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Permalink

<https://escholarship.org/uc/item/55r8x2nr>

Journal

Obstetrics and Gynecology, 126(2)

ISSN

1099-3630

Authors

Biggs, M Antonia
Harper, Cynthia C
Brindis, Claire D

Publication Date

2015-08-01

DOI

10.1097/aog.0000000000000969

Peer reviewed

California Family Planning Health Care Providers' Challenges to Same-Day Long-Acting Reversible Contraception Provision

M. Antonia Biggs, PhD, Cynthia C. Harper, PhD, and Claire D. Brindis, DrPH

OBJECTIVE: To assess the extent to which practices offering family planning services are able to offer intrauterine devices (IUDs) and implants in one visit and to identify the reasons why multiple visits may be required.

METHODS: In the fall of 2011, 1,000 California family planning providers were asked about their long-acting reversible contraception delivery practices in a probability survey. We used multivariable logistic regression to examine practice characteristics associated with same-day provision of IUDs and implants.

RESULTS: Among the 636 responding practices, 67% offered an IUD and 40% offered a contraceptive implant onsite. Among those with onsite provision, the majority required two or more visits to place an IUD (59%); almost half required two visits to place an implant (47%). Nearly all Planned Parenthood practices could place an IUD (95%) or implant (95%) at the initial visit, whereas the majority of all other practice types could not. The main reasons for delaying IUD and contraceptive implant provision included the need to screen and wait for test results (68% and 24%, respectively) and clinic flow and scheduling issues (50% and 64%, respectively). Multivariable analyses indicated that

Planned Parenthood practices were significantly more likely than private practices to have same-day insertion protocols.

CONCLUSION: Most of the family planning providers surveyed have not adopted same-day long-acting reversible contraception insertion protocols and face barriers to same-day provision.

(*Obstet Gynecol* 2015;0:1–8)

DOI: 10.1097/AOG.0000000000000969

LEVEL OF EVIDENCE: III

Long-acting reversible contraception (LARC), which includes intrauterine devices (IUDs) and the single-rod contraceptive implant, are highly effective and acceptable to women who use them.¹ Although use of these methods in the United States has increased, it still remains substantially lower than less effective methods such as pills or condoms.^{2–4} The American College of Obstetricians and Gynecologists recommends same-day IUD and implant placement protocols to reduce barriers to use and specifies that immediate insertion postpartum, postabortion, and after miscarriage is safe, appropriate, and necessary to reduce delays.^{5,6} Although pregnancy must be ruled out before placement, screening for sexually transmitted infections (STIs) is not required unless the woman presents with risk factors such as age 25 years or younger or multiple male partners.^{5,6} An asymptomatic woman with risk factors should be tested and the IUD can be inserted that same day.⁷ If a woman is symptomatic, she should be treated and return later to have the IUD inserted.⁷ The evidence indicates that there is no increased risk of pelvic inflammatory disease with same-day IUD placement.^{8,9} Same-day insertion protocols lessen patient burden, costs associated with additional visits, and the risk of experiencing an unintended pregnancy between the initial and subsequent visit.^{10,11}

From *Advancing New Standards in Reproductive Health*, the Bixby Center for Global Reproductive Health, and the Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco, San Francisco, California.

Supported by funds from the State of California, Department of Health Services, contract 10-95221. All analyses, interpretations, or conclusions are those of the authors and not of the funders.

Corresponding author: M. Antonia Biggs, PhD, *Advancing New Standards in Reproductive Health*, University of California, San Francisco 1330 Broadway, Suite 1100, Oakland, CA 94612; e-mail: antonia.biggs@ucsf.edu.

Financial Disclosure

The authors did not report any potential conflicts of interest.

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ISSN: 0029-7844/15



Despite existing support for same-day placement protocols, there are few studies documenting the extent to which health care providers offer IUDs and implants in one visit or the reasons why multiple visits are needed. The limited available research indicates that few health care providers use single-visit insertion protocols. In a national survey, 13% of obstetrician–gynecologists reported that they offered IUDs in a single visit.¹² Similarly, data from family planning clinic directors in Colorado and Iowa indicated that a small minority of agencies typically offered IUDs (18%) or implants (36%) in one visit. Multiple visits were mostly required to conduct screening tests and for patient decision-making.¹³ In 2006, health care providers enrolled in California’s family planning program, Family Planning, Access, Care, and Treatment (PACT), were surveyed; 7% offered an IUD in one visit.^{14,15} Since then, trainings have been conducted to encourage Family PACT health care providers to update IUD practices,¹⁶ and the single-rod contraceptive implant which was introduced to the U.S. market in 2006, was added to the Family PACT formulary in 2007. This study aims to assess whether the proportion of Family PACT practices able to offer single visits for LARC has changed over time and to identify the reasons why practices may need multiple visits. Family PACT practice sites represent a wide range of practices such as private practice physicians, community health centers, and Planned Parenthood centers, enabling the identification of the types of practices that may face the greatest barriers to same-day LARC provision.

