my practice:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Patient preference					
Not enough need/desire in my patient population					
Objection of patient's partner					
Lack of provider knowledge/training					
Lack of comfort with method					
Lack of comfort with insertion					
Safety of method					
Efficacy of method					
Appropriateness of method for my patients					
Cost of method					
Problems with insurance preauthorization					
Problems with insurance reimbursement					
Lack of time in scheduled for insertion/problems with clinic flow					
Number of visits needed to counsel/insert					
Lack of support at practice for insertion					
Difficulty obtaining and/or maintaining a supply of devices					
Liability					

If no to 31, answer 36,40

36.

Do you refer to another provider/practice for IUD insertion?	❑ Yes	❑ No

37. **If yes to 36 answer 37-39**

How often do you refer women for IUD insertion? Choose one of the following answers	❑ At least once a week	❑ A few times a month	❑ Once a month	❑ Less than once a month

38. Where in your community can you refer women who would like an IUD? Check any that apply

❑ Other provider in my practice	❑ Family planning clinic/Planned Parenthood
❑ Family Medicine practice	❑ Community Health Center/FQHC/RHC
❑ OB/GYN practice	❑ Other _____

39. Where do you **most often** refer women who would like an IUD? Choose one of the following answers

❑ Other provider in my practice	❑ Family planning clinic/Planned Parenthood
❑ Family Medicine practice	❑ Community Health Center/FQHC/RHC
❑ OB/GYN practice	❑ Other _____

40. The following are barriers to inserting IUDs in my practice:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Patient preference					
Not enough need/desire in my patient population					
Objection of patient's partner					
Lack of provider knowledge/training					
Lack of comfort with method					
Lack of comfort with insertion					
Safety of method					
Efficacy of method					
Appropriateness of method for my patients					
Cost of method					
Problems with insurance preauthorization					
Problems with insurance reimbursement					
Lack of time in scheduled for insertion/problems with clinic flow					
Number of visits needed to counsel/insert					
Lack of support at practice for insertion					
Difficulty obtaining and/or maintaining a supply of devices					
Liability					

41.

Do you insert **Implants**?	❑ Yes	❑ No

If yes to 41 answer 42,43,45

42.

How often do you insert Implants? Choose one of the following answers	❑ At least once a week	❑ A few times a month	❑ Once a month	❑ Less than once a month

43.

In your practice, how many visits are typically needed to counsel and insert an Implant?	❑ 1	❑ 2 or more

If 2 or more in 43:

44. If more than one visit is needed, what is the reason? Check any that apply

❑ To get all the information across
❑ To make sure the woman is not pregnant
❑ To make sure the patient really wants the method
❑ Insurance barriers
❑ Because guidelines recommend this
❑ Work flow in practice
❑ Clinic policy
❑ Requirement to order device before insertion
❑ Patient is mid-cycle, not actively menstruating
❑ Other _____

45. The following are barriers to increasing the use of the Implant in my practice:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Patient preference					
Not enough need/desire in my patient population					
Objection of patient's partner					
Lack of provider knowledge/training					
Lack of comfort with method					
Lack of comfort with insertion					
Safety of method					
Efficacy of method					
Appropriateness of method for my patients					
Cost of method					
Problems with insurance preauthorization					
Problems with insurance reimbursement					
Lack of time in scheduled for insertion/problems with clinic flow					

Number of visits needed to counsel/insert					
Lack of support at practice for insertion					
Difficulty obtaining and/or maintaining a supply of devices					
Liability					

If no to 41, answer 46,50

46.