MATERIALS AND METHODS

The California Family PACT program offers comprehensive family planning services and includes provision of all contraceptive methods approved by the U.S. Food and Drug Administration, including IUDs and implants, at no cost to the patient. Family PACT health care providers can be reimbursed for all contraceptive methods, pregnancy testing, STI screening, and education and counseling. In Fiscal Year 2009–2010, 2,168 health care providers were enrolled in the Family PACT program. A Family PACT provider typically represents a practice site where Family PACT services are delivered such as a solo or group practice or community health center. In September 2011, 1,000 Family PACT practice sites were mailed a survey to be completed by the site’s medical director or other senior clinician or staff responsible for overseeing family planning services at the practice site. Probability proportional to size sampling strategy was utilized to select participating sites. In this

strategy, sites serving a greater number of patients have a greater probability of being selected. The survey instrument included questions about the practice setting, placement protocols, and barriers to IUD and implant provision. Survey items were based on prior LARC research.^{14,16} Before the initial mailing,

Table 1. Respondent and Practice Characteristics (N=636)

	n (%)
Respondent’s professional position	
Medical director	367 (58)
Department chief	34 (5)
Physician (other than medical director or department chief)	55 (9)
Clinic managers and other clinic staff	180 (28)
Practice type	
Private practice	291 (46)
Community health center (including FQHC, rural health, and Indian health center)	176 (28)
Planned Parenthood	89 (14)
Other (county or city clinic, hospital- or school-based, and other)	80 (13)
Practice specialty	
General, internal, family or adolescent medicine, multispecialty, and school health	366 (58)
Family planning	102 (16)
Obstetrics and gynecology or women’s health	168 (26)
Method offered onsite	
Any IUD	417 (67)
Hormonal IUD	383 (64)
Copper T IUD	386 (62)
Implant	230 (40)
Number of visits needed to insert LARC among those offering method onsite	
Any IUD (n=433)	
One visit	177 (41)
Two or more visits	256 (59)
Hormonal IUD (n=373)	
One visit	164 (44)
Two or more visits	209 (56)
Copper T IUD (n=386)	
One visit	166 (43)
Two or more visits	220 (57)
Implant (n=221)	
One visit	118 (53)
Two or more visits	103 (47)
Among practices offering the method onsite, STI tests required before placing	
IUD (n=410)	
Yes	262 (64)
No	148 (36)
Implant (n=223)	
Yes	23 (10)
No	200 (90)

IUD, intrauterine device; LARC, long-acting reversible contraception; STI, sexually transmitted infection.



Table 2. Reasons Patients Must Have More Than One Visit to Get Long-Acting Reversible Contraception Among Practices Offering These Methods Onsite

	Hormonal or Copper IUD		Contraceptive Implant	
	n (%)	95% CI	n (%)	95% CI
Total	239 (100)		103 (100)	
Reasons more than one visit needed to get				
Screening tests or wait for test results	163 (68)	62–74	25 (24)	17–34
Clinic flow, scheduling issues, or few clinicians	120 (50)	44–57	64 (64)	61–80
Need to order the method	69 (29)	23–34	30 (29)	21–39
Desire to reduce the time burden on the patient	22 (9)	5–14	8 (8)	4–15
Need time for patient education and counseling	19 (8)	5–12	14 (14)	8–22
Must wait for menses	11 (5)	3–8	8 (8)	4–15
Billing or insurance issues	7 (3)	1–6	2 (2)	0.5–8
Need to allow time for patient consent	6 (3)	1–6	5 (4)	1–9

IUD, intrauterine device; CI, confidence interval.

Respondents could check more than one response. Includes only practices who offer each method onsite and require more than one visit for placement.

a separate letter from the California Office of Family Planning, the program's administrator, was sent to all sampled Family PACT practices requesting their participation as part of program requirements. Respondents were instructed to complete and return the survey by mail using a self-addressed envelope or to complete

an identical survey online. A square of chocolate was included inside the survey package to serve as a token upfront incentive for completing the survey. All non-responding sites were sent up to three follow-up reminder paper mailings; additionally, those with e-mail addresses (659 practices) were sent weekly

Table 3. Practice Characteristics Associated With Not Requiring Sexually Transmitted Infection Tests Before Long-Acting Reversible Contraception Placement Among Practices Offering These Methods Onsite: Bivariable Logistic Regression Results

Practice Characteristics	Practice Does Not Require STI Tests Before Placing			
	IUDs (n=410)		Implants (n=223)	
	n (%)	OR [95% CI]	n (%)	OR [95% CI]
Total	148 (36)		200 (90)	
Practice type				
Private practice (reference)	18 (13)		31 (78)	
Community health center	36 (25)	2.21 [1.83–4.11]*	65 (86)	1.72 [0.64–4.57]
Planned Parenthood	75 (87)	44.70 [20.00–90.87]*	75 (99)	21.77 [2.65–179.23]*
Other	19 (42)	4.79 [2.21–10.37]*	29 (94)	4.21 [0.84–21.14]
Number of visits to insert LARC				
Hormonal or copper IUD				
One visit	115 (67)	12.41 [7.63–20.18]*	117 (96)	5.30 [1.88–14.98]*
Two or more visits (reference)	33 (14)		75 (82)	
Implant				
One visit	93 (74)	9.47 [5.25–17.08]*	110 (96)	4.35 [1.54–12.26]*
Two or more visits (reference)	27 (23)		86 (84)	
Practice specialty				
Primary care or multispecialty (reference)	47 (24)		44 (85)	
Family planning	63 (73)	8.92 [5.00–15.90]*	72 (100)	1
Obstetrics and gynecology or women's health	38 (31)	1.44 [0.87–2.38]	84 (85)	0.98 [0.39–2.50]*

STI, sexually transmitted infection; IUDs, intrauterine devices; OR, odds ratio; CI, confidence interval; LARC, long-acting reversible contraception.

* $P < .05$.



follow-up e-mails to encourage a good response rate. Six weeks after the survey launch, medical directors from nonresponding sites were telephoned to request participation. When multiple surveys ($n=11$) were received from the same practice, one survey from each site was randomly selected to be included in the final sample. Six percent (61 of 1,000) of sites were found to be invalid as a result of clinic closings, incorrect addresses, and disenrollment, leaving a final sample of 939 eligible sites. Study details have been described elsewhere.¹⁷ This study received ethical approval from the University of California, San Francisco, Committee on Human Research.

The outcome variables included whether a practice offered same-day placement of the hormonal or copper T IUD or contraceptive implant and whether tests to screen for STIs were required before IUD and implant provision.

Respondents were asked whether their practice offered the hormonal IUD (Mirena), copper T IUD (ParaGard), or contraceptive implant (Implanon) onsite or by referral or neither onsite or by referral. At the time of the study, the hormonal IUDs, Skyla and Liletta, and the contraceptive implant, Nexplanon, had not yet been introduced to the U.S. market. Those indicating that their practice offered IUDs or implants onsite were asked, "In your practice, can a client interested in getting any of the following methods have the procedure done on the same day she asks for it? (Count all visits for counseling, assessment and the procedure)." Respondents were directed to respond for each method. We created a variable for number of visits needed as well as a dichotomous variable for same-day provision. Respondents who indicated more than one visit was needed for placement were asked to indicate the reasons for each method by checking options from a list of five options (must wait for test results, need to order the method, clinic flow or scheduling issues, one visit places a time burden on the client, and other, with space to write in a response). Write-in responses were recoded into the original or new categories.

Respondents offering IUDs or contraceptive implants onsite were asked whether their practice required STI tests before placing the method (yes or no).

The survey instrument included questions regarding respondents' professional position, practice type, and practice specialty.

Frequencies are presented for practice characteristics and outcome variables. We used bivariable analyses to model the dichotomous outcomes of STI tests required for IUD or implant provision and same-day IUD or implant provision using logistic

regression. We then assessed multivariable associations between practice characteristics and same-day IUD or implant placement. Many sites surveyed were not independent because they were part of a larger agency, for example, a county health department, community clinic, or Planned Parenthood affiliate. Therefore, generalized estimating equation models were used to account for clustering by the 471 agencies in the bivariable and multivariable analyses. All analyses were conducted in STATA 13.1. Significance was reported at $P \leq .05$.

RESULTS

The survey had a response rate of 68% (636 of the 939 eligible sites). Respondent and practice characteristics are presented in Table 1. Over half of respondents held the position of medical director (58%, $n=367$), 5% ($n=34$) were department chiefs, 9% ($n=55$) were other physicians, and over one-fourth (28%, $n=180$) were clinic managers or other clinic staff. Nearly half of respondents represented solo and group private practices (46%, $n=291$), over one-fourth (28%, $n=180$) community health center practices, 14% ($n=89$) Planned Parenthood practices, and 13% ($n=80$) other practice types such as county or city health departments, hospital-based outpatient clinics, and school-based health centers. Approximately one-fourth (26%) of respondents represented obstetrics and gynecology and women's health specialties, 16% represented family planning specialties, and 58% represented primary care or multispecialty practices including general, internal, family, and adolescent medicine and school health (primary care or multispecialty).