Do you refer to another provider/practice for Implant insertion?	❑ Yes	❑ No

47. **If yes to 46 answer 47-49**

How often do you refer women for Implant insertion? Choose one of the following answers	❑ At least once a week	❑ A few times a month	❑ Once a month	❑ Less than once a month

48. Where in your community can you refer women who would like an Implant? Check any that apply

❑ Other provider in my practice	❑ Family planning clinic/Planned Parenthood
❑ Family Medicine practice	❑ Community Health Center/FQHC/RHC
❑ OB/GYN practice	❑ Other _____

49. Where do you **most often** refer women who would like an Implant? Choose one of the following answers

❑ Other provider in my practice	❑ Family planning clinic/Planned Parenthood
❑ Family Medicine practice	❑ Community Health Center/FQHC/RHC
❑ OB/GYN practice	❑ Other _____

50. The following are barriers to inserting Implants in my practice:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Patient preference					
Not enough need/desire in my patient population					
Objection of patient's partner					
Lack of provider knowledge/training					
Lack of comfort with method					
Lack of comfort with insertion					
Safety of method					
Efficacy of method					

Appropriateness of method for my patients					
Cost of method					
Problems with insurance preauthorization					
Problems with insurance reimbursement					
Lack of time in scheduled for insertion/problems with clinic flow					
Number of visits needed to counsel/insert					
Lack of support at practice for insertion					
Difficulty obtaining and/or maintaining a supply of devices					
Liability					

Attitudes

51.

Do you consider the following methods to be safe:	Yes	Uncertain	No
IUD for adult women	❑	❑	❑
IUD for adolescents	❑	❑	❑
Implant for adult women	❑	❑	❑
Implant for adolescents	❑	❑	❑

52. Do you consider the following patients eligible for an IUD?

	Yes	Uncertain	No
Nulliparous women	❑	❑	❑
Non-monogamous (multiple partners)	❑	❑	❑
Immediate post-partum	❑	❑	❑
Immediate post-abortion	❑	❑	❑
Post septic abortion	❑	❑	❑
History of sexually transmitted infection in past 2 years	❑	❑	❑
Current symptomatic gonorrhea or chlamydia infection	❑	❑	❑
Asymptomatic positive gonorrhea or chlamydia screening test	❑	❑	❑
History of ectopic pregnancy	❑	❑	❑
History of pelvic inflammatory disease (PID)	❑	❑	❑
Current pelvic inflammatory disease (PID)	❑	❑	❑
Adolescents	❑	❑	❑

53. How often do concerns about the following issues prevent you from recommending the IUD?

	Never	Sometimes	Usually	Always
Uterine perforation [at insertion]	❑	❑	❑	❑
Expulsion	❑	❑	❑	❑
Discomfort during insertion	❑	❑	❑	❑
Sexually transmitted infections	❑	❑	❑	❑
Pelvic inflammatory disease (PID)	❑	❑	❑	❑

Infertility	❑	❑	❑	❑
Changes in bleeding patterns	❑	❑	❑	❑
Adolescence	❑	❑	❑	❑
Multiple partners (non-monogamous)	❑	❑	❑	❑
Interference with breastfeeding	❑	❑	❑	❑

Educational Needs

54.

Would you consider providing IUDs to women if you received additional training? Choose one of the following answers	❑ Yes	❑ No	❑ Uncertain

55.

Would you consider providing the Implant to women if you received additional training? Choose one of the following answers	❑ Yes	❑ No	❑ Uncertain

56. Would you like more training on how to counsel women about any of the following methods:

Copper T IUD	❑ Yes	❑ No
Levonorgestrel-releasing IUD	❑ Yes	❑ No
Implant	❑ Yes	❑ No

57. Would you like more training on how and where to refer women for insertion of any of the following methods:

Copper T IUD	❑ Yes	❑ No
Levonorgestrel-releasing IUD	❑ Yes	❑ No
Implant	❑ Yes	❑ No

58. Would you like more information or training on how to insert any of the following methods:

Copper T IUD	❑ Yes	❑ No
Levonorgestrel-releasing IUD	❑ Yes	❑ No
Implant	❑ Yes	❑ No

Clicking “Submit” will automatically take you to: Limesurvey #2

Survey 2

Thank you for completing our survey. At this time we are offering the opportunity for you to provide your contact information in order to receive information on the results of the survey as well as on training and educational opportunities. You may also choose to enter a raffle to win an iPad mini©. Providing your name and contact information is voluntary, and this contact information cannot be linked back to your survey answers.

1.

	Yes	No
I would like to receive information about additional training on long-acting reversible contraception	❑	❑

2.

	Yes	No
I would like to receive results of the LARC needs assessment survey	❑	❑

3.