Sixty-seven percent of practices provided a form of IUD onsite and 40% the implant. Approximately 41% of practices providing IUDs onsite offered same-day placement for the IUD; over half (53%) of those providing implants onsite offered same-day service. Results for same-day provision of the hormonal and copper IUD were so similar that these were combined in all subsequent analyses.

The recoding of open-ended responses regarding the reasons why multiple visits are required generated four new categories of reasons as listed in Table 2. Among practices who offered the IUD onsite, the most common reasons for multiple visits were a perceived need for screening tests and to wait for test results (68%) followed by clinic flow, scheduling issues, few clinicians (50%), and the need to order the method (29%) (Table 2). Among practices offering the contraceptive implant onsite, clinic flow or scheduling issues and few clinicians were the primary (64%)



Table 4. Practice Characteristics Associated With Same-Day Intrauterine Device and Implant Placement: Multivariable Logistic Regression Results

Practice Characteristics	n (%)	Hormonal or Copper IUD (N=433)	
		OR [95% CI]	Adjusted OR [95% CI]
Total	177 (41)		
STI test required before IUD placement			
No (reference)	115 (78)		
Yes	57 (22)	0.08 [0.05–0.13]*	0.19 [0.11–0.35]*
Practice type			
Private practice (reference)	29 (21)		
Community health center	44 (30)	1.58 [0.92–2.71]	1.88 [0.93–3.82]
Planned Parenthood	82 (95)	74.93 [25.33–221.62]*	23.41 [7.37–74.34]*
Other	19 (41)	2.57 [1.26–5.27]*	1.86 [0.78–4.39]
Practice specialty (%)			
Primary care or multispecialty (reference)	54 (27)		
Women's health, family planning, obstetrician–gynecologist	120 (57)	6.68 [2.43–5.57]*	2.12 [1.14–3.93]*

IUD, intrauterine device; OR, odds ratio; CI, confidence interval; STI, sexually transmitted infection.

* $P < .05$.

reasons for needing multiple visits for placement, followed by the need to order the method (29%) and screening tests (24%).

Table 3 shows that 36% of practices offering IUDs onsite and 90% offering implants do not require STI testing before placement. According to bivariable analyses, the practices most likely to require STI tests before IUD or implant provision included private practices and primary care or multispecialty practices. Sites requiring two or more visits for IUD and implant placement were significantly more likely to require STI testing before placement.

Multivariable generalized estimating equation results showed that Planned Parenthood practices were significantly more likely than private practices to offer same-day IUD placement (adjusted odds ratio [OR] 23.41, 95% confidence interval [CI] 7.37–74.34) (Table 4). The unusually high ORs for Planned Parenthood sites is the result of the limited variability among this group with nearly all requiring no more than one visit for IUD placement. Nearly all Planned Parenthood practices could place an IUD (95%) or implant (95%) at the initial visit, whereas the majority of all other practice types could not (Table 4). Requiring STI testing before IUD placement was significantly associated with a reduced odds of single-visit IUD placement (adjusted OR 0.19, CI 0.11–0.35).

Results of the multivariable generalized estimating equation model predicting single-visit implant placement indicated that Planned Parenthood (adjusted OR 25.19, CI 7.82–81.17) and other practice

types (adjusted OR 3.41, CI 1.07–10.86) were significantly more likely than private practices to offer same-day placement. No other variables were significantly associated with number of visits to place the implant.

DISCUSSION

The California practices surveyed comprise a diverse sample of sites enrolled in a program, which allows them to offer all contraceptives, including IUDs and implants, at no cost to their Family PACT patients, eliminating a barrier that is often insurmountable in other contexts.^{18,19} As a whole, the program has observed a steady increase in IUD and implant provision.²⁰

Our findings demonstrate that 41% of the California practices that provide IUDs can offer same-day placement, which is substantially higher than the 7% reported in 2006 among a similar sample¹⁴ and higher than the 13% reported more recently among a national sample of obstetrician–gynecologists,¹² suggesting improvements in health care provider capacity. This change in the ability to offer IUDs in one visit may be a result of new professional guidelines recommending same-day IUD provision²¹ in conjunction with health care providers' more favorable views about IUDs.^{12,22–24}