	Yes	No
I would like to be entered into the raffle for an Apple IPad mini©.	❑	❑

If yes to 1, 2 or 3.

4. Name:

5. Practice:

6. E-mail:

7. Phone:

8. If you would like to be listed as a LARC referral center check this box ❑

9. Comments:

APPENDIX 2: Tables & Figures

Figure 1. Survey Responses by Years in Practice

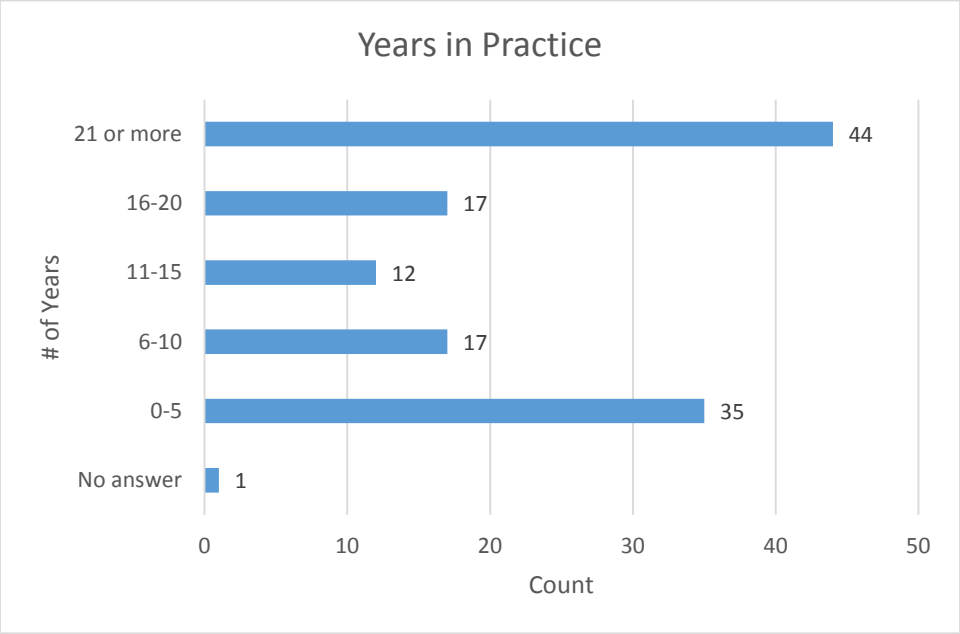

Figure 2. Survey Responses by Professional Qualifications

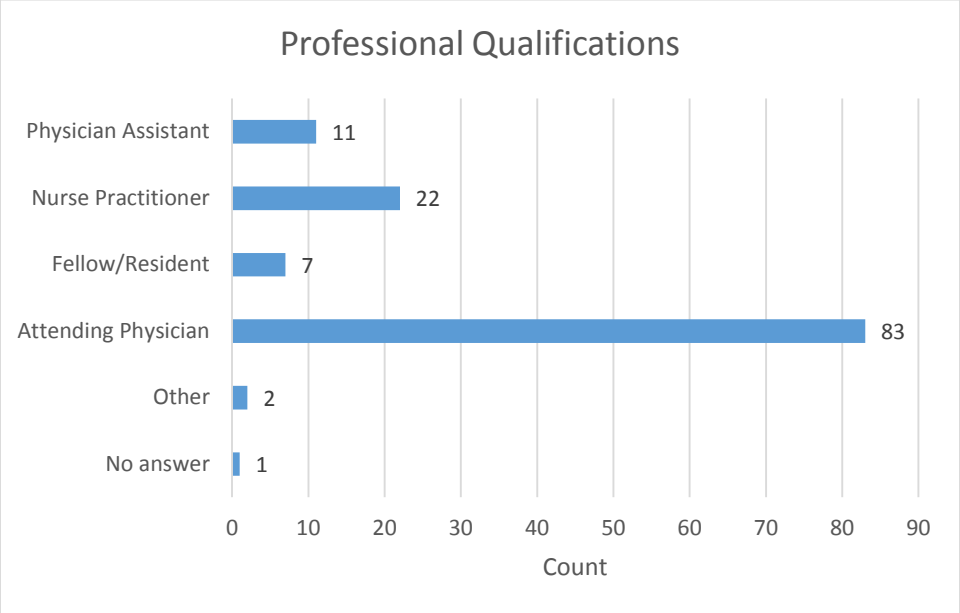

Figure 3. Survey Responses by Specialty

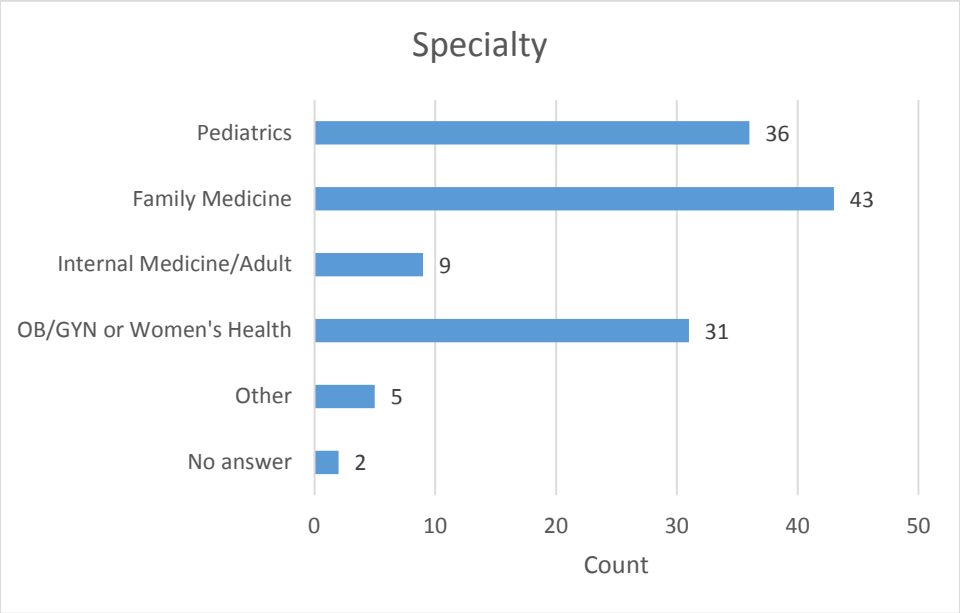