However, significant obstacles to same-day provision still exist. Same-day provision was not an option for the large number of practices that did not offer these methods onsite. Thus, for many women, their visit to a LARC-offering provider may already represent their second visit, after a referral. Among health care



Contraceptive Implant (N=221)		
n (%)	OR [95% CI]	Adjusted OR [95% CI]
118 (53)		
110 (56)		
5 (23)	0.23 [0.08–0.65]*	0.62 [0.19–1.95]
8 (22)		
23 (30)	1.57 [0.62–3.96]	2.02 [0.71–5.74]
73 (95)	66.16 [18.49–236.75]*	25.19 [7.82–81.17]*
14 (45)	3.00 [1.04–8.57]*	3.41 [1.07–10.86]*
31 (32)		
87 (70)	5.01 [2.82–8.90]*	1.82 [0.79–4.13]

providers offering LARC methods onsite, the need to order devices was a barrier to same-day placement. The cost of keeping IUDs in stock may become more feasible with the recent introduction of a low-cost device.²⁵ Training family planning health care providers to offer the full range of contraceptive options and to forecast patient demand to better stock devices and how to obtain devices at reduced cost through a 340B program or group purchasing organization²⁶ would help further reduce barriers to method provision and ensure choice in method.

Despite professional guidelines stating that STI screening should not delay IUD placement,^{21,27} most respondents, in particular community health center and private practice respondents, required STI testing results before placing IUDs and cited it as the primary reason for delay. Although delayed IUD insertion is necessary for active infections, the screening test itself should not delay insertion.⁷ The large proportion of practices requiring STI tests before IUD placement may be indicative of health care provider concerns about increasing patients' STI risk with IUD placement, a concern that has been found in other studies.^{23,24}

There has been very little research examining the extent to which health care providers can offer the contraceptive implant in one visit. Similar to what has been reported in Colorado and Iowa,¹³ a little over half of California practices offering the contraceptive implant onsite reported that they have same-day visit implant placement capacity. Clinic flow and scheduling issues were the main reasons respondents gave for requiring multiple visits. The Centers for Disease Control and Prevention Medical Eligibility Criteria for Contraceptive Use places no restriction for implant placement among women at risk or with an

STI and states that STI screening tests are not required before implant placement.²⁸

The capacity to offer same-day IUD or implant placements was strongly associated with practice type. Practices that specialize in family planning and women's health were more likely to offer IUDs and implants onsite and on the same day.^{15,27} These practices may have been better equipped to offer same-day provision because of greater availability of devices and trained clinicians, and they may see more patients who have already decided on the IUD or implant before their visit. They may also have the staffing necessary to allow for greater flexibility in terms of clinic flow. Primary care and multispecialty practices faced the greatest challenges to same-day provision. Practices that focus on a broader range of health conditions may need to integrate family planning counseling and placement within a primary care visit and may lack clinicians trained to place IUDs and implants.²⁹ Future studies identifying approaches used by practices that have been successful in implementing same-day insertion protocols could be used to develop and implement strategies among those health care providers facing the greatest challenges. Qualitative interviews with clinicians and health educators have suggested that the primary barriers to immediate LARC provision include cost, scheduling issues, and lack of trained health care providers.³⁰ Although the cost of the device is not a barrier for Family PACT patients, it can be a barrier to provision for health care providers. The high upfront costs to keep devices in stock can make it difficult to have the method on hand when a patient requests it, thereby contributing to the reasons for delayed placement. Whether certain visit protocols are incentivized by



the added cost or added revenue they may provide the practice should be further explored. Overcoming these barriers will be critical to helping health care providers develop the capacity to same-day LARC provision.

This study has limitations. Our measure of health care practices' capacity for same-day placements is likely higher than the actual proportion of women with same-day placements. Better documentation of the actual number of visits for an IUD or implant placement would improve our understanding of the barriers to provision and uptake. Another limitation is that we did not ask respondents an open-ended question as to their reasons for delay, but rather restricted their responses to a researcher-generated list. Thus, there may be additional reasons for delay that were not captured by this study. Furthermore, the questions posed to respondents may have been prone to a desirability bias, potentially skewing same-day reports to be more frequent than actual practice. Finally, our results may not be generalizable to other practices and states without a state Medicaid waiver, where cost is an even more significant barrier to LARC provision.

Although this study indicates that there has been improvement in the number of practices able to offer an IUD or implant the same day requested, still, many women interested in an IUD or implant will likely need to be referred elsewhere, endure unnecessary screening tests, and asked to return at a later time to have a method placed, causing some women to forgo these methods.³¹

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rev 2/2015