Figure 4. Survey Responses by Main Clinical Practice

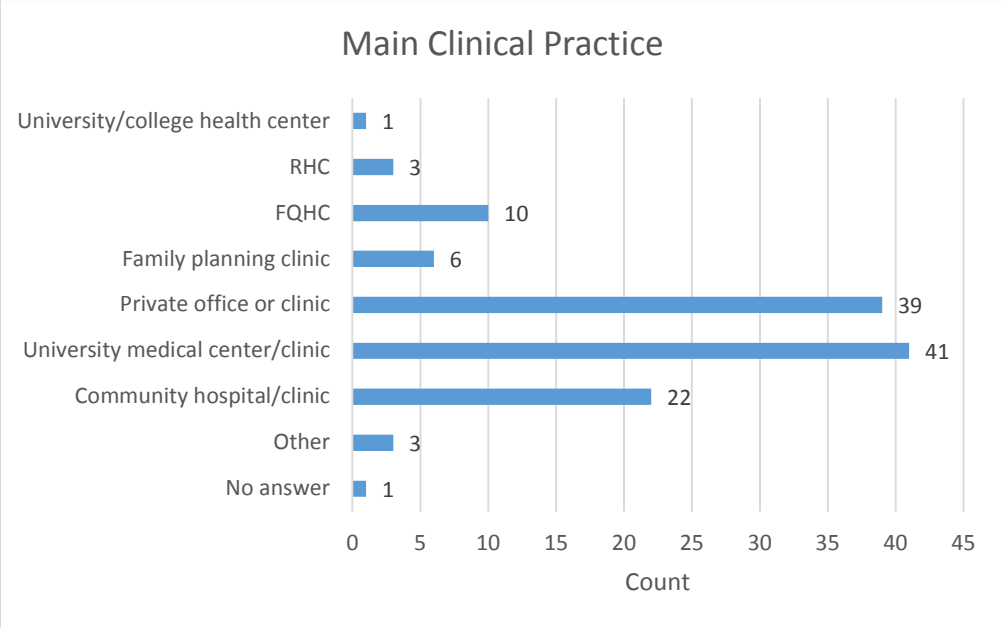

Figure 5. Frequency of Provider Discussion of LARCs

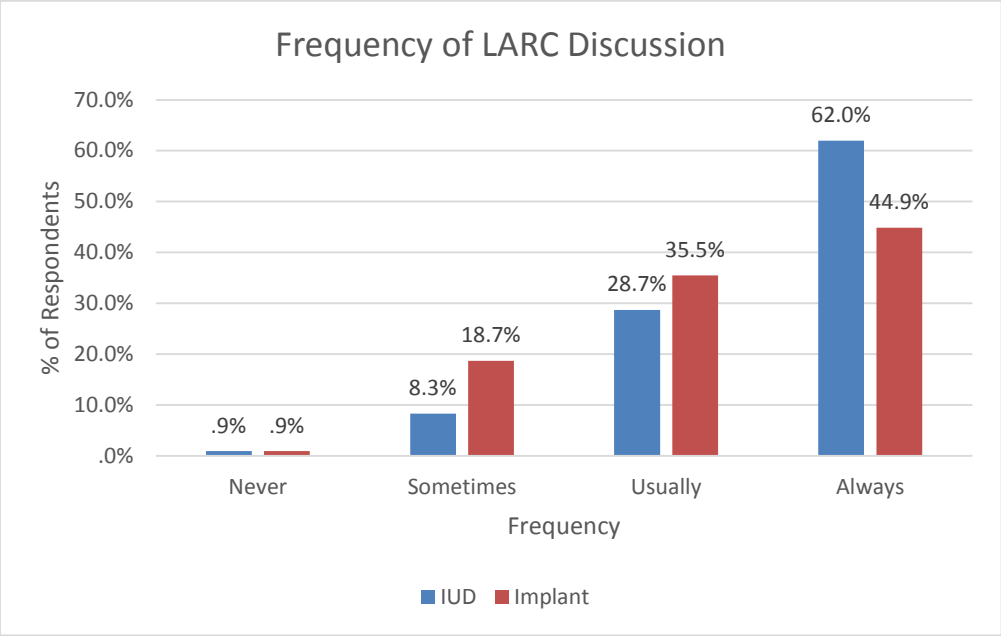

Figure 6. Frequency of Provider Recommendation of LARCs as First-Line Contraception

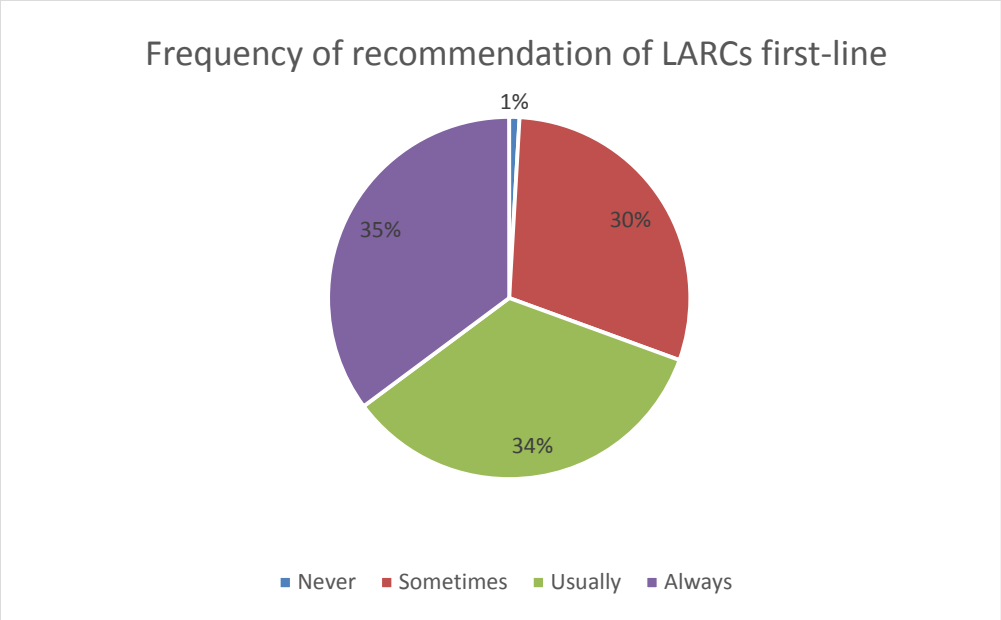

Table 1. Barriers to Increasing IUD Use

	Strongly or Somewhat agree	Neither agree nor disagree	Strongly or Somewhat disagree
Patient preference	58.6%	12.2%	29.3%
Not enough need/desire in my patient population	16.7%	16.7%	66.7%
Objection of patient's partner	4.8%	16.7%	78.6%
Lack of provider knowledge/training	2.4%	2.4%	95.3%
Lack of comfort with method	4.8%	0.0%	95.2%
Lack of comfort with insertion	7.2%	7.1%	85.7%
Safety of method	0.0%	0.0%	100%
Efficacy of method	0.0%	0.0%	100%
Appropriateness of method for my patients	4.8%	4.8%	90.4%
Cost of method	50.0%	16.7%	33.3%
Problems with insurance preauthorization	59.5%	7.1%	33.3%
Problems with insurance reimbursement	35.7%	16.7%	47.6%
Lack of time in scheduled for insertion/problems with clinic flow	11.9%	14.3%	73.9%
Number of visits needed to counsel/insert	19.0%	11.9%	69.0%
Lack of support at practice for insertion	9.5%	4.8%	85.7%
Difficulty obtaining and/or maintaining a supply of devices	16.7%	7.1%	76.2%
Liability	2.4%	9.5%	88.1%

Table 2. Barriers to Increasing Implant Use

	Strongly or Somewhat agree	Neither agree nor disagree	Strongly disagree
Patient preference	78.1%	6.3%	15.7%
Not enough need/desire in my patient population	46.9%	9.4%	43.8%
Objection of patient's partner	6.3%	9.4%	84.4%
Lack of provider knowledge/training	3.1%	3.1%	93.8%
Lack of comfort with method	0.0%	6.3%	93.8%
Lack of comfort with insertion	0.0%	9.4%	90.6%
Safety of method	0.0%	3.1%	96.9%
Efficacy of method	3.1%	6.3%	90.6%
Appropriateness of method for my patients	9.4%	15.6%	75.0%
Cost of method	40.6%	15.6%	43.7%
Problems with insurance preauthorization	56.2%	15.6%	28.1%
Problems with insurance reimbursement	25.0%	31.3%	43.7%

Lack of time in scheduled for insertion/problems with clinic flow	15.6%	3.1%	81.3%
Number of visits needed to counsel/insert	18.8%	6.3%	75.0%
Lack of support at practice for insertion	0.0%	3.1%	96.9%
Difficulty obtaining and/or maintaining a supply of devices	18.8%	12.5%	68.7%
Liability	0.0%	9.4%	81.3%

Table 3. Barriers to Starting to Insert IUDs

	Strongly or somewhat agree	Neither agree nor disagree	Strongly or somewhat disagree
Patient preference	18%	18.0%	63.9%
Not enough need/desire in my patient population	43.5%	11.3%	45.2%
Objection of patient's partner	0.0%	27.4%	72.6%
Lack of provider knowledge/training	72.6%	6.5%	21.0%
Lack of comfort with method	26.7%	18.3%	55.0%
Lack of comfort with insertion	68.2%	12.7%	19.1%
Safety of method	3.2%	17.7%	79.1%
Efficacy of method	0.0%	8.1%	92.0%
Appropriateness of method for my patients	4.8%	11.3%	83.9%
Cost of method	37.1%	21.0%	41.9%
Problems with insurance preauthorization	42.6%	26.2%	31.2%
Problems with insurance reimbursement	32.8%	36.1%	31.2%
Lack of time in scheduled for insertion/problems with clinic flow	29.5%	34.4%	36.1%
Number of visits needed to counsel/insert	9.8%	36.1%	54.1%
Lack of support at practice for insertion	47.6%	19.0%	33.3%
Difficulty obtaining and/or maintaining a supply of devices	31.2%	39.3%	29.5%
Liability	19.7%	41.0%	39.3%

Table 4. Barriers to Starting to Insert Implants

	Strongly or somewhat agree	Neither agree nor disagree	Strongly or somewhat disagree
Patient preference	40.0%	21.5%	38.5%
Not enough need/desire in my patient population	50.7%	18.5%	30.8%
Objection of patient's partner	0.0%	30.8%	69.2%
Lack of provider knowledge/training	68.6%	6.0%	25.3%

Lack of comfort with method	41.5%	12.3%	46.1%
Lack of comfort with insertion	66.6%	7.6%	25.8%
Safety of method	3.0%	20.0%	77.0%
Efficacy of method	1.5%	18.5%	80.0%
Appropriateness of method for my patients	15.4%	18.5%	66.2%
Cost of method	29.7%	34.4%	35.9%
Problems with insurance preauthorization	31.2%	42.2%	26.5%
Problems with insurance reimbursement	29.7%	45.3%	25.0%
Lack of time in scheduled for insertion/problems with clinic flow	33.3%	30.2%	36.5%
Number of visits needed to counsel/insert	14.0%	35.9%	50.0%
Lack of support at practice for insertion	42.4%	24.2%	33.3%
Difficulty obtaining and/or maintaining a supply of devices	29.7%	42.2%	28.1%
Liability	12.5%	42.2%	45.3%

Table 5. Providers Recommendation of LARCs by Type of Medical Conditions

	Copper T IUD			Levonorgestrel-releasing IUD			Implant (Nexplanon®)		
	Yes	Uncertain	No	Yes	Uncertain	No	Yes	Uncertain	No
Menorrhagia	5%	21%	74%	88%	8%	4%	72%	15%	13%
Dysmenorrhea	9%	32%	59%	83%	11%	6%	75%	17%	8%
Fibroids	16%	45%	39%	50%	39%	11%	70%	26%	4%
Diabetes	70%	26%	4%	71%	26%	3%	67%	29%	4%
Obesity	80%	17%	3%	80%	16%	4%	57%	32%	11%
Smoker	88%	10%	2%	75%	11%	14%	64%	25%	12%
History of HTN	86%	12%	2%	74%	20%	6%	64%	27%	9%
Iron-deficiency anemia	33%	27%	41%	89%	10%	1%	80%	17%	3%
Breastfeeding immediately postpartum	73%	18%	9%	62%	20%	18%	53%	31%	16%

Table 6. Provider Responses on Patient Eligibility for an IUD

	Yes	Uncertain	No
Nulliparous women	93%	6%	2%
Non-monogamous (multiple partners)	78%	15%	8%
Immediate post-partum	70%	22%	8%
Immediate post-abortion	66%	29%	5%
Post septic abortion	2%	39%	60%
History of sexually transmitted infection in past 2 years	66%	23%	11%

Current symptomatic gonorrhea or chlamydia infection	7%	17%	77%
Asymptomatic positive gonorrhea or chlamydia screening test	21%	24%	56%
History of ectopic pregnancy	48%	43%	10%
History of pelvic inflammatory disease (PID)	61%	28%	11%
Current pelvic inflammatory disease (PID)	2%	12%	87%
Adolescents	87%	11%	3%

Table 7. Provider Concerns that Could Prevent Recommendation of IUD

	Never	Sometimes	Usually or Always
Uterine perforation [at insertion]	70%	30%	1%
Expulsion	68%	31%	1%
Discomfort during insertion	53%	46%	2%
Sexually transmitted infections	48%	44%	8%
Pelvic inflammatory disease (PID)	39%	47%	14%
Infertility	86%	11%	3%
Changes in bleeding patterns	52%	45%	3%
Adolescence	70%	24%	6%
Multiple partners (non-monogamous)	63%	29%	8%
Interference with breastfeeding	78%	17%	5%